Stormwater Management Program






Submitted to:
Nevada Department of Transportation
1263 S. Stewart Street
Carson City, Nevada 89712

March 2013

Prepared by:
Stantec Consulting Services Inc.
6980 Sierra Center Parkway, Suite 100
Reno, Nevada 89511

NEVADA DEPARTMENT OF TRANSPORTATION

STORMWATER MANAGEMENT PROGRAM

March 2013

Nevada Department of Transportation

1263 South Stewart Street

Carson City, Nevada 89712

Acknowledgments

The updated Nevada Department of Transportation (NDOT) Stormwater Management Program (SWMP) document was prepared by the Department, with the assistance of Stantec Consulting Services Inc. The updated SWMP was prepared under the guidance of Mr. James Murphy, NDOT Project Manager.

Special thanks to Mr. Steve McGoff, P.E., Nevada Division of Environmental Protection, who provided input into the SWMP preparation process.

Staff from Stantec Consulting who were responsible for the updated SWMP document and associated BMP Fact Sheets include:

Jeffry Curtis, Ph.D., Project Manager
John Enloe, P.E., Principal Engineer
Brooke Long, P.E., Project Engineer
Kenneth Angst, P.E., Project Engineer
Niki Linn, Office Administrator

Table of Contents

Appendices

Section 1 Introduction

Presented in this document is a description of the Nevada Department of Transportation's (NDOT) Stormwater Management Program (SWMP) and practices. In July 2010, the Nevada Division of Environmental Protection (NDEP) re-issued a municipal separate storm sewer systems (MS4) discharge permit (Permit No. NV0023329, signed July 7, 2010, hereafter referred to as the "Permit") to the NDOT. The new permit requires the continued administration, implementation and enforcement of the Stormwater Management Program (SWMP) to mitigate pollution in stormwater runoff from Department facilities, roadways and right-of-ways throughout the state for the five-year term of the Permit.

Presented in this section is an introduction to NDOT's Stormwater Management Program, general program goals and objectives, a discussion of the organization of this SWMP document, and a list of important NDOT stormwater staff contacts.

1.1 Document Perspective

This SWMP document is an update of the January 2005 SWMP. Prior to 2004, NDOT did not hold a single National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit, but were co-permittees to several others throughout the state.

The intent of this SWMP is to comply with the Permit requirements and address stormwater pollution related to highway planning, design, construction, and maintenance activities throughout the state. Through the development and implementation of this SWMP, NDOT establishes a single, comprehensive stormwater program throughout the state. NDOT has organized this SWMP by the major program elements including a separate stormwater management section specific to the Clear Creek watershed. In Section 2 (Stormwater Management), stormwater regulations applicable to NDOT and the roles and responsibilities of staff within NDOT that will implement the minimum practices and procedures to reduce the discharge of pollutants from NDOT's storm drain system are identified. NDOT's functions are divided between Headquarters and three Districts with Headquarters issuing directives to the Divisions and Districts for program implementation.

1.2 NDOT Stormwater Management Program

The SWMP is a comprehensive program that has been constantly refined over the past decade. The SWMP has been designed to address the unique aspects particular to a department of transportation and the conditions of the Permit. Presented in this document is a comprehensive approach to implementing the SWMP, along with priorities, approaches, guidance and schedules for programs, activities, and an effectiveness evaluation for the term of the current permit. This SWMP is a living document that may require periodic modifications as necessary to ensure that its objectives are effectively accomplished.

NDOT developed this SWMP to describe the "minimum control measures" outlined in the Clean Water Act (CWA). The best management practices (BMPs) presented describe the measures that NDOT will take to reduce stormwater pollutant discharges from its owned and operated storm drain system.

1.2.1 Program Goals and Objectives

The primary goal of the Department's SWMP is to reduce pollution associated with stormwater discharge from NDOT's MS4 to the maximum extent practicable (MEP). Additional SWMP goals include:

- Protect surface and groundwater resources within the Permit area.
- Minimize erosion and sedimentation through appropriate controls and practices.
- Develop stormwater quality programs and best management practices (BMPs) that are efficient, cost-effective, and implementable.
- Maintain open lines of communication throughout the Department to meet the goals and objectives of the SWMP.
- Continue partnering efforts with contractors and service providers in an effort to reduce construction related impacts to receiving water ways.

The program outlined in this document was created to accomplish the above listed goals.

1.3 Document Organization

This SWMP document was organized to provide a cohesive and structured program, which specifically addresses each permit requirement. The organization of this SWMP differs from the organization within the Permit issued by NDEP; however, an index is presented in Section 7 to clearly depict how specific permit requirements match up with specific sections of the SWMP.

This SWMP Document is organized as follows:

Section 1 – Introduction: Presented in this section is an introduction to the NDOT Stormwater Management Program, goals and objectives, document organization, and Departmental stormwater contact information.

Section 2 – Stormwater Management: This section contains a description of the applicable stormwater regulatory requirements, NDOT's MS4 Permit area, an introduction to NDOT's organizational structure, and a listing of permissible and non-permissible discharges.

Section 3 – Program Elements: Presented in this section are the details of how NDOT addresses stormwater management for each of the eleven program elements, including NDOT's Clear Creek Program.

Section 4 – Monitoring, Implementation and Reporting: Described in this section is the Department's approach to stormwater monitoring, coordination with stakeholders, priorities

for implementing BMPs, staff resources, annual review of the SWMP, and the annual reporting requirements.

Section 5 – References: The various documents used and referenced in the preparation of this document are listed in this section.

Section 6 – Programmatic BMP Fact Sheets: The BMPs created for this SWMP are presented in this section. The section consists of a series of fact sheets that describe the practice, goals, procedure, data collection and reporting requirements and the implementation schedule.

Appendices

A – Maps and District Facilities

B – Agreements and Letters

C – NDOT's 2010 MS4 Stormwater Permit

D – Inspection Forms

1.4 Contacts

Comments and questions relating to the NDOT Stormwater Management Program may be directed to:

James Murphy – Supervisor, Water Quality Section
Nevada Department of Transportation
Environmental Services Division
1263 South Stewart Street
Carson City, Nevada 89712

Telephone: 775-888-7889 or 775-888-7013
Fax: 775-888-7115
Email: jmurphy@dot.state.nv.us
Website: www.nevadadot.com

1.5 Format, Terminology and Acronyms

Text Boxes

In the following sections, specific Permit language is presented in a green text box.

Common Terms

There are a few terms that are frequently used in this document. For clarity:

The term "Annual Report" refers to the report generated by NDOT and submitted to NDEP by October 1st of each year summarizing SWMP activities for the previous fiscal year.

Unless otherwise qualified, "Permit" refers to the NPDES MS4 Permit (Permit No. NV0023329) signed July 7, 2010 and issued to the Nevada Department of Transportation authorizing the discharge of municipal stormwater runoff to receiving Waters of the United States from MS4s owned or operated by NDOT statewide.

Acronyms

303(d)	Clean Water Act Section Specifying the Preparation of Nevada's List of Impaired Waters
AASHTO	American Association of State Highway and Transportation Officials
ADFS	Alternatives Design Field Study
AGC	Association of General Contractors
BAT	Best Available Technology
BMP	Best Management Practice
Caltrans	California Department of Transportation
CASQA	California Stormwater Quality Association
CCSWMP	Clear Creek Storm Water Management Program
CFR	Code of Federal Regulations
CMP	Coordinated Monitoring Plan
CWA	Clean Water Act
DRI	Desert Research Institute
EIP	Environmental Improvement Program
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
FPPP	Facility Pollution Prevention Plan
GIS	Geographic Information System

GPS	Global Positioning System
HAZMAT	Hazardous Materials
IDDE	Illicit Discharge Detection and Elimination
IDDP	Illicit Discharge Detection Program
LA	Load Allocation
LID	Low Impact Development
LRWQCB	Lahontan Regional Water Quality Control Board
MCL	Maximum Contaminant Level
MEP	Maximum Extent Practicable
mg/L	Milligrams per Liter
MMS	Maintenance Management System
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer Systems
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NDOW	Nevada Department of Wildlife
NEMO	Non-point Education for Municipal Officials
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRS	Nevada Revised Statutes
NURP	Nationwide Urban Runoff Program
NWRA	Nevada Water Resources Association
O&M	Operations and Maintenance

PDFS	Preliminary Design Field Study
PDG	Planning and Design Guide
PE	Professional Engineer
PS&E	Plans, Specifications, and Estimates
QPL	Qualified Product List
RCRA	Resource Conservation and Recovery Act
RE	Resident Engineer
SAP	Sampling and Analysis Plan
SOP	Standard Operating Procedure
SR	State Route
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TSS	Total Suspended Solids
TRPA	Tahoe Regional Planning Agency
UNCE	University of Nevada Cooperative Extension
UNR	University of Nevada, Reno
USFWS	US Fish and Wildlife Service
USGS	U.S. Geological Survey
WLA	Waste Load Allocation
WQ	Water Quality
WQESC	Water Quality Erosion Sediment Control
WQS	Water Quality Specialist

1.6 Forward

This SWMP document was prepared by the Nevada Department of Transportation with the assistance of Stantec Consulting Services Inc. This manual is intended to provide employees and other users with information relevant to the stormwater activities and responsibilities of the Department. A thorough staff understanding of policies and procedures will greatly assist the Department in meeting its objectives of mitigating pollution associated with stormwater runoff from NDOT owned and operated areas to the MEP. This SWMP document is not intended as, nor does it establish, a legal standard for the activities and practices described within.

This SWMP document is a "living document". The procedures, practices and activities described herein are subject to revision and amendment as conditions and experience warrant. All modifications and updates will be provided to NDEP in the Annual Report. The 3-ring binder formatting of this SWMP document manual was selected because it facilitates updates, revisions and expansion.

Hard copies of this manual are available for purchase from NDOT Administrative Services Division. The manual will also be available for download from NDOT's Stormwater Management Program webpage at www.nevadadot.com.

Section 2 Stormwater Management

Presented in this section is a discussion of the regulatory requirements, both current and historical, governing the discharge of stormwater from NDOT facilities, roadways and rights-of-way. Also included is a discussion of NDOT's organizational structure, permissible and non-permissible discharges, and stormwater BMPs.

2.1 Regulatory Requirements

In response to NDOT's request for a single NPDES MS4 Permit for stormwater discharges from NDOT properties, facilities, and activities statewide, the NDEP issued to NDOT a statewide NPDES MS4 Permit NV0023329 (Permit). NDOT's stormwater program has evolved considerably over the past decade. The Department has developed this SWMP to comply with the Permit requirements and address stormwater pollution related to highway planning, design, construction, and maintenance activities throughout the state.

2.1.1 Stormwater Regulations and NDOT

Stormwater regulations are designed to mitigate stormwater runoff before it negatively impacts the downstream environment. Stormwater flows off the land and impervious surfaces into the storm drain conveyance system or directly into receiving waters. The increase of impervious surfaces from urbanization increases the amount and velocity of runoff, as well as the potential pollutant load in the runoff. The pollutants in stormwater runoff as well as the increased flows can negatively impact the water quality of the receiving waters. Studies of urban stormwater including the United States Environmental Protection Agency (U.S. EPA)'s Nationwide Urban Runoff Program (NURP) 1983 study have motivated the U.S. EPA to regulate stormwater runoff and define stormwater pollution as the leading cause of impairment to the nation's waters.

In 1987, Congress amended the Clean Water Act (CWA) to include regulating municipal and industrial discharges through the NPDES program. The U.S. EPA issued the final regulations for NPDES permitting for stormwater discharges in 1990. The NPDES program was implemented in two phases. Phase I addressed stormwater runoff from medium and large MS4s with populations greater than 100,000, construction activity disturbing more than 5 acres, and industrial activities. Phase II expanded the program to include stormwater discharges from small MS4s and construction site activity disturbing more than 1 acre.

During Phase I, NDOT was defined as the co-permittee on large MS4 Permits for Clark and Washoe Counties. In the wake of Phase II, NDOT was faced with co-permittee responsibilities for all regulated small MS4 areas, as well as the individual permit for the Lake Tahoe basin. NDOT requested a single statewide NPDES permit from NDEP to fulfill

the large and small MS4 requirements, as well as the Lake Tahoe permit. In February 2004, NDOT was issued the NPDES MS4 Permit NV0023329 by NDEP. In September 2004, NDOT received a letter from NDEP confirming acceptance of NDOT's request to cancel the discharge permit NV0023205 for NDOT discharges within the Lake Tahoe basin.

NDOT, however, continues to be regulated under a specific NPDES permit authorizing stormwater discharges from U.S. Highway 50 to a central stormwater treatment unit, which in turn flows to the Edgewood Creek watershed in South Lake Tahoe. NDOT is a co-permittee with several private entities and Douglas County (collectively the Stateline Storm Water Association), who share operation and maintenance responsibilities for the common facilities of the stormwater treatment system. This Stateline Permit uses numerical water quality criteria developed by the Tahoe Regional Planning Agency (TRPA) for surface and groundwater discharges. For reasons that are described in the Stateline Permit, the groundwater discharge criteria are applied as limits, and surface water discharge criteria are applied as goals, with the requirement to attempt improvements should exceedances persist. This Stateline Permit requires implementation of a Monitoring Plan, an Operation and Maintenance Plan, and submission of annual reports that include plans to improve the system performance if exceedances persist or if reasonable improvements can be made.

NDOT's Permit requires the Department to address the discharge of pollutants from stormwater drainage systems by developing and implementing a SWMP. All NDOT facilities and activities are covered in this SWMP, including NDOT highways and right-of-ways, highway-related facilities, and construction activities in the highway right-of-ways statewide.

2.1.2 Permit Coverage

The Permit covers "state and interstate highways and their right-of-ways within the jurisdictional boundary of the Nevada Department of Transportation ("NDOT" or "Permittee") served by, or otherwise contributing to discharges into receiving Waters of the United States from municipal separate storm sewer systems ("MS4s") owned or operated by NDOT." Maps of the Permit area are included in Appendix A. Permit Language is as follows:

Part I. Permit Coverage and Authorized Discharges under this Permit

I.A. Permit Area

I.A.1. This permit covers state and interstate highways and their right-of-ways within the jurisdictional boundary of the Nevada Department of Transportation ("NDOT" or "Permittee") served by, or otherwise contributing to discharges into receiving Waters of the United States from municipal separate storm sewer systems ("MS4s") owned or operated by NDOT.

IV.G. Responsibility for Stormwater Management Program Implementation

IV.G.1. NDOT must implement the SWMP on all new areas added to NDOT's portion of the MS4 (or for which NDOT become responsible for implementation of stormwater quality controls) no later than one (1) year from addition of the new areas; and

IV.G.2. Information on all new annexed areas and any resulting updates required to the SWMP must be included in the Annual Report.

Note that the SWMP will be applicable to any and all newly acquired areas to NDOT's storm drain system no later than one year after acquisition and will be included in the Annual Report to NDEP.

2.1.3 Required Stormwater Program Update and Elements

In accordance with the provisions of the Federal Water Pollution Control Act, NDOT applied for and was granted a NPDES MS4 Permit in 2004 and 2010. The 5-year NPDES permit authorizes NDOT to discharge municipal stormwater runoff to the receiving Waters of the United States. The Permit requires the Department to review the existing program and develop a revised SWMP document that describes the program to reduce the discharge of pollutants from NDOT's MS4 to the maximum extent practicable (MEP). Before the revised SWMP document is submitted to NDEP, the document will be made available for public comment. Requirements related to the preparation and review of this SWMP document are listed below.

Part III. Stormwater Management Program
III.A. SWMP Revision

III.A.1. NDOT shall review its existing SWMP to determine whether its current programs need revising to meet the requirements of this permit. NDOT shall implement and enforce its revised SWMP to reduce the discharge of pollutants from NDOT's MS4 to the maximum extent practicable ("MEP") to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act ("CWA").

III.A.2. NDOT shall review, revise as necessary and submit an updated SWMP to NDEP for its review and approval within eighteen (18) months of the effective date of this permit and shall implement the revised SWMP no later than two (2) years after receiving NDEP's approval;

III.A.2.a Before the updated SWMP is submitted to NDEP for its review, it shall be made available for public comment at a meeting noticed in accordance with the Nevada open meeting law;

III.A.2.b The Permittees shall compile any comments received as part of the process in III.A.2, describe the actions taken concerning the public comments and include this information in the revised SWMP;

III.A.3. Within thirty (30) days after the revised SWMP has been approved by NDEP, NDOT shall make the revised SWMP available to the public on its Web page or at another public location (i.e. NDOT office(s)).

The Permit requires that the Department develop and implement a SWMP that includes the following eleven elements and programs:

1) NDOT's Legal Authority
2) NDOT's Stormwater Education Program
3) NDOT's MS4 Maps and Outfalls
4) Discharges to Water Quality Impaired Waters and Sanitary Sewers
5) Construction Site Best Management Practices ("BMPs") Program
6) New Development and Redevelopment Planning Program
7) NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program
8) Industrial Facility Monitoring and Control

9) Stormwater Discharges from NDOT Maintenance Facilities
10) Public Street Maintenance Program
11) Herbicide, Pesticide and Fertilizer Application Program

The required elements and programs are typical of those of municipal and linear infrastructure stormwater quality management programs across the country. Each of these programs is described in Chapter 3 of this document. Programmatic BMPs associated with each element are provided in Section 6, along with the measurable goals and timeline for implementation. Priorities for BMP implementation and the content of the Annual Report to NDEP are presented in Chapter 4. The Department is required to fully implement the above listed elements and programs before the expiration of the Permit (midnight on July 6, 2015). The applicable permit language specifying the Department's minimum control elements and programs is summarized below.

Part III. Stormwater Management Program
III.A. SWMP Revision
III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.a	NDOT's Legal Authority;
III.A.4.b	NDOT's Stormwater Education Program;
III.A.4.c	NDOT's MS4 Maps and Outfalls;
III.A.4.d	Discharges to Water Quality Impaired Waters and Sanitary Sewers;
III.A.4.e	Construction Site Best Management Practices ("BMPs") Program;
III.A.4.f	New Development and Redevelopment Planning Program;
III.A.4.g	NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;
III.A.4.h	Industrial Facility Monitoring and Control;
III.A.4.i	Stormwater Discharges from NDOT Maintenance Facilities;
III.A.4.j	Public Street Maintenance Program; and
III.A.4.k	Herbicide, Pesticide and Fertilizer Application Program.

III.A.5. NDOT shall fully implement all program elements outlined in the revised SWMP before the expiration date of this permit, unless other dates are specified;
III.A.6. NDOT shall provide a list of narrative and/or numerical measurable goals for each program listed in Part III.A.4. At a minimum, the revised SWMP shall include any measurable goals identified in this permit. NDOT may also identify additional measurable goals, as appropriate, priorities, frequencies, amounts, time-frames, or steps toward development of a program;
III.A.7. NDOT shall provide the dates, including the month and year in which NDOT will achieve each measurable goal;

2.1.4 Permissible Storm and Non Stormwater Discharges

The Permit authorizes new or existing discharges composed entirely of stormwater (and specific allowable non-stormwater discharges) into NDOT's MS4 and to Waters of the United States (excluding Indian Lands) as defined in 40 CFR 122.26. NDOT is authorized to discharge the following non-stormwater sources provided that NDEP has not determined these sources to be substantial contributors of pollutants to NDOT's MS4:

- Potable water line flushing
- Diverted stream flows not requiring a separate permit
- Rising ground waters and springs
- Uncontaminated ground water infiltration into the storm drain system
- Discharges from potable water sources
- Residential foundation drains
- Air conditioning condensation
- Irrigation water from lawns and landscaping
- Water from residential crawl space pumps
- Individual residential car washing
- Flows from riparian habitats and wetlands not requiring a separate permit
- De-chlorinated swimming pool discharges
- Water incidental to street sweeping
- Discharges from firefighting activities
- Dewatering activities not requiring a separate discharge permit

These permit authorized non-stormwater discharges or flows may require regulation, treatment, or elimination if they contribute pollutants to the storm drain system and/or the receiving Waters of the U.S. If it is determined that NDOT's discharges cause or contribute to an in-stream exceedance of water quality standards, NDEP may require corrective action or an application for a separate individual permit or alternative.

The Permit does not authorize the following:

- Discharges of any non-stormwater unless the discharges are currently covered under a separate NPDES permit or included in the list of permissible discharges listed above
- Discharges associated with a separate NPDES permit
- Approved discharges listed above that are found by NDEP to be a substantial contributor of pollutants
- Stormwater discharges currently covered under a separate NPDES permit
- Discharges that do not comply with the Nevada's anti-degradation policy
- Stormwater discharges associated with industrial activity
- Stormwater discharges associated with construction activity

Construction disturbances one acre or greater and certain industrial activities require separate NPDES permits. These discharges are authorized under Permit NVR100000 and Permit NVR050000, respectively. Permit language governing authorized and non-authorized discharges is provided below.

Part I. Permit Coverage and Authorized Discharges under this Permit

I.B. Authorized Discharges

I.B.1. This permit authorizes new or existing discharges composed entirely of stormwater (and allowable non-stormwater discharges) into NDOT's MS4 (excluding Indian Lands), as defined in 40 Code of Federal Regulations ("CFR") §122.26. NDOT is authorized to discharge in accordance with its approved Stormwater Management Program ("SWMP"), and other terms and conditions of this permit.

I.B.2. The following are authorized discharges:

I.B.2.a Stormwater discharges. This permit authorizes stormwater discharges to Waters of the United States from NDOT's MS4 identified in Part I.B.2.b, except discharges excluded in Part I.C.

I.B.2.b Non-stormwater discharges. NDOT is authorized to discharge the following non-stormwater sources provided that the Nevada Division of Environmental Protection ("NDEP") has not determined these sources to be substantial contributors of pollutants to NDOT's MS4:

I.B.2.b.i Potable water line flushing during testing or fire hydrant testing;
I.B.2.b.ii Diverted stream flows not requiring a separate permit;
I.B.2.b.iii Springs or rising ground waters;
I.B.2.b.iv Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a storm sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.);
I.B.2.b.v Discharges from potable water sources not requiring a separate permit;
I.B.2.b.vi Residential foundation and/or footing drains;
I.B.2.b.viiAir conditioning condensate;
I.B.2.b.viii Irrigation water from lawns and landscaping;
I.B.2.b.ix Water from residential crawl space pumps;
I.B.2.b.x Flows from natural riparian habitats and wetlands not requiring a separate permit;
I.B.2.b.xi De-chlorinated swimming pool discharges;
I.B.2.b.xii Individual residential car washing;
I.B.2.b.xiii Water incidental to street sweeping (including associated sidewalks and medians) and that is not associated with construction activities;
I.B.2.b.xiv Discharges or flows from firefighting activities; and
I.B.2.b.xv Dewatering activities not requiring a separate permit.

I.C. Non-Authorized Discharges

I.C.1 This permit does not authorize the following:

I.C.1.a Discharges of non-stormwater, whether or not mixed with stormwater, unless such non-stormwater discharges are:

I.C.1.a.i Currently covered under a separate National Pollution Discharge Elimination System ("NPDES") permit, or
I.C.1.a.ii Included in Part I.B. 2 of this permit, or
I.C.1.a.iii Determined not to be a substantial contributor of pollutants to Waters of the U.S. by NDEP.

I.C.1.b Stormwater discharges currently covered under a separate NPDES permit.

I.C.1.c Discharges that do not comply with the Nevada's anti-degradation policy for water quality standards.

I.C.2. Stormwater discharges associated with industrial activity as defined in 40 CFR§122.26(b)(14)(i)-(ix) and (xi) are identified and permitted through a separate NPDES General Industrial Activity permit. These discharges are authorized under NDEP's General Permit NVR050000.

I.C.3. Stormwater discharges associated with construction activity as defined in 40 CFR§122.26(b)(14)(x) or 40 CFR§122.26(b)(15) are identified and permitted through a separate

	NPDES General Construction Activity permit. These discharges are authorized under NDEP's General Permit NVR100000.
I.C.4.	If it is determined that NDOT's discharges cause or contribute to an in-stream exceedance of water quality standards, NDEP may require corrective action or an application for a separate individual permit or alternative.
I.C.5.	NDOT shall comply with all applicable Federal, State, or local laws, regulations, or ordinances.

2.2 NDOT Organization and Responsibilities

NDOT's mission is to provide a better transportation system for Nevada through unified and dedicated efforts. NDOT is responsible for the planning, construction, operation and maintenance of over 5,400 miles of highways and over 1,000 bridges that make up the state's highway system.

NDOT is divided into three Districts (refer to "NDOT Maintenance Districts and Mileposts 2012" map in Appendix A). District I covers southern Nevada, with headquarters in northern Las Vegas, and a sub-district headquarters in Tonopah. District I has three Assistant District Engineers; two in Las Vegas and one in Tonopah. The Assistant District Engineer in Tonopah is responsible for both construction and maintenance. In Las Vegas, one Assistant District Engineer is responsible for construction and one is responsible for maintenance.

District II covers northwest Nevada, with headquarters in Sparks. In District II there are two Assistant District Engineers, one responsible for construction and one responsible for maintenance.

District III covers northeast Nevada, with headquarters in Elko, and sub-district headquarters in Winnemucca and Ely. District III has three Assistant District Engineers, one in Elko, one in Ely, and one in Winnemucca, who are responsible for both construction and maintenance.

NDOT's central headquarters are located in Carson City. The functions of NDOT are divided between Headquarters and the three Districts. Headquarters is managed by the Director and Deputy Director with general functional management being delegated to the Assistant Directors and Division Chiefs. Divisions are typically broken into Sections managed by each respective Division Chief. NDOT Headquarters consist of four major Divisions:

- Operations
- Engineering
- Planning
- Administration

The Assistant Director for Operations provides operational support for NDOT's Division Chief's management of the Traffic Operations, Maintenance and Asset Management, Materials, Construction, and Equipment Divisions.

The Assistant Director for Engineering is responsible for the pre-construction engineering duties excluding planning activities. The Assistant Director for Engineering oversees the Division Chiefs' management of the Design (including Roadway Design, Hydraulics and Specifications), Structural Design, Location, Right-of-Way, Project Management and Environmental Services Divisions.

The Assistant Director for Planning provides the program planning and statistical support for NDOT's engineering, maintenance, and construction activities. The Assistant Director for Planning oversees the Division Chiefs' management of the Safety Engineering, Federal Programs, Traffic Information, Research, Multimodal, Performance Analysis and Roadway Systems Divisions.

The Assistant Director for Administration supports the administrative and financial oversight activities for NDOT's engineering, maintenance, and construction programs. The Assistant Director for Administration oversees the Division Chiefs' management of the Accounting, Flight Operations, Information Services, Financial Management, and Administrative Services Divisions.

Nevada is divided into three Districts to effectively direct NDOT's program locally. Each District is managed by the District Engineer. The main responsibility for the District Engineer is to manage NDOT's construction and maintenance (operations) programs. All three District Engineers report to the Southern Nevada Deputy Director.

In District I, one of the Assistant District Engineers in Las Vegas and the Assistant District Engineer in Tonopah is responsible for construction. One of the two Assistant District Engineers in District II is responsible for construction with each of the three Assistant District Engineers in District III responsible for construction in their respective areas. Each Assistant District Engineer assists with overseeing construction operations with the Resident Construction Engineer who has immediate and direct oversight over construction contracts.

For maintenance, the Headquarters Maintenance and Asset Management Division establishes the policies and procedures to be implemented by each District and maintains the Maintenance Management System (MMS). In District I, one of the Assistant District Engineers for Las Vegas and the Assistant District Engineer in Tonopah is responsible for maintenance. One of the Assistant District Engineers in District II and each of the three Assistant District Engineers in District III are responsible for maintenance in their designated areas. Each Assistant District Engineer is supported by the Highway Maintenance Manager, who is primarily responsible for on the ground maintenance activities in their respective districts.

NDOT Headquarters initiates directives to implement the SWMP. The Environmental Services Division's Water Quality Section manages and coordinates Permit compliance and oversees the development and implementation of the SWMP.

The **Environmental Services Division** is responsible for securing and/or providing oversight of all regulatory permits relative to water quality with the exception of the TRPA Construction Permit and Dust Control Permits. The Division incorporates specific regulations and procedures into NDOT's Standard Specifications and project Special Provisions. Environmental Services often works with Design to identify and resolve potential regulatory, construction, and maintenance issues. This includes updating the Stormwater Quality manuals and standards, as well as performing the necessary environmental monitoring for projects. Environmental Services is specifically responsible for all non-structural temporary BMPs and associated specifications and works with Design to incorporate temporary BMP details into the contractual documents where applicable. The Environmental Services' Water Quality Section is the primary contact for regulatory compliance particularly with the SWMP and construction issues associated with the General Permit for Storm Water Discharges Associated with Construction Activity (General Permit). The Water Quality Section oversees development of Facility Pollution Prevention Plans (FPPPs) and Temporary Working in Waterway/Discharge Permit BMP Plans for NDOT maintenance projects and is the primary contact for maintenance regulatory compliance issues.

The **Hydraulics Section** is mainly responsible for establishing water flows, designing drainage structure size, and analyzing impacts to floodways and flood plains. Hydraulics also reviews road surface water treatment, slope conditions, and renovations. During project review and design, Hydraulics assists with assessing a project's potential for water quality impacts during construction, i.e. low, medium and high impact projects. For projects categorized as medium impact projects, Hydraulics establishes minimum temporary erosion control standards and the appropriate lump sum range for the project. For projects categorized as having a high potential for environmental impacts, Hydraulics may design or provide consultant oversight of a comprehensive erosion control plan to be included in the project Plans, Specifications, and Estimates (PS&Es). Project water quality categorization is discussed further in Section 3.5.5. Senior Hydraulic Engineers provide technical support to the Environmental Services Division to identify and resolve potential regulatory, construction, or maintenance concerns.

Hydraulics has designated an NDOT engineer as the Lake Tahoe Environmental Improvement Program (EIP) coordinator responsible for securing TRPA construction permits. Hydraulics has also designated engineers to specifically manage erosion control and drainage improvement projects as part of NDOT's ongoing watershed improvement efforts in the Clear Creek watershed.

Hydraulics is responsible for BMP design, specifications, and research associated with temporary and permanent structural BMPs. The cooperative effort between Hydraulics and

Environmental Services resulted in the development and continued maintenance of the Storm Water Quality Manuals, guidelines, and specifications.

The **Construction Division** is responsible for developing and maintaining an operational plan and structure that promotes effective administration and management of the statewide construction program and all of its essential elements. Construction oversees projects from inception to completion through the coordination of the four Sections within the Division. The Constructability Section is responsible for the constructability review of the plans and specifications, claim support and review, contract closeout and critique, and change order/letter of authorization monitoring and tracking. The Quality Assurance/Quality Control Section is responsible for independent assurance testing and inspection oversight of contracts during construction, providing training for the Construction Crews field personnel, field review and oversight of the nuclear density gauges used throughout NDOT. The Administration Section responsibilities include contractor payment, change order processing, documentation oversight/contract closeouts, global oversight of Stewardship projects, and consultant coordination. The Contract Compliance Section is responsible for external Equal Employment Opportunities, the Disadvantaged Business Enterprise (DBE) program, monitoring and enforcing the prevailing wage requirements, and ensuring issues regarding subcontractors are administered within Nevada Revised Statutes (NRS) and NDOT guidelines. For NDOT construction projects, the Construction Division is responsible for inspection and enforcement of both temporary structural and non-structural BMPs.

The **Design Division** is responsible for preparing the highway construction plans and specifications. Roadway Design categorizes the potential environmental impacts of each project by completing the Project Categorization Score Sheet. The Project Categorization Score Sheet categorizes projects by no, low, medium, or high impacts relative to water quality. The Hydraulics, Specifications and Landscape Architecture sections are within the Design Division.

The **Specifications Section** is responsible for general contract specifications and provides guidance in the development of water quality related specifications.

The **Materials Division** incorporates NDOT's Standard Specifications and Storm Water Quality Manuals guidance into practices such as geotechnical exploration, bituminous/pavement/aggregates analysis, and structural and chemical testing procedures.

District Maintenance in each District is responsible for the upkeep and maintenance of the highway system according to the NDOT Maintenance Manual and associated protocols. Maintenance plays a significant role in NDOT construction projects. Upon the District's acceptance of a completed contract, the contractor will submit the Notice of Termination (NOT) to the NDEP (if applicable) to begin the process of closing out the Stormwater General Permit. The NOT submission ends the contractor's responsibilities with respect to Stormwater General Permit compliance. If final stabilization has not yet been achieved per the requirements of the permit, coverage is transferred to NDOT until 70% re-vegetation or

other appropriate stabilization measure is established. Written notification to NDEP from NDOT and the contractor is required to formally transfer full Stormwater General Permit responsibilities, i.e. Owner and Operator, onto NDOT, specifically a local Maintenance Crew.

During this time, all of the requirements of the Stormwater General Permit still apply to the project including inspecting and maintaining the appropriate temporary BMPs. After final site stabilization has been achieved, District Maintenance will remove the temporary BMPs and file the NOT to close out the Stormwater General Permit. An outside contractor may be hired to perform the final stabilization work.

Maintenance also maintains permanent BMPs that are constructed by NDOT. NDOT Maintenance projects typically include coordination between District Maintenance, Hydraulics, and Environmental Services.

The Department is responsible for developing and implementing the Storm Water Quality Manuals in accordance with the Inter-modal Surface Transportation Efficiency Act (ISTEA). The ISTEA requires the Federal Highway Administration (FHWA) to develop guidelines for sediment and erosion control for highway projects using federal funding. To comply with the ISTEA, the FHWA adopted the American Association of State Highway and Transportation Officials (AASHTO) drainage guidelines. The FHWA requires states to either apply the AASHTO guidelines or develop their own standards and practices of erosion control. To comply with the requirements, NDOT developed two Storm Water Quality Manuals: the Planning and Design Guide (PDG) and the Construction Site BMPs Manual (BMP Manual). The PDG provides guidance in policy and regulatory requirements to incorporate permanent BMPs into new project planning. The BMP Manual is designed to provide NDOT staff and contractors with detailed guidance on regulatory requirements concerning construction site activity with an emphasis on temporary pollution control BMPs.

2.3 Standard Permit Conditions

NDOT's Permit contains language requiring the Department to comply with the conditions, the duty to mitigate potential violations, supply information, and allow for inspections and entry, among other standard requirements. This permit language is summarized in the text box below. The Department acknowledges these conditions. No formal procedure or programmatic BMP is required.

Part IV. Monitoring, Recordkeeping, and Reporting
IV.D. Annual Fee
IV.D.1. NDOT shall remit an annual review and services fee by July 1 of every year in accordance with Nevada Administrative Code ("NAC") 445A.232 until this permit is terminated.
IV.E. Continued Permit Coverage
IV.E.1. NDOT shall submit written correspondence to NDEP requesting continued permit coverage under the new NDOT MS4 Permit and signed in accordance with the signatory requirements of Part V.G of this permit, no later than 180 days before this permit expires.
IV.F. Changes by NDEP

IV.F.1. Formal changes requested by NDEP must be made in writing, set forth the time schedule for NDOT to develop the changes, and offer NDOT the opportunity to propose alternative program changes to meet the objective of the requested modification. If NDOT does not agree to the requested changes, changes required by NDEP will be made in accordance with 40CFR§124.5, 40CFR§122.62, or as appropriate 40CFR§122.63.

IV.F.2. NDEP may request formal changes to the SWMP as needed to:

IV.F.2.a Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

IV.F.2.b Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements; and

IV.F.2.c Include such other conditions deemed necessary by NDEP to comply with the requirements of the CWA.

Part V. Standard Permit Conditions

V.A. Duty to Comply

V.A.1. NDOT must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of CWA and is grounds for an enforcement action; permit termination; revocation and re-issuance; modification; or for denial of a permit renewal application.

V.B. Continuation of the Expired Permit

V.B.1. If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. NDOT will automatically remain covered by the continued permit until the earlier of:

V.B.1.a Re-issuance or replacement of this permit; or

V.B.1.b Issuance of another individual permit for NDOT discharges.

V.C. Need to Halt or Reduce Activity Not a Defense

V.C.1. It shall not be a defense for NDOT in an enforcement action that it would have been necessary to halt or reduce the permitted activity under NDOT's control in order to maintain compliance with the conditions of this permit.

V.D. Duty to Mitigate

V.D.1. NDOT must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

V.E. Duty to Provide Information

V.E.1. NDOT must furnish to NDEP any information that is requested by NDEP and needed to determine compliance with this permit or other information.

V.F. Other Information

V.F.1. If NDOT becomes aware that it has failed to submit any relevant facts in its revised SWMP, Annual Report or in any other report to NDEP, NDOT must promptly submit such facts or information to NDEP.

V.G. Signatory Requirements

V.G.1. All applications, reports, certifications, or information submitted to NDEP, or that this permit requires be maintained by NDOT shall be signed and certified as follows:

V.G.1.a Applications. All applications shall be signed by a duly authorized representative of NDOT.

V.G.1.b Reports and Other Information. All reports required by the permit and other information requested by NDEP or the authorized representative of NDEP shall be signed by a person described above from NDOT or by a duly authorized representative of that person. A person is a duly authorized representative only if:

V.G.1.b.i Signed Authorization. The person described above submits the authorization in writing to NDEP.

V.G.1.b.ii Authorization with Specified Responsibility. 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 manager, operator, superintendent, or position of equivalent responsibility for environmental matter for the regulated entity.

V.G.1.c Changes to Authorization. If an authorization is no longer accurate because a different person has the responsibility for the overall operation of the MS4, a new authorization satisfying the requirement above must be submitted to NDEP prior to or together with any reports, information, or applications to be signed by an authorized representative.

V.H. Property Rights

V.H.1. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
V.I. Proper Operation and Maintenance
V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.
V.J. Inspection and Entry
V.J.1. NDOT shall allow NDEP or an authorized representative (including an authorized contractor acting as a representative of the Administrator) upon the presentation of credentials and other documents as may be required by law, to do any of the following:
V.J.1.a Enter NDOT's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
V.J.1.b Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
V.J.1.c Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) practices, or operations regulated or required under this permit; and
V.J.1.d Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.
V.K. Permit Actions
V.K.1. This permit may be modified, revoked and reissued, or terminated for cause.
NDOT's filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
V.L. Permit Transfers
V.L.1. This permit is not transferable to any person. NDEP may require modification or revocation and re-issuance of the permit to incorporate such other requirements as may be necessary under the CWA.
V.M. Anticipated Noncompliance
V.M.1. NDOT shall give advance notice to NDEP of any planned changes in the permitted MS4 or activity which may result in noncompliance with this permit.
V.N. State Environmental Laws
V.N.1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve NDOT from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.
V.N.2. No condition of this permit releases NDOT from any responsibility or requirements under other environmental statutes or regulations.
V.O. Severability
V.O.1. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit under any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
V.P. Procedures for Modification or Revocation
V.P.1. Permit modification or revocation will be conducted according to 40CFR§122.62, 122.63, 122.64 and 124.5.
V.Q. Availability of Reports
V.Q.1. Except for data determined to be confidential under Nevada Revised Statutes ("NRS") 445A.665, all reports and plans submitted in accordance with the terms of this permit shall be available for public inspection at NDEP's office. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.
V.R. Furnishing False Information and Tampering with Monitoring Devices
V.R.1. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document submitted or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of

a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, pursuant to NRS 445A.300 to 445A.730, inclusive.

V.S. Penalty for Violation of Permit Conditions

V.S.1. NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.710.

V.T. Permit Modification, Suspension or Revocation

V.T.1. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

V.T.1.a Violation of any terms or conditions of this permit;

V.T.1.b Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

V.T.1.c A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

V.T.1.d To impose specific requirements for BMPs or annual reporting requirements in accordance with 40CFR§122.62 or §122.63.

V.T.2. NDOT may request that NDEP reopen and modify this permit.

2.4 Best Management Practices (BMPs)

The Department is required to establish stormwater BMPs to protect water quality and reduce the discharge of pollutants to the MEP (see Sections III.F.b.iv, III.F.d.i, and III.I.3). The Permit defines a BMP as any schedule of "activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage" (Section V.I.B). BMPs may be categorized in a variety of ways, including temporary (construction), permanent (i.e., post-construction) and source control (both permanent and temporary). Additionally, the BMPs may be required to address special circumstances, such as discharges to impaired waters.

Some of the Permit requirements pertaining to BMPs are listed below.

III.A.8. NDOT shall provide the rationale for how and why NDOT selected each of the program elements and any measurable goals associated with the program;

III.A.10. NDOT shall describe any proposed programs, if applicable, that it may implement during the life of this permit to require additional controls on a system wide basis, a watershed basis, a jurisdictional basis, or on individual outfalls;

III.A.13. Pending submittal of the SWMP, NDOT shall continue to implement and maintain current BMPs detailed in NDOT's current SWMP.

Presented in this sub-section is a summary of the existing BMPs that the Department has in current practice. Also listed is the process used to selecting new BMPs.

2.4.1 NDOT Guidance Documents

This SWMP contains the programmatic details of NDOT's program and general guidance for implementation. The following NDOT manuals provide the detailed guidance necessary

to fulfill the Permit requirements and are referenced in this SWMP. A full citation can be found in Section 5 (References).

- NDOT Storm Water Quality Manuals
    - Planning and Design Guide (PDG)
    - Construction Site BMP Manual (BMP Manual)
- NDOT Standards and Specifications
- NDOT Drainage Manual
- NDOT Road Design Division Policy and Procedures
- NDOT Maintenance Manual

NDOT's Water Quality Section promotes coordination between NDOT's functional programs and the Districts to provide guidance for Permit compliance. This guidance consists of Permit and SWMP implementation information, including schedules, reporting, legal authorities, budget assistance, and other information required for implementation. The primary guidance manuals utilized for the selection, use and implementation of stormwater BMPs are summarized below.

Storm Water Quality Planning and Design Guide (PDG)

NDOT issued its Storm Water Quality Planning and Design Guide (PDG) manual in January 2006. The goal of the PDG is to provide guidance for incorporating permanent stormwater quality controls into projects during the planning and design phases. In addition, the PDG addresses key regulatory, policy, and technical requirements to implement permanent stormwater Best Management Practices (BMPs) into the design of all NDOT projects.

Outlined in the manual is NDOT's process for selecting and designing structural BMPs and incorporating them into new and significant redevelopment projects. Described in the PDG are critical documents that must be prepared prior to new construction, such as the Alternative Design Field Survey Report (ADFS); Preliminary Design Field Study Report (PDFS); Environmental Documents; and the Plans, Specifications, and Estimates (PS&E).

The planning and design approach described in the manual has been developed for use in conjunction with NDOT's Roadway Design and Drainage Design Manuals. The PDG also provides guidance for incorporating requirements in the PS&E to ensure that NDOT's contractors comply with applicable permits, NDOT policy, and implement appropriate construction site BMPs. The PDG is an important component of NDOT's SWMP and will be kept current and up to date under the programmatic BMP DEPT-02, included in Section 6 of this document.

Storm Water Quality Construction Site BMPs Manual (BMP Manual)

NDOT issued its Storm Water Quality Construction Site BMPs Manual (BMP Manual) in January 2006. The BMP Manual provides guidance for staff and contractors on how to address and implement soil stabilization measures, sediment and tracking controls, non-stormwater management, waste management and pollution controls. In general, the selection and implementation of individual BMPs is project specific and dependent upon water quality objectives, site conditions, and applicability of use. Like the PDG, the BMP Manual is an important component of NDOT's SWMP and will be kept current and up to date under the programmatic BMP DEPT-01, included in Section 6 of this document.

2.4.2 Existing NDOT Stormwater BMPs

NDOT's project planning stormwater quality objective is to identify and minimize potential environmental impacts and ensure that the application of selected BMPs fits within the project constraints of right-of-way and budget. This includes the selection process of temporary BMPs and/or permanent BMPs required to mitigate the project impacts to the MEP. The BMPs listed in the PDG and the BMP Manual have been approved by NDOT for use on NDOT highway projects. NDOT selected the BMPs through sound engineering judgment, past experience with BMPs, and published BMP studies including the California Department of Transportation (Caltrans) Storm Water manuals, TRPA Code of Ordinances, and NDEP resources. Listed in Table 2.4-1 are the Department's existing BMPs found in the PDG.

Environmental Services and Hydraulics have the primary responsibility for water quality planning with support and input from the Roadway Design, Construction, and Maintenance and Asset Management Divisions. Guidance for the selection and implementation of the individual BMPs is located in the Storm Water Quality Manuals. Temporary (construction) BMPs are discussed in detail in the BMP Manual and in Section 3.5 of this document. Listed in Table 2.4-2 are the Department's existing stormwater BMPs found in the BMP Manual.

Table 2.4-1. Existing NDOT Stormwater BMPs Listed in the PDG

Soil Stabilization BMPs	
SS-1	Consideration of Downstream Effects Related to Potentially Increased Flow
SS-2	Preservation of Existing Vegetation
SS-3	Ditches, Berms, Dikes, and Swales
SS-4	Slope Down Drains
SS-5	Flared Culvert End Sections
SS-6	Outlet Protection/Velocity Dissipation Devices
SS-7	Vegetated Surfaces
SS-8	Mulching
SS-9	Slope Roughening/Terracing/Rounding
SS-10	Hard Surfaces
SS-11	Retaining Walls
Treatment Control BMPs	
TC-1	Biofiltration Swales and Strips
TC-2	Infiltration Basins
TC-3	Detention Basins
TC-4	Traction Sand Traps
TC-5	Gross Solids Removal Devices

Table 2.4-2. Existing NDOT Stormwater BMPs Listed in the BMP Manual

Temporary Soil Stabilization BMPs	
SS-1	Scheduling
SS-2	Preservation of Existing Vegetation
SS-3	Hydraulic Mulch
SS-4	Hydroseeding
SS-5	Soil Binders
SS-6	Straw Mulch
SS-7	Geotextiles, Plastic Covers & Erosion Control Blankets / Mats
SS-8	Wood Mulching
SS-9	Earth Dikes / Drainage Swales & Lined Ditches
SS-10	Outlet Protection / Velocity Dissipation Devices
SS-11	Slope Drains
SS-12	Streambank Stabilization
SS-13	Wind Erosion Control
Temporary Sediment Control BMPs	
SC-1	Silt Fence
SC-2	Sediment Basin
SC-3	Sediment Trap

Table 2.4-2. Existing NDOT Stormwater BMPs Listed in the BMP Manual (cont'd)

Temporary Sediment Control BMPs	
SC-4	Check Dam
SC-5	Sediment Logs
SC-6	Gravel Bag Berm
SC-7	Street Sweeping and Vacuuming
SC-8	Storm Drain Inlet Protection
Tracking Control BMPs	
TC-1	Stabilized Construction Entrance / Exit
TC-2	Stabilized Construction Roadway
TC-3	Entrance / Outlet Tire Wash
Non-Storm Water Management BMPs	
NS-1	Water Conservation Practices
NS-2	Dewatering Operations
NS-3	Paving and Grinding Operations
NS-4	Temporary Stream Crossing
NS-5	Clear Water Diversion
NS-6	Illicit Connection / Illegal Discharge Detection and Reporting
NS-7	Potable Water / Irrigation
NS-8	Vehicle and Equipment Cleaning
NS-9	Vehicle and Equipment Fueling
NS-10	Vehicle and Equipment Maintenance
NS-11	Pile Driving and Drilling Operations
NS-12	Concrete Curing
NS-13	Material and Equipment Use Over Water
NS-14	Concrete Finishing
NS-15	Structure Demolition / Removal
NS-16	Temporary Batch Plants
Waste Management & Materials Pollution Control BMPs	
WM-1	Material Delivery and Storage
WM-2	Material Use
WM-3	Stockpile Management
WM-4	Spill Prevention and Control
WM-5	Construction Debris and Litter Management
WM-6	Concrete Waste Management
WM-7	Sanitary / Septic Waste Management
WM-8	Liquid Waste Management

2.4.3 Process for Selecting New Stormwater BMPs

New BMPs are selected and incorporated by the Department during the guidance manual update process. The need for new BMPs can arise from an observed deficiency, the quest for efficiency, cost reduction or from new regulations. In the event that an existing BMP (or collection of BMPs) is insufficient or inadequate, NDOT is obligated to develop new or modified practices. When the manuals are being updated, new BMPs will be evaluated and reviewed for inclusion by NDOT. As required by the Permit, NDOT will continue to review the stormwater guidance manuals and handbooks on an annual basis.

New permit regulations also drive the need for new BMPs. As a component of this document, the requirements listed in the new Permit were matched up with existing program BMPs. In the event of a gap, a new BMP was developed or an existing BMP enhanced. To address the 2010 Permit requirements, a series of "BMP Fact Sheets" were prepared and included in Section 6 of this document. Most of the BMP Fact Sheets document existing practices; however, several new (priority) practices have been identified. Some existing BMPs have been enhanced with new components and measurable goals. Altogether, 41 programmatic BMPs have been developed for inclusion in this SWMP document.

Section 3 Program Elements

Included in this section is discussion of the major SWMP elements as defined in the Permit. Section III of the Permit mandates eleven minimum control elements. Those elements and the Permit language are listed below:

The revised SWMP shall include, at a minimum, information about the following programs:

1.A.1.a	NDOT's Legal Authority;
1.A.1.b	NDOT's Stormwater Education Program;
1.A.1.c	NDOT's MS4 Maps and Outfalls;
1.A.1.d	Discharges to Water Quality Impaired Waters and Sanitary Sewers;
1.A.1.e	Construction Site Best Management Practices ("BMPs") Program;
1.A.1.f	New Development and Redevelopment Planning Program;
1.A.1.g	NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;
1.A.1.h	Industrial Facility Monitoring and Control;
1.A.1.i	Stormwater Discharges from NDOT Maintenance Facilities;
1.A.1.j	Public Street Maintenance Program; and
1.A.1.k	Herbicide, Pesticide and Fertilizer Application Program.

The program developed to address each of these required elements is presented in this section.

3.1 Legal Authority

Summarized in this subsection are the statutes that provide the legal basis for NDOT to enforce the provisions of this SWMP and the Permit. Adequate authority is critical in controlling, mitigating and improving the quality of stormwater discharges from roadways and right-of-ways to the Waters of the U.S.

3.1.1 Permit Requirements for Legal Authority

Section III.B of the Permit requires the updated SWMP to describe NDOT's legal authority established by statute, regulation, or contract documents to control a variety of discharges. Permit language is provided below.

III.B Legal Authority

III.B.1. The revised SWMP shall describe NDOT's' legal authority that has been established by statute, regulation, or contract documents which authorizes or enables NDOT to:

III.B.1.a	Prohibit illicit discharges to the MS4;
III.B.1.b	Control discharges to NDOT's MS4 from spills, dumping or disposal of materials other than stormwater;
III.B.1.c	Require compliance with conditions in regulation, ordinances, permits, contracts or orders; and
III.B.1.d	Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the prohibition of illicit discharges to the MS4s.

III.B.2. NDOT shall provide written notice to NDEP of any formal proposal to modify the regulation or ordinances regulating stormwater discharges into the MS4. Before any regulation or ordinance is modified, NDEP shall [be provided] at least thirty (30) days to review and comment on the proposed modification.

3.1.2 Summary of Legal Authority

NDOT's duty to administer the statewide transportation program is authorized by the Nevada Legislature through the enactment of statutes, specifically the Nevada Revised Statutes (NRS). The NRS authorizes NDOT to design, build, and maintain the Nevada Highway System. NDOT's primary authority can be found in NRS Chapter 408 – Highways, Roads and Transportation Facilities. The NRS chapter 408.285 states "…the Department is responsible for their [state highways] construction, reconstruction, improvement, and maintenance". The legal authority of NDOT enables the Department to not only administer the program but specifically address dumping, material spills and illicit discharges that may impact the storm drain system. The complete listing of the NRS is available through the Nevada Law Library.

NDOT has legal authority to prohibit illicit discharges and connections through NRS 408.210, which addresses encroachments. NRS 408.050 (Crimes Against Public Health and Safety) defines encroachment as "...any tower, pole, pole line, wire, pipe, pipeline, fence, billboard, approach road, driveway, stand or building, crop or crops, flora, or any structure which is placed in, upon, under, or over any portion of highway rights-of-way".

The Department has the authority (NRS 408.210) to remove or rescind any licensed or unlicensed encroachment from its roadways and right-of-ways that could be considered an illicit discharge. In addition, encroachment permittees are required to abide by all environmental permits applicable under the Clean Water Act. Permittees are required to notify the Department immediately upon the discovery of hydrocarbon or other hazardous substances within the Department's right-of-way. Upon completion of construction, permittees shall ensure that all waste and contaminations, whether hazardous or non-

hazardous, in the soil or groundwater, are cleared and removed to the standards set by federal and state agencies having jurisdiction, e.g. EPA, NDEP, etc.

NDOT's legal authority also addresses dumping or disposal of materials on highways which could enter NDOT's storm drain system under NRS Chapter 202-Crimes Against Public Health and Safety.

- NRS 202.180 (Deposit of Unwholesome Substance): "Every person who shall deposit, leave or keep, on or near a highway on route of public travel, on land or water, any unwholesome substance…..shall be guilty of a gross misdemeanor.

- NRS 202.185 (Unlawful Deposit of Dead Animal, Dirt, Garbage or Rubbish on Public Highway): "It shall be unlawful for any person to throw or deposit or cause to be thrown or deposited on any public highway within the State of Nevada, or within a distance of 1,000 feet from the center of any public highway, any dead animal, dirt, garbage, or rubbish as defined in subsection 1. Any persons violating the provisions of this section shall be guilty of a misdemeanor."

Compliance with and enforcement of state regulations prohibiting dumping or other illegal discharges is primarily the responsibility of the Nevada Division of Environmental Protection (NDEP). Under NRS 444.630 (Unlawful Disposal of Solid Waste or Sewage), any person who deposits or dumps solid waste materials onto a street, alley, public highway or road in common use can be charged with a misdemeanor. Requirements for the protection of surface waters are addressed in NRS 445A (Water Controls). NDEP, under the Powers of its Director (NRS 445A.450) has the authority for entry and inspection with respect to water pollution control and the NPDES program.

Under NRS 480 (Administration of Laws Relating to Public Safety), the Nevada Department of Public Safety and the Nevada Highway Patrol (NHP) have the duty to enforce state law. NHP has primary jurisdiction for the administration and enforcement of the laws on NDOT's highways and roadways. The NHP enforces provisions relating to the transportation of hazardous waste within the state lines and conducts vehicle safety checks. Importantly, NHP and local police and sheriffs serve as the statewide information, assistance and notification coordinator for all hazardous substance spill incidents occurring on highways within the State of Nevada.

Under NRS 484D.850 (Load on Vehicle): "No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping there from….."

3.1.3 Practices and Program Elements - Legal Authority

In recognizing the importance of the state statutes that give NDOT the legal authority to satisfy the requirements of the Permit, a BMP Fact Sheet for *Legal Authority and Enforcement* was developed (DEPT-04). An overview of the BMP, including rationale and

goals, are summarized below. The full BMP Fact Sheet along with the data collection and reporting requirements and implementation schedule can be found in Section 6 of this document.

BMP - DEPT-04 - Legal Authority and Enforcement

NDOT's legal authority within the MS4 permit area prohibiting illicit discharges and providing authorization to conduct associated measures necessary to determine compliance and non-compliance (i.e. inspections, monitoring, etc.) can be found within several different Nevada Revised Statutes (NRS). Based on a review of the new Permit and the statutes, adequate legal authority exists to empower NDOT to administer the requirements of the Permit and the procedures outlined in this SWMP document (a review of NDOT's legal authority can be found in Section 3.1 of this document).

NDOT's enforcement capabilities with regards to illicit discharges as specifically defined in the Permit, however, are limited by state statutes. NDOT will endeavor to resolve issues with illicit discharges should the responsible party be known. However, NDOT will seek assistance from the Nevada Division of Environmental Protection (NDEP) when enforcement action is warranted.

BMP Objectives:

1) Through statutes and enforcement, improve the quality of stormwater discharges within NDOT's MS4 Permit area.

3.1.4 Changes or Revisions to NDOT Legal Authority

In the event that NDOT identifies a need to modify the NRS governing legal authority, NDOT will provide written notice to NDEP. Before any regulation, ordinance or statute is modified, NDEP will be provided at least thirty (30) days to review and comment on the proposed modification.

3.2 Stormwater Education, Outreach and Training Program

For several years, NDOT and partners have been involved in public education and outreach efforts related to improving stormwater awareness and runoff quality. NDOT staff has participated in a variety of community stormwater outreach and education events throughout the state. The Department continues to provide limited financial support to other Nevada MS4 Permit holders in support of stormwater education and outreach partnering efforts. Other NDOT stormwater outreach, education and training efforts include NDOT's stormwater webpage, public litter removal programs and contractor partnering program. The Department's internal education and training programs were recently initiated.

NDOT's stormwater education efforts consist of a collection of programs, activities and practices that collectively make up a comprehensive and diverse Stormwater Education,

Outreach and Training Program. Summarized in this subsection are the Permit requirements, existing programs and the programmatic BMPs that describe the Department's Program.

3.2.1 Permit Requirements Stormwater Education and Outreach Program

Section III.F of the Permit outlines NDOT's requirements to address its Stormwater Education, Outreach and Training Program. The Permit language is provided below.

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.b NDOT's Stormwater Education Program

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

III.F.2. NDOT shall implement an Employee Stormwater Training Program and shall outline the program in the SWMP. The program shall provide for NDOT's employees identified in this permit to receive initial training within twelve (12) months of the effective date of this permit and refresher training at least once every three (3) years thereafter. NDOT shall also provide training to new staff within the first year of hire, and to existing staff when job responsibilities change to newly incorporate stormwater duties.

III.F.3. NDOT shall keep records of all employees who receive stormwater training.

III.F.4. NDOT shall provide stormwater awareness training to educate personnel at all levels of responsibility who are involved in activities that may impact stormwater quality and those staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system.

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges and connections, and improper disposal/dumping; and

III.F.5.a.ii The procedures for outfall screening and investigation.

III.F.5.b NDOT shall train all staff directly involved in managing non-stormwater discharges. The training shall include:

III.F.5.b.i The types of discharges allowed under this permit and those that are prohibited;

III.F.5.b.ii The distinction between non-stormwater discharges and potential pollutant sources;

III.F.5.b.iii The pollutants of concern that may be in non-stormwater discharges; and

III.F.5.b.iv The BMPs that shall be employed to minimize the discharge of pollutants.

III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");

III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and

III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater.

III.F.5.e NDOT shall train all staff directly involved in storm sewer system maintenance, street repair, and road improvement. Training shall include:

III.F.5.e.i Potential sources of contaminants related to repair and maintenance activities; and

III.F.5.e.ii Proper maintenance, housekeeping, and repair BMPs to prevent discharges to the storm sewer system and Waters of the U.S.

III.F.5.f NDOT shall train all staff who may be involved in waste disposal, spill prevention and response. Training shall include:

III.F.5.f.i Procedures to prevent, contain, and respond to spills; and

	III.F.5.f.ii	Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system.
III.F.5.g	NDOT shall train all staff directly involved in the application of pesticides, herbicides, and fertilizers. Training shall include:	
	III.F.5.g.i	The potential for stormwater contamination resulting from misapplication or over-application of chemicals; and
	III.F.5.g.ii	Proper application procedures and BMPs.
III.F.5.h	NDOT shall train all staff working at industrial sites (excluding material source sites). Training shall include:	
	III.F.5.h.i	The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site activities; and
	III.F.5.h.ii	As applicable, used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.
III.F.5.i	NDOT shall provide information in the revised SWMP that discusses how NDOT will ensure that NDOT construction contractors have been adequately trained in BMP installation and maintenance, the ability to recognize activities that may impact stormwater quality, and the procedures in place to prevent or report an illicit discharge or illicit connection to the MS4.	
III.F.5.j	NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:	
	III.F.5.j.i	The methods for disseminating information;
	III.F.5.j.ii	The target audiences and how they were selected; and
	III.F.5.j.iii	The target pollutants and sources and how they were selected.
III.F.5.k	NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;	
III.F.5.l	NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.	
III.F.5.m	NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit	

	discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;
III.F.5.n	NDOT shall record and report the number of reports received from the public and investigated in the Annual Report;
III.F.5.o	NDOT shall continue to implement the Adopt-A-Highway program;
III.F.5.p	NDOT shall report the number of volunteer groups participating in the Adopt-A-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report; and
III.F.5.q	NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:

III.F.5.q.i	NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and
III.F.5.q.ii	NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.

3.2.2 Existing Stormwater Education, Outreach & Training Program

NDOT has the critical components of the Education, Outreach and Training Program currently in place. NDOT organizes the program into separate training and education practices. The existing program activities are summarized in the programmatic BMPs presented in the next two subsections.

3.2.3 Practices and Program Elements – Education and Outreach BMPs

Summarized below are the practices and program elements that make up NDOT's Education and Outreach Program (training practices are described in the next subsection). A total of five programmatic BMPs were developed to fully outline NDOT's education and outreach practices. An additional BMP describing internal coordination (DEPT-05) is included here because it addresses requirements listed in the Stormwater Education section of the Permit (Section III.F). The full BMP Fact Sheets for each practice, along with data collection and reporting requirements, measurable goals and implementation schedule can be found in Section 6 of this document.

BMP - EDU-01 Public Outreach and Education Events

NDOT participates in a variety of collaborative community events to provide public outreach and education with respect to stormwater each year. At these events and festivals, NDOT and partners strive to bring awareness to the public about how their individual involvement can help reduce transportation related pollutants and improve water quality. In addition to conversation with the public, education and outreach is achieved using a variety of handouts, displays and promotional items. NDOT does not conduct any mass media advertising but participates in various regional outreach and education activities. Public education is an important element in preventing water quality impacts from storm water pollution. The rationale for this BMP is simply to increase awareness of water quality issues, storm water pollution, and NDOT's stormwater management activities.

BMP Objectives:

1) Educate the public about stormwater quality, BMPs, and NDOT's efforts to protect the waterways of the state from stormwater runoff.

2) Inform the public of the effects of roadside dumping and litter and the effects on water quality.

3) Increase awareness of water quality issues, stormwater pollution, and NDOT's role in stormwater management.

In conjunction with EDU-03, NDOT will continue to participate in local events to educate the public about stormwater issues.

NDOT will continue to take a regional approach to fulfill the permit requirement in addressing the general public education element. Examples of potential public outreach opportunities include:

- Reno River Festival
- Earth Day Celebration (Reno) and Earth Day Birthday (Las Vegas)
- Truckee River Snapshot Day
- Eco Jam
- Las Vegas Wash and Wetlands Cleanup

These events are well attended by the public who have a wide range of interests. Many in attendance have a strong focus on environmental issues and can be expected to share and propagate the water quality message.

NDOT's participation in these events includes staff volunteer time and/or financial assistance. Financial support is used to purchase educational related materials.

These events promote a general sense of watershed stewardship and inform the general public about actions they can take to reduce transportation related pollutants and improve water quality.

BMP - EDU-02 - Public Litter Removal Programs

NDOT's statewide public litter removal campaign plays an important role in keeping the highways clean and preventing trash and debris from entering the waterways of the state. Currently, NDOT administers two successful public litter removal programs. They are:

- **Adopt-A-Highway** - A program for litter removal on most state highways for individuals and community service groups. The program raises public awareness of litter and roadside dumping through signage and participation. Volunteers contribute to the community by adopting and maintaining a section of highway. NDOT posts signs acknowledging the volunteers and their efforts, thereby increasing public awareness.

- **Sponsor-A-Highway** - A program for litter removal on high-traffic volume urban freeways in the Las Vegas and Reno areas. Firms and organizations seeking recognition for community service may select pre-qualified litter removal contractors for litter removal services on sections of Las Vegas and Reno area freeways.

These programs demonstrate the commitment of the public to clean highways as well as aid NDOT with its stormwater management program goals. Sponsors and participants are visually recognized for their efforts through the posting of signs in their respective areas. To sustain program momentum, NDOT will continue to invest funds and internal resources and promote public participation into both litter removal programs.

BMP Objectives:

1) Encourage public participation in removing trash and debris from the MS4 Permit area.

    a. Remove trash and debris before they enter the stormwater conveyance system and the waterways of the state.

    b. Improve the visibility of cleanup efforts to encourage litter prevention.

BMP - EDU-03 - Partnerships and Affiliations

NDOT maintains numerous partnerships and affiliations with a variety of organizations, groups, and agencies throughout the State of Nevada that share common stormwater program related objectives. These relationships allow NDOT to maximize expertise, technical/educational resources, and economic resources to increase public awareness about stormwater management responsibilities. These affiliations also allow NDOT the

ability to communicate its message about the importance of stormwater quality to a diverse demographic segment of the population.

NDOT regularly receives agendas from other MS4 entity public stormwater meetings such as the Truckee Meadows Storm Water Permit Coordinating Committee, Las Vegas Valley Storm Water Quality Management Committee and Elko Stormwater Advisory Committee, with NDOT personnel attending these meetings as necessary.

NDOT is a strong advocate of promoting partnering efforts with contractors and stakeholders in an effort to help achieve better project results. In cooperation with the Associated General Contractors of America, the Construction Industry and the larger community, NDOT has developed a partnering guide ("Guide to Partnering on NDOT Projects") to support its commitment to partnering as a way of doing business. Partnering is an effective tool in promoting an open dialogue of communication between NDOT and its contractors in all aspects of a highway construction project, including construction site stormwater management.

NDOT will continue to foster and strengthen the existing relationships with current partners and affiliations. In addition, NDOT will seek opportunities with new partnerships that can help improve, support, and proliferate common stormwater related goals and objectives.

BMP Objectives:

1) Partner with various groups, agencies, and stakeholders to help reduce pollution associated with stormwater runoff through mutual support, benefit, shared expertise, and outreach and education.

NDOT will continue to foster and strengthen the existing relationships with current partners and affiliations. In addition, NDOT will seek opportunities with new partnerships that can help improve, support, and proliferate common stormwater related goals and objectives. Some examples of NDOT's current and past partners and affiliations are:

- American Association of State Highway and Transportation Officials (AASHTO)
- Association of General Contractors (AGC)
- American Society of Civil Engineers (ASCE)
- Federal Highway Administration (FHWA)
- Truckee Meadows Storm Water Permit Coordinating Committee
- Las Vegas Valley Stormwater Quality Management Committee
- Elko Stormwater Advisory Committee
- Nevada Division of Environmental Protection (NDEP)
- Tahoe Regional Planning Agency (TRPA)

- University of Nevada, Reno (UNR)
- University of Nevada Cooperative Extension (UNCE)

NDOT will continue to support partnering efforts as described in NDOT's "Guide to Partnering on NDOT Projects" and other cooperative endeavors and affiliations. NDOT will continue to keep open lines of communication with government agencies, other state DOTs, and local stakeholders.

BMP - EDU-04 - Demonstration Projects

NDOT continually strives to improve stormwater runoff quality. One of the ways this is achieved is through identifying and evaluating new technologies and practices. Low impact development (LID) techniques, improved street sweeping technologies, alternate deicing systems, and stormwater treatment vaults are all examples of past NDOT demonstration projects. Once evaluated, viable technologies can then be advanced into practice. Over the past decade, manufacturers and researchers have made enormous strides in the technologies and techniques to treat and mitigate stormwater pollution.

BMP Objectives:

1) Incorporate viable technologies and advances into the Department's stormwater management program by conducting, researching, and/or pursuing demonstration projects.

The protocol for conducting stormwater demonstration projects may vary with the technology or procedure being evaluated. Possible steps may include:

- Identify the need
- Identify technologies and partners (vendors or university personnel)
- Identify funding
- Establish a trial/testing location
- Develop evaluation protocols
- Conduct the project
- Evaluate results
- Disseminate results
- Incorporate viable technologies into practice

Where possible, results of the demonstration projects will be incorporated into training, educational materials, and regional BMPs.

BMP - EDU-05 - Stormwater Management Program Webpage

As part of its main website, NDOT maintains a Stormwater Management Program webpage. On this webpage, important information can be found pertaining to NDOT's stormwater program, several documents for download, and contact information. The website is a vital tool in NDOT's Stormwater Education and Outreach Program and an effective way to disseminate information to all interested parties.

Website Address: http://www.nevadadot.com/About_NDOT/NDOT_Divisions/Engineering/Environmental_Services/Storm_Water_Management_Program.aspx

BMP Objectives:

1) Promote public awareness of water quality issues, stormwater pollution, and NDOT's role in stormwater management.

    a. Provide a single location for NDOT BMPs, Stormwater Quality Manuals, SWMP revisions, and updated stormwater program information.

    b. Provide a mechanism for public input as well as contact information.

NDOT will maintain a stormwater webpage and provide relevant updates on an annual basis in an effort to promote public and employee awareness of water quality issues, stormwater pollution, and stormwater quality management.

BMP - DEPT-05 - Departmental Stormwater Coordination

The promotion of internal communication efforts, as well as communication with other government agencies, is essential to facilitate compliance with the Permit. The Water Quality Section within the Environmental Services Division serves as NDOT's primary point of contact with other Divisions and the three Districts for water quality and Permit related issues. The Environmental Services Division and Hydraulics Section (within the Design Division) routinely coordinate with other Divisions within the Department as well as other federal and state agencies, including the Nevada Division of Environmental Protection (NDEP), the U.S. Army Corps of Engineers, and the Tahoe Regional Planning Agency, during all phases of a construction project (most notably project design review) to ensure that construction activities and design components are consistent with stormwater permitting and other environmental requirements. NDOT Design and District personnel routinely coordinate project efforts with surrounding municipalities and local stakeholders.

BMP Objective:

1) Continue promoting inner Department and inter-agency communication efforts to facilitate Permit compliance

Environmental Services Division's Water Quality Section will continue to serve as the Department's primary contact regarding stormwater permitting related matters. The Environmental Services Division will continue coordination efforts with other Divisions and Districts to facilitate stormwater permitting compliance.

NDOT will continue to keep open lines of communication with other government agencies and local stakeholders, including other MS4 entities (see EDU-03) and NDEP.

3.2.4 Practices and Program Elements - Training BMPs

Summarized below are the practices and program elements that make up NDOT's Training component of the Education, Outreach and Training Program. Two programmatic training BMPs were developed for this section: TRAIN-01 is NDOT's internal stormwater training program; and TRAIN-02 is the external training program. The BMP TRAIN-03 covers NDOT's internal herbicide, pesticide and fertilizer application training program and will be discussed in Section 3.11. The full BMP Fact Sheets for each practice, along with data collection and reporting requirements, and measurable goals and implementation schedule can be found in Section 6 of this document.

BMP - TRAIN-01 - Stormwater Certification Training - Internal

To effectively manage stormwater quality and mitigate potential pollution, NDOT has instituted a Stormwater Certification Training Program for its employees. Training sessions are eight hours in length and cover a variety of stormwater related topics.

BMP Objectives:

1) Educate all NDOT personnel who are directly involved in activities that may impact stormwater quality, observe an illicit discharge, or may generate or manage non-stormwater discharges.

In October 2011, NDOT began the implementation of its Stormwater Certification Training Program with the assistance of NDEP staff. The procedures and content of the program are summarized below.

1) <u>Topics Covered in NDOT's Stormwater Certification Training</u>

While NDOT expects the Training Program to evolve over time, its initial Stormwater Certification Training Program covers the following topics:

- Procedures for illicit discharge detection, investigation and field screening procedures
- Response to illicit discharges or illicit connections, improper disposal and dumping
- Procedures for outfall screening and investigation

- Authorized and non-authorized discharges as defined by the Permit
- Common pollutants of concern that may be associated with non-stormwater discharges
- BMPs employed to minimize the discharge of pollutants
- Requirements of the Permit
- NDEP's General Permit NVR100000 for Construction Activities for structural and nonstructural BMPs on construction sites
- Stormwater Pollution Prevention Plans ("SWPPPs")
- Compliance, enforcement, and contractual processes to minimize stormwater discharges
- Post-construction stormwater BMPs to prevent or minimize water quality impacts
- Design standards, maintenance requirements and planning as related to stormwater
- Potential sources of contaminants related to repair and maintenance activities
- Proper maintenance, housekeeping, and repair of BMPs to prevent discharges to the storm sewer system and Waters of the U.S.
- Spill prevention and response procedures
- Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system
- NDOT's pesticide, herbicide, and fertilizer application program
- As applicable, used oil and spent solvent management, fueling procedures, general good housekeeping practices, proper painting procedures, and used battery management

2) <u>Training Sessions</u>

Training is conducted at the District level by Certified Stormwater Trainers. District supervisors are required to identify employees that require training.

a. Certified Stormwater Trainers

To become a NDOT Certified Stormwater Trainer, each applicant must be recommended by their District Manager. After being selected into the Trainer Certification Program, each

applicant must attend an eight-hour stormwater BMP course and score an 80% or higher on a 50 question exam. In addition to successfully completing the stormwater BMP course, each prospective trainer will have the opportunity to participate in additional "Train the Trainer" courses provided by the NDOT Training Division to refine and improve upon their skills as an instructor.

b. Certified Stormwater Inspectors

NDOT is required to train personnel (within 12 months of hire) who are directly involved with activities that may impact stormwater quality, observe an illicit discharge, or that may generate or manage non-stormwater discharges. The employees involved in the following activities are required to be trained:

- Staff who are involved in activities that may impact stormwater quality
- Staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system
- Personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges
- Staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system
- Staff directly involved in managing non-stormwater discharges
- Staff directly involved in performing construction site inspections
- Staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review
- Staff directly involved in storm sewer system maintenance, street repair, and road improvement
- Staff who may be involved in waste disposal, spill prevention and response
- Staff working at industrial sites (excluding material source sites)

As with the Certified Stormwater Trainers, personnel are required to attend the same eight-hour stormwater training seminar and pass the 50 question final exam with a passing score of 80% or higher. A refresher training course is required at least once every three (3) years following successful completion of the initial 8-hour training seminar.

3) <u>Certification Training Records</u>

Upon the completion of the class, the Certified Trainers distribute the "sign-in-sheets", containing the information required for data entry and the exams for verification of successful completion, to NDOT's Environmental Services Division. When all information is received and reviewed by Environmental Services, the data is entered into a database of Stormwater Certified Employees and certification cards are prepared and returned to the Certified Trainer. The Certified Trainer signs and distributes the certification cards to the appropriate employees. The database of Stormwater Certified Inspectors contains the following information:

- First and Last Name
- Certification Number – assigned upon successful completion of the course
- Crew Number – assigned work station of certified employee
- District – district in which that work station is located
- Certification Date – date of successful completion
- Expiration Date – date the employee must complete the refresher (3 years)

NDOT's database is kept and maintained in the NDOT Environmental Services Division. Environmental Services will assist the Districts with coordinating refresher trainings when needed.

4) <u>Updating Course Content/Training Materials</u>

Updates to the training material will be developed and implemented by NDOT's Environmental Services Division. The training material will be reviewed annually to verify compliance with NDOT's MS4 Permit, Construction Stormwater General Permit, NDOT Specifications and Water Quality Manuals, input from NDEP, and feed-back from the training sessions.

BMP - TRAIN-02 - Contractor Stormwater Education and Training - External

NDOT partners with licensed contractors for the construction of portions of the highway systems in Nevada. Both the Department and its contractors share in the responsibilities of ensuring that highway projects are in compliance with state and federal water pollution control requirements, notably the Nevada Construction Site Stormwater General Permit. Contractor stormwater education and training is an important element in protecting state waterways from construction site stormwater pollutant runoff.

BMP Objectives:

1) Ensure that NDOT's contractors are adequately trained in construction site stormwater pollution control measures to prevent, or minimize to the MEP,

construction related impacts to receiving waterways from NDOT's construction projects.

Many contractors are presented with opportunities to attend various third party stormwater training programs, including Contractor Construction Site BMP Training Sessions held several times per year by the Associated General Contractors (AGC) in both Northern and Southern Nevada. Sessions are eight hours in length with each participant given a copy of the Nevada Construction Site General Permit and the Nevada Contractors Field Guide for Construction Site BMPs. Pending the exam at the end of the session, attendees are issued a certificate and if desired professional development hours (PDHs). Curricula include: the requirements of the Construction Site General Permit, SWPPPs, working in or near waterways, non-stormwater discharges, BMP selection and implementation, and site inspections. Additional construction site BMP training programs are hosted by Truckee Meadows Stormwater Permit Coordinating Committee and the Las Vegas Stormwater Management Program.

NDOT relies on the strength of its partnering program, from the beginning of a contract to the end, to help educate contractors in the importance of managing construction site stormwater runoff. Prior to the onset of construction, the Department's Environmental Services Division will provide a general overview of the project from a stormwater pollution control aspect, providing insight into both NDOT and contractor responsibilities. Although NDOT has stormwater inspection oversight during construction, inspections are conducted by both the contractor and NDOT on a regular basis in an effort to maintain stormwater regulatory compliance through open communication.

To assist contractors with the implementation of appropriate temporary pollution control measures on NDOT projects, contractors are required to utilize NDOT's Construction Site Best Management Practices (BMPs) Handbook. This document not only provides helpful recommendations for selecting appropriate construction site BMPs, but also serves as an educational tool by providing a general overview of stormwater regulations and construction site stormwater management.

Per contract specifications, NDOT requires its contractors to designate a Water Pollution Control Manager (WPCM) to assist with overseeing construction site stormwater pollution control measures. The WPCM is required to have a minimum of 8 hours of stormwater related training within the last three years that includes stormwater permitting requirements, implementation and inspection of temporary pollution control BMPs, recognition of construction activities that may impact stormwater quality, and identification of illicit discharges or illicit connections to the storm sewer system. Training certificates are to be submitted to the Resident Engineer prior to the start of construction activities.

To compliment the contractor training requirements in the special provisions, NDOT will begin efforts to develop a stormwater training/outreach program specifically for NDOT's contractors.

3.3 Inventory and Mapping Program

NDOT's Permit area includes the state and interstate highways, their associated right-of-ways, and other properties within the Department's jurisdictional boundary (e.g. maintenance yards). The total roadway system mileage maintained by NDOT is over 5,400 miles in length within a state that has a total area of 110,567 square miles (NDOT, 2012). Much of the Permit area is presently mapped electronically in Geographical Information System (GIS) by NDOT's Location Division/GIS Section. However, the geospatial coordinates for every major stormwater outfall, retention/detention basin, constructed wetland, oil/water separator, and other major post-construction stormwater pollution control BMPs statewide, are not collected or assembled into a single database.

The Permit requires NDOT to maintain maps of the MS4 Permit area showing the location of major outfalls. Furthermore, the Permit requires an inventory of all post-construction pollution control BMPs categorized by type and location. Presented in this subsection are the Permit requirements and NDOT's proposed enhancements to the Inventory and Mapping Program.

3.3.1 Permit Requirements for Inventory and Mapping

Applicable permit requirements for NDOT's Inventory and Mapping Program are listed below:

III.C. MS4 Maps and Outfalls

III.C.1. The revised SWMP shall include, at a minimum, maps of NDOT's MS4 for different sections of Nevada, including the location of any major outfall that discharges to Waters of the United States. An outfall is defined in Part VI of this permit.

III.I. Discharges from New Development and Redevelopment

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:

III.Q.1.a. Inventory Post-Construction Stormwater Pollution Control BMPs

III.Q.1.a.i NDOT shall develop and maintain an inventory of its post-construction stormwater pollution control BMPs;

III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and

III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major post-construction stormwater pollution control BMPs statewide as part of the revised SWMP.

Part VI. Definitions

VI.K. Outfall is defined at 40CFR§122.26 as: Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer ("MS4") outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe, which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit.

3.3.2 Existing Inventory and Mapping Program

NDOT's Location Division is comprised of the Field Survey, Office Survey, Geospatial Data Services and the GIS Sections. The GIS Section is responsible for maintaining the Department's maps and digital databases and manages the implementation and deployment of statewide GIS activities. The GIS Section collaborates with other NDOT divisions to maintain and develop GIS data and the GIS infrastructure. The Location Division's Map Sales Office is staffed by several Cartographers who create the Official Nevada Highway Map, 30 Minute Quad Maps, Local Area Maps and several other specialized Nevada state maps.

NDOT maintains a large volume of GIS records, maps and databases. The GIS Section performs spatial analyses, develops the Department's cartographical information, creates GIS applications and tools, oversees information and data management activities, and administers many of the Departmental databases. The GIS Section manages information pertaining to the NDOT's scope of activities, assets and boundary lines for counties and districts. Listed below are some of the currently available geodatabases maintained by the Location Division/GIS Section:

- Major roads in Nevada
- Road Weather Information System (RWIS) sites in Nevada
- Highway Advisory Radio (HAR) transmitter sites in Nevada
- Nevada historical markers
- County lines for the state of Nevada
- NDOT district boundaries
- Milepost reference points in Nevada

- Roadside assistant
- Active railroads in Nevada
- Interchange names/exit numbers

In addition to the GIS databases that the Department maintains, NDOT has the capability to generate a wide variety of maps using numerous GIS overlays from internal and external sources (e.g., NDEP's impaired waters GIS overlay). The Permit requests that the revised SWMP include "maps of NDOT's MS4 for different sections of Nevada, including the location of any major outfalls (as defined by the Permit) that discharge to "Waters of the United States". Aside from the fact that not every permit defined outfall is geospatially located, such a set of maps would require approximately 2,200 11x17 pages (assuming each page can show an area of 50 square miles with sufficient resolution to be illustrative).

NDOT's Right-of-Way Division in association with the GIS Section has recently developed a web based tool for the management of multiple activities within NDOT's roadway areas (i.e., the MS4 Permit area). NDOT's Right-of-Way Division staff oversees ownership and right-of-way actions for state road property across Nevada, along with nearly 700 encroachment permits processed each year. The management, handling and processing of various right-of-ways and engineering documents is now managed with the Integrated Right-of-Way Information Network (IRWIN) system. The web application helps staff to electronically manage all right-of-way areas, documents, property acquisition, property inventory, encroachment permitting and billboard permitting. Computer dashboards allow authorized internal users to complete permitting queries and obtain spatial information to accurately assess NDOT's multiple use constraints pertaining to managing and utilizing state road property.

NDOT has developed numerous maps useful to identify owned or operated MS4s discharging to Waters of the United States. The District maps and associated lists of NDOT facilities are located in Appendix A.

Appendix A - NDOT Maps

- Table A-1 District I Facilities
- Table A-2 District II Facilities
- Table A-3 District III Facilities

In the past year, NDOT's Environmental Services Division and Hydraulics Section have initiated detailed mapping efforts in the Clear Creek Watershed (Carson, NV) and the Lake Tahoe Basin. Detailed maps of outfalls and structural BMPs will be available for these areas in FY 2013. Other maps will be forthcoming in the next several years, perhaps extending into the next permit cycle.

3.3.3 Practices and Program Elements – Inventory and Mapping

In the coming years, NDOT's Environmental Services Division and Hydraulics Section, in association with the Location Division/GIS Section, plan to build a new GIS-based databases to record stormwater BMPs and outfalls throughout the state. A programmatic BMP Fact Sheet has been developed for Mapping and Inventory of Structural BMPs and Major Outfalls. The rationale, objectives and procedure are briefly summarized below. The full fact sheet is included in Section 6.

BMP - DEPT-10 - Mapping and Inventory of Structural BMPs and Major Outfalls

The Permit requires NDOT to develop and maintain maps and an inventory of stormwater pollution control BMPs and major outfalls (as defined by the Permit) for both existing infrastructure and new development (or significant redevelopment). NDOT's Location Division/GIS Section manages and coordinates the Department's GIS mapping and geodatabase activities within the state. Through staff and service providers, NDOT continues to build and refine the maps and locations of significant infrastructure, including stormwater structural BMPs and major outfalls required by the Permit. The intent of this BMP is to ensure that NDOT's stormwater mapping and inventory effort fulfills the requirements specified in the Permit.

BMP Objectives:

1) Develop a GIS based inventory of stormwater outfalls and post-construction (permanent) BMPs to assist with implementing various aspects of NDOT's SWMP.

The total roadway system mileage maintained by NDOT is over 5,400 miles in length within a state that has a total area of 110,567 square miles. Therefore, the mapping and inventory effort required to meet permit requirements is substantial and will require numerous years to fully accomplish. The Environmental Services Division and Hydraulics Section have initiated mapping efforts in select areas of the State, e.g. the Clear Creek Watershed and the Lake Tahoe Basin.

NDOT will continue its current GIS activities and efforts and build upon these efforts by developing a multi-year, implementable plan that takes into account specific data collection criteria (e.g., facility type, size, location, etc.) that will be recorded and mapped as part of its GIS program.

Once the criteria have been established, NDOT will develop a comprehensive list of all of the items that need to be recorded and mapped. Next, an implementation schedule will be created to determine the priority that these features are mapped and recorded into NDOT's GIS database. Updated maps will be made available to NDEP each permit cycle or upon request. The maps will include stormwater BMPs and stormwater infrastructure for existing areas, as well as for areas of new and significant development and redevelopment. Due to

the wide array of post-construction BMPs utilized on NDOT's projects, mapping and inventory efforts will focus on detention/water quality basins, stormwater treatment vaults (including media treatment devices) and mitigation wetlands.

In the event that NDOT contracts out mapping efforts with a service provider, NDOT's Location Division has prepared a document (Special Instructions for Survey, Mapping or GIS Consultants, Feb. 2007) that outlines uniform policies, procedures, and minimum standards for developing mapping and survey information for the Department.

Due to the extent and continual modification of NDOT's infrastructure, NDOT anticipates that this BMP will be an ongoing effort through multiple permit cycles.

3.4 Discharges to Impaired Waters, Lake Tahoe and Sanitary Sewers

Presented in this subsection are the programmatic details pertaining to impaired waters within the State of Nevada and NDOT's management practices and procedures to mitigate the influence of stormwater runoff to these waterbodies. Also included in this subsection are the requirements and actions required by the Permit for the Lake Tahoe Basin. Lastly, discharges from NDOT properties, roadways and ROWs to sanitary sewers are discussed.

3.4.1 Water Quality Impaired Waters

Section 303(d) of the Clean Water Act (CWA) requires that states develop and publish a list of waterbodies needing additional work beyond existing controls to achieve or maintain water quality standards. Water quality standards are to be established by the states (those with primacy) to protect beneficial uses (such as aquatic life, irrigation, warm water fisheries, etc.). Based on monitoring, waterbodies or individual stream reaches are then 303(d) listed if the water quality fails to meet the established beneficial use water quality standards.

Additionally, the CWA requires states to prioritize the 303(d) listing, identifying waterbodies in need of immediate action. For these priority 303(d) listed waterbodies, the states must assess the amount of pollution that a waterbody can receive without violating water quality standards. That amount of pollution is termed a "Total Maximum Daily Load" (TMDL). A TMDL waste load may be allocated among the different sources, including point sources, runoff sources and natural sources, with subsequent management actions implemented to reduce the pollution.

At this time, the most current list is *Nevada's 2010 303(d) Impaired Waters List* as part of the *Nevada 2008-2010 Water Quality Integrated Report* issued by NDEP Bureau of Water Quality Planning in December of 2012. Both this document as well as a list of Nevada's approved TMDLs can be found on NDEP's website (http://ndep.nv.gov/bwqp/index.htm).

3.4.2 Permit Requirements Relating to Impaired Waters, 303(d) and TMDL

Section II of the Permit outlines NDOT's requirement to address the influence of stormwater runoff to the impaired and TMDL listed waterbodies of the state. The Permit language is provided below.

Part II. Discharges to Water Quality Impaired Waters

II.A. Impaired Waters Listing on 303(d) List

II.A.1 NDOT must evaluate whether storm water discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e., impaired waterbody). Information concerning the most current 303(d) list can be found on NDEP's website. If NDOT has discharges meeting this criterion, or if there is a Total Maximum Daily Load ("TMDL") on receiving waters, the NDOT must comply with Part II.B. Part II does not apply if the NDOT does not have discharges meeting this criterion.

II.B. Total Maximum Daily Load

II.B.1 The NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, the NDOT must comply with Part II.B.2. If there is no TMDL, the NDOT must comply with Part II.B.3.

II.B.2 If a TMDL is approved for any waterbody into which the NDOT discharge, the NDOT shall:

II.B.2.a Determine and report whether the approved TMDL is for a pollutant likely to be found in storm water discharges from the NDOT's MS4;

II.B.2.b Determine and report whether the TMDL includes a pollutant wasteload allocation ("WLA") or other performance requirements specifically for storm water discharge from the NDOT's MS4;

II.B.2.c Determine and report whether the TMDL addresses a flow regime likely to occur during periods of storm water discharge;

II.B.2.d Assess whether the WLAs are being met through implementation of existing storm water control measures or if additional control measures are necessary;

II.B.2.e Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report. A schedule of implementation for all planned controls shall be included in the Stormwater Management Program ("SWMP") as described in Section IV.

II.B.2.f Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report;

II.B.2.g The Monitoring Program required by Section IV.A (should be Section V) shall be customized to determine whether the storm water controls are adequate to meet the WLA to the Maximum Extent Practicable ("MEP"); and,

II.B.2.h If no WLA currently exists, but is developed during the term of this permit, then the NDOT's BMPs outlined in the approved, updated SWMP are expected to be sufficient for the duration of the existing permit period; and

II.B.2.i The need for an iterative approach to control pollutants in storm water discharges is recognized. If NDOT determines that additional or modified controls are necessary, the SWMP will be updated pursuant to Part III.U.2 and will describe the type and schedule for the control additions and/or revisions, and an analysis that demonstrates the overall effectiveness.

II.B.3. NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, the NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

3.4.3 TMDL Listed Waters

Under Section II.B.1 of the Permit, NDOT must determine whether the MS4 Permit area discharges to a waterbody for which a TMDL has been developed and approved by NDEP. TMDLs have been established for 13 waterbodies throughout Nevada, often with multiple reaches. Presently, NDOT has not been issued a waste load allocation (WLA) for any TMDL; however, a WLA associated with the Tahoe TMDL is anticipated in the near future. The Nevada waterbodies that have TMDLs are summarized in Table 3.4-1, along with the location, ID Number and water quality impairment. Each of the TMDL listed waters are briefly summarized below.

Table 3.4-1 Nevada Approved TMDLs

Waterbody	Location/Reach	TMDL Listed Impairment
Bryant Creek	Bryant Creek Above Doud Springs (NDEP Station BCU)	Total Arsenic, Total Iron, Total Suspended Solids (TSS), Turbidity
	Bryant Creek Below Confluence of Mountaineer Creek (LRWQCB Station 25)	Total Arsenic, Total Iron, Total Nickel
Carson River (East Fork)	Riverview Mobile Home Park to Stateline	Turbidity
Carson River	Mexican Gage to Stateline for both East and West Forks	Total Phosphorus
	New Empire Bridge to Mexican Gage	Total Phosphorus, Turbidity
	Weeks Bridge to New Empire Bridge	Total Phosphorus, TSS
	Mexican Gage to Muller Ln. for both East and West Forks	TSS
	Mexican Gage to Stateline on the West Fork and to Riverview Mobil Home Park on the East Fork	TSS
	Weeks Bridge to Dayton	Turbidity
Dixie Creek	Dixie Creek	Temperature
Hanks Creek	Hanks Creek	Temperature
Hanks Creek (South Fork)	Hanks Creek (South Fork)	Temperature
Owyhee River (East Fork)	Wildhorse Reservoir to Mill Creek	Total Iron, Total Phosphorus, Temperature, TSS, Turbidity

Waterbody	Location/Reach	TMDL Listed Impairment
	Mill Creek to Duck Valley Indian Reservation	Dissolved and Total Copper, Total Iron, Total Phosphorus, Temperature, TSS, Turbidity
Mill Creek	Above East Fork Owyhee River	Dissolved and Total Cadmium, Dissolved and Total Copper, Dissolved Oxygen, Total Iron, pH, Total Phosphorus, Temperature, TSS, Turbidity, Total Dissolved Solids (TDS)
Humboldt River	Osino to Palisade	Total Phosphorus, TSS
	Palisade to Battle Mountain	Total Phosphorus, TSS
	Battle Mountain to Comus	Total Phosphorus, TSS, TDS
	Comus to Imlay	Total Phosphorus, TSS, TDS
Las Vegas Wash	Las Vegas Wash at North Shore Road	Ammonia, Total Phosphorus
Truckee River	Lockwood	Total Nitrogen, Total Phosphorus, TDS
Lower Virgin River	Stateline to Mesquite, NV	Total Boron
	Mesquite, NV to Lake Mead	Total Boron
Walker River (East Fork)	B-1445 to Confluence with West Fork of the Walker River	TSS
Walker River	Confluence of West and East Forks to Walker River Indian Reservation Boundary	TSS
Lake Tahoe	Entire Lake	Fine Sediment Particles, Total Nitrogen, Total Phosphorus
Walker Lake	Entire Lake	TDS

Bryant Creek TMDLs

In November 2003, NDEP established TMDLs on Bryant Creek for five constituents: total arsenic, total iron, total nickel, turbidity, and total suspended solids (TSS). Bryant Creek is located on the California/Nevada border, between Gardnerville and Topaz Lake, Nevada. Bryant Creek drains the Leviathan Mine area, location of the infamous 1860s open pit sulfur mine. The TMDLs are enforceable on reaches of Bryant Creek above Doud Springs (NDEP Station BCU) and Bryant Creek below the confluence of Mountaineer Creek (LRWQCB Station 25). NDOT does not own or maintain any facilities that impact this waterway.

Carson River TMDLs

In September 2007, NDEP established TMDLs on the Carson River for three constituents, total phosphorus, total suspended solids, and turbidity. The Carson River consists of both east and west forks, both originating in the Sierra Nevada Mountains of Northern Nevada. The Carson River flows through Carson City, ultimately terminating into the Carson Sink, i.e. Stillwater National Wildlife Refuge. The TMDLs were instituted to reflect the "desired goal" recommended by EPA in the water quality criteria books to protect propagation of aquatic life (Carson River TMDL, 2007). There are several reaches (see Table 3.4-1) that are in proximity to NDOT's roadways and are potentially applicable for this Permit. NDOT owns and maintains several roadways along reaches of the Carson River including SR-88, US-395, and US-50.

Dixie and Hanks Creeks TMDLs

In December 2010, the NDEP established TMDLs on the Dixie and Hanks Creeks for water temperature. Dixie and Hanks Creeks are both tributaries to the Humboldt River in northeast Nevada, situated on lands managed by the U.S. Bureau of Land Management (BLM), located some 30-50 miles apart, in separate watersheds. The TMDL rationale notes that the "key to the approach taken in this TMDL is the fact that riparian vegetation has a direct effect on stream temperature" (Dixie and Hanks Creeks Temperature TMDLs, December 2010). NDOT does not own or operate any facilities that impact these waterways.

East Fork (EF) Owyhee River and Mill Creek TMDLs

In June 2005, the NDEP established TMDLs on the EF Owyhee River and Mill Creek for the following constituents: total and dissolved cadmium, total and dissolved copper, dissolved oxygen, total iron, pH, total phosphorus, temperature, total dissolved solids, total suspended solids, and turbidity. The Owyhee River and Mill Creek are located in north central Nevada, generally flow northward toward the Oregon-Idaho border and are ultimately tributaries to the Snake River. The watershed is sparsely populated, with headwaters near Owyhee, NV. NDOT owns and maintains SR-225 along these waterways.

Humboldt River TMDLs

In 1993, NDEP modified the Nevada 208 Plan revising the TMDLs and load allocations for the Humboldt River. The final amendment resulted in new TMDL limits on the Humboldt River for the constituents' phosphorus, total dissolved solids, and total suspended solids. The Humboldt River originates from several headwater areas in northern Nevada, including the East Humboldt Range and Ruby, Independence, and Jarbidge Mountains. The Humboldt River flows west-southwest across the northern portion of the state and empties into the Humboldt Sink north of Fallon. The Humboldt River is approximately 330 miles in length, is the fourth longest river in the United States, generally parallels Interstate 80 (I-80), and has hundreds of miles of tributaries that drain many significant (and sparsely populated) mining districts. NDOT owns and maintains several roadways along the Humboldt River TMDL reaches (see Table 3.4-1), including I-80, US-95 and SR-278.

Las Vegas Wash TMDLs

In 1995, the NDEP established TMDLs on the Las Vegas Wash (LVW) for two constituents, ammonia and total phosphorus. The Las Vegas Wash is a network of ephemeral streams and semi-dry washes in the greater Las Vegas area. The Las Vegas Wash (600 square mile area) contains the largest concentration of people, housing and pavement in the state. The Las Vegas valley is home to the three largest incorporated cities in Nevada: Las Vegas, Henderson and North Las Vegas. The flow in the Las Vegas Wash is largely attributable to shallow groundwater flow, reclaimed water from wastewater treatment plant effluent, and stormwater and urban runoff. In October 2003, NDEP reevaluated the 1995 TMDLs by analyzing new sampling data. The 2003 review concluded that a better understanding of

the tributary rivers, as well as the dynamics of the LVW, was needed before any changes or revisions to the TMDLs could be made. NDOT owns and maintains multiple facilities that intersect drainages associated with the Las Vegas Wash, notably I-15 and I-515.

Lower Virgin River TMDLs

The Virgin River originates in Utah (north of Zion National Park) and flows in a southwesterly direction through St. George, Utah, through the northwestern corner of Arizona, into the Virgin River Gorge and enters southern Nevada near the town of Mesquite. The Virgin River ultimately empties into the Colorado River at Lake Mead reservoir. In January 2003, NDEP initiated the TMDL process for the "Lower Virgin River" because of excess boron concentrations. Since 1990, grab samples collected at the Mesquite and Riverside reaches consistently indicated that the Lower Virgin River exceeded the boron standard for beneficial use for irrigation. However, the Lower Virgin River TMDLs for total boron have never been implemented because the NDEP concluded that without load reduction in Utah and Arizona, the boron standard cannot be met in Nevada's portion of the Virgin River (Lower Virgin River Boron TMDLs, 2003). Although I-15 is within the general proximity (2 to 10 miles) of the Lower Virgin River, NDOT's largest influence may be SR-170, which parallels the river for a 5-mile stretch between Mesquite and Riverside, NV.

Truckee River TMDLs

In February 1994, NDEP established TMDLs on the Truckee River for total nitrogen (TN), total phosphorus (TP), and total dissolved solids. The Truckee River originates at Lake Tahoe, flows through northern California, the Cities of Reno and Sparks, NV and ultimately empties into Pyramid Lake after flowing approximately 120 miles. Originally, the intent of the Truckee River TMDL was to minimize dissolved oxygen (DO) violations observed during the 1988 low flow year. The 1994 TMDL specifically addresses TN and TP because of the correlation between nutrient loads, algal breakouts, and the resulting depletion of DO. The TMDL compliance point is set at Lockwood, because the majority of controllable pollutant sources (Steamboat Creek, North Truckee Drain and the Truckee Meadows Water Reclamation Facility) are upstream. NDOT owns and maintains several roadways along the Truckee River, including I-80, SR-655, and FR-WA16. Presently, the Truckee River TMDL is under third party review.

Walker River TMDLs

Similar to the Humboldt River TMDL, in 1995 NDEP modified the 1993 208 Plan to amend the TMDLs and load allocations on the Walker River. The final amendment resulted in TMDLs on the Walker River for only one constituent, total suspended solids. The Walker River originates in the Sierra Nevada Mountains east of Bridgeport, California, flows generally eastward to Topaz Lake, through Yerington and into Weber Reservoir, through Schurz, and terminates into Walker Lake (north of Hawthorne, Nevada). NDOT owns and maintains several roadways along the two TMDL reaches (Table 3.4-1) including SR-340, SR-827, SR-208, and US-95.

Walker Lake TMDLs

In March 2005, the NDEP established a TMDL on Walker Lake for one constituent, total dissolved solids (TDS). Walker Lake, situated north of Hawthorne, Nevada is the terminus for the Walker River and has no outlet. The lake supports recreational activities, is the home to threatened fish, and a vital stop for migratory birds. The TMDL and associated load allocations were established to curb the ever-increasing TDS levels that have stressed the fishery and other aquatic life in the lake and changed the resident fish population (Walker Lake TMDL – Total Dissolved Solids, February 2005). NDOT owns and maintains three roadways near Walker Lake: US-95, SR-362, and SR-359.

Lake Tahoe TMDLs

In August 2011, the NDEP established TMDLs on Lake Tahoe for the constituents: fine particles, total nitrogen, and total phosphorus. The purpose of the Lake Tahoe TMDL is to develop a plan for restoring Lake Tahoe's historic transparency and clarity (Final Lake Tahoe Total Maximum Daily Load, August 2011). NDOT owns and maintains several roadways within the Lake Tahoe Basin including US-50, SR-28, and SR-431.

3.4.4 Practices and Program Elements – TMDL Listed Waters

The Permit requires NDOT to determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must then:

1) Determine and report whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from the NDOT's MS4 (II.B.2.a)

2) Determine and report whether the TMDL includes a pollutant wasteload allocation or other performance requirements specifically for stormwater discharge from the NDOT's MS4 (II.B.2.b)

Wasteload or load allocations for stormwater runoff are not presently a part of any of the approved TMDLs in the state. Therefore, Permit Sections II.B.2.c through II.B.2.i do not apply to NDOT at this time.

Under Permit Section II.B.2.a, NDOT must still identify the roadways near any TMDLs and determine and report whether the TMDL is for a pollutant likely to be found in stormwater discharges from the NDOT's MS4. As discussed in Section 3.4.3 and summarized in Table 3.4-1, TMDLs have been established for 13 waterbodies throughout Nevada. It has yet to be determined how many of the TMDLs are within NDOT's MS4 Permit area and possibly influenced by stormwater runoff. A BMP (DEPT-08, TMDL Listed Waters) for identifying, assessing and reporting NDOT's influence on TMDL listed waters of the state has been developed and is included in Section 6 of this document and is briefly summarized below.

BMP - DEPT-08 - TMDL Listed Waters

A preliminary assessment utilizing GIS capabilities suggests there are several locations where NDOT's roadways intersect or parallel a waterbody for which a TDML has been developed. The rationale behind this BMP is to determine if stormwater runoff from NDOT owned and maintained roadways and ROW contribute to, or aggravate, the TMDL listed water quality impairment. If so, NDOT will begin the process of evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

BMP Objectives:

1) To determine if stormwater discharge from NDOT's MS4 Permit area contributes directly or indirectly to the listing of a waterbody that has an NDEP approved TMDL.

2) To mitigate stormwater discharge from NDOT's MS4 into NDEP approved TMDL listed waterways in regards to constituents of concern.

The general approach to be used is similar to that of DEPT-07 (Impaired Waters). The procedure to conduct this analysis will be developed, altered and refined during this permit cycle and progress reported in the Annual Report to NDEP. NDOT will perform a comparative analysis of the current roadway Geographic Information System (GIS) database and NDEP's current TMDL GIS database to ascertain areas or points where NDOT owned roadways either intersect or parallel the TMDL waterbodies. Next, the TMDL water quality impairments can be compared to the constituents that are commonly found in stormwater runoff from NDOT roadways. At this point, the instances can likely be reduced to a small number and the data reviewed on a case by case basis. Data to be considered could include water quality data, flow, geochemical and geological data, precipitation and NDOT's footprint.

In the event that the final analysis indicates that stormwater runoff within NDOT's MS4 Permit area contributes directly or indirectly to a waterbody that has an approved TMDL, BMPs will be identified, created, or modified for possible inclusion into the SWMP.

Due to the large number of variables and complexity of this analysis, this task is scheduled to be accomplished over a period of several years. It is anticipated that DEPT-08 will be implemented simultaneously with DEPT-07.

The methodology of the procedures and progress will be summarized in NDOT's Annual Report to NDEP.

3.4.5 303(d) Listed Waters

Under Section II.A.1 of the Permit, NDOT must evaluate whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the

most current 303(d) list (*Nevada's 2010 303(d) Impaired Waters List* issued December, 2012). Common impairments include nutrients, metals, dissolved oxygen, water temperature, turbidity, and bacteria. Altogether there are over 200 listings distributed over eleven hydrographic regions of the state (Table 3.4-2).

Table 3.4-2 Summary of Nevada's 303(d) List of Impaired Waters (2006 List)

Hydrographic Region	Number of Impaired Waterbody Listings	Parameters Responsible for 303(d) Impairments
Northwest	3	pH, Total Phosphorus
Black Rock Desert	6	pH, Dissolved Oxygen, Total Phosphorus, Chloride, Water Temperature, Total Dissolved Solids, Boron, and Fluoride
Snake River Basin	39	Iron, Manganese, pH, Water Temperature, Turbidity, Total Dissolved Solids, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Iron, Zinc, *Escherichia coli,* Manganese, Nickel, Nitrate, Arsenic, Fecal Coliform, and Dissolved Oxygen
Humboldt River Basin	60	Water Temperature, Total Phosphorus, Zinc, Fluoride, Iron, Selenium, Total Dissolved Solids, *Escherichia coli*, Turbidity, Boron, Manganese, Dissolved Oxygen, Fecal Coliform, Cadmium, Copper, Iron, pH, Arsenic, and Mercury in Fish Tissue
Steamboat Creek	11	Dissolved Oxygen, Water Temperature, Iron, Zinc, pH, *Escherichia coli*, Arsenic, Boron, Iron , Zinc, Mercury in Fish Tissue, Fecal Coliform, Iron, and Total Phosphorus
Tahoe Basin	13	Total Phosphorus, Iron, Zinc, Dissolved Oxygen, pH, Water Temperature, and Turbidity
Truckee River Basin	9	*Escherichia coli*, pH, Total Phosphorus, Ortho-Phosphorus, Sulfates, Total Dissolved Solids, Total Suspended Solids (TSS), Turbidity, Nitrates, Selenium, Sulfates, and Water Temperature
Carson River Basin	28	Mercury in Fish Tissue, Mercury in Sediment, Mercury in Water Column, Total Phosphorus, Water Temperature, Turbidity, *Escherichia coli*, Iron, Dissolved Oxygen, Zinc, Total Suspended Solids, Manganese, Arsenic, Boron, and pH
Walker River Basin	14	Total Phosphorus, Total Dissolved Solids, Water Temperature, Arsenic, Boron, Dissolved Oxygen, pH, *Escherichia coli*, Iron, and Selenium
Central Region	5	pH, Mercury in Fish Tissue, Water Temperature, and *Escherichia coli*
Colorado River Basin	23	Water Temperature, Total Dissolved Solids, Boron, Fluoride, Selenium, pH, Turbidity, Arsenic, Manganese, Total Phosphorus, Iron and *Escherichia coli*

Northwest Hydrographic Region

The Northwest hydrographic region is located in northern Washoe and Humboldt Counties. This hydrographic region has three 303(d) impaired waterbodies: Boulder and Wall Canyon Reservoirs and Cove Creek.

Black Rock Desert Hydrographic Region

The Black Rock Desert Region includes most of central Washoe and Humboldt Counties and the northwest portion of Pershing County. This region has the following six 303(d) listed impaired waterbodies and reaches: Bilk Creek and Squaw Creek Reservoirs, East Fork of the Quinn River, and Buffalo, Smoke and Soldier Meadows Hot Springs Creeks.

Snake River Hydrographic Region

The Snake River Region encompasses all of the northern most portion of Elko County and a portion of the northeast corner of Humboldt County along the Idaho border. There are thirty-nine 303(d) listed impaired waterbodies and reaches in this hydrographic basin. Waterbodies include the Jarbidge and Owyhee Rivers, Trout, Mill and Salmon Falls Creeks, and Wildhorse Reservoir.

Humboldt River Hydrographic Region

The Humboldt River Region follows the course of the river, from the headwaters in Elko County to the terminus in Churchill County. The Humboldt River Region has sixty 303(d) listed impaired waterbodies and reaches. Waterbodies include Chimney and Rye Patch Reservoirs, Humboldt, Little Humboldt and Mary's Rivers, and Dixie, Susie and Sheep Creeks.

Steamboat Creek Hydrographic Region

Located in the Truckee Meadows and Washoe Valley areas in western Nevada, this region has eleven 303(d) listed impaired waterbodies and reaches, which includes Davis and Washoe Lakes, and Galena and Steamboat Creeks.

Tahoe Basin Hydrographic Region

The Tahoe Region has thirteen 303(d) listed impaired waterbodies and stream reaches, which include Edgewood, First, Second, and Third Creeks.

Truckee River Hydrographic Region

The Truckee River Region lies within the southern part of Washoe County and small portions of western Churchill and Pershing Counties and has nine different waterbodies and stream reaches on the 303(d) list. Impaired waters include the Truckee River, Sparks Marina, and Alum, Chalk, and Hunter Creeks.

Carson River Hydrographic Region

The Carson River Region has twenty-eight impaired waterbodies and stream reaches on the State's 303(d) list. This hydrographic basin generally follows the course of the Carson River, from the headwaters in the Sierra Nevada Mountains, through Douglas and Churchill Counties and northward into lower Pershing County. Impaired waters in this region include several reaches of the Carson River, Lahontan Reservoir, and Stillwater Marsh.

Walker River Hydrographic Region

The Walker River Region contains fourteen impaired waterbodies and stream reaches on the state's 303(d) list. Like the Carson River, this hydrographic basin generally follows the course of the Walker River, from the headwaters in the Sierra Nevada Mountains, through Lyon County and Mineral County. Impaired waterbodies include Walker River, Walker and Topaz Lakes, Desert Creek, and North Pond in the Mason Valley Wildlife Area.

Central Hydrographic Region

The Central Region is the largest region in the state, spanning most of Nye, Eureka, Lincoln and Esmeralda Counties. The Central Region has the following five 303(d) listed impaired waterbodies: Cave Lake, Comins Reservoir, East and North Creeks, and Ruby Marsh. Comins Reservoir.

Colorado River Hydrographic Region

The Colorado River Region has twenty-three different 303(d) listed impaired waterbodies and stream reaches. The region includes most of the lower tip of Nevada in Clark and Lincoln Counties. Impaired waters include the Virgin, Muddy, and Colorado Rivers.

3.4.6 Practices and Program Elements – 303(d) Listed Waters

With respect to 303(d) listed Waters of the State, the Permit requires NDOT to:

1) Determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters (II.B.3)

2) If a waterbody is listed, the NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed (II.B.3)

3) Evaluate whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e., impaired waterbody) (II.A.1)

4) Evaluate possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation (II.B.3)

As discussed in Section 3.4.5 and summarized in Table 3.4-2, there are over 200 impaired listings within eleven different hydrographic basins across the state of Nevada. Preliminary estimates suggest there are several locations where NDOT's roadways, right-of-ways, and maintenance facilities intersect or parallel one or more of the 303(d) listed impaired waterbodies. To date, NDOT's assessments have been limited primarily to monitoring and analysis of impacts to 303(d) waters related to active construction projects.

A comprehensive inventory of NDOT facilities and their associated discharge points into an impaired waterbody is being developed. Furthermore, it is unknown whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a

waterbody. A BMP for identifying, assessing and reporting NDOT's influence on TMDL listed Waters of the State has been developed (DEPT-07, Impaired Waters). This BMP outlines the plan in place to address these and other issues related to 303(d) listed impaired waterbodies. A brief description of the BMP is summarized below. The complete BMP fact sheet description, including an implementation schedule, responsibilities and reporting requirements is included in Section 6 of this document.

BMP - DEPT-07 – Impaired Waters

The Permit requires NDOT to evaluate whether stormwater discharges from any part of the MS4 Permit area contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e., impaired waterbody). NDOT is required to include a section in the Annual Report describing the condition(s) for which the water(s) was listed, and to evaluate possible BMPs that might be practicably implemented.

Nevada's current 303(d) within NDEP's 2008-2010 Water Quality Integrated Report (WQIP) has 211 separate listings of impaired waters located across the State. These waterbodies and stream reaches are impaired for a variety of water quality constituents, many of which can be present in stormwater runoff. Preliminary assessments suggest there are several locations where NDOT's roadways intersect or parallel a number of the listed impaired waters. During the evaluations, if it is determined that stormwater discharge from NDOT's MS4 contribute to, or aggravate, the 303(d) listed water quality impairment, NDOT will begin the process of evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

During the Permit cycle, NDOT will evaluate whether stormwater discharges from the MS4 Permit area contribute directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e., impaired waterbody). The most recent 303(d) list has 211 separate listings of impaired waters across the State. These waterbodies are impaired for a variety of water quality constituents; many of which could be present in stormwater runoff. Preliminary estimates suggest several locations where NDOT's roadways, ROW or maintenance facilities intersect or parallel one or more of the impaired waters.

The rationale behind this BMP is to determine if stormwater runoff from NDOT owned and maintained roadways and ROWs contribute to, or aggravate, the individual 303(d) listed water quality impairments. If so, NDOT will begin the process of evaluating possible BMPs that might be practicably implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

BMP Objectives:

1) To determine if stormwater discharge from NDOT's MS4 Permit area contributes directly or indirectly to the listing of a waterbody on Nevada's most current 303(d) list

2) To mitigate stormwater discharge from NDOT's MS4 Permit area into current 303(d) listed waterways in regards to the constituents of concern.

The procedure to conduct this analysis will be developed and refined (as necessary) during this permit cycle. It is expected, however, that NDOT will perform a comparative analysis of the current roadway Geographic Information System (GIS) database and NDEP's current 303(d) list GIS database to ascertain data points where NDOT owned roadways either intersect or parallel waterbodies that are included in the 303(d) Impaired Waters List. The proximity of NDOT properties and activities to the impaired waters is expected to greatly narrow the requirement for analysis and scrutiny.

Next, the 303(d) water quality impairments can be compared to the constituents that are commonly found in stormwater runoff from NDOT roadways. At this point, the instances can likely be reduced to a small number and the data reviewed on a case by case basis. Data to be considered could include water quality data, flow, geochemical and geological data, precipitation, and NDOT's footprint.

In the event that the final analysis indicates that stormwater runoff within NDOT's MS4 Permit area contributes directly or indirectly to a 303(d) waterbody, BMPs will be identified, created or modified for possible inclusion in the SWMP.

Due to the large number of variables and complexity of this analysis, this task is scheduled to be accomplished over a period of several years. NDOT, however, will take a hydrographic region approach to this assessment.

The methodology pertaining to the procedures and BMP progress will be summarized in NDOT's Annual Report to NDEP.

3.4.7 Lake Tahoe TMDL

The NDOT owns and maintains approximately 39 miles of roadway within the Lake Tahoe Basin. These 39 miles are composed of approximately 14 miles of US-50, SR-760 (Elks Point Road); 16 miles of SR-28; 6 miles of SR-431 (Mt. Rose); and, 3 miles of SR-207 (Kingsbury Grade). Since 1995, NDOT has been planning, designing, and constructing projects associated with its Environmental Improvement Master Planning (EIMP) program for the Tahoe Basin. NDOT has implemented more than $50 million worth of projects in the Tahoe Basin over the past 11 years (NDOT, 2011).

Since the 1960's, Lake Tahoe water clarity data has demonstrated a steady loss in transparency primarily attributed to fine sediment particle loading from urbanized stormwater runoff. To address this issue, NDEP collaborated with the California Regional

Water Quality Control Board, Lahontan Region (Lahontan Water Board) to develop the Lake Tahoe TMDL. The Permit has incorporated language and requirements for NDOT to meet the requirements of the Lake Tahoe TMDL (approved by the EPA in August, 2011) for nitrogen, phosphorus, and fine sediment particles.

3.4.8 Permit Requirements Pertaining to the Lake Tahoe TMDL

Section II.C of the Permit outlines NDOT's requirements with respect to the Lake Tahoe TMDL. The Permit language is provided below.

II.C. Discharges to Lake Tahoe and Tributaries to Lake Tahoe

II.C.1. The Lake Tahoe TMDL, scheduled to be adopted by EPA in 2011, identifies urban stormwater as the primary source of fine sediment particles and phosphorous that impairs the clarity of Lake Tahoe. The TMDL Implementation Plan identifies NDOT as a responsible party that will be required to implement controls to reduce fine sediment particle and nutrient loads consistent with specified TMDL WLAs for stormwater.

II.C.2. Within one year of NDEP's approval of the Lake Tahoe TMDL, NDOT shall enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL. The MOA shall establish programmatic activities and responsibilities to which NDOT shall commit for implementation of the TMDL. Anticipated elements for inclusion in the MOA include, but are not limited to: a method for calculating and establishing baseline WLAs for stormwater; pollutant load reduction milestone schedule based on TMDL allocations; a Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones; and participation in the Lake Clarity Crediting Program and Regional Stormwater Monitoring Program.

II.C.3. Part II.C of this permit may be reopened for modification by NDEP in order to incorporate WLAs for stormwater or to amend provisions requiring consistency with changes to the Lake Tahoe TMDL or the MOA.

3.4.9 Practices and Program Elements – Lake Tahoe TMDL

NDOT is required to enter into a Memorandum of Agreement (MOA) with NDEP for the implementation of the Lake Tahoe TMDL within one year of TMDL approval. NDOT's Hydraulics Section oversees the Department's project development within the Basin and therefore will take the lead role in negotiating the MOA. NDEP intends to implement the urban uplands source category component of the TMDL through MOAs with urban stormwater jurisdictions including Douglas and Washoe Counties and NDOT. These MOAs are intended to establish programmatic activities and responsibilities to which NDOT and other agencies will commit for implementation of the Lake Tahoe TMDL.

NDOT will initiate a procedure to establish the MOA with NDEP and comply with the requirements of the Permit. Since action is required, a BMP Fact Sheet for the Lake Tahoe TMDL Memorandum of Agreement was developed (DEPT-09). The rationale, goals and

activities are summarized below. The complete BMP Fact Sheet, along with the reporting requirements and implementation schedule can be found in Section 6.

BMP - DEPT-09 - Lake Tahoe TMDL Memorandum of Agreement

The USEPA approved NDEP's Lake Tahoe TMDL in August of 2011. Under the CWA, the NDEP must establish TMDLs for impaired water of high priority. Under the Permit, NDOT is required to enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL within one year of TMDL approval. The purpose of the MOA is to establish NDOT's programmatic activities and responsibilities for implementation of the TMDL. Conditions and actions to be included in the MOA are presently under negotiation. The rationale behind this BMP is to define NDOT's Lake Tahoe TMDL related responsibilities, conditions of the MOA, and determine how best to carry out the necessary actions for compliance with the Permit and the TMDL, ultimately improving the water quality of the Lake.

BMP Objectives:

1) Enter into an MOA with NDEP for TMDL implementation in an effort to improve the clarity of Lake Tahoe through stormwater pollutant load reduction.

As required by the Permit, NDOT anticipates that a MOA between the Department and NDEP can be developed for the implementation of the Lake Tahoe TMDL. The MOA will outline NDOT's programmatic activities and responsibilities for implementation of the TMDL. Anticipated elements for inclusion in the MOA include:

1) Pollutant load reduction milestone schedule based on TMDL allocations.

2) A Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones.

3) Participation in the Lake Clarity Crediting Program and the Regional Stormwater Monitoring Program.

NDOT may partner with Washoe and Douglas Counties to assist in implementing the Lake Tahoe TMDL.

3.4.10 Discharges to Sanitary Sewers

Section III.E.1 of the Permit requires NDOT to have written confirmation from the utility or agency for any stormwater discharges into facilities treating domestic sewage that are not owned or operated by NDOT. NDOT's Environmental Section has contacted each District to determine if there are any existing connections from NDOT's storm drain systems to facilities treating domestic sewage. District 1 (Las Vegas, Tonopah) and District 3 (Ely, Elko, Winnemucca) reported no connections. District 2 has identified two connections, one in Incline Village and one in Virginia City, Nevada. The Virginia City connections are

associated with several drop inlets along SR 341 that flow to the Virginia City Wastewater Treatment Facility. The Incline Village connection is associated with a maintenance yard material de-watering facility, in which the decant water from storm sewer facility pumping operations is disposed into the Incline Village General Improvement District (IVGID) sewer. Letters from the two utilities authorizing the discharge are included in Appendix C of this SWMP document.

3.4.11 Permit Requirements for NDOT Discharges to Sanitary Sewers

The specific Permit language covering NDOT stormwater discharges to sanitary sewers is provided below.

III.E. Discharges into Sanitary Sewer Systems

III.E.1. For discharges into facilities treating domestic sewage, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, that are not owned or operated by NDOT, the following shall be provided by NDOT:

III.E.1.a Written and signed confirmation from each facility authorizing the discharge of pollutants into the facility's sanitary sewer system; and,

III.E.1.b All authorizations obtained by NDOT shall be included with the revised SWMP.

3.4.12 Practices and Program Elements – Discharges to Sanitary Sewers

For permit compliance, NDOT should identify any stormwater connections to sanitary sewers on an on-going basis. Once identified, an authorization letter must be obtained and included in any revisions to the SWMP document. Since action is required, a programmatic BMP Fact Sheet for Discharges into Sanitary Sewer Systems was developed (DEPT-11). The rationale, goals and activities are summarized below. The full BMP Fact Sheet along with the reporting requirements and implementation schedule can be found in Section 6 of this document.

BMP - DEPT-11 - Discharges into Sanitary Sewer Systems

NDEP regulates stormwater discharges into sanitary sewers to protect surface water quality in the event of rain driven sewer overflows and wastewater treatment plant upsets. Section III.E.1 of the Permit requires NDOT to have written confirmation from the utility or agency for any NDOT stormwater discharges into facilities treating domestic sewage that are not owned or operated by the Department. Presently, NDOT has identified two such connections and has obtained letters authorizing the discharge from the utilities treating the water. This BMP formalizes the ongoing effort to identify such discharges and to obtain the required approval letters for permit compliance.

BMP Objectives:

1) To identify instances of disposal of NDOT stormwater runoff into sanitary sewer systems within the MS4 Permit area.

NDOT periodically asks the Districts to report any instances of stormwater disposal into the sanitary sewer system. Under this BMP, the request to the Districts will be made annually. This will assist in the timely identification of any new connections resulting from new construction activities. In the event that any new connections are located or planned, NDOT will immediately solicit an approval letter from the appropriate wastewater treatment utility or agency. New connections will be reported to NDEP and included in the Annual Report.

3.5 Construction Site Program

Summarized in this sub-section is NDOT's Construction Site Program, a comprehensive statewide program that consists of a collection of BMPs, guidance documents, inspection practices, requirements, controls and methods that when considered collectively, mitigate the adverse effect of stormwater runoff from construction sites within the MS4 Permit area. Many of these program elements and obligations apply to both the Department and its contractors.

The cornerstone of the Construction Site Program is NDOT's Construction Site Best Management Practices (BMPs) Manual (NDOT, 2006). This guidance document assists both staff and contractors with understanding and navigating the requirements of the Nevada Stormwater General Permit (NVR1000000; NDEP, 2007). Described in this guidance manual are construction site permit requirements, minimum site BMPs (selection, implementation, operation and maintenance), and construction site source control practices. Also applicable to the Construction Site Program is NDOT's Planning and Design Guide Manual (NDOT, 2006). This manual is essential to project planning and permanent erosion control design.

Presented in this section are the Permit requirements, the construction design and site plan review process, structural and non-structural BMPs for construction sites, compliance with the Nevada Stormwater General Permit, site inspections and enforcement, and the practices and program elements for NDOT's Construction Site Program.

3.5.1 Permit Requirements for NDOT's Construction Site BMP Program

Section III.A of the Permit requires the updated SWMP to describe NDOT's Construction Site BMP Program. Listed in Section III.G of the Permit are the specific requirements for the Construction Site Program. Also applicable to the Department's Construction Site Program are the Permit requirements relating to contractors performing construction

activities for NDOT within the MS4 Permit area (Section III.H). Presented below is the applicable permit language for the Construction Site Program:

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.e Construction Site Best Management Practices ("BMPs") Program;

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i	Review of construction site plans
III.G.1.a.ii	Implementation and maintenance of structural and non-structural BMPs
III.G.1.a.iii	Site inspections and enforcement;
III.G.1.a.iv	A description of non-structural and structural BMPs for construction sites;
III.G.1.a.v	A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and
III.G.1 .a.vi	A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities.

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under

NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

3.5.2 Project Design and Review of Construction Site Plans

In January 2006, NDOT issued the Planning and Design Guide (PDG) to provide guidance for developing projects around stormwater constraints, incorporating permanent stormwater quality and low impact development (LID) controls into new project designs, and construction planning during the design phase. The PDG addresses key regulatory, policy, and technical requirements to implement permanent stormwater BMPs into the design of NDOT projects.

The PDG has sections devoted to the planning and design phase of each project to assist project engineers and planners in defining and avoiding potential water quality impacts from NDOT projects. The following is a list of stormwater related activities that are to be performed during the project planning and design phases of each project.

Stormwater Related Activities during Project Planning

- Determine potential stormwater quality impacts associated with the proposed project and develop/evaluate options to avoid or reduce these impacts
- Review the regulatory requirements and findings from environmental studies (if

applicable) to determine which project-specific stormwater controls (permanent and temporary) are required (i.e. mitigation requirements from the NEPA process, proximity to impaired waterways, etc.)

- Develop preliminary size, location and cost of permanent controls (e.g. infiltration and detention devices) – if needed
- Develop planning-level cost for construction site (temporary) BMPs
- Incorporate findings into a final report or scoping document

Stormwater Related Activities during Project Design

- Delineate drainage areas and define total disturbed area
- Review and update the need for treatment controls
- Define climatic conditions of the project
- Determine site hydrology
- Apply general design practices and design permanent BMPs
- Determine need to design and specify construction site (temporary) BMPs
- Prepare stormwater quality related contract documentation

The responsibility for stormwater quality planning and design is shared mainly among the NDOT's Hydraulics Section and Environmental Services Division with input from the Roadway Design Section and Maintenance and Asset Management Division. A comprehensive discussion of the stormwater related activities that should be considered and addressed during the planning and design phases of each NDOT project can be found in Sections 2 and 3 of the PDG, respectively.

Following project design (and the procedures described in Section 3.6 and BMP Fact Sheets DEPT-02 and -03 of this SWMP document) and the bid and award process, the successful contractor is required to contact NDOT Environmental Services staff prior to applying for any project related permits or the onset of site activities. NDOT Environmental Services staff reviews with the contractor any anticipated permit requirements, site BMPs, additional controls and restrictions, nearby waterways and impairments, atypical site issues, NDOT imposed constraints, and Departmental expectations of the contractor with respect to the control of stormwater runoff.

3.5.3 Non-Structural and Structural BMPs for Construction Sites

BMPs consist of both structural (fixed element or physical, permanent, design feature) and non-structural controls and practices (procedural or source control activities). BMPs may

include a schedule of activities, prohibition of practices, maintenance procedures, or management practices. BMPs may also include treatment requirements, operating instruction or practices to control site runoff, spillage, leaks, sludge, and waste disposal.

For construction sites, there are three general types of BMPs. They are:

- **Temporary Structural Construction BMPs** address short-term stormwater contamination issues related to site activity. Temporary BMPs are removed at the conclusion of a construction project (e.g. inlet protection).
- **Permanent Structural BMPs** are installed during construction and are designed to provide long-term stormwater quality protection after a project's completion (e.g. detention basins).
- **Non-Structural BMPs** are generally procedural or design in nature, involve no physical structures, but aim to protect stormwater quality through education, maintenance practices (i.e., street sweeping), and policies.

Summarized in Section 2 of NDOT's *Construction Site BMPs Manual* (BMP Manual) are BMPs that are to be considered during construction of all NDOT projects. The construction site BMPs listed in the manual are the best conventional technology/best available technology (BCT/BAT) required under the Nevada Stormwater Construction General Permit. NDOT organizes its construction site BMPs into five different categories: Temporary Soil Stabilization, Temporary Sediment Control, Tracking Control, Non-Stormwater Management, and Waste Management and Materials Pollution Control BMPs.

NDOT has designated several construction site BMPs as "Minimum Requirements" that must be implemented on highway construction projects statewide to protect Waters of the United States (WOUS) and environmentally sensitive areas. Selection and implementation is dependent on site conditions and applicability of deployment as noted with the BMP description. These BMPs are expected to be implemented (as appropriate) in all NDOT construction projects; they include practices for soil stabilization, sediment control, wind erosion control, tracking control, non-stormwater management, and waste management. Listed in Table 3.5-1 are the identified generic "Minimum Requirements". Many BMPs are grouped in order to show that a combination of those BMPs are expected to enhance protection over the use of only one BMP, or to show that one BMP can be selected from multiple equivalent choices. For the full context, the reader is encouraged to consult NDOT's BMP Manual, Table 2-1, and associated text.

Note that there are numerous construction site BMPs other than those listed in Table 3.5-1 that are acceptable in stabilizing and maintaining active construction sites.

Table 3.5-1 Construction Site Minimum Requirements

Sheet No.	Best Management Practice	Required	Option	Section
SEDIMENT CONTROL				
				In addition to all of the required BMPs, employ at least one BMP option
SS-1	Scheduling	X		3
SS-2	Preservation of Existing Vegetation	X		3
SC-2	Sediment Basin		X	4
SC-3	Sediment Trap		X	4
SC-4	Check Dam		X	4
SC-7	Street Sweeping and Vacuuming	X		4
SC-8	Storm Drain Inlet Protection	X		4
SEDIMENT BARRIER				
				Employ at least one BMP option[3]
SC-1	Silt Fence		X	4
SC-5	Sediment Logs		X	4
SC-6	Gravel Bag Berm		X	4
NON-STORMWATER MANAGEMENT				
				Employ all
NS-1 thru NS-16	All NS BMPs	X		6
WASTE MANAGEMENT AND MATERIAL CONTROL				
				Employ all
TC-1	Stabilized Construction Entrance/Exit	X		5
WM-1 Thru WM-8	All WM BMPs	X		7
SLOPE PROTECTION				
				Employ at least one BMP option[3]
SS-7	Geotextiles and Erosion Control Blankets		X	3
SS-9	Earth Dikes/ Drainage Swales & Lined Ditches		X	3
SS-11	Slope Drains		X	3
SC-5	Sediment Logs		X	4
SC-6	Gravel Bag Berm		X	4
SOIL STABILIZATION (DISTURBED AREAS)				
				Employ at least one BMP option[3]
SS-13	Wind Erosion Control	X		3
SS-5	Soil Stabilizers		X	3
SS-3/SS-6/SS-8	Hydraulic/ Straw/ Wood Mulch		X	3
SS-7	Geotextiles and Erosion Control Blankets		X	3
SS-7	Hydroseeding	X[2]	X[2]	3

Note: From NDOT *Construction Site BMPs Manual (January 2006)*
[1]See also Section 2.2.1 [of the BMP Manual]. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be verified by the contractor. See Section 2.5 [of the Manual] for implementation guidance.
[2]When specified.
[3]See Tables 2-4 and 2-5 [of the BMP Manual] for implementation guidelines.

3.5.4 NDOT's Construction Site BMPs

As previously noted, NDOT organizes its construction site BMPs into five different categories: Temporary Soil Stabilization, Temporary Sediment Control, Tracking Control, Non-Stormwater Management, and Waste Management and Materials Pollution Control BMPs. Below is a brief discussion of each BMP category as well as tables listing the NDOT approved construction site BMPs for each category. Again, the reader is encouraged to consult NDOT's BMP Manual for a full description. Sheet # refers to the fact sheet designation associated with the BMPs described in the BMP Manual.

Temporary Soil Stabilization BMPs

Temporary Soil Stabilization BMPs are used to stabilize disturbed slopes or soil areas at construction sites. Criteria and restrictions in applying soil stabilization BMPs are presented in Section 2 of the BMP Manual. Presented in Table 3.5-2 is a summary and description of the NDOT approved temporary soil stabilization BMPs.

Table 3.5-2 Temporary Soil Stabilization BMPs

BMP Name (Sheet #)	BMP Description
Scheduling (SS-1)	Scheduling construction activities in conjunction with construction site BMPs to reduce the impact on the site and surrounding area.
Preservation of Existing Vegetation (SS-2)	Identifying and protecting the vegetation at the site to provide erosion and sediment control.
Hydraulic Mulch (SS-3)	Applying fiber mixture and tackifier with hydromulching equipment to protect soil from erosion.
Hydroseeding (SS-4)	Applying a mixture of wood fiber, seed, fertilizer, and stabilizing emulsion with hydromulch equipment to minimize erosion.
Soil Stabilizer (SS-5)	Applying soil stabilizer to exposed soils to temporarily protect soils from erosion.
Straw Mulch (SS-6)	Incorporating a uniform layer of straw by roller or stabilizing emulsion to protect disturbed soils.
Geotextiles, Plastic Covers, & Erosion Control Blankets/Mats (SS-7)	Temporarily stabilizing disturbed soils by placing mats, covers, or erosion control blankets on soil.
Wood Mulching (SS-8)	Applying wood mulch to minimize erosion, increase infiltration, and reduce surface runoff.
Earth Dikes/Drainage Swales & Lined Ditches (SS-9)	Structures designed to divert and convey runoff away from sensitive areas.
Outlet Protection/Velocity Dissipation Devices (SS-10)	Techniques to reduce erosion and scour at outlet by reducing velocity of runoff.
Slope Drains (SS-11)	Conveying surface runoff away from slopes and into stabilized areas to prevent erosion.
Streambank Stabilization (SS-12)	Employing any number of BMPs in the stream zone to protect the stream.
Wind Erosion Control (SS-13)	Applying water or soil stabilizers to minimize dust or wind erosion.

Note: Information from NDOT *Construction Site BMPs Manual, January 2006*

Temporary Sediment Control BMPs

Temporary sediment control practices include those practices that intercept, slow or detain the flow of stormwater to allow sediment to settle out or be trapped. Temporary sediment control practices may consist of installing temporary linear sediment barriers (such as silt fences and gravel bag barriers); providing sediment logs, gravel bag berms, or check dams to break up slope length or flow paths; or constructing a temporary sediment trap or sediment basin. Linear sediment barriers are typically placed near the toe of exposed and erodible slopes, down slope of exposed soil areas, around temporary soil stockpiles, and at other appropriate locations along the site perimeter.

On NDOT construction sites, temporary sediment control practices are to be implemented in conformance with the criteria presented in Section 2 of the BMP Manual. Presented in Table 3.5-3 is a summary and description of those NDOT-approved temporary sediment control BMPs.

Table 3.5-3 Temporary Sediment Control BMPs

BMP Name (Sheet #)	BMP Description
Silt Fence (SC-1)	Sediment barrier made of permeable fabric designed to slow runoff and intercept sediment before leaving the construction site.
Sediment Basin (SC-2)	Temporary basin to capture and detain runoff, allowing sediments to settle out before water is discharged.
Sediment Trap (SC-3)	Temporary containment to settle out sediment before infiltration or discharge.
Check Dam (SC-4)	Rock, gravel bags, or fiber rolls placed across a channel to reduce flow velocity and scour in the channel or drainage ditch.
Sediment Log (SC-5)	Rolls or wood excelsior, rice, straw or coconut fibers bound and placed at toes and along the face of slopes to intercept runoff, reduce slope length, and remove sediment.
Gravel Bag Berm (SC-6)	Single row of gravel bags placed across a slope to intercept runoff and provide sediment removal.
Street Sweeping and Vacuuming (SC-7)	Removal of tracked sediment to prevent sediment from entering conveyance systems or receiving waters.
Storm Drain Inlet Protection (SC-8)	Protection of storm drain inlets from construction site sediment-laden runoff.

Note: Information from NDOT *Construction Site BMPs Manual, January 2006*

Tracking Control BMPs

So-called “tracking controls” are BMPs designed to lessen or minimize dirt and sediment deposit on roadways originating from tire residue (castoff, mud and tire shedding) of vehicles exiting construction sites (or material stockpile areas, access roads, etc.). Tracked materials and vehicle related deposits can ultimately result in increased sediment, turbidity, and nutrient related runoff loads. When vehicles frequently enter and exit roadways, there are several BMPs that can be employed to minimize the adverse effects of tracking. Presented in Table 3.5-4 are the NDOT-approved Tracking Control BMPs as listed in the BMP Manual.

Table 3.5-4 Tracking Control BMPs

BMP Name (Sheet #)	BMP Description
Stabilized Construction Entrance/Exit (TC-1)	Stabilizing the entrance and exit of construction sites to reduce tracking sediment onto public roads.
Stabilized Construction Roadway (TC-2)	Stabilizing construction roads to limit erosion or dust from vehicle traffic.
Entrance/Outlet Tire Wash (TC-3)	Tire wash stations to clean tires and undercarriage to prevent sediment from being transported onto public roads.

Note: Information from NDOT *Construction Site BMPs Manual, January 2006*

Non-Stormwater Management BMPs

Non-stormwater management BMPs prevent pollution by limiting or reducing potential pollutants at their source, before they come in contact with stormwater and have the opportunity to exit the construction site. Typically, these practices involve day-to-day operations of the construction site and are usually under the control of the Contractor. Many of these BMPs are simply good housekeeping practices that entail keeping a clean, orderly construction site. Summarized in Table 3.5-5 are the non-stormwater management practices identified in the BMP Manual.

Table 3.5-5 Non-Stormwater Management BMPs

BMP Name (Sheet #)	BMP Description
Water Conservation Practices (NS-1)	Activities using water conservatively to avoid causing erosion or transporting sediments off the site.
Dewatering Operations (NS-2)	Managing non-stormwater and accumulated stormwater and removing the water from the site.
Paving and Grinding Operation (NS-3)	Practices to minimize the release of pollutants associated with these activities into the storm drain system.
Temporary Stream Crossing (NS-4)	Temporary stream crossing during construction projects to minimize the impact to the waterway.
Clear Water Diversion (NS-5)	Practices to isolate the construction site from live water by diverting waters around the site and limiting the impact of construction activity on the waterway.
Illicit Connection/Illegal Discharge Detection and Reporting (NS-6)	Activities which identify and report illicit discharges or illegally dumped materials at construction sites.
Potable Water/Irrigation (NS-7)	Practices to manage discharges from irrigation activities, discharges from potable water, water line flushing, and hydrant flushing.
Vehicle and Equipment Cleaning (NS-8)	Procedures to protect the downstream environment from discharges associated with vehicle cleaning.
Vehicle and Equipment Fueling (NS-9)	Procedures to prevent fuel spills and leaks into the storm drain system and receiving waters.
Vehicle and Equipment Maintenance (NS-10)	Vehicle and equipment maintenance procedures to prevent the discharge of pollutants into the storm drain system.
Pile Driving and Drilling Operation (NS-11)	Controls to reduce the discharge of pollutants during pile driving operations.
Concrete and Pavement Curing (NS-12)	Practices to control the potential pollutants from the chemical and water methods used in concrete curing.
Material and Equipment Use Over Water (NS-13)	Procedures on barges or boats to properly store, use, and dispose of materials to prevent discharge of pollutants into the waterways.
Concrete Finishing (NS-14)	Activities to minimize the runoff from concrete finishing methods and employ site protection methods to prevent runoff from impacting receiving waters.
Structure Demolition/Removal Over or Adjacent to Water (NS-15)	Demolition and removal control practices to reduce the potential for wastes and debris entering the waterways.
Temporary Batch Plants (NS-16)	BMPs presented to assist compliance as temporary batch plants must comply with the General Permit requirements.

Note: Information from NDOT *Construction Site BMPs Manual, January 2006*

Waste Management and Materials Pollution Control BMPs

Waste management and materials pollution control BMPs are also source control BMPs implemented to mitigate potential pollutants from coming in contact with stormwater runoff. Similar to non-stormwater management BMPs, these BMPs also include several good housekeeping type practices, are contractor's responsibility, and relate to the on-site handling of wastes and material stockpiles. Summarized in Table 3.5-6 are the waste management / material pollution control BMPs identified in the BMP Manual.

Table 3.5-6 Waste Management and Materials Pollution Control BMPs

BMP Name (Sheet #)	BMP Description
Material Delivery and Storage (WM-1)	Descriptions of the proper handling and storage of materials to minimize discharges into the receiving waters.
Material Use (WM-2)	Practices for using materials to protect the downstream environment from potential discharges.
Stockpile Management (WM-3)	Management procedures to reduce the potential for discharges from stockpiles of soil and paving materials.
Spill Prevention and Control (WM-4)	Methods to prevent spills and procedures for managing and reporting spills.
Construction Debris and Litter Management (WM-5)	Managing stockpiles and construction site wastes to prevent impacting the downstream environment.
Concrete Waste Management (WM-6)	Concrete waste practices to prevent the waste materials from entering the storm drain system.
Sanitary/Septic Waste Management (WM-7)	Proper placement and maintenance of sanitary/septic waste materials to prevent discharge into the storm drain system.
Liquid Waste Management (WM-8)	Management practices to control non-hazardous liquid materials at construction sites.

Note: Information from NDOT *Construction Site BMPs Manual, January 2006*

3.5.5 NDEP's Stormwater General Permit NRV100000

NDOT's written contracts require all contractors to legally comply with Section 637 of the Department's Standard Specifications (NDOT, 2001). These specifications and provisions require contractors to comply with the NDEP's Stormwater General Permit NVR100000 (General Permit) for construction activities for stormwater runoff associated with each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. For projects that require General Permit coverage, contractors are required to prepare and effectively implement a Stormwater Pollution Prevention Plan (SWPPP) that fulfills both the General Permit requirements and those in Section 637 for the Temporary Working in Waterways Permit.

For sites covered by the General Permit, the contractor is responsible for filing the Notice of Intent (NOI). NDOT is ultimately the "Owner" of the General Permit and the contractor is the "Operator." As the Operator, the contractor is responsible for any fees associated with permit procurement, executing the permit requirements, the preparation and implementation

of the SWPPP, and for any fines incurred as a result of General Permit non-compliance. When filing the NOI, the contractor is directed to reference NDOT's contract number. NDOT will ensure that a copy of the NDEP authorization certificate is included in the SWPPP.

Upon project completion and District acceptance, the contractor will file for the Notice of Termination (NOT) to close out the General Permit. Based on NDEP's post-construction inspection, if the project has achieved the requirements of the General Permit regarding final stabilization, NDEP will accept the NOT and the General Permit is terminated. If final stabilization has not been achieved and the project has been accepted by the Department, a Notice of Change (NOC) form is completed, transferring full General Permit responsibilities to NDOT, i.e. NDOT becomes the Owner and Operator. NDOT will then maintain temporary pollution control measures (as appropriate) until the site is deemed stabilized by NDEP. The Department's BMP Manual provides an overview of the General Permit requirements and this process.

TRPA Construction Permit

As a regulatory agency within the Lake Tahoe Basin (Basin), the Tahoe Regional Planning Agency (TRPA) reviews and permits construction projects in their continual effort to minimize environmental impacts to Lake Tahoe. Permits issued include Standard Conditions of Approval and Special Conditions for individual projects. Both permanent and temporary erosion control BMPs are required for all applicable construction projects within the Basin.

There are numerous differences between typical TRPA construction permit conditions and those in the Nevada Stormwater General Permit. The TRPA permits are issued individually and are generally more stringent. Contractors are subject to the following requirements for all TRPA approved projects:

- Comply with all conditions of the TRPA permit and the General Permit
- The contractor's engineer must attend the pre-grade meeting with TRPA and their contract compliance officer to identify all other BMP items required by TRPA
- Include any additional BMP requirements in the contractor's SWPPP

Contractor and NDOT personnel consult TRPA early in the project to ensure all stormwater runoff concerns are adequately addressed.

Stormwater Pollution Prevention Plans (SWPPPs)

The State of Nevada's General Permit requires the development and implementation of a SWPPP. To comply with the General Permit, a SWPPP must be prepared prior to submittal of the Notice of Intent (NOI) and must remain on the project site at all times. The SWPPP

must be prepared in accordance with good engineering practices and include information as specified in Part III of the General Permit, including:

- Project information and description including: site location; type of project; contact information; estimated soil disturbance; and a description of potential receiving waters;
- Description of all proposed and implemented major land disturbing activities;
- Description and sequencing of construction activities;
- Estimates of total area of the construction site and the area that will be disturbed;
- Estimates of pre- and post-construction runoff coefficients;
- A general location map and detailed site map(s) including drainage patterns, areas of soil disturbance, location of BMPs, borrow and equipment storage areas, and potential receiving waters;
- Description of proposed and implemented erosion, sediment, and waste control practices to be used on the site;
- Description of permanent stormwater management practices that will be installed during the construction process to control pollutants in stormwater discharges after completion of construction operations;
- Documentation of self-inspections, maintenance of BMPs, and corrective actions that will be implemented throughout construction;
- Location and description of any non-stormwater discharges and stormwater discharges from dedicated asphalt and concrete plants located off-site;
- Copy of approved state or local plans, including a copy of the General Permit requirements; and Certification by the owner/operator or authorized representative and all contractors who work on the construction site.

A SWPPP template is available on NDEP's website and a copy can be found in Appendix B of NDOT's Construction Site BMPs Manual. Other SWPPP templates acceptable to NDEP may be used as well.

The contractor is responsible for fulfilling every aspect of the construction contract per plans, specifications, and applicable permits. NDOT requires its contractors to designate a Water Pollution Control Manager who is responsible for overseeing all water pollution control measures on a given project site, including SWPPP development and BMP implementation. The contractor is responsible for regulatory compliance, including the timely submission of the NOI, NOT, and preparation of the SWPPP and Temporary Working

in Waterways/Discharge Permit BMP Plan. The SWPPP must be complete before the NOI is submitted. The NOI must be submitted and approved two days prior to the start of construction. The contractor is responsible for installing, inspecting, and maintaining the BMPs defined in the SWPPP. The working details in the BMP Manual describe individual temporary BMPs including application, inspection, and maintenance. NDOT and the contractor share in the responsibility for achieving final stabilization of the site. Final stabilization is defined in the General Permit as reestablishment of 70% of the pre-construction vegetation cover or other appropriate stabilization measures. The NOT must be completed to release the contractor from General Permit coverage of the project. If final stabilization is not achieved per NDEP's standards and the project has been accepted by NDOT, the General Permit coverage will be transferred to NDOT.

If revisions to the SWPPP are required due to changes in site conditions, impending weather, or input from regulatory officials, the contractor is required to incorporate the necessary revisions into the SWPPP within 7 business days, i.e. the SWPPP is considered a living document throughout the life of the contract. No construction activity having the potential to cause water pollution, as determined by the contractor's Water Pollution Control Manager or NDOT's RE, will be performed until the SWPPP has been completed in accordance with General Permit requirements. Construction activities such as traffic control, which will not threaten water quality, may proceed without a SWPPP revision.

Project Categorization and Temporary Erosion Control Plans

NDOT has adopted a policy of categorizing construction projects as having no, low, medium or high potential for water quality impacts as a method for estimating the cost of temporary pollution control implementation for a given project. Utilizing the Project Categorization Score Sheet as a guide (included in the PDG), project designers work through a series of questions that help assess potential construction related water quality impacts for a given project. The water quality impact categories are described below:

- **No Impact:** Projects with ground/soil disturbance less than one acre or no potential discharge into a WOUS
- **Low Impact:** Projects with little ground/soil disturbance and low potential for discharge of sediment into a WOUS.
- **Medium Impact:** New construction or reconstruction projects with potential discharge of sediments into a WOUS. Ground/soil disturbance is not excessive, construction phasing is simple, and construction duration is usually less than two years.
- **High Impact:** Projects with major ground/soil disturbance; high potential for sediment discharge; complex construction staging; and construction duration is

longer than two years. All projects in the Lake Tahoe Basin are also classified in this category.

For projects categorized as having low or medium potential impacts, the contractor is responsible for SWPPP development including design of temporary BMPs and temporary erosion control plans.

For projects categorized as having a high potential for water quality impacts, NDOT may develop or specify temporary erosion control plans or temporary BMPs for one construction phase of an assumed phasing sequence and include bid items in the final project plans and specifications. A Nevada Registered Civil Professional Engineer (PE) shall design and/or review and stamp plans requiring engineered calculations. Temporary BMPs requiring sizing shall be designed and/or reviewed by a Nevada registered PE.

NDOT will include specific temporary BMPs in the design under any of the following conditions:

- The project is categorized as having high potential for water quality impacts,
- Specific construction site (temporary) BMPs are prescribed by the NDEP, TRPA or other environmental permits or certifications,
- The National Environmental Policy Act (NEPA) process has identified sensitive receiving waters or valuable habitats requiring special protection.
- There are site-specific conditions or sources of pollution that would not be adequately addressed by "typical" SWPPP deployment strategies.

Sites Not Covered by the General Permit

Sites that disturb less than one acre of soil do not require General Permit coverage unless NDEP determines that the project will impact receiving waters or its tributaries located within ¼ mile radius of the project geographically. Some NDOT projects are located in closed basin areas where stormwater runoff ultimately flows to valleys and playas that have no standards for water quality and associated criteria for designated beneficial use. Typically, these projects and roadway repairs do not require General Permit coverage as these areas are not considered to be jurisdictional WOUS. The Department's Environmental Services Division works closely with NDEP to determine if a project requires General Permit coverage.

3.5.6 Site Inspections and Enforcement

Both the contractor and NDOT perform routine stormwater inspections on construction sites within the MS4 Permit area. The Department's project RE assigns the duties of inspection to a stormwater certified staff member. Certified inspectors (see TRAIN-01) are familiar with the requirements of the General Permit and NDOT's MS4 Permit. Contractors are

responsible for construction site activities including conducting stormwater inspections, policing, and the preparation of inspection reports as defined in the General Permit. Stormwater inspections on NDOT construction projects are required to occur:

- Within 24 hours of the end of a storm event that was 0.5 inches or greater
- At the minimum of once every seven calendar days
- As specified in the SWPPP and/or Special Provision, and/or
- As directed by the RE.

NDOT stormwater inspectors, who perform weekly inspections as well, are required to maintain records of all inspections. The Department currently uses a Weekly Construction Site Discharge Inspection Checklist (included in Appendix D). The checklist provides assistance with inspection criteria and the proper course of action once the inspection is completed. This worksheet is scheduled to be updated and revised during this permit cycle (see CONST-01).

NDOT and the contractor will work together to correct any problem contributing to a stormwater deficiency. Stormwater pollution control measures are implemented in accordance with NDOT's BMP Manual. NDOT's Construction Site Best Management Practices (BMPs) Field Manual (BMP Field Manual) was adapted from NDOT's BMP Manual to provide construction inspectors in the field with a quick reference for proper BMP installation and maintenance. NDOT's contractors are required to begin repairs and/or placement of temporary pollution control BMPs within 24 hours of notification of a deficiency and shall be completed within 7 days. Should this restriction be exceeded, work may be immediately suspended and no other items of work shall be performed until the repairs are completed. Working days will continue to be assessed during the suspension period and partial payments as set forth under Subsection 109.06 (NDOT, 2001) may not be forthcoming until said repairs are completed (NDOT Construction Site BMPs Manual, 2006).

The Department recognizes the application of practices described in the *Nevada Contractors Field Guide for Construction Site Best Management Practices* for the use, installation, maintenance, and enforcement of construction site BMPs. This manual offers specific descriptions as well as illustrations of the procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality at each construction site. It should be noted that this manual is only utilized as a supplemental resource to NDOT's BMP Manual.

The Department carefully tracks and monitors all of its construction sites. Each year a listing of the project name, location, and General Permit numbers (as appropriate) will be prepared and included in NDOT's Annual Report to NDEP. Any projects that the Department considers to be complete will be reported. Furthermore, NDOT will include a

description of any enforcement actions taken (including Notice of Violations) and their subsequent resolutions.

3.5.7 Practices and Program Elements for the Construction Site Program

The Department's Construction Site Program consists of an assemblage of documents, practices and procedures that are, when collectively used, capable of ensuring that runoff from NDOT construction sites is properly retained or treated to the MEP. In addition to the guidance provided in the BMP Manual, the PDG and the BMP Field Manual, eight programmatic BMPs have been prepared to document existing, new or enhanced construction site related BMPs. The BMPs: TRAIN-01 (Stormwater Certification Training) and TRAIN-02 (Contractor Education and Training – External), were introduced in Section 3.2 (Education) of this SWMP Document.

Much of the adverse effects of construction site stormwater runoff can be mitigated through sensible planning. Aspects of project staging, timing, site design, access, stockpiles and material storage are critical in eliminating and reducing pollution attributable to construction activities. To be discussed in the next section of this document, Section 3.6 – New Development and Redevelopment, are the BMPs: DEPT-02 (NDOT's Planning and Design Guide) and DEPT-03 (Plan Review Process). It is in this section that the importance of planning for construction activities is discussed.

Four Construction Site Program BMP Fact Sheets are presented below. The rationale and BMP goals for NDOT are listed. The complete Fact Sheets can be found in Section 6 of this document.

BMP – CONST-01 Construction Site Inspections

All NDOT construction sites are managed by a Resident Engineer (RE) familiar with Stormwater General Permit (General Permit) requirements. Contractors are responsible for the construction site and the day to day activities pertaining to stormwater pollution control, including documented stormwater inspections, as specified in the General Permit.

NDOT and contractor inspectors verify that best management practices (BMPs) are in place, site appropriate and that they are adequately maintained throughout the construction activity. Inspectors check that the conditions and practices described in the SWPPP are appropriate and that all aspects of the General Permit are in compliance. NDOT and contractor stormwater inspectors work together to ensure that the discharge of construction site pollutants are reduced to the MEP, and areas experiencing erosion are minimized. When required, enforcement is initiated through NDOT's on-site RE.

NDOT Right-of-Way Division staff routinely inspects non-NDOT construction activity, e.g. utility work, which occurs within the right-of-way to ensure encroachment permit requirements are adhered to, including state and federal stormwater regulations.

Since construction site inspections are a fundamental component of the SWMP, this BMP and the associated inspections are a critical element in controlling site runoff, preventing erosion and improving stormwater quality from construction sites throughout the MS4 Permit area.

BMP Objectives:

1) To prevent, or minimize to the MEP, stormwater pollutant discharge resulting from construction activities within NDOT's right-of-way.

Each NDOT district has several designated construction crews. Each crew and project has an assigned RE who assigns a certified NDOT stormwater inspector for their job.

Contract language requires NDOT's contractors to designate a site Water Pollution Control Manager (WPCM), who shall be responsible for oversight of all water quality pollution control measures, including SWPPP preparation and BMP implementation. The WPCM NDOT is required to have completed a minimum of 8 hours of stormwater related training pertaining to the permitting, implementation and inspection of temporary water pollution control BMPs related to construction site activities; recognition of activities that may impact stormwater quality; and identification of illicit discharges or illicit connections to the storm sewer system.

NDOT and their contractors are required to perform stormwater self-inspections per the requirements of the General Permit:

- Within 24 hours of the end of a storm event 0.5 inches or greater
- At the minimum of once every seven calendar days
- As specified in the SWPPP and/or Special Provision, and/or
- As directed by the RE

NDOT has created the Weekly Construction Site Discharge Inspection Checklist for NDOT inspectors (Appendix D). The checklist provides assistance with inspection criteria and the proper course of action once the inspection is completed. Under this BMP, a revised version of this inspection checklist will be prepared during this permit cycle and will incorporate guidance for identifying inspection priorities and enforcing control measures, which consider the nature of the construction activity and specific site characteristics, i.e. topography, soils and receiving water quality.

NDOT will work with the contractor to correct any deficiencies noted in the inspection reports. In general, repairs and/or placement of temporary pollution control BMPs are to begin within 24 hours of notification of a deficiency and shall be completed within 7 days. Should this restriction be exceeded, the RE has the authority to immediately suspend work until the repairs are completed or the issue resolved.

BMP – CONST-02 Construction Site SWPPPs

The Stormwater General Permit (General Permit) issued by the NDEP and EPA requires the development and implementation of a SWPPP, which is a written document that describes how the operator(s) will satisfy permit requirements for preventing and controlling construction site stormwater pollutant discharges. SWPPPs include pertinent information such as: site maps showing drainage and discharge locations; the locations of stormwater control measures; a description of the site; BMPs to be implemented (e.g. erosion and sediment controls); site inspections and maintenance procedures. NDOT's contractors shall develop a SWPPP prior to filing the NOI to obtain coverage under the General Permit. NDOT will ensure that the SWPPP is developed and implemented.

NDOT has developed new contract language directing its contractors to develop and implement a SWPPP regardless of General Permit procurement.

Contractors are required to contact NDOT Environmental Services staff prior to applying for any project related permits or the onset of any site activities. NDOT Environmental Services staff reviews with the contractor any anticipated permit requirements, site BMPs, additional controls and restrictions, nearby waterways and impairments, atypical site issues, NDOT imposed constraints, and NDOT's expectations of the contractor with respect to the control of construction site stormwater runoff.

Through contract language, NDOT's contractors are required to reference NDOT's contract # while filing the NOI and to provide a signed copy of the NOI to the Resident Engineer (as appropriate). NDOT will assist the contractor with filing the NOI if necessary. Upon project completion, NDOT will direct the contractor to file the NOT to begin the process of closing out the General Permit, or to file the NOC to transfer complete ownership of the Permit to NDOT.

A SWPPP is one of the most useful and fundamental components of NDOT's stormwater program. Under this BMP, the Department will verify that each project requiring coverage under the General Permit has a SWPPP developed. NDOT will also assist the contractor with NOI and NOT filings when necessary and ensure that the SWPPP is implemented.

BMP Objectives:

1) To prevent, or minimize to the MEP, construction site stormwater pollutant discharges through the use of appropriate construction site BMPs.

BMP – CONST-03 Nevada Contractors Field Guide for Construction Site BMPs

The Nevada Contractors Field Guide for Construction Site Best Management Practices (BMPs) (Nevada Field Guide) manual was released in June 2008. The goal of the Nevada Field Guide was to provide guidance for incorporating erosion prevention and sediment control BMPs into active construction sites in the state. Practices described in the Nevada

Field Guide include construction materials, wastes and BMPs for maintenance, fueling and cleaning activities. The Nevada Field Guide includes sections on pre-project planning and operational activities, as well as practical guidance for erosion prevention and sediment control. The Nevada Field Guide provides numerous illustrations and photos of acceptable and non-acceptable construction site structures and practices to control runoff, as well as suggestions and guidance for proper BMP implementation.

Local contractor BMP training courses utilize the Nevada Field Guide as it is recognized by NDEP as an acceptable resource for implementing construction site BMPs. The Nevada Field Guide was produced by a collection of local agencies, not including NDOT. The use of the Nevada Field Guide is acknowledged; however, on NDOT contracts, construction site BMPs shall be implemented per NDOT's Construction Site BMPs Manual with the Nevada Field Guide utilized as a supplemental resource.

BMP Objectives:

1) Recognize the use and application of concepts presented in the Nevada Field Guide by employees, contractors, and design engineers within NDOT's MS4 Permit area.

The Nevada Field Guide was developed by NDEP, the Truckee Meadows Storm Water Permit Coordinating Committee, the Washoe County Regional Water Planning Commission and the Clark County Regional Flood Control District. This document was not developed by NDOT; however NDOT will assist and support efforts to revise and update the Nevada Field Guide as necessary.

BMP – DEPT-01 NDOT's Construction Site BMPs Manual

NDOT issued its Construction Site BMP Manual (BMP Manual) in January 2006. Outlined in this manual is information pertaining to various water quality related permit requirements, NDOT's contract requirements, minimum requirements, temporary soil stabilization, sediment control, housekeeping, and tracking control measures for construction sites throughout the state.

The Department's BMP Manual serves as a guidance document for the minimum stormwater pollution control measures to be implemented during construction on all projects within NDOT's right-of-way. The BMP Manual is referenced by both NDOT and contractor personnel.

A revised BMP Manual and protocol for subsequent revisions will be developed under this programmatic BMP.

BMP Objectives:

1) To provide guidance and reasonable uniform procedures to affect an efficient and standardized application of stormwater BMPs for construction activities along the state's highway system.

2) To provide employees and other users with general information relevant to stormwater activities and responsibilities of the Department.

3.6 New Development and Redevelopment Program (Post-Construction Program)

As discussed in the previous section, during construction when land is being disturbed, a specialized set of procedures and BMPs are required to minimize the impacts of stormwater runoff. Construction site BMPs are typically temporary. After construction, the roadways and associated structures built are intended to exist for an extended period time (decades). A New Development and Redevelopment Program, also known as a Post-Construction Stormwater Program, is intended to address stormwater issues for this extended period of time.

NDOT's Post-Construction Stormwater Program consists of an assemblage of practices that collectively minimize offsite impacts and treat storm runoff to the MEP. The program starts with project planning and design. New plans incorporate elements like low impact development (LID) features and elements that minimize off-site discharges, incorporate natural features, and minimize compaction of native soils to maintain pre-project hydraulic conditions. NDOT's Post Construction Program includes education and training, planning and design, inspections, and maintenance. The importance and relationship of these practices is discussed in this section.

3.6.1 Permit Requirements for Post-Construction

Requirements for the Post Construction Program are primarily listed in Section III.I of the Permit (Discharges from New Development and Redevelopment). Section III.A of the Permit requires the SWMP to include a New Development and Redevelopment Program description and Section III.F (Stormwater Education Program) outlines some training requirements. Applicable permit requirements for NDOT's New Development and Redevelopment Program (aka Post-Construction) are listed below:

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.f New Development and Redevelopment Planning Program

III.F. Stormwater Education Program

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;

III.I. Discharges from New Development and Redevelopment

III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 Permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its program of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following program elements:

III.P.1.a Highway Maintenance Activities

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of-way or discharging to a Waters of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

3.6.2 Existing Post-Construction Program

NDOT's existing Post-Construction program is well documented in the Planning and Design Guide Manual (PDG). The PDG contains a detailed discussion of the critical planning, selection and design considerations for permanent stormwater quality controls. The PDG provides direction to NDOT staff and others on regulatory compliance and permitting components, permanent BMP selection, design, implementation, operation, and maintenance. There are approximately a dozen different permanent structural BMPs that NDOT uses to control runoff from new development and redevelopment (Table 3.6-1). The reader is encouraged to consult the PDG Manual for a full description of these practices.

3.6.3 Practices and Program Elements – Post-Construction Program

In addition to the Post-Construction Program components described in the PDG, there are several existing and newly documented programmatic BMPs identified and described in this SWMP document that are critical to the overall success of the Post-Construction Program. Three BMP Fact Sheets are introduced in this subsection to describe practices important to Post-Construction Program activities; however, there are numerous other programmatic

BMPs presented in this document that are integral to the program. Summarized in Table 3.6-2 are the programmatic BMPs (fully described in Section 6) and their relationship to NDOT's Post-Construction program.

NDOT's Post-Construction program is made up of an assemblage of general practices including outreach and education, legal authority, mapping, litter removal, illicit discharge detection and elimination, spill control, street sweeping, inspection, maintenance, and training. DEPT-10 (Mapping and Inventory of Structural BMPs and Outfalls) introduced in Section 3.3 is particularly pertinent to the Post-Construction Program. NDOT maintains records describing the location and status of structural BMPs, outfalls and infrastructure. Described in the DEPT-10 Fact Sheet is the process that the Department will use to consolidate and develop an inventory of structural BMPs and outfalls within the MS4 Permit area.

Maintenance of structural BMPs is critical to ensure that the system is operating effectively and as designed. Described in Fact Sheet MAINT-05 (Inspection and Maintenance of Structural BMPs) are the procedures that NDOT uses to inspect and maintain important post-construction BMPs throughout the state. Again, the practices and procedures described in the PDG and the BMPs listed in Tables 3.6-1 and 3.6-2 collectively make up NDOT's Post-Construction/New Development and Redevelopment Program (Section 3.6).

Table 3.6-1 Existing NDOT BMPs Associated with the Post-Construction Stormwater Program (From NDOT's Planning and Design Guide Manual)

Abv.	BMP Title/Name	Practice Description and Intent
SS-1	Consideration of Downstream Effects Related to Potentially Increased Flow	This BMP outlines planning and design considerations that may be incorporated into new projects to mitigate the downstream effects of increased flow. The effects of new construction and development on downstream areas require careful evaluation at the project planning and design level. New impervious surfaces such as roadways, parking lots and buildings inhibit infiltration and cause increased surface flows discharging from these areas. Additionally, new construction often causes changes in the velocity or volume of runoff or sediment load, or other hydraulic changes resulting from stream encroachments, crossings, or realignment that may affect downstream channel stability. As part of the NDOT project planning and design process, an evaluation of the effects on downstream channel stability and/or other stormwater facilities should be performed. After characterizing these effects, the applicable mitigation measures should be incorporated into the project.
SS-2	Preservation of Existing Vegetation	Vegetation, especially in Nevada, is often highly sensitive, scarce and very difficult to maintain and/or re-establish. Vegetation limits erosion by protecting the ground surface from the impact of rain and the forces associated with flowing water and wind. Vegetation reduces runoff through transpiration and promoting infiltration. It also provides habitat and food for animals and is a critical component of a healthy ecosystem. For these reasons, it is important to consider means to preserve existing vegetation as much as possible during the planning phase of a project. This BMP describes the process and rationale for preserving existing vegetation at new construction project locations.
SS-3	Ditches, Berms, Dikes, and Swales	These permanent structures are typically used to intercept and direct surface runoff to a slope down drain (embankment protector) or other stabilized watercourse. The primary function of ditches, berms, dikes and swales is to safely convey runoff and prevent erosion.
SS-4	Slope Down Drains	Slope down drains are pipes, flumes, or paved spillways used to protect slopes against erosion by collecting surface runoff from the roadbed, the tops of cuts, or from benches in cut or fill slopes, and conveying it down the slope to a stabilized drainage ditch or area. These devices are used in conjunction with energy dissipation devices.
SS-5	Flared Culvert End Sections	These are devices typically placed at the inlets and outlets of pipes and channels to improve the hydraulic operation, retain the embankment near pipe conveyances and to help prevent scour and minimize erosion at these inlets and outlets.
SS-6	Outlet Protection/Velocity Dissipation Devices	Outlet protection is most commonly composed of a rock apron or concrete headwall and is typically used in conjunction with flared culvert end sections to prevent scour and erosion of the embankment, and reduce the outlet velocity and/or energy of exiting stormwater flows. A variety of velocity/energy dissipaters exist, including: • Grouted or non-grouted rip-rap • 90-degree bends or tees at pipe outlets • Baffle boxes • Stilling basins

Table 3.6-1 Existing NDOT BMPs Associated with the Post-Construction Stormwater Program, Continued (From NDOT's Planning and Design Guide Manual)

Abv.	BMP Title/Name	Practice Description and Intent
SS-7	Vegetated Surfaces	A vegetated surface is a permanent perennial vegetative cover on areas that have been disturbed by construction. The purpose of a vegetated surface is to protect the soil surface from erosion, and remove pollutants by promoting infiltration, settling, and other physical and biological removal processes. Vegetated surfaces offer several advantages to paved surfaces, including lower runoff volumes and slower runoff velocities, increased times of concentration and lower cost.
SS-8	Mulching	Mulching is the process of applying loose bulk materials to the soil surface as a permanent or temporary cover. Mulches are used to protect bare soil from wind and water erosion. The primary function of mulching is to reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Mulches are also generally used to compliment seeding and vegetation establishment techniques, by serving as protection for the soil before the seeds and vegetation have had a chance to grow and establish, although some mulches like rock aggregates and wood/bark chips can be used in lieu of long-term established vegetation. Mulches also prevent moisture loss, add nutrients to the soil, and help insulate the soil from extreme temperatures.
SS-9	Slope Roughening/Terracing/Rounding	Roughening, terracing and rounding are techniques used for creating unevenness on bare soil through the construction of furrows, terraces, serrations, stair-steps, or track-marks on the soil surface to increase the effectiveness of temporary and permanent soil stabilization (erosion control) practices. Roughening, terracing and rounding should be used as permanent measures to prepare a slope to receive permanent vegetation. Slope roughening or terracing reduces erosion potential by decreasing runoff velocities, reducing the length of sheet flow, trapping sediment, and increasing infiltration of water into the soil. Slope rounding is a design technique used to minimize the formation of concentrated flows.
SS-10	Hard Surfaces	Hard surfaces consist of rock slope protection (RSP), grouted RSP, asphalt concrete or concrete pavement, and stabilization with asphalt millings. The effects of increased runoff from impervious areas must be considered when specifying hard surfaces for slope protection.
SS-11	Retaining Walls	In the context of the PDG Manual, retaining walls function to stabilize slope surfaces and protect against scour or erosion by reducing slope length and steepness. Retaining walls are also used to prevent mass movement of slopes. NDOT's Geotechnical Manual and The FHWA Geotechnical Engineering Circular No. 2 - Earth Retaining Systems (SA-96-038) provides more complete design guidance in the use of walls for this purpose. Retaining walls can be classified into fill wall and cut wall applications. Examples of fill walls include standard cantilever walls, modular gravity walls (gabions, bin walls, and crib walls), and Mechanically Stabilized Earth (MSE) Walls. Cut walls include soil nail walls, cantilever soldier pile walls, and ground anchored walls.

Table 3.6-1 Existing NDOT BMPs Associated with the Post-Construction Stormwater Program, Continued (From NDOT's Planning and Design Guide Manual)

Abv.	BMP Title/Name	Practice Description and Intent
TC-1	Biofiltration Swales and Strips	Biofiltration swales and biofiltration strips (bio-strips) provide pollutant removal from storm water while improving aesthetics and biodiversity. Biofiltration swales and strips reduce pollutant concentration and load by slowing flows and promoting settling, biological uptake by plants and other organisms, and by increasing infiltration.
TC-2	Infiltration Basins	An infiltration basin is a device designed to remove pollutants from surface discharges by capturing the runoff volume from the water quality design storm and infiltrating it prior to the next significant storm event. The primary functions of infiltration basins are to remove pollutants from stormwater runoff where soil conditions are suitable, and to recharge or replenish the ground water. In addition, infiltration basins can significantly reduce total annual surface runoff volume, which can reduce stream bank erosion and other adverse impacts to stream habitats from transportation facility runoff.
TC-3	Detention Basins	A detention basin is a permanent device formed by excavating and/or constructing an embankment so that runoff from the water quality design storm is temporarily detained under quiescent conditions, allowing sediment and particulates to settle out before the runoff is discharged.
TC-4	Traction Sand Traps	A traction sand trap is a device that allows traction sand to settle out of highway stormwater runoff. It must provide sufficient storage volume to retain the settled sand until the traction sand trap is cleaned. A traction sand trap is a permanent control measure that may be a stand-alone device, or may be incorporated as part of another stormwater facility such as a detention basin. NDOT routinely applies sand on snowy or icy roadways to provide additional traction for vehicles. The main purpose of sand traps is to recapture this sand from stormwater runoff, thereby reducing traction sand discharges to receiving waters and habitats. Traction sand traps are not efficient at removing fine sediments (e.g., silts, clays) or other pollutants and should not be considered for this purpose. Typically, a traction sand trap device is a drainage inlet that has been modified to capture and retain traction sand. Typical modifications include increasing the depth of the inlet so that there is a settling/storage area below the invert of the outlet pipe, linking multiple inlets for increased storage volume, and adding weep holes to allow the storage volume to drain.
TC-5	Gross Solids Removal Devices	Gross Solids Removal Devices (GSRDs) are intended for use in highly urban settings and are to be used to remove litter and solids from stormwater runoff. Gross Solids Removal Devices include physical/mechanical methods of removing litter and solids 0.25 inch nominal and larger from stormwater runoff using various screening technologies.

Table 3.6-2 NDOT SWMP Programmatic BMPs and the Relationship to the Post-Construction Program

Abv.	BMP Title/Name	Post-Construction Program Related Activity and Importance
DEPT-01	NDOT's Construction Site BMP Manual	Different construction elements and several of the BMPs described in NDOT's Construction Site Best Management Practices (BMP) remain in place after the project has been completed. These practices, such as the preservation of native vegetation and disturbed soil area management, have a long term effect on the site. Good construction site practices can decrease the volume of stormwater runoff and improve water quality in the long term.
DEPT-03	Plan Review Process	Identify priority and watershed pollutant reduction opportunities (e.g. improvements to existing urban runoff control structures). Evaluate highway slopes 3:1 or greater and incorporate stabilization measures as appropriate to the MEP.
DEPT-04	Legal Authority and Enforcement	Maintaining adequate legal authority for the control of right-of-way activities. Accessibility and inspection authority is critical in controlling, mitigating, and improving the quality of stormwater discharges from roadways and infrastructure.
DEPT-05	Internal Coordination	NDOT divides its maintenance, inspection, and engineering responsibilities by Districts. The internal coordination between the Districts and Headquarters is important in maintaining infrastructure, conducting inspections, mapping, monitoring, and ensuring the overall proper functioning of structural BMPs and other post-construction infrastructure.
DEPT-06	Annual Review	Described in this BMP is a procedure to review the overall effectiveness of the SWMP. Each of the collective programs that make up the SWMP are to be evaluated to ensure that stormwater runoff within the MS4 Permit area is being treated to the MEP.
DEPT-07	Impaired Waters	NDOT is required to install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters.
DEPT-08	TMDL Listed Waters	NDOT is required to determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If so, NDOT must document all control measures currently implemented and install controls for all newly developed or redeveloped roadways that discharge stormwater to the TMDL listed waterway.
DEPT-09	Lake Tahoe TMDL Memorandum of Agreement	Upon the establishment of a Memorandum of Agreement between NDEP and NDOT, the Department will determine how best to carry out the actions and structural controls necessary for compliance with the Permit and the Lake Tahoe TMDL.
DEPT-10	Mapping and Inventory of Structural BMPs and Outfalls	Under this BMP, NDOT will develop maps and an inventory of structural BMPs and outfalls within the MS4 Permit area.
EDU-01	Public Outreach and Education	One component of the stormwater outreach program is to educate the public with respect to NDOT's stormwater BMPs and stormwater quality and treatment practices.
EDU-02	Public Litter Removal Programs	This practice results in the removal of solid waste, trash and other debris that accumulates on roads and right-of-ways within the MS4 Permit area. The result is that trash does not clog structural BMPs and end up in the waterways of the state.
EDU-03	Partnerships and Affiliations	NDOT works closely with many different groups, agencies, and local officials across the state to help maintain water quality and minimize the impacts of stormwater runoff from roadways.
EDU-05	Stormwater Management Program Webpage	NDOT's website provides stormwater related information to the public. Education is an important component of source control with respect to the Post-Construction Program.

Table 3.6-2 NDOT SWMP Programmatic BMPs and the Relationship to the Post Construction Program, Continued

Abv.	BMP Title/Name	Post-Construction Program Related Activity and Importance
IDDE-01	Reporting Hotline	NDOT's web based reporting hotline provides a mechanism for the reporting of illicit discharges and poorly functioning structural BMP and other complaints.
IDDE-02	Illicit Discharge Report and Response Database	This database allows the Department to track illicit discharges within the MS4 Permit area and to organize and document the response.
IDDE-03	Spill Control and Prevention	The control and prevention of spills is an important component of the Post-Construction and Source Control Programs.
IDDE-04	IDDE Response, Corrective Action and Follow-Up	Outlined in the BMP are the procedures used to respond to illicit discharges within the MS4 Permit area.
IDDE-05	Sanitary Sewer Exfiltration	Locating sewer lines is an important part of every new design and construction project. Outlined in this procedure are the practices that NDOT uses to ensure that wastewater does not enter NDOT's storm sewer system.
MAINT-02	Traction and Deicing Materials Management	On occasion, sand, salt and other deicing compounds are applied to the roadways in Nevada. Described in this BMP are the practices that the Department uses to apply, remove and store these materials.
MAINT-03	Street Sweeping	One element of NDOT's Post-Construction Program is street sweeping to remove debris that accumulates on the roadways and right-of-ways. This practice helps to minimize the likelihood that these materials migrate into waterways and structural BMPs.
MAINT-04	Outfall Screening and Investigations	NDOT staff regularly inspects major outfalls for structural deficiencies, functionality, and apparent water quality issues.
TRAIN-01	Stormwater Certification Training – Internal	NDOT provides specific training to educate staff who are directly involved in activities that may impact stormwater quality, including those with responsibilities for preliminary design, design, and design review. Training includes design standards, maintenance requirements, and planning as related to stormwater.
TRAIN-02	Contractor Education and Training - External	Typically in conjunction with third party efforts, NDOT assists with the training of contractors involved with projects on NDOT property. Training includes the proper use of construction site BMPs, spill control, site disturbance, and stormwater quality considerations.
TRAIN-03	NDOT Herbicide, Pesticide and Fertilizer Application Training – Internal	In certain areas of the MS4 Permit area, NDOT staff or contractors apply herbicides, pesticides, and fertilizers in the right-of-ways and other post-construction areas. This BMP assists in protecting water quality by educating the applicators about safe and appropriate use practices.

The rationale and goals for BMP Fact Sheets (DEPT-02, DEPT-03, and DEPT-13) are summarized below. The full Fact Sheets, along with the data collection, reporting, and implementation schedules can be found in Section 6 of this document.

BMP - DEPT-02 - NDOT's Planning and Design Guide

NDOT issued its Storm Water Quality Planning and Design Guide (PDG) manual in January 2006. Outlined in the manual is NDOT's process for selecting and designing BMPs and incorporating them into new and significant redevelopment projects. Described in the PDG are critical documents that must be prepared prior to new construction, such as the Alternative Design Field Survey Report (ADFS), Preliminary Design Field Study Report (PDFS), Environmental Documents, and the Plans, Specifications, and Estimates (PS&E).

The planning and design approach described in the PDG has been developed for use in conjunction with NDOT's Roadway Design and Drainage Design Manuals. The PDG also provides guidance for incorporating requirements in the PS&E to ensure that NDOT's contractors comply with applicable permits, NDOT policy, and implements appropriate construction site BMPs.

The PDG is an important component of NDOT's SWMP. A revised BMP Manual and protocol for subsequent revisions will be developed under this programmatic BMP.

BMP Objectives:

1) To provide employees and other users with guidance for incorporating permanent stormwater quality controls into new projects during the planning and design phase.

2) Address key regulatory, policy, and technical requirements to implement permanent stormwater BMPs into the design of all new NDOT projects.

A revised BMP Manual and protocol for subsequent revisions will be developed under this programmatic BMP.

BMP - DEPT-03 - Plan Review Process

The plan review process is an important step in ensuring that stormwater runoff from new and redevelopment projects are treated to the MEP. Project design is a collaborative process between numerous NDOT Divisions, including Right-of-Way, Structures, Construction, Materials, Environmental Services, Design, Safety Engineering, and Maintenance and Asset Management. Project plans are routed through the appropriate Department Divisions in a sequential manner for review. Plan review addresses key regulatory, policy, and technical requirements necessary to implement permanent stormwater BMPs into the design of all NDOT projects.

From a stormwater perspective, the critical design review is performed by the Environmental Services and Design Divisions (i.e. Hydraulics, Landscape Architecture and

Roadway Design Sections). It is within these two NDOT Divisions that the design and incorporation of permanent stormwater quality controls into new projects is assured.

BMP Objectives:

1) Address stormwater runoff concerns or known issues during the design phase of new and redevelopment projects through the project planning and review process.

The Environmental Services and Design Divisions review project plans and designs for issues and constraints related to water quality, quantity, drainage, feasibility, treatment and permit compliance. Considerations during the plan and design review include:

- MS4 permit applicability (i.e. projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale).
- Delineate drainage areas, define total disturbed area, review climatic conditions and site hydrology.
- Assess potential stormwater quality impacts associated with the proposed project and develop/evaluate options to avoid or reduce these impacts. Ensure that stormwater is discharged in a manner that does not cause nuisance conditions, or erosion in receiving channels and down-slope properties.
- Evaluate the need, type, and location of permanent (post-construction) stormwater pollution control BMPs.
- Evaluate the potential for discharges into receiving Waters of the United States and impaired water status (303(d) or TMDL listing); implement appropriate mitigation measures as appropriate.
- Evaluate the stability of highway slopes 3:1 or greater and actively eroding with sediment leaving NDOT's right-of-way or discharging into a Waters of the U.S. and incorporate stabilization measures as appropriate to the MEP.
- Project status or compliance with conditions in regulations, ordinances, permits (e.g. Stormwater General Permit), and contracts.
- Promotion and incorporation of LID practices when feasible.
- Review of construction site BMPs and SWPPPs (as necessary).
- Review of expected authorized discharges and the potential for non-authorized discharges.
- Identify priority and watershed pollutant reduction opportunities (e.g. improvements to existing urban runoff control structures).

A comprehensive discussion of the stormwater related activities addressed during the planning and design phase of each NDOT project can be found in NDOT's Planning and Design Guide (see DEPT-02).

BMP - DEPT-13 - Low Impact Development (LID) Techniques

Section III.I.2 of the Permit requires that NDOT promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of its New Development and Redevelopment Program. NDOT promotes source reduction of stormwater contaminants in several different programs, including education and street sweeping. The LID approach to stormwater treatment and conveyance typically focuses on replicating pre-development site conditions. LID techniques mimic the natural hydrology of a site by use of stormwater structural BMPs that store, evaporate, and detain runoff close to the source. For highway departments, LID techniques present a challenge because of the cost, right-of-way constraints, and increased maintenance requirements.

BMP Objectives:

1) Increase Department knowledge about LID practices applicable to highway environments.

Under this BMP, NDOT will explore LID techniques for possible inclusion into NDOT's Storm Water Planning and Design Guide. This may be accomplished by communicating with other transportation agencies and local municipalities, vendor contact and trade shows and literature review. Over a five-year period, a short list of LID techniques applicable for NDOT projects will be developed. This list will then be used to assist with the evaluation, promotion, and integration of LID practices into future design and retrofit projects as appropriate.

BMP - MAINT-05 – Inspection and Maintenance of Structural BMPs

The Permit requires NDOT to inventory, inspect and maintain post-construction BMPs and general storm sewer infrastructure. Currently, NDOT inspects and maintains post-construction BMPs, storm sewer facilities, and highway slopes as part of routine maintenance activities and in response to reported issues and emergency circumstances, i.e. flooding and stakeholder concerns.

It is anticipated that the efforts associated with the Mapping and Inventory Program (see DEPT-10) will help facilitate and improve upon these processes.

BMP Objectives:

1) Reduce potential stormwater quality impacts through inspection and maintenance of structural stormwater BMPs.

NDOT has the responsibility of maintaining over 5,400 miles of highway infrastructure across the state. As part of their routine activities, Maintenance Crews inspect and maintain post-construction BMPs and general storm sewer facilities. The Department will continue to inspect and record conditions of its infrastructure and storm sewer system, including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins, to identify potential sources of pollutants

and identify maintenance needs. In addition, Maintenance Crews will continue to address slope stabilization needs as part of their routine maintenance activities.

Due to the large number and diverse array of post-construction BMPs throughout the Permit area, greater attention will be focused on those post-construction BMPs that are less self-sustaining in nature and require a level of service to maintain stormwater treatment functionality as designed, e.g. stormwater treatment vaults, detention basins, etc. Inspection and maintenance of general storm sewer facilities will continue as part of NDOT's routine maintenance activities with schedules developed at the District and/or individual Maintenance Crew level.

During inspection and maintenance, any evidence of illicit discharges or illegal dumping will be evaluated (see IDDE-04).

The Department will properly dispose of waste removed from storm sewer system and other facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of will be documented and included in the Annual Report.

3.7 Illicit Discharge Detection and Elimination (IDDE) Program

Presented in this sub-section is NDOT's program to detect and eliminate illicit discharges within the MS4 Permit area. Illicit discharges are defined in 40 CFR 122.26(b)(2) and refers to any discharge that is not entirely composed of stormwater, excluding a few conditionally exempt discharges (see Section 2.1.4).

Illicit discharges to the MS4 Permit area have the potential to negatively impact water quality of the receiving waters. Examples of illicit discharges include chemical and fuel spills, wastewater, paint, solid waste, or any non-authorized solid or liquid material dumped on Nevada's roads and right-of-ways. Unlike a traditional municipal MS4 Permit area that contains commercial, industrial and residential land uses, NDOT's permit area is linear in nature with controlled land use within the right-of-ways. While dumping does occur, it is unlikely that a discharger would have access to the NDOT storm drain system to complete an illegal connection. Illicit discharges within NDOT's permit are primarily from spills, accidents, and intentional refuse dumping.

In the urban areas, local sanitary sewers cross underneath and run alongside some of NDOT's roadways and right-of-ways. Cross-connections, leaks or broken sewer pipes that allow the exfiltration or migration of sewage into NDOT's stormwater conveyance systems are considered illicit discharges.

NDOT's IDDE program consists of numerous activities and practices that collectively form an effective program to detect and eliminate illicit discharges throughout the MS4 Permit area. Important IDDE programmatic practices include education (both internal and external), public reporting, monitoring, IDDE database management, spill control and

prevention, response, corrective action and post-event follow-up procedures. The goal of the IDDE program is to detect and prevent non-stormwater discharges within the MS4 Permit area from polluting or otherwise impairing receiving waterbodies.

3.7.1 Permit Requirements for IDDE

Requirements for the IDDE Program are listed in multiple sections of the Permit, including Section III.A (SWMP Revision), Section III.F (Stormwater Education Program), and Section III.J (IDDE Program). Applicable permit requirements for NDOT's IDDE program are:

III.A SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.g	NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;

III.F Stormwater Education Program

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.l	NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.
III.F.5.m	NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;
III.F.5.n	NDOT shall record and report the number of reports received from the public and investigated in the Annual Report;

III.J Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a	A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;
III.J.1.b	A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c	A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;
III.J.1.d	A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;
III.J.1.e	A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;
III.J.1.f	A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and
III.J.1.g	An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.

3.7.2 Existing IDDE Program

Many of NDOT's stormwater related programs and activities have some IDDE aspect or component. Existing programs and practices such as legal authority, construction site activities, mapping, outreach and education, training, inspections, post-construction, and maintenance yard practices all have an IDDE component. Many existing programs currently address the detection, control, minimization, response and elimination of illicit non-stormwater discharges throughout the MS4 Permit area.

Legal authority is a critical component of the IDDE program. NDOT currently has legal authority specified in the NRS to prohibit illicit discharges, investigate, and enforce any actions to detect and eliminate illicit discharges within the MS4 Permit area. A listing of applicable state statues was previously described in Section 3.1.

NDOT's BMP Manual contains approximately 30 different BMPs for the control and elimination of illicit discharges related to construction activities. Several of these BMPs are summarized in Table 3.7-1. The reader is encouraged to consult the Construction Site BMP Manual for a full description of these important practices.

Activities within NDOT's MS4 Permit area, such as construction, storage, egress, staging, and other miscellaneous actions all require an NDOT issued encroachment permit. NDOT encroachment permits require the users to comply with all state environmental protection laws and local ordinances. Based on the nature of NDOT's linear infrastructure and restricted right-of-ways, encroachment permits are a useful tool with respect to identifying and minimizing illicit discharges. Maintenance and local law enforcement personnel routinely patrol and survey hundreds of miles of roadways every day. Vehicle parking, construction equipment activity or other suspicious activities are generally noticed and investigated. Through the issuance and logging of encroachment permits, NDOT staff are able to track and monitor approved (and non-approved) activities, especially permitted

projects that have a higher potential for illicit discharge (i.e., sites with major activities, waterway crossings and material stock piles).

Due to the extent of NDOT's permit area (spanning a state over 110,000 square miles in size), local city and county personnel along with Nevada Highway Patrol (NHP) are critical in the notification and immediate response to spills, dumping, and atypical activities along the roadways. As previously noted, these personnel are the eyes and ears pertaining to spills, accidents and IDDE. Secondly, NDOT Maintenance Crews inspect and patrol the roadways and right-of-ways on a regular basis. As part of NDOT's Stormwater Certification Program, Maintenance personnel are trained to detect and report illicit discharges as a part of their routine activities. Any illicit discharges are immediately reported to the appropriate Maintenance Supervisors and Environmental Services Division who are responsible for notifying the appropriate agencies. Additionally, NDOT facilitates and works closely with local municipalities to control and report discharges into the storm drain system. All reported IDDE incidents are documented by NDOT's Environmental Services Division.

Presently, NDOT promotes public awareness of IDDE through education and public outreach activities, including affiliations with other agencies, participation in public events, and internet based information dissemination.

3.7.3 Practices and Program Elements - IDDE

NDOT's IDDE Program consists of a collection of practices that collectively facilitate the detection and elimination of non-stormwater (illicit) discharges within the MS4 Permit area. As summarized in the previous section and Table 3.7-1, the components that collectively make up NDOT's IDDE Program are in place. For this program, five IDDE Fact Sheets have been prepared to document existing, new or enhanced IDDE specific BMPs. However, many of the BMP Fact Sheets developed to describe other practices listed elsewhere in this SWMP document have a significant IDDE component to them. Summarized in Table 3.7-2 are the programmatic BMPs (described fully in Section 6) and the relationship to NDOT's IDDE program.

The rationale and BMP goals for NDOT's IDDE program are summarized below. The complete suite of IDDE BMP Fact Sheets (IDDE-01 through -05), along with the data collection and reporting requirements and implementation schedule can be found in Section 6 of this document. Also presented in this section are BMPs associated with the Environmental Services (ENVR) and the Maintenance and Asset Management Divisions (MAINT) due to their larger roles in the IDDE program.

Table 3.7-1 Existing NDOT BMPs Related to IDDE as Outlined in NDOT's BMP Manual

Abv.	BMP Title/Name	Practice Description and Intent
NS-1	Water Conservation Practices	Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and/or the transport of pollutants off site.
NS-2	Dewatering Operations	Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location so that construction work may be accomplished.
NS-3	Paving and Grinding Operations	Paving, saw cutting, and grinding operations often involve the use of materials containing potentially harmful chemicals and can generate fine particles that should not be allowed to enter receiving waters. The procedures within this fact sheet are designed to minimize the transport of pollutants associated with these activities to the storm drain system or receiving water body.
NS-4	Temporary Stream Crossing	A temporary stream crossing is a structure placed across a waterway that allows vehicles to cross the waterway during construction minimizing (or reducing or managing) erosion and downstream sedimentation caused by the vehicles.
NS-5	Clear Water Diversion	Clear water diversions consist of various structures and measures that intercept clear surface water runoff upstream of a project site, transport it around the work area, and discharge it downstream with minimal water quality degradation by either the project construction operations or the construction of the diversion.
NS-6	Illicit Connection/Illegal Discharge Detection and Reporting	Procedures and practices for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Engineer.
NS-7	Potable Water/Irrigation	Potable Water/Irrigation management consists of practices and procedures to manage the discharge of potential pollutants generated during discharges from irrigation water lines, landscape irrigation, lawn or garden watering, planned and unplanned discharges from potable water sources, water line flushing, and hydrant flushing.
NS-8	Vehicle and Equipment Cleaning	Vehicle/equipment cleaning procedures and practices used to minimize or eliminate the discharge of pollutants from vehicle & equipment cleaning to the storm drain system.
NS-9	Vehicle and Equipment Fueling	Vehicle and equipment fueling procedures and practices are designed to prevent the discharge of fuel spills and leaks into storm drain systems or to watercourses.
NS-10	Vehicle and Equipment Maintenance	Procedures and practices to prevent the discharge of pollutants to the storm drain systems or to watercourses from vehicle and equipment maintenance procedures.
NS-11	Pile Driving and Drilling Operations	The construction and retrofit of bridges and retaining walls sometimes includes driving piles for foundation support and shoring operations. Driven piles are typically constructed of concrete, steel, or timber. Driven sheet piles are used for shoring and cofferdam construction. Proper control and use of equipment, materials, and waste products from pile driving operations will reduce the discharge of potential pollutants to the storm drain system or watercourses.
NS-12	Concrete and Pavement Curing	Concrete and pavement curing is used in the construction of structures such as bridges, retaining walls, and pump houses. Concrete curing includes the use of both chemical and water methods. Proper procedures minimize pollution of runoff during concrete curing.

Table 3.7-1 Existing NDOT BMPs Related to IDDE as Outlined in NDOT's BMP Manual, Continued

Abv.	BMP Title/Name	Practice Description and Intent
NS-13	Material and Equipment Use Over Water	Procedures for the proper use, storage, and disposal of materials and equipment on barges, boats, temporary construction pads, or similar locations that minimize or eliminate the discharge of potential pollutants to a watercourse.
NS-14	Concrete Finishing	Concrete finishing methods are used for bridge deck rehabilitation; sound walls, paint removal, curing compound removal, and final surface finish appearances. Methods include sand blasting, shot blasting, grinding, or high pressure water blasting. Proper procedures minimize the impact that concrete-finishing methods may have on runoff.
NS-15	Structure Demolition/Removal Over or Adjacent to Water	Procedures to protect water bodies from debris and wastes associated with structure demolition or removal over or adjacent to watercourses.
NS-16	Temporary Batch Plants	The construction of roads, bridges and retaining walls often requires temporary batch plant facilities to crush rock, manufacture asphalt or concrete. Proper control and use of equipment, materials, and waste products from temporary batch plant facilities will reduce the discharge of potential pollutants to the storm drain system or watercourses and reduce air emissions.
WM-1	Material Delivery and Storage	Procedures and practices for the proper handling and storage of materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.
WM-2	Material Use	These are procedures and practices for use of construction material in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.
WM-3	Stockpile Management	Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, and paving materials such as Portland cement, aggregate sub-base or pre-mixed aggregate and pressure treated wood.
WM-4	Spill Prevention and Control	These are procedures and practices implemented to prevent and control spills in a manner that minimizes or prevents the discharge of spilled material to the drainage system or watercourses.
WM-5	Construction Debris and Litter Management	Solid waste management procedures and practices are designed to minimize or eliminate the discharge to the drainage system or to watercourses as a result of the creation, stockpiling, or removal of construction site wastes.
WM-6	Concrete Waste Management	These procedures and practices are designed to minimize or eliminate the discharge of concrete waste materials to the storm drain systems or to watercourses.
WM-7	Sanitary/Septic Waste Management	Procedures and practices to minimize or eliminate the discharge of construction site sanitary / septic waste materials to the storm drain system or to watercourses.
WM-8	Liquid Waste Management	Procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid materials.

BMP - IDDE-01 – Illicit Discharge Reporting Hotline

NDOT has developed a link on its web page (www.nevadadot.com) to facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system. The link titled "Report Illegal Roadside Discharge" is located on the bottom of the Department's main web page. The report's illicit discharge page has text defining what an illicit discharge is and how to generate a report. Under this programmatic BMP, the web based hotline will be maintained and monitored. Any hotline reports received will be given priority in response, clean-up and enforcement. In the event that problem areas of dumping are identified, NDOT will post and advertise the reporting hotline number locally.

BMP Objectives:

1) To provide the public an easy way to report illicit discharges or other water quality related concerns within NDOT's MS4 Permit area

2) To provide a mechanism for detection and mitigation of illicit discharges

3) To encourage active public involvement and stewardship

The reporting hotline web link has been established. During this permit cycle, NDOT will monitor and respond to any reports received. Reports received will be entered into the IDDE database (IDDE-02) and the appropriate staff will be dispatched to the location. The need to revise webpage content will be considered on an annual basis.

BMP - IDDE-02 – Illicit Discharge Reporting and Response Database

NDOT has developed an Illicit Discharge Reporting and Response Database (Database), to record and track illicit discharges within the MS4 Permit area. The Database will facilitate in the documentation process, the identification of problem areas, and the reporting of corrective actions and subsequent Departmental response and follow-up. Reports of illicit discharges within NDOT's MS4 Permit area will be entered into the database maintained by Environmental Services staff.

Under Section III.F.5.m of the Permit, NDOT is required to implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. In addition, Section III.F.5.n requires NDOT to record and report the number of reports received from the public and investigated.

BMP Objectives:

1) To facilitate the tracking of illicit discharges and identification of potential problem areas within the MS4 Permit area.

2) Improve stormwater runoff quality through the reduction of illicit discharges.

Information to be recorded in the database when an illicit discharge report is received will include discharge type, location, and action taken. Other information may include photo documentation, geospatial coordinates and analytical results. When reports are received that a potential illicit discharge may be present, NDEP shall be notified and follow-up activities will be documented in the database.

NDOT will post telephone numbers or other information in places where illicit discharges and illegal dumping are found to be a recurring problem.

BMP - IDDE-03 – Spill Control and Prevention

Spill prevention, containment, and response are important elements in protecting the storm drain system and receiving waters from hazardous discharges. Reducing toxic and/or hazardous materials is critical to the health and safety of the population and aquatic resources. The control and cleanup of spills is regulated under multiple permit sub-headings, including Legal Authority, Education, IDDE, Maintenance Yards, and Facility Inspections. Under Section III.J.1.d (IDDE) of the Permit, NDOT must describe procedures to prevent, contain, and respond to spills that may discharge into the MS4. For transportation agencies, spills are most likely to occur on roadways from vehicle accidents or from mishaps at maintenance and construction sites. Elements of NDOT's Spill Control and Prevention Program can be found in section WM-4 of NDOT's Construction Site Best Management Practices (BMP) Manual, NDOT's Maintenance Management System Manual, and through communication with Environmental Services Division's Hazardous Materials Section.

NDOT reduces the likelihood of spills through a variety of practices, including SWPPPs, BMPs, inspections, and internal education efforts.

Other than emergency containment of spills using on-site sorbents (e.g., pads, pigs, pillows, etc.), containment techniques and procedures are generally built-in to a fixed site, e.g., a maintenance yard or construction site staging area. Proper spill containment practices rely on the right equipment, materials, training, and responsiveness (spill response is outlined in IDDE-04).

BMP Objectives:

1) Implement an effective spill control and prevention program to prevent/minimize the release of substances potentially harmful to receiving waters within the MS4 Permit area.

Table 3.7-2 NDOT SWMP Programmatic BMPs and the Relationship to the IDDE Program

Abv.	BMP Title/Name	IDDE Program Related Activity and Importance
CONST-01	Construction Site Inspection Program	Inspectors are trained to spot illicit discharges and the potential for spills, equipment leaks, erosion, and migration and control of potential contaminants off-site
CONST-02	Construction Site SWPPPs	SWPPPs provide the documentation, analysis, organizational structure, engineering, planning, and staging of activities to minimize the potential for off-site migration of contaminants
DEPT-01	NDOT's Construction Site BMP Handbook	NDOT's Construction Site BMP Handbook outlines many critical IDDE related BMPs, including: spill control, site run-on and run-off, temporary and permanent soil stabilization, tracking controls, waste and materials management, and sediment containment.
DEPT-02	NDOT's Planning and Design Guide	NDOT's Planning and Design Guide Handbook outlines many of the Nevada and TRPA General Construction Permit requirements for the prohibition of illicit discharges. The handbook outlines the requirements for erosion control, monitoring, dredge and fill activities, project design, and concerns and actions relating to the proximity to impaired waters
DEPT-03	Plan Review Process	A component of the plan review process includes the consideration of spills, erosion, the off-site transport of soil, the potential of illicit discharges, and the migration potential of off-site construction and permanent water quality contaminants.
DEPT-04	Legal Authority and Enforcement	Language provided in the NRS is critical to the ability to enforce, inspect, and prohibit illicit discharges into the MS4 Permit area.
DEPT-05	Internal Coordination	The size of NDOT's MS4 Permit area is over 110,000 square miles (4th largest area in the continental U.S.). NDOT divides its maintenance and engineering responsibilities into three Districts spanning 16 counties and numerous city boundaries. The coordination between districts and with local cities and towns is critical to detection, reporting, and rapid response to illicit discharges in or on NDOT roadways and right-of-ways.
DEPT-07	Impaired Waters	State waterways that are listed as impaired by NDEP are provided special consideration when planning new projects and retrofitting existing infrastructure. Illicit discharges have the potential to contribute to, or aggravate, the 303(d) listing.
DEPT-08	TMDL Listed Waters	Similar to DEPT-07, Waters of the State that have approved TMDLs are provided special consideration when planning new projects and retrofitting existing infrastructure. Illicit discharges have the potential to contribute to, or aggravate, the TMDL listings.
DEPT-09	Lake Tahoe TMDL Memorandum of Agreement	It is possible that the MOU may contain language related to IDDE within the Lake Tahoe Basin.
DEPT-10	Mapping and Inventory of Structural BMPs	Inventories and maps of NDOT's storm drain system are of critical importance when investigating illicit discharges and cross-connections.

Table 3.7-2 NDOT SWMP Programmatic BMPs and the Relationship to the IDDE Program, Continued

Abv.	BMP Title/Name	IDDE Program Related Activity and Importance
DEPT-13	LID Techniques	Many LID techniques encourage infiltration of stormwater runoff. In areas with a higher potential for illicit discharges, alternatives to LID may need to be considered to avoid the contamination of shallow groundwater and facilitate clean-up.
EDU-01	Public Outreach and Education	A significant component of the stormwater outreach program is to educate the public with respect to dumping and illicit discharges.
EDU-02	Public Litter Removal Programs	This practice results in the removal of solid waste, trash, and other debris that have accumulated on the roads and right-of-ways within the MS4 Permit area
EDU-03	Partnerships and Affiliations	Our partners include the other large MS4 Permit holders and many of the small MS4s in the state, each having their own IDDE program and who share common IDDE goals with NDOT.
EDU-05	Stormwater Management Program Webpage	The website contains information pertaining to illicit discharges and how to recognize and report them.
ENVR-01	Wet Weather Monitoring	Wet weather (storm event) monitoring may be expanded to include analytical parameters or surrogate measurements to facilitate the detection of non-stormwater/illicit discharges.
ENVR-02	Dry Weather Monitoring	Like the wet weather BMP, dry weather (non-storm event) monitoring may be expanded to include analytical parameters or surrogate measurements to facilitate the detection of non-stormwater/illicit discharges.
MAINT-01	Hazardous Materials Management and Disposal	NDOT maintenance facilities commonly use and store materials that are hazardous or harmful to the environment. If released, these materials constitute an illicit discharge. Proper procurers help to mitigate this risk.
MAINT-02	Traction and Deicing Materials Management	Sand, salt, and other deicing compounds are stored at several maintenance facilities across the state. Off-site migration is minimized through proper storage and containment procedures.
MAINT-03	Street Sweeping	Street sweeping removes materials waste materials potentially harmful to the environment. While not always environmentally harmful, trash is considered an illicit discharge.
MAINT-05	Inspection and Maintenance of Structural BMPs	These investigations include looking for evidence of illicit discharges while inspecting for proper functioning.
MAINT-06	Maintenance Facility FPPPs	The implementation of these plans promotes good housekeeping practices at Maintenance facilities, reducing the potential for illicit discharges.
MAINT-07	Maintenance Facility Inspections	Routine and annual inspections will provide an opportunity to investigate any instances of illicit discharges from Maintenance Facilities.
TRAIN-01	Stormwater Certification Training – Internal	Training includes many aspects of IDDE
TRAIN-02	Contractor Education and Training - External	Training includes many aspects of IDDE
TRAIN-03	NDOT Herbicide, Pesticide and Fertilizer Application Training – Internal	Training includes many aspects of IDDE

Effective spill control and prevention relies heavily on employee education and training (see TRAIN-01). Employees and contractors are educated in proper spill control methodologies. Routine inspections are conducted to enforce procedures and mitigate spill potential. Maintenance personnel are issued a laminated wallet-sized spill response reference card from NDOT's Hazardous Materials Section within the Environmental Services Division. These cards summarize reportable release thresholds, required information to report, and phone numbers for NDEP and the Nevada Division of Emergency Management. In addition, NDOT Maintenance Crew vehicles now house a copy of the Emergency Response Guidebook, a reference for first responders during the initial phase of dangerous goods/hazardous materials transportation incidences. A hotline for reporting spills was described in IDDE-01. Spill details will be maintained and tracked within the Illicit Discharge Reporting and Response Database (IDDE-02). Contractor and NDOT Resident Engineer roles and responsibilities for construction project BMPs are detailed within NDOT's Construction Site Best Management Practices (BMP) Manual.

The effectiveness and need for improvement of the Spill Control and Prevention Program will be assessed annually. Refinements will be implemented as necessary to control and prevent spills within the MS4 Permit area.

BMP - IDDE-04 – IDDE Response, Corrective Action and Follow-Up

An important component of NDOT's IDDE Program is the elimination of potential pollutants through timely response, clean-up, and follow-up activities. The rationale for this programmatic BMP is simply to protect and improve stormwater runoff water quality by reducing known and potential contaminants.

When evidence of illicit discharges is found (through routine monitoring, sampling, outfall and channel investigations, street sweeping, hotline tips, routine maintenance, site audits, etc.), immediate response is taken to mitigate the issue. Corrective actions are instance and site specific, but typically involve clean-up, education, and future mitigation measures. After corrective action, a follow-up is performed to ensure that clean-up efforts were sufficient.

BMP Objectives:

1) Minimize the impacts of illicit discharges within the MS4 Permit area through response, corrective action, and enforcement (as appropriate).

Quick and efficient response to illicit discharges begins with having a well-defined corrective action plan and follow-up protocols. NDOT's IDDE response, corrective action, and follow-up protocols include:

Response: Public safety and emergency personnel officials are typically the first responders to spills, accidents, and dumping on NDOT's roadways and rights-of-way. The Nevada Highway Patrol (NHP) serves as the statewide coordinator for all hazardous substance spill incidents occurring on state maintained highways. NDOT Maintenance

personnel are generally responders to highway spills as well. Maintenance personnel carry a laminated wallet-sized spill response reference card issued by NDOT's Hazardous Materials Section within the Environmental Services Division. Summarized on the card are reportable release thresholds, required information to report, and phone numbers for NDEP and the Nevada Division of Emergency Management. In addition, NDOT Maintenance crew vehicles now house a copy of the Emergency Response Guidebook, a reference for first responders during the initial phase of dangerous goods/hazardous materials transportation and spill incidences.

Corrective Action: The Hazardous Materials Section, within the NDOT Environmental Services Division, coordinates with NDEP's Bureau of Corrective Actions for spill response and clean-up. NDOT's Maintenance and Asset Management Division has a statewide internal guidance policy addressing HazMat call-out procedures for handling hazardous material releases along, and within, NDOT's right-of-way. As part of this internal guidance policy, NDOT has contracted a service provider to respond to material releases within NDOT's right-of-way statewide.

Follow-Up: Information pertaining to spills/discharges and the corresponding response (i.e. clean-up) are entered into the Illicit Discharge Reporting and Response Database (see IDDE-02). Remediation and follow-up procedures will be documented. Upon notice of the completion of clean-up, an NDOT staff member will confirm that the incident has been adequately addressed.

BMP - IDDE-05 – Sanitary Sewer Exfiltration

NDOT's IDDE Program includes a diverse assemblage of practices designed to detect and eliminate illicit discharges within the MS4 Permit area, including education, training, spill control, inspections, corrective action protocols, and numerous others (see Section 3.7). The Permit requires NDOT to assess whether these IDDE procedures are sufficient to identify instances of exfiltration of sewage from the sanitary sewers of the state into storm sewers and conveyance structures owned by NDOT. If not, the Permit requires NDOT to describe additional activities to be undertaken to control exfiltration within the MS4 Permit area.

The total roadway system mileage maintained by NDOT is over 5,400 miles in length. The preponderance of NDOT's roadways and right-of-ways are in rural areas with no sewer lines. Only in the urban areas do roadways and sanitary sewers exist within NDOT right-of-ways. For many of these crossings, there are no waterways in close proximity; therefore, NDOT believes exfiltration of domestic sewage into NDOT's storm sewer system to be negligible. However, sewer pipe crossings have the potential to leak or overflow into the MS4 Permit area.

Outlined in this BMP is the procedure that NDOT uses to identify and mitigate instances of the exfiltration of sewage into the storm sewer system within the MS4 Permit area. The

rationale for this BMP is to protect the receiving waters from the adverse effects of domestic wastewater, a Permit-defined illicit discharge.

BMP Objectives:

1) Minimize the likelihood of sanitary sewer exfiltration through training and inspection

2) To protect receiving water quality from the adverse effects of domestic wastewater

How to look for and identify evidence of sanitary sewer exfiltration into the stormwater system is covered in NDOT's employee Stormwater Certification training program. Observations and inspections for sanitary sewer exfiltration are accomplished as part of the routine, day to day activities by NDOT personnel (i.e. staff from Construction, Maintenance, and Environmental) that work in the right-of-way on a daily basis. Adequate training is important to the success of identification and mitigation of sanitary sewer exfiltration.

NDOT staff maintains a working relationship with local agencies and municipalities. Each local municipal MS4 permittee has the same obligation to identify exfiltration and minimize illicit discharges. In the event of an issue, NDOT will request that the local authorities inspect and flow test sewers that intersect NDOT right-of-ways.

Prior to the onset of any new construction, all sewer lines are identified and contractors are made aware of all underground services. This minimizes the likelihood of line damage and leakage.

NDEP will be notified when occurrences of exfiltration are encountered.

BMP - ENVR-03 – Special Investigations

On occasion, personnel from NDOT's Environmental Services Division are dispatched to conduct special investigations related to water quality. Investigations may be in response to reports of illicit discharge, habitat impairment, TMDLs, or a variety of other environmental related issues. Investigations may include sample collection, measurements and photography, field chemistry determinations, and documentation. These investigations are not scheduled and are conducted on an as-needed basis. The rationale for this BMP is to investigate and react to unknown environmental issues related to stormwater and other discharges within the MS4 Permit area.

BMP Objectives:

1) Protect receiving water quality within the MS4 Permit area through investigation, information gathering, and response.

Presently, NDOT's Environmental Services staff conducts stormwater and IDDE inspections as needed in response to known issues, complaints and tips. The Permit requires a description of the procedures used for field screening for the control and elimination of illicit discharges. A generalized procedure is as follows:

Investigation Sites: Locations to be investigated will be identified through: 1) reports and tips, 2) known water quality issues, 3) issues found during routine inspection of stormwater infrastructure, 4) outfall investigation results, and 5) IDDE database follow-ups.

Preparation: For specific investigations, preparation activities may include gathering topographic, site design and underground service maps of the area, preparing worksheets and notebooks, and charging digital cameras and GPS units. Depending on the investigation, water quality sample bottles, labels, preservatives, chain-of-custody forms, and an ice chest may be prepared. Prior to traveling to the site, health and safety considerations, traffic control, and right-of-way constraints will be reviewed.

On-Site Activities: Activities to be conducted on-site will vary with the nature of the investigation; however the following information, at a minimum, will be documented: the location of the discharge area, the date and time of the investigation, hydraulic facilities, the type of discharge, and the cause/source of the discharge activity (if known). For investigations relating to flowing water, observations to be made include: flow rate, odor, color, floatables, foam, algae growth, staining, and oil sheens. Other typical observations include: weather, land uses, nearby features, erosion, structural damage or impairment, sanitary sewer-related debris, solid waste, and source.

Post Field Work Activities: Investigation-related information, observations, and results are recorded. Significant observations and findings (evidence of illicit discharges or impaired stormwater quality features) are immediately reported to the appropriate Department personnel. Action taken is commensurate with the threat to receiving waters. Routine post-inspection activities include documentation, and if applicable, exportation of data from GPS units and water quality meters, instrument calibrations, and data entry into the IDDE database. Findings of an illicit discharge are reported to NDEP.

BMP - MAINT-04 – Outfall Screening and Investigations

The Code of Federal Regulations defines a "major outfall" as an MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe, which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface

waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit (see 40 CFR 122.26).

Presented in this BMP is a generalized procedure for conducting outfall screening and inspections. Hydraulics and Environmental Services personnel routinely assess drainage structures during pre-construction design field surveys. However, outfall screening and investigations have long been carried out by NDOT's Maintenance and Asset Management Division as part of routine duties (see MAINT-05, Inspections and Maintenance of Structural BMPs). Aside from the inspection of infrastructure for structural integrity and functionality, any observations pertaining to illicit discharges are also noted and reported to District and Environmental Services Division personnel. Maintenance staff are trained to spot illicit discharges (see TRAIN-01). Outfall screening and investigations include both scheduled and non-scheduled (e.g., floods or complaints) activities. Documented below is the methodology for identifying Permit defined outfalls, how NDOT anticipates the development of a schedule for inspection, and the documentation of observations with respect to illicit discharges.

BMP Objectives:

1) Reduce potential stormwater quality impacts through the inspection and screening of the Department's major outfalls.

The most substantial task in accomplishing this BMP is the identification of outfalls that meet the Permit definition. Once NDOT has identified the location of the major outfalls, a schedule for inspection can be established.

NDOT owns and operates nearly 5,400 linear miles of roadways statewide, with countless culverts and waterway crossings. The majority of these hydraulic structures, however, would not be considered major outfalls. The first step in this BMP is to identify and locate all structures (or features) that meet the Permit definition of "major outfall". This task will be performed as part of BMP DEPT-10 (Mapping and Inventory of Structural BMPs). This is a very large task, given that the drainage area and the size (diameter) of the conveyance structure and drainage area must be calculated for thousands road miles and right-of-ways. Efforts to inventory hydraulic structures along several sections of state roadways have already begun, most notably within the Lake Tahoe Basin and Clear Creek Watershed. Given the size of the MS4 Permit area, the diffuse nature of the state roadway system, and limited resources, is anticipated that this task will take multiple years to complete, perhaps beyond the cycle of this NPDES MS4 Permit.

While outfall location and mapping efforts continue, screening activities will continue to be a part of NDOT's routine activities. Each year, NDOT Maintenance staff inspect hundreds of miles of roadway surfaces, bridges, culverts, outfalls, cut-slopes, detention ponds, etc., and help establish a schedule for service, repair, or maintenance. Under this programmatic

BMP, NDOT will continue with these inspections. During these inspections, any evidence of illicit discharges, non-approved activity, and dumping will be noted and reported to District and Environmental Services Division personnel (see TRAIN-01 and IDDE-02). Once the major outfalls have been located, a more formalized schedule for outfall investigations can be developed.

Under this BMP, major outfalls will continue to be identified, formalized schedules for conducting inspections will be developed, and a mechanism for identifying priorities and listing improvements will be developed. This system will also assist the Department to identify, track, and prioritize the stabilization and repairs to road segments where slopes are 3:1 or greater, as required by the Permit.

3.8 Industrial Facility Monitoring and Control Program

The U.S. EPA has established 11 categories of industrial facilities which apply to the stormwater permitting requirements listed in 40 CFR 122.26(b)(14)(i)-(xi). Discussions between NDOT and NDEP have determined that maintenance yards and facilities operated by NDOT are categorized as municipal facilities and do not fall within any of the eleven industrial categories. Therefore, NDOT does not own or operate any industrial facilities and does not need, at this time, to develop a full Industrial Facility Monitoring and Control Program. Each year, NDOT will consider if any new industrial facilities have been established or if any existing facilities have been re-categorized within the MS4 Permit area. In the event that an industrial facility exists, NDOT will develop an Industrial Facility Monitoring and Control Program as required by the Permit. NDOT will continue to look for any industrial discharges that may enter the MS4 through the IDDE Program described in Section 3.7.

3.8.1 Permit Requirements for Industrial Monitoring and Control Program

Under Section I.C. of the Permit, industrial discharges (40 CFR 122.26(b)(14)(i)-(ix) and (xi)) are not authorized. Section III.A of the Permit requires the updated SWMP to describe NDOT's Industrial Facility Monitoring and Control Program. Listed in Section III.K of the Permit are the specific requirements of the Industrial Facility Monitoring and Control Program. Section III.N requires the Department to develop an inventory of industrial facilities. It is acknowledged in Section III.S of the Permit that NDOT's Maintenance Facilities are considered municipal activities rather than industrial. Summarized below is the applicable permit language for the Industrial Facility Monitoring and Control Program:

> I.C. Non-Authorized Discharges
>
> I.C.1. This permit does not authorize the following:
>
> I.C.2. Stormwater discharges associated with industrial activity as defined in 40 CFR§122.26(b)(14)(i)-(ix) and (xi) are identified and permitted through a separate NPDES General Industrial Activity permit. These discharges are authorized under NDEP's General Permit NVR050000.

III.A.	SWMP Revision
III.A.4.	The revised SWMP shall include, at a minimum, information about the following programs:
III.A.4.h	Industrial Facility Monitoring and Control
III.K.	Industrial Facility Monitoring and Control
III.K.1.	The revised SWMP shall describe NDOT's program to monitor and control pollutants in stormwater discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial facilities that NDOT determines are contributing a substantial pollutant loading to the MS4. The program shall:
III.K.1.a	Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges; and,
III.K.1.b	Describe a monitoring program for stormwater discharges associated with the industrial facilities identified in this section, to be implemented during the term of the permit in accordance with the monitoring programs defined in Part IV.A of this permit.
III.N.	Scope of Inspections
III.N.14.	NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.
III.S.	NDOT Maintenance Yards Management Program
III.S.1.	NDOT shall prepare SWPPPs for all its maintenance facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP

3.8.2 Existing Industrial Facility Monitoring and Control Program

Section III.K.1 of the Permit requires NDOT to develop an Industrial Facility Monitoring Control Program to address discharges from four listed categories of industrial facilities. They are:

- Municipal landfills
- Hazardous Waste Treatment, Disposal and Recovery Facilities
- Industrial Facilities Subject to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA)
- Other Facilities Identified by NDOT - facilities that the permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system

A letter from NDEP Bureau of Water Pollution Control stating that maintenance yards operated by NDOT do not fall into any of the U.S. EPA industrial facility categories is included in Appendix C of this document.

To address industrial facilities that may be discharging into NDOT owned and operated storm drain systems, NDOT will evaluate the discharges when discovered and follow the established reporting procedures (see Section 3.7 – Illicit Discharge Detection and Elimination).

3.8.3 Practices and Program Elements for the Industrial Facility Monitoring and Control Program

Each year, NDOT will determine whether any new Department owned industrial facilities have been established or if any existing facilities have been re-categorized within the MS4 Permit area. In the event that an industrial facility exists, NDOT will develop a full Industrial Facility Monitoring and Control Program as required by the Permit. A programmatic BMP (DEPT-12) has been established to formalize this approach. The full Fact Sheet can be found in Section 6 of this Document.

BMP – DEPT-12 Industrial Facility Monitoring and Control Program

The Permit requires the Department to develop and describe an Industrial Facility Monitoring and Control Program to monitor and control pollutants in stormwater discharges into the MS4 Permit area from municipal landfills, hazardous waste treatment, disposal and recovery facilities and other industrial facilities. At this time, NDOT does not have any industrial facilities situated within the MS4 Permit area (maintenance facilities are considered municipal activities rather than industrial activities, see Permit Section III.S.1 and the validation letter from NDEP in Appendix C).

BMP Objectives:

1) Mitigate stormwater pollutant discharge from Permit defined industrial facilities.

At least annually, NDOT Environmental Services Division staff will evaluate if there are any new facilities or changes in activities at existing facilities that may be considered industrial activities rather than municipal. Staff, in conjunction with NDEP assistance, will evaluate if regulations have changed that might reclassify the Department's facilities. The Department will report the findings of this evaluation in the Annual Report.

Should any NDOT owned facilities be classified as industrial as defined by the Permit, a detailed Industrial Facility Monitoring and Control Program will be developed. This program will include:

1) Program priorities and procedures for inspections
2) Control measures for discharges
3) A monitoring program for stormwater discharges
4) An inventory of industrial facilities

3.9 Maintenance Facility Discharge Control Program

Presented in this section is a description of NDOT's Maintenance Facility Discharge Control Program. Like most of the programs described in this SWMP document, the program consists of a collection of BMPs, requirements, controls, procedures and inspections that collectively mitigate the adverse effect of stormwater runoff from the Department's Maintenance Facilities to the MEP. NDOT's Maintenance activities are performed by the Department's Maintenance and Asset Management Division (aka Maintenance Division).

Summarized below are permit requirements, a general overview of the Maintenance Division and organizational structure, a listing of the Major Facilities, facility pollution prevention plans (FPPPs), and facility inspections. Procedures and programmatic BMPs described apply to the Department's maintenance yards, storage yards, fleet maintenance shops, and material, sand, salt and snow storage areas. NDOT practices good housekeeping and material management to prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a potential pollutant source in stormwater discharges at all of the above facilities.

3.9.1 Permit Requirements

NDOT's Maintenance Facility Discharge Control Program addresses requirements identified in five different sections of the Permit, including: SWMP revision (Section III.A), Stormwater Discharges from NDOT Maintenance Facilities (III.L), Comprehensive Maintenance Facility Inspections (III.M), Scope of Inspections (III.N), and NDOT Maintenance Yards Management Program (III.S). The applicable permit language is presented below.

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.i Stormwater Discharges from NDOT Maintenance Facilities;

III.L Stormwater Discharges from NDOT Maintenance Facilities

III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide:

III.L.1.a	NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;
III.L.1.b	NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to Waters of the U.S. or to the storm sewer system;

III.L.1.c NDOT shall properly select, install, and maintain all BMPs in accordance with any relevant manufacturer specifications and good engineering practices; and

III.L.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas.

III.L.2. NDOT shall implement the following BMPs at its maintenance facility

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:

III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;

III.L.2.c.ii Use drip pans under vehicles and equipment;

III.L.2.c.iii Store vehicles and equipment indoors whenever practicable;

III.L.2.c.iv Install berms or dikes around the areas;

III.L.2.c.v Use adsorbents to clean spilled materials;

III.L.2.c.vi Roof or cover storage areas whenever practicable; and

III.L.2.c.vii Clean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

III.L.2.d.ii Use drip pans under vehicles and equipment;

III.L.2.d.iii Keep an organized inventory of materials used in the shop;

III.L.2.d.iv Drain all parts of fluid prior to disposal;

III.L.2.d.v Use dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and

III.L.2.d.vi Treat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.

III.L.2.e NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.);

III.L.2.e.ii Move storage indoors whenever practical;

III.L.2.e.iii Install berms/dikes around the areas;

III.L.2.e.iv Minimize run-on of stormwater to the areas;

III.L.2.e.v Use dry cleanup methods; and

III.L.2.e.vi Treat, recycle, or properly dispose of collected stormwater runoff. Note: The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills of toxic materials by NDOT staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system or receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or

pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and

III.L.2.f.v NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.M. Comprehensive Maintenance Facility Inspection

III.M.1. NDOT shall conduct a Comprehensive Maintenance Facility Inspection at least once each year. NDOT shall also conduct routine visual inspections to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.

III.M.2. NDOT shall complete an inspection report for all maintenance facility inspections. At a minimum the report shall include:

III.M.2.a The inspection date;

III.M.2.b The name(s), title(s) and qualifications of the person(s) making the inspection. The list of qualified personnel shall either be on or attached to the report or alternatively, if the SWPPP documents the qualifications of the inspectors by name, that portion of the SWPPP may be referenced;

III.M.2.c Weather information and a description of any discharges occurring at the time of the inspection;

III.M.2.d The location(s) of discharges of sediment or other pollutants from the site, if any;

III.M.2.e The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location;

III.M.2.f The location(s) where additional BMPs are needed that did not exist at the time of inspection;

III.M.2.g The corrective action(s) required, including any changes to the SWPPP and implementation dates;

III.M.2.h The identification of all sources of non-stormwater discharges, if any, and the associated BMPs;

III.M.2.i Where applicable, the identification of material storage areas, and evidence of or potential for pollutant discharges from these areas;

III.M.3. Inspection reports shall identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the activities are in compliance with the SWPPP and this permit; and

III.M.4. The report shall be signed and certified in accordance with Part V.G of this permit and copies included in the SWPPP and the Annual Report.

III.N. Scope of Inspections

III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;

III.N.2. Inspections of the maintenance yard shall include all the following areas/activities:

III.N.2.a Storage areas for vehicles and equipment awaiting maintenance;

III.N.2.b Fueling areas (including mobile fueling);

III.N.2.c Indoor and outdoor vehicle/equipment maintenance areas;

III.N.2.d Material storage areas;

III.N.2.e Material source stockpile(s) to determine if piles are protected from run-on, run-off, if materials are contributing to off-site discharges;

III.N.2.f Vehicle/equipment cleaning areas and loading/unloading areas; and

III.N.2.g Onsite waste storage or disposal;

III.N.3. NDOT shall inspect and document all BMPs identified in the SWPPP along with areas inspected and the conditions found;

III.N.4. NDOT shall inspect discharge locations to determine whether BMPs are effective in preventing significant impacts to Waters of the U.S., where accessible;

III.N.5. Where discharge locations are inaccessible, NDOT shall inspect nearby downstream locations to the extent that the inspections are practicable; and

III.N.6. NDOT shall inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.

III.N.7. Based on the results of the inspection, NDOT shall modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. NDOT shall complete revisions to the SWPPP and modify or add BMPs as necessary within thirty (30) calendar days following the inspection. NDOT shall implement tracking and follow-up

procedures to ensure that appropriate action is taken in response to issues noted during inspections.

III.N.8. If sediment or other materials escape the site, NDOT shall remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. The removal shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. NDOT shall use all reasonable efforts to obtain access, and in such instances, removal and stabilization shall take place within seven (7) days of obtaining access.

III.N.9. Inspections shall be performed by qualified personnel as defined in Part VI of this permit; and

III.N.10. NDOT shall retain a record of each inspection and of any actions taken as part of the SWPPP for at least five (5) years from the expiration date of this permit;

III.N.11. For existing BMPs that need to be modified or, if additional BMPs are necessary for any reason, implementation shall be completed within thirty (30) days, and before the next storm event;

III.N.12. All BMPs including erosion and sediment control BMPs identified in the SWPPP shall be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance shall be performed within seven (7) days of discovery and before the next anticipated storm event to maintain the continued effectiveness of stormwater

BMPs. If implementation before the next storm event is impracticable, the reason(s) for delay must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible;

III.N.13. Facilities as requiring monitoring shall follow the requirements therein; and

III.N.14. NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

III.S. NDOT Maintenance Yards Management Program

III.S.1. NDOT shall prepare SWPPPs for all its maintenance facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP;

III.S.2. Generic SWPPP elements can be used for activities that are performed at more than one maintenance facility; however, each site must be evaluated separately and provided with appropriate site specific BMPs.

III.S.3. NDEP staff has the authority to require the submittal of a SWPPP at any time, to require changes to a SWPPP, and to require the implementation of the provisions of a SWPPP. SWPPPs shall include the following elements:

III.S.3.a NDOT shall develop and implement runoff control plans for the following NDOT-owned and/or operated facilities that do not have independent NPDES Stormwater permits:

III.S.3.a.i Vehicle maintenance facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling and lubrication);

III.S.3.a.ii Asphalt and concrete batch plants which are not already individually permitted;

III.S.3.a.iii Solid-waste transfer stations;

III.S.3.a.iv Exposed stockpiles of materials, including stockpiles of road deicing salt, salt and sand, sand, roto-mill material; and

III.S.3.a.v Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles.

III.S.3.b NDOT shall provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of the revised SWMP. This list shall indicate which sites are considered "major" and which are considered "minor", and set out the reasons for the designations.

III.S.3.c Runoff control plans for "major" facilities shall contain the following:

III.S.3.c.i Activity description;

III.S.3.c.ii Facility site map; and

III.S.3.c.iii A description of potential pollutant sources, including an evaluation of that potential.

III.S.3.d Stormwater Management Controls

III.S.3.d.i The description of stormwater management controls shall address the following minimum

	components, including a schedule for implementing such controls:
III.S.3.d.i.1	Runoff control plan administrator;
III.S.3.d.i.2	Preventive maintenance;
III.S.3.d.i.3	Good housekeeping;
III.S.3.d.i.4	Spill prevention and response procedures;
III.S.3.d.i.5	BMPs for pollutant sources;
III.S.3.d.i.6	Evaluation for non-stormwater discharges;
III.S.3.d.i.7	Employee training;
III.S.3.d.i.8	Inspection procedures; and
III.S.3.d.i.9	A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.
III.S.3.d.ii	"Minor" facilities shall be grouped together by type, and one runoff control plan shall be developed for each group. Grouped runoff control plans shall contain:
III.S.3.d.iii	A map showing the location of each facility in the group on a map of the city or state;
III.S.3.div	For each facility in the group include the address, type of operation, size of the facility, and receiving water drainage basin;
III.S.3.d.v	A description of potential pollutant sources, including an evaluation of that potential;
III.S.3.d.vi	A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:
III.S.3.d.vi.1	Preventive maintenance measures;
III.S.3.d.vi.2	Good housekeeping;
III.S.3.d.vi.3	Spill prevention and response procedures;
III.S.3.d.vi.4	BMPs;

III.S.3.d.vi.5	Evaluation for non-stormwater discharges; and
III.S.3.d.vi.6	Inspection Procedures
III.S.3.e	Copies of the "major" facility runoff control plans shall be kept on the facility site and on file with NDOT's main office. They shall be submitted to NDEP upon request.
III.S.3.f	Copies of the "minor" facility group runoff control plans shall be kept on file with the Regional District Office. They shall be submitted to NDEP upon request;
III.S.3.f	Both major and minor facilities shall be inspected by the Permittee at least one (1) time each year, after the SWPPP has been completed;
III.S.3.h	NDOT shall implement the provisions of the runoff control plans required under this part as a condition of this MS4 permit. NDEP reserves the right to review those plans, and to require additional measures to prevent and control pollution as needed;
III.S.3.i	SWPPPs may be amended at any time and any amendments shall be described in the Annual Report; and
III.S.3.j	The SWPPPs shall be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this permit, another 40 percent within twenty-four (24) months of the effective date of this permit, and the remaining 50 percent within thirty-six (36) months of the effective date of this permit. A list of these facilities shall be submitted to NDEP at these times.

3.9.2 NDOT Maintenance Division

NDOT's Maintenance and Asset Management Division (aka Maintenance Division) is essential to ensuring that the Department attains its primary mission – "providing a better transportation system for Nevada through unified and dedicated efforts". The mission of the Maintenance Division is "to assure that the Department-maintained highway system is maintained to as high a level as possible consistent with the resources, budget, work plan, policies, and program objectives". In general, highway maintenance is defined as the

preservation of roadway facilities in a useable and safe condition with respect to the public. NDOT's maintenance work can be broadly categorized into three areas:

(1) **Routine maintenance**—work needed on a daily basis to repair damage to the highway system and perform operational activities, which keep the traveling public moving in a safe and efficient manner. Examples are crack filling, striping, infrastructure inspection and repair, and culvert cleaning.

(2) **Capital improvement**—work that will slow down the deterioration or extend the life of the highway system. Examples are chip seal projects, bridge maintenance, slope flattening and guardrail installation.

(3) **Emergency activities**—work needed due to accidents, weather and natural disasters to stabilize and remediate travel ways and hazardous or damaged structures. Examples are snow removal and deicing activities, traffic incident cleanup, flood damage repair, and guardrail fixes.

The Districts must possess and maintain the appropriate resources, equipment, and personnel to fulfill the above listed activities on a routine basis, efficiently (with respect to materials and budget) and on occasion, quickly (on behalf of public safety). This is accomplished by dividing the state into three Maintenance Districts and six Maintenance Sub Districts (refer to the "Asphalt Zone Chart & Maintenance Districts" map in Appendix A). They are:

- District 1 – Las Vegas Sub District
- District 1 – Tonopah Sub District
- District 2 – Reno/Carson City Sub District
- District 3 – Elko Sub District
- District 3 – Ely Sub District
- District 3 – Winnemucca Sub District

NDOT's Maintenance Division is headquartered in Carson City. Headquarters works cooperatively with the Districts to maintain the state's highway system. General maintenance activities routinely include practices that mitigate stormwater runoff and protect the receiving Waters of the State.

NDOT's Maintenance Program at Headquarters is implemented by the following parties:

- Assistant Director, Operations: Provides statewide direction and coordination to technical program operations, including Maintenance.

- Chief Maintenance Engineer: Administers the activities of the statewide Maintenance Division to ensure highway maintenance is achieved at the highest level possible utilizing available resources.

- Assistant Chief Maintenance Engineer: Assists and advises the Chief Maintenance Engineer on all issues related to administering the Department's maintenance program.

- Maintenance Management Coordinator II: Reviews and evaluates the statewide application of the Maintenance Management System.

- Maintenance Management Coordinator I: Evaluates the statewide application of the Maintenance Management System including recommending modifications.

NDOT's Maintenance Program at the District Level is implemented by the following parties:

- District Engineer: Directs, manages, and oversees the administration of the District to ensure compliance with Department policies and procedures regarding the functional operation of activities conducted in the District.

- Assistant District Engineer: Assists and advises the District Engineer on all issues relative to administration of the highway program at the District level. In District I, one of the two Assistant District Engineers in Las Vegas is responsible for maintenance (operations) and the Assistant District Engineer in Tonopah is responsible for both construction and maintenance. In District II, one of the two Assistant District Engineers is responsible for maintenance. In District III, each of the three Assistant District Engineers in Elko, Ely, and Winnemucca are responsible for both construction and maintenance.

- Highway Maintenance Manager: Plans, organizes, and directs a major complex highway maintenance system.

- Highway Maintenance Supervisor II: Oversees and coordinates the maintenance tasks for an assigned area, which includes assigned sections of several Supervisor I's.

- Highway Maintenance Supervisor I: Responsible for administration of maintenance activities within an assigned geographical area, including the field responsibility for on-site BMP implementation.

Headquarters establishes the policies and procedures to be implemented by each District (including those relative to SWMP implementation and compliance) and maintains the Maintenance Management System (MMS). Each of the three Maintenance Districts is responsible for implementation and day-to-day activities of this Maintenance Facility

Discharge Control Program with support from Headquarters Maintenance, Environmental Services Division, and Hydraulics Section.

3.9.3 NDOT Maintenance Facilities

NDOT is required to identify, list, develop, and implement runoff control plans (see Section 3.9.5) for Department owned and/or operated facilities (that are not individually permitted). Facilities that must be listed include the following permit defined activities:

- Vehicle maintenance facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling, and lubrication)
- Asphalt and concrete batch plants (which are not already individually permitted)
- Solid-waste transfer stations
- Exposed stockpiles of materials, including stockpiles of road deicing salt, salt/ sand, sand, and roto-mill material
- Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles

The Department is required to provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of this revised SWMP document. A listing of the Department's Major Facilities is provided in the following section. At the present time, 162 NDOT maintenance related facilities have been identified across the state of Nevada. Many of these facilities (see Table A-1) are rural in nature and therefore have only a highway location listed; however, the Department maintains a record of the latitude and longitude coordinates of each of these sites. The activities conducted at each site can be expected to vary from year to year, since site activities are largely based on local road construction and repair activity. Information related to the categorization of each site and the ultimate receiving water drainage basin are currently being re-assessed and validated. Currently, NDOT does not own or operate any waste transfer stations.

Section III.S.3.b of the Permit requires the Department to identify which maintenance related sites are considered "Major" and which are considered "Minor", and set out the reasons for the designation of such facility. Major facilities require site specific Facility Pollution Prevention Plans (FPPPs) (see Section 3.9.5) while minor facilities can be "grouped" into smaller sets with established "runoff control plans" (see Section III.S.3.d.ii). NDOT uses the following criteria (all must be met) for designating Major Maintenance facilities from Minor Maintenance facilities:

- The facility conducts major equipment repairs and servicing.
- The facility houses multiple Maintenance crews.

NDOT's Major Maintenance Facilities

In accordance with Part 111.S.3.b of the Permit and the above listed Major/Minor criteria, the following facilities have been designated as Major Facilities. These identified Maintenance Facilities consist of District and Sub District Facilities, as well as Departmental Headquarters. Activities and operations at these facilities include (part or all of) the following: major vehicle/equipment repair and/or painting, vehicle/equipment wash and/or steam pads, vehicle/equipment storage, material storage, waste material storage, material testing, general office environments, employee/visitor parking, fueling stations (gasoline and/or diesel). The following nine facilities are identified as Major NDOT Maintenance Facilities:

1. **District I North Las Vegas Maintenance Facility**
   P.O. Box 170
   Las Vegas, NV 89125
   Physical Location: 123 E. Washington Ave., Las Vegas, NV 89101
   Size of Facility: Approximately 11 acres
   Receiving Water Body: Las Vegas Valley MS4 – Las Vegas Wash

2. **District I Las Vegas South Maintenance Facility**
   6610 Ullom Drive
   Las Vegas, NV 89188
   Size of Facility: Approximately 11.5 acres
   Receiving Water Body: None

3. **District I Sub District Tonopah Maintenance Facility**
   P.O. Box 791
   Tonopah, NV 89049
   Physical Location: US 6, Nye County, Mile Post 1.80
   Size of Facility: Approximately 8.5 acres
   Receiving Water Body: NDOT MS4 - Slime Wash

4. **District II Reno/Sparks Maintenance Facility**
   P.O. Box 930
   Reno, NV 89504
   Physical Location: 310 Galletti Way, Sparks, NV 89431
   Size of Facility: This facility is represented by 3 yards; the Reno Storage Yard, Reno Maintenance Yard and Sparks Equipment Yard. The three yards combined represent an area of approximately 22.6 acres.
   Receiving Water Body: Truckee River and City of Sparks MS4

5. **District II Fallon Maintenance Facility**

   888 Harigan Road
   Fallon, NV 89406
   Size of Facility: Approximately 5.4 acres
   Receiving Water Body: New River Drain/Stillwater

6. **District III Elko Maintenance Facility**

   951 Idaho St.
   Elko, NV 89801
   Physical Location: FR 417, Elko County, Mile Post 0.29
   Size of Facility: Approximately 15.7 acres
   Receiving Water Body: City of Elko MS4 - Humboldt River

7. **District III Sub District Ely Maintenance Facility**

   1401 East Aultman
   Ely, NV 89301
   Size of Facility: Approximately 5.5 acres
   Receiving Water Body: Unknown

8. **District III Sub District Winnemucca Maintenance Facility**

   725 W. 4th Street
   Winnemucca, NV 89445
   Size of Facility: Approximately 7 acres
   Receiving Water Body: City of Winnemucca - Humboldt River

9. **Headquarters Carson City Maintenance Facility**

   1250 Oregon Street
   Carson City, NV 89712
   Size of Facility: Approximately 17.8 acres
   Receiving Water Body: Linear Ditch/Carson River

The Department considers Tonopah, Winnemucca and Ely facilities as “Major” by definition. Environmental Services Division has added the other facilities listed into the “Major” designation due to them meeting the equipment repair and crew stationing criteria.

NDOT’s Minor Maintenance Facilities

NDOT’s Environmental Services Division is currently assessing NDOT’s facilities to determine which ones would fall under the “Minor” facility permitting requirements. Following the completion of the assessment, a listing of these minor facilities will be provided in the SWMP.

3.9.4 Maintenance Facility Practices

Both Major and Minor Maintenance Facilities utilize a variety of BMPs to reduce pollutants in discharge to the MEP. Site BMPs used include both source and structural controls. Summarized in Table 3.9-1 are the existing written BMPs applicable to Maintenance Facilities. Although several of these BMPs were written for construction sites, many of the stormwater pollution control practices and principles apply to maintenance facilities as well due to similar activities and sources of potential pollutant discharges. Full documentation of the BMPs listed in Table 3.9-1 can be found in the Department's Planning and Design Guide and Construction Site Best Management Practices (BMPs) Manual. Described in these documents are the procedures to select, install and maintain the BMPs.

A stand alone, Maintenance facility-specific BMPs Manual will be developed in the very near future to assist Maintenance and District personnel with guidance for implementing BMPs appropriate to the day-day operations at these facilities.

Table 3.9-1 Existing NDOT BMPs Applicable to Maintenance Facilities and Yards

BMP Name (Sheet #)	BMP Description
Scheduling (SS-1)	Scheduling of outdoor activities to reduce the impact of any stormwater runoff
Preservation of Existing Vegetation (SS-2)	Identifying and protecting site vegetation to provide erosion control
Earth Dikes/Drainage Swales & Lined Ditches (SS-9)	Structures designed to divert and convey runoff away from sensitive areas
Outlet Protection/Velocity Dissipation Devices (SS-10)	Techniques to reduce erosion and scour at outlets by reducing velocity of runoff
Sediment Basins (SC-2)	Temporary basin to capture and detain runoff, allowing sediments to settle out before water is discharged
Sediment Traps (SC-3)	Temporary containment to settle out sediment before infiltration or discharge
Detention Basins (TC-3)	Permanent basins to capture and retain stormwater runoff from the facility
Sweeping and Vacuuming (SC-7)	Removal of accumulated or tracked material before it can enter a conveyance system
Storm Drain Inlet Protection (SC-8)	Protection of storm drain inlets from site sediment-laden runoff
Water Conservation Practices (NS-1)	Using water on-site conservatively to avoid runoff
Dewatering Operations (NS-2)	Managing non-stormwater and accumulated stormwater
Paving and Grinding Operations (NS-3)	Practices to minimize the release of pollutants associated with these activities into the storm drain system
Illicit Connection/Illegal Discharge Detection and Reporting (NS-6)	Activities which identify and report illicit discharges or illegally dumped materials
Vehicle and Equipment Cleaning (NS-8)	Procedures to protect the downstream environment from discharges associated with vehicle cleaning
Vehicle and Equipment Fueling (NS-9)	Procedures to prevent fuel spills and leaks into the storm drain system and receiving waters
Vehicle and Equipment Maintenance (NS-10)	Vehicle and equipment maintenance procedures to prevent the discharge of pollutants into the storm drain system
Temporary Batch Plants (NS-16)	Practices to reduce the impact of site runoff
Material Delivery and Storage (WM-1)	Descriptions of the proper handling and storage of materials to minimize discharges into the receiving waters

Stockpile Management (WM-3)	Management procedures to reduce the potential for discharges from stockpiles of soil and paving materials
Spill Prevention and Control (WM-4)	Methods to prevent, control and report spills
Construction Debris and Litter Management (WM-5)	Managing stockpiles and construction site wastes to prevent and minimize offsite runoff effects
Concrete Waste Management (WM-6)	Concrete waste practices to prevent the waste materials from entering the storm drain system
Sanitary/Septic Waste Management (WM-7)	Proper placement and maintenance of sanitary/septic waste materials to prevent discharge into the storm drain system
Liquid Waste Management (WM-8)	Management practices to control non-hazardous liquid materials

The Permit requires NDOT to describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for:

- Vehicle or Equipment Storage (III.L.2.c)
- Vehicle or Equipment Maintenance (III.L.2.d)
- Material Storage (III.L.2.e)

The Permit requires the use of drip pans under vehicles and equipment, indoor or covered storage (where possible), berms or dikes around storage and maintenance areas, the use of adsorbents and dry clean-up methods. For equipment maintenance areas, the Permit requires that maintenance activities be performed indoors (where possible). Additionally, the Permit requires an organized inventory of shop materials, and the treatment, recycle or proper disposal of collected stormwater runoff. NDOT is not authorized to discharge any washwater from washing vehicles, tanks or containers.

Section III.L.1 of the Permit requires a description of the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The description must include a discussion of how NDOT properly selects, installs, and maintains all BMPs in accordance with any relevant manufacturer specifications and good engineering practices (III.L.1.c). All of the Department's Maintenance Facilities employ numerous BMPs to mitigate pollution in stormwater discharge.

Written guidance is presently available for most routine Maintenance Facility BMPs. Guidance for BMPs such as site controls, run-on, tracking, stockpile, management, fuel storage, and retention ponds is presently described in the Department's Construction Site BMP Handbook and the Planning and Design Guide.

Maintenance Facility BMPs vary with the size, location, materials, equipment and site activities. Presently, FPPPs are being prepared for each NDOT Maintenance Facility (see MAINT-06). These documents will identify the necessary BMPs and any required monitoring and maintenance. Under the Permit, the Department is tasked with describing the selection, installation, and upkeep of Maintenance Yard BMPs specifically for: Vehicle or Equipment Storage (III.L.2.C), Vehicle or Equipment Maintenance (III.L.2.d), Material

Storage (III.L.2.e), and the Prevention, Containment, and Response to Spills (III.L.2.f). The Permit specifies that a Maintenance Facility Stormwater Practices and Controls Program must address following items and issues:

- Implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, salt and sand storage locations, and snow disposal areas
- Prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges
- Implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities
- Describe and implement BMPs for vehicle or equipment storage:
  - Confine the storage of leaking or leak-prone vehicles to designated areas
  - Drip pans under vehicles and equipment
  - Indoor or covered vehicle and equipment storage
  - Berms or dikes around vehicle or equipment storage areas
  - Use of adsorbents to clean spilled materials
  - Housekeeping and pavement cleaning
- Describe and implement BMPs for vehicle or equipment maintenance:
  - Perform maintenance activities indoors whenever practicable
  - Use drip pans under vehicles and equipment
  - Keep an organized inventory of materials used in the shop
  - Drain all parts of fluid prior to disposal
  - Use dry cleanup methods
  - Prohibit wet cleanup practices if they result in discharges
  - Treat, recycle, or properly dispose of collected stormwater runoff
  - Minimize run-on/runoff of stormwater to and from maintenance areas
- Describe and implement BMPs for material storage:

- Maintain all outdoor material storage vessels
- Plainly label all storage vessels (e.g., "Used Oil," "Spent Solvents," etc.)
- Move storage indoors whenever practical
- Install berms / dikes around the areas
- Minimize run-on of stormwater to the storage areas
- Use dry cleanup methods
- Treat, recycle, or properly dispose of collected stormwater runoff
- Prohibit the discharge of vehicle and equipment washwater

During this permit cycle, the Department will complete the development and implementation of Maintenance FPPPs that will address the BMPs listed above as appropriate. In addition, a Maintenance facility specific BMP manual will be developed that will serve as a reference guide for BMP implementation for day-to-day activities.

Maintenance Facility Spill Control and Response. Section III.L.2.f of the Permit requires the Department to implement practices and procedures to prevent, contain, and respond to spills from Maintenance Facilities. These procedures were described in Section 3.7.3 (IDDE Program Practices and Program Elements). A programmatic Fact Sheet, IDDE-03 Spill Control and Prevention was created and is included in Section 6 of this document. Also included in Section 3.7.3 was Fact Sheet IDDE-04, IDDE Response, Corrective Action and Follow-up.

Hazardous Materials Management and Disposal. Section III.L.2.f.i and ii requires that the Department implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities. A programmatic Fact Sheet (MAINT-01) has been created to describe how the Department deals with hazardous and toxic materials and the safe disposal practices used.

MAINT-01 Hazardous Materials Management

Other than fuels and small amounts of lubricants, toxic and hazardous materials are generally found only at the Major Maintenance Facilities. Preventing the release of toxic and/or hazardous materials at these facilities is critical to NDOT's employee safety as well as protecting stormwater runoff quality. Typical examples of toxic and/or hazardous materials that can be found at Maintenance Facilities include petroleum products, antifreeze, non-chlorinated flashpoint adjusted solvents, various surface cleaners, and surface coating materials (e.g. latex paint). The Department's Hazardous Materials Management Program relies on the right equipment, materials, procedures, training, and site design elements.

The Department has an existing program described in Section C of the Maintenance Management System (MMS) that conforms to the requirements of Title 40 CFR Parts 261, 262 and OSHA. Training is provided by Facility Maintenance Supervisors. BMPs for the handling, storage, use and disposal of hazardous materials are included in each FPPP.

The objective of this BMP is to evaluate the existing program to ensure that all Permit requirements are addressed and implemented. Note that spill control and prevention practices were addressed in IDDE-03 (Spill Control and Prevention).

BMP Objectives:

1) Mitigate potential releases of toxic and hazardous materials from NDOT's Maintenance facilities through sound management practices and effective training.

The Permit requires the Department to develop procedures and practices ("Maintenance Facility Material Management BMPs") to address the following:

- Training
- Tracking and documentation
- Material delivery
- Storage areas, containment and labeling requirements
- Inventory, recordkeeping and inspections
- Safe handling (MSDS sheets, label instructions)
- Material use (examples – paints, lubricants, fuels, herbicides, etc.)
- Spill response, sorbents, clean-up procedures, reportable amounts, contacts, and notifications
- Recycling and disposal
- Hazardous materials reduction strategy

NDOT's Environmental Services Division staff will investigate if the existing program and/or documentation addresses the Permit requirements related to hazardous materials and maintenance facilities. This will be accomplished in a series of meetings with staff from Environmental Services and Maintenance and Asset Management Divisions.

MAINT-08 Maintenance Facility BMP Manual

Maintenance operations are an essential component in meeting the Department's core mission, "Providing a better transportation system through Nevada through our unified and

dedicated efforts." The Department's Asset Management and Maintenance Division (Maintenance) is tasked with ensuring the state's highway system is properly maintained to as high a level as possible, consistent with the budget, work plan, policies, and program objectives.

Maintenance facilities are strategically located throughout the Department's three Districts statewide to provide a level of service necessary in keeping the state's highway system in a safe and operable condition. These facilities primarily consist of maintenance stations and yards, sand/salt and aggregate piles, and various material storage areas. Day-to-day operations at these facilities can have a negative impact on receiving water quality. Responsible stormwater management through the development and implementation of BMPs is necessary to ensure that stormwater discharges from these facilities do not significantly impact the water quality of a receiving waterbody.

BMP Objectives:

1) Prevent, or minimize to the MEP, stormwater pollutant discharges from the Department's Maintenance facilities.

2) Develop written guidance that provides direction and consistency with implementing BMP practices at the Department's Maintenance facilities.

The development of a Maintenance facility-specific BMP manual will assist Maintenance, Equipment, and various District personnel with implementing and maintaining BMPs at Maintenance facilities statewide. This document will serve as a valuable reference for incorporating BMPs into day-to-day facility operations, to help facilitate the implementation of Major and Minor FPPPs (MAINT-06), and serve as a guidance tool when conducting facility stormwater inspections (MAINT-07).

3.9.5 Facility Pollution Prevention Plans (FPPPs)

Section III.S.1.of the Permit requires NDOT to prepare SWPPPs for all of its Maintenance Facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs must describe the site-specific BMPs in place that reduce pollutants to the MEP. The Department has chosen to identify these plans as Facility Pollution Prevention Plans (FPPP) for consistency and identification. Section III.S.3.b of the Permit requires the Department to identify which Maintenance Facilities are considered Major and Minor (See Section 3.93). Detailed FPPPs are presently being prepared for each of the nine Major facilities. Minor facilities can be grouped together by type, with one "runoff control plan" (aka FPPP) developed for each group (III.S.3.ii). Generic FPPP elements may be used to describe activities that are performed at more than one maintenance facility; however, each site will be evaluated separately and provided with appropriate site specific BMPs (III.S.2).

Section III.L.1 of the Permit requires the Department to describe measures used to control discharges from NDOT Maintenance Facilities. FPPPs will identify the necessary general and site-specific BMPs to be used at each of the Department's Maintenance Facilities. The BMPs, as well as the established (and proposed) processes and procedures to implement the BMPs, will be addressed in each FPPP. The Department's Environmental Services Division, Water Quality Section is tasked with developing the required FPPPs. At this time, a FPPP has been developed and issued to the Reno/Sparks Maintenance Facility.

MAINT-06 Maintenance Facility FPPPs

The Maintenance Yards Management Section of the Permit (Section III.S) requires the development and implementation of Stormwater Pollution Prevention Plans (SWPPPs) for all of NDOT's maintenance yards, storage areas, batch plants and facilities. NDOT has chosen to identify these plans as Facility Pollution Prevention Plans (FPPPs) for consistency and differentiation from transitory construction sites. Note that the content of the Department's FPPPs are consistent with that described in the Permit for a SWPPP and a "Runoff Control Plan" (III.S.3.a).

Section III.L. of the Permit (Stormwater Discharges from NDOT Maintenance Facilities) requires NDOT to describe measures that will be used to control discharges from NDOT Maintenance Facilities. The FPPP is the written document that describes how the Department will address and satisfy the Permit requirements for preventing, controlling, and treating stormwater runoff from Maintenance Facilities. The FPPP describes procedures, BMPs, inspections, maintenance requirements, and unique site elements, and constraints that collectively control site runoff and pollution to the MEP.

The purpose of the FPPP is to formally identify stormwater pollution sources; any major and minor BMPs to reduce stormwater runoff impacts; identify and document BMP maintenance and inspection schedules; and ultimately be a useful tool for guiding daily activities. FPPPs are generally site specific documents, tailored to the individual site location and activities. A FPPP includes site maps (showing drainages, discharge locations, and the locations of control measures); a description of the site; pollution prevention BMPs; and inspection and maintenance procedures and reports.

NDOT has begun developing FPPPs for the nine Major Maintenance Facilities (see Section 3.9.3 for the definition of a Major facility). Once the FPPPs are completed for the Major facilities, FPPPs will be prepared for the Minor Maintenance Facilities (or groups of Minor facilities with similar activities and constraints).

BMP Objectives:

1) Prevent, or reduce to the MEP, potential stormwater pollutant discharges from Department Maintenance facilities through the development of FPPPs.

Maintenance site FPPPs will be developed by NDOT's Environmental Services Division during this permit cycle.

The complexity of each FPPP varies with the size of the maintenance yard, on-site materials, activities, and proximity to waterways, resources and urban areas. The following components are addressed in the FPPPs for each maintenance site.

1) Identify potential pollutant sources
2) Develop a facility site map
3) Stormwater management BMPs
    - Description of general BMPs
    - Facility specific BMPs
    - Identification of the FPPP Administrator
    - General and specific housekeeping requirements
    - Hazardous waste management components
    - Spill control and prevention
    - Illicit discharge detection and elimination
    - Employee training
    - Inspection procedures
4) Identification of any off-site yards or activities (and associated controls)

NDOT's Environmental Services Division will visit the facility and prepare the draft FPPP document. The draft document will then be reviewed by the site Maintenance Facility Manager or appropriate staff for accuracy, conformance, and implementability.

Following the development of FPPPs for the Department's Major facilities, NDOT's Environmental Services Division will develop the FPPP documents for the designated Minor Maintenance Facilities. As per the Permit, plans for these Minor facilities are expected to be grouped based on location, size, and/or activity.

The Permit (Section III.S.J) requires the FPPPs to be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this Permit; another 40 percent within twenty-four (24) months of the effective date of this Permit; and the remaining 50 percent within thirty-six (36) months of the effective date of this Permit. NDOT is currently scheduled to have all FPPPs developed by the end of 2013.

A summary of compliance with the FPPPs shall be submitted by each plan administrator to Environmental Services Division by September 1 of each year.

Summaries of FPPP compliance activities will be included in the Annual Report to NDEP.

3.9.6 Facility Inspections

The Department is required to conduct a "Comprehensive Maintenance Facility Inspection" for all of its facilities at least once per year (Permit Section III.M). The required scope of these inspections can be found in Permit Section III.N. A Programmatic Fact Sheet, MAINT-07 (Maintenance Facility Inspections) has been created to ensure that the required inspections will be performed with respect to the frequency outlined in the Permit.

BMP – MAINT-07 Maintenance Facility Inspections

Section III.M of the Permit requires the Department to conduct comprehensive Maintenance Facility inspections of its facilities and prepare reports documenting those inspections at least once annually. Additionally, routine visual inspections are required to ensure that facility FPPPs address any significant changes to the facility's operations or BMP implementation procedures. The scope of these inspections and the associated reporting requirements are specified in Section III.N of the Permit.

The intent of this BMP is to establish and document the Department's approach to accomplishing the required Maintenance Facility inspections.

BMP Objectives:

1) Ensure implementation of effective BMPs to prevent, or reduce to the MEP, potential stormwater pollutant discharges from Department Maintenance facilities.

The nine Major Department Maintenance Facilities (see Section 3.9.3), as well as designated Minor Maintenance Facilities, will be inspected at least annually by the Environmental Services Division. Associated offsite material storage areas for each Maintenance Facility will be inspected as appropriate. The components and elements of the annual inspections are listed below. In addition to annual inspections, routine visual inspections will be performed by the designated on-site FPPP Administrator and/or Environmental Services Division.

Inspections of the Maintenance Facilities will include the following areas/activities:

- Areas of the site exposed to precipitation
- Areas where spills and leaks have occurred and are likely to occur
- Evidence of, or the potential for, pollutants entering the drainage system

- Storage areas for vehicles and equipment awaiting maintenance
- Fueling areas (including mobile fueling stations)
- Indoor and outdoor vehicle/equipment maintenance areas
- Material storage areas
- Material source stockpile(s) and evidence of run-on, run-off or material migration
- Vehicle/equipment cleaning areas
- Vehicle loading and unloading areas
- Onsite waste storage and disposal areas
- All BMPs identified in the FPPP and the conditions found
- All site discharge locations
- Downstream locations (in the event that inspection of the exact discharge location(s) are not immediately accessible)
- Locations where vehicles enter or exit the site (evidence of off-site sediment tracking)

Annual inspection reports will include:

- The inspection date
- The name(s), title(s) and qualifications of the person(s) making the inspection
- Weather information and a description of any discharges occurring at the time of the inspection
- The location(s) of discharges of sediment or other pollutants from the site (if any)
- The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location
- The location(s) where additional BMPs are needed that did not exist at the time of previous inspections
- The corrective action(s) required, including any changes to the FPPP and implementation dates
- The identification of all sources of non-stormwater discharges, if any, and the associated BMPs

- Where applicable, the identification or change in material storage areas, and evidence of, or potential for, pollutant discharges from these areas not listed in the FPPP

- Inspection reports will identify any incidents of non-compliance with the Permit or FPPP. Where a report does not identify any incidents of non-compliance, the report will contain a certification that the activities are in compliance with the FPPP and the Permit

- The report shall be signed and certified in accordance with Part V.G of the Permit and copies included in the FPPP and the Annual Report to NDEP

Based on the results of the routine and annual inspections, NDOT will modify the site FPPPs as necessary to include additional or modified BMPs designed to correct problems identified. The Department will complete any revisions to the FPPPs and modify or add BMPs as necessary within thirty (30) calendar days following an inspection. District and/or Maintenance personnel will be required to follow-up on all inspection deficiencies and new BMPs to ensure that appropriate action was taken in response to issues noted.

In the event that sediment or other materials escape the site, the Department will remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. Any accumulations will be removed within seven (7) days of discovery (unless precluded by legal, regulatory, or physical access constraints). The Department will make all reasonable efforts to obtain access, and in such instances, removal and stabilization will also be within seven (7) days of obtaining access.

Under this BMP, NDOT's current form utilized for Maintenance Facility inspections will be reviewed on an annual basis and updated as necessary.

BMP – MAINT-09 Maintenance Facility Updates

The Maintenance Yards Management Section of the Permit (Section III.S) requires the development and implementation of Stormwater Pollution Prevention Plans (SWPPPs) for all of NDOT's maintenance yards, storage areas, batch plants and facilities. NDOT has chosen to identify these plans as Facility Pollution Prevention Plans (FPPPs) for consistency and differentiation from transitory construction sites. Note that the content of the Department's FPPPs are consistent with that described in the Permit for a SWPPP and a "Runoff Control Plan" (III.S.3.a).

The following ten Maintenance facilities have been designated as Major facilities (based on the criteria that the facility conducts major equipment repairs and houses multiple crews), and therefore will receive individual site specific FPPPs: Las Vegas North, Tonopah, Las Vegas South, Carson City, Reno/Sparks, Fallon, Elko, Ely, Winnemucca, and Wells. Remaining Maintenance stations and appropriate off-site storage areas will fall under their respective umbrella FPPPs, with site-specific considerations incorporated as necessary.

The Maintenance facility BMP (MAINT-06) addresses the development of FPPPs for designated Major and Minor Maintenance facilities. This BMP, however, describes the process for developing FPPPs for new Maintenance facilities, or altering existing FPPPs should an existing facility be discontinued or change designations, i.e. Minor to Major.

BMP Objectives:

1) Prevent, or minimize to the MEP, stormwater pollutant discharges from the Department's Maintenance facilities.

2) Introduce a process that addresses changes to Maintenance facility FPPP designations and subsequent FPPP development or modification.

On an annual basis, Environmental Services Division will submit a request to the Asset Management and Maintenance Division requesting an updated list of Maintenance facilities throughout the three Districts. A newly constructed facility, e.g. a new Maintenance station, will be assessed and assigned an appropriate designation, i.e. Major or Minor. Depending on the designation, the facility will then be added to one of the existing FPPPs for Minor facilities (as appropriate), or issued a site specific Major facility FPPP. Both shall occur within six months of Environmental Services being notified that the new facility is fully operational.

In the event that a designated Minor facility undergoes a change in operation and subsequently falls under the criteria of a Major facility, the appropriate Minor FPPP will be adjusted and a new site specific Major facility FPPP will be developed within six months of Environmental Services being notified of the operational change.

In the event that a designated Minor facility is discontinued from service, the appropriate FPPP will be updated within six months of Environmental Services being notified of the change. In the event that a Major facility is discontinued and no longer in service, or undergoes an operational change and subsequently falls under the criteria of a Minor facility, the Major FPPP will be annulled and the appropriate Minor FPPP will be updated (as necessary) within six months of Environmental Services being notified of the operational change.

3.10 Public Street Maintenance Program

NDOT's Street Maintenance Program includes practices and procedures related to how the Department operates and maintains public streets and roads, in both rural and urbanized areas, to reduce the discharge of pollutants in stormwater runoff to the MEP. The Street Maintenance Program includes the following broad categories:

- Highway and runoff conveyance system repair and maintenance
- Street sweeping (and residuals management and disposal)

- Snow and deicing practices and materials management

Important to NDOT's Public Street Maintenance Program are numerous practices described elsewhere in this SWMP document, such as:

- Highway and Road Construction (Section 3.5)
- NDOT's Vegetation Control Program (ENVR-05)
- Herbicide, Pesticide and Fertilizer Application Practices (Section 3.11)
- Mapping and Inventory of Structural BMPs and Major Outfalls (DEPT-10)
- IDDE Response, Corrective Action and Follow-up (IDDE-04)
- Hazardous Materials Management (MAINT-01)
- Outfall Screening and Investigations (MAINT-04)
- Inspection and Maintenance of Structural BMPs (MAINT-05)
- Public Litter Removal Programs (EDU-02)

Collectively, all of these practices make up the Department's Public Street Maintenance Program. The Program's practices are performed in conformance with the Department's overall goals of optimizing public safety, efficiently operating the state's transportation system, and effectively preserving and managing the public assets of the State of Nevada. Presented in this section is a description of NDOT's Public Street Maintenance Program.

3.10.1 Permit Requirements

NDOT's Public Street Maintenance Program addresses requirements identified in five different Permit sections, including: SWMP revision (Section III.A), Public Street Maintenance Program in Urbanized Areas (Section III.O), Measures to Control Discharges from Roadways (Section III.P), Storm Sewer System and Highway Maintenance (Section III.Q), and Proper Operation and Maintenance (Section V.I). The applicable permit language is presented below.

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following Programs:

III.A.4.a NDOT's Legal Authority;

III.A.4.b NDOT's Stormwater Education Program;

III.A.4.c NDOT's MS4 Maps and Outfalls;

III.A.4.d Discharges to Water Quality Impaired Waters and Sanitary Sewers;

III.A.4.e Construction Site Best Management Practices ("BMPs") Program;

III.A.4.f New Development and Redevelopment Planning Program;

III.A.4.g NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;

III.A.4.h Industrial Facility Monitoring and Control;

III.A.4.i Stormwater Discharges from NDOT Maintenance Facilities;

III.A.4.j Public Street Maintenance Program; and

III.A.4.k Herbicide, Pesticide and Fertilizer Application Program.

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:

III.O.1.a Snow and ice management practices on streets, roads, and highways in urbanized areas shall be implemented in a manner consistent with NDOT's policies and guidelines. These guidelines shall include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets;

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

III.O.1.c Leaf litter and debris on all streets in urbanized areas shall be swept a minimum of two times per year, once in the spring and once in the fall;

III.O.1.d Sweeping of sanded streets in urbanized areas shall be performed as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall;

III.O.1.e Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.

III.O.1.f If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to Waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant.

III.O.1.g A narrative summary of the program will be included in the Annual Report.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a Highway Maintenance Activities

III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iii Establish schedules for implementing appropriate controls; and

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of way or discharging to a water of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

III.P.1.b Snow and Ice Control

III.P.1.b.i Where abrasives and/or deicing agents are used on highways, the following shall be recorded:

III.P.1.b.i.1 Location of the source of abrasives materials;

III.P.1.b.i.2 Types and chemistry of deicing agents;

III.P.1.b.i.3 Deicing salt shall be analyzed for: total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl);

III.P.1.b.i.4 Alternative deicers shall be analyzed for total nitrogen and total phosphorus;

III.P.1.b.i.5 Type and chemistry of abrasives with the gradation and percent organic matter. Gradation and percent organic matter shall be determined from composite samples. The composite samples shall be taken from one stockpile that represents all deliveries from the originating source. Composite samples shall be taken from every new delivery from a new originating source;

III.P.1.b.i.6 Abrasives shall be analyzed for volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus; and

III.P.1.b.i.7 Volume of abrasives and deicing agents used on individual highway segments shall be documented in the Annual Report.

III.P.1.c Storm Water Drainage System Facilities Maintenance

III.P.1.c.i NDOT shall remove all debris and sediment from those inlets that pose a significant threat to water quality on an annual basis prior to the winter season each year. All debris and sediment removed from drain inlets shall be managed in accordance with all applicable laws and regulations. The amount of material removed shall be documented and included in the Annual Report; and

III.P.1.c.ii Drain inlets which contain significant materials must be considered for an IDDE investigation and considered for an enhanced BMP program focused on reducing the sources of the material found in the inlet.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:

III.Q.1.a Inventory Post-Construction Stormwater Pollution Control BMPs

III.Q.1.a.i NDOT shall develop and maintain an inventory of its post construction stormwater pollution control BMPs;

III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and

III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major post construction stormwater pollution control BMPs statewide as part of the revised SWMP.

III.Q.1.b Inspect Storm Sewer System

III.Q.1.b.i The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and determine maintenance needs; and

III.Q.1.b.ii NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.

III.Q.1.c Develop Maintenance Schedules and Priorities

III.Q.1.c.i NDOT shall identify routine maintenance schedules and maintenance priorities for its storm sewer system, including roadways to minimize pollutant discharges from the storm sewer system; and

III.Q.1.c.ii NDOT shall evaluate priorities and update the maintenance schedule annually.

III.Q.1.d Perform Repair, Maintenance, and Cleaning

III.Q.1.d.i NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and

III.Q.1.d.ii During repair, maintenance or cleaning activities, NDOT shall ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as significant loads of a specific pollutant(s) or material(s). Upon discovery, NDOT shall initiate an investigation to target likely sources and implement a BMP program to reduce the sources of the pollutant or material to the MEP.

III.Q.1.e Implement BMPs for Repair, Maintenance, and Cleaning

III.Q.1.e.i NDOT shall implement appropriate BMPs to reduce the potential for releases of pollutants to the storm sewer system or to Waters of the U.S. when performing

repair, maintenance, or cleaning of its storm sewer system, including roadways;

III.Q.1.e.ii NDOT shall implement BMPs to minimize the discharge of pollutants from unpaved roads, shoulders, and parking lots, such as permanent stabilization / erosion control BMPs and paving unpaved roads, and parking lots;

III.Q.1.e.iii NDOT shall properly dispose of waste removed from its storm sewer system and NDOT facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of shall be documented and included in the Annual Report.

III.Q.1.f Roadside Management Program

III.Q.1.f.i NDOT shall continue to implement the BMPs described in its Construction Site BMP Field Manual.

V.I. Proper Operation and Maintenance

V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.

3.10.2 Existing Public Street Maintenance Practices

The operation and maintenance of NDOT's highways or highway-related facilities include typical maintenance practices such as street sweeping, the routine cleaning of debris in drainage structures, guardrail repair, surface patching, striping, and snow and ice removal. The Department takes all appropriate precautions to reduce the potential for releases of pollutants to the storm sewer system or to Waters of the U.S. when performing repair, maintenance, or cleaning of its storm sewer system. Several of the existing public street maintenance practices are described below.

Routine Inspection and Clean-out of Stormwater Conveyance Systems

Under NDOT's Existing Public Street / Roadside Maintenance Program, Maintenance personnel inspect culverts and drop inlets for silt, debris, or blockage annually and after major storm events. Facilities found to be obstructed are cleaned out either immediately or prioritized depending on the assessed importance and severity of impairment. Any removed waste materials are disposed of in accordance with accepted facility maintenance practices and any necessary direction from the Environmental Services Division. Waste material from maintenance projects within the Lake Tahoe Basin are hauled out of the Basin for disposal. NDOT Maintenance personnel are trained to look for any indication of illicit discharges and follow established procedures for reporting instances. Roadside Maintenance Program activities are documented in NDOT's Maintenance Management System (MMS).

Excessive Slope Erosion and Steep Slopes

NDOT's Existing Public Street Maintenance Program identifies and repairs damaged slopes by routine patrols and inspections in each District. Slopes are inspected periodically by individual Maintenance Crews for overall condition and stability or propensity for erosion. The Maintenance Division works with Environmental Services and Hydraulics to address slope maintenance when there are potential water quality impacts. Maintenance staff commonly consults the Department's Storm Water Quality Manuals for assistance in identifying and employing appropriate soil stabilization and sediment controls. BMPs for slope control are discussed in detail in the PDG.

In general, large cut, fill and embankment areas within NDOT's right-of-ways for a given roadway segment are assessed (from an erosion control standpoint) during the initial design, construction and final stabilization phases of any given project. Initially, Environmental Services and Design Divisions assess all steep slope areas $\geq$ 3:1 (H:V) during preliminary design field surveys (PDFS) and other various pre-construction site visits. Through internal coordination efforts, erosion control plans are incorporated into the overall project design, addressing the adequacy of site stabilization through subsequent construction inspections and final stabilization acceptance. Sloped areas with the potential of higher erosion and mass failure are routinely inspected by NDOT District personnel and a part of routine patrol duties.

Snow and Ice Control Program

Typical snow and ice control and removal practices (and procedures) are documented in the Department's MMS. In the MMS, NDOT has outlined the plans to address three levels of controls: a general statewide plan, specific District plans, and individual crew plans. The Snow and Ice Control Program is described in the MMS document, with abrasives and anti/deicing agents described in Section D of Chapter 11 and snow removal described under Activity No. 151.01 - Plowing, Blading, Application of Abrasives and Chemicals.

Existing practice requires the local Facility Maintenance Manager to prepare a list of sand and salt stockpile locations and quantities each May to facilitate ordering for the subsequent year. The storage of these materials is documented in the Department's Global Positioning System (GPS) to facilitate inventory and tracking. Active NDOT Maintenance facilities and yards that commonly have stockpiles of sand and salt and brine tanks are summarized in Table A-1 of Appendix A of this SWMP document. Many of these locations have covered structures to house the sand and salt stockpiles.

The Department strives to apply deicing and/or abrasive materials at the most beneficial time with the minimum amount of materials to maximize effectiveness and public safety. The use of deicing and abrasive materials varies across the state and is dependent upon winter conditions. Maintenance forces continue to utilize the Road Weather Information Systems (RWIS) to assist with abrasive/deicing agent applications. RWIS is a network of meteorological stations strategically located along certain state roadways. Specialized monitoring equipment embedded into the road makes detailed observations of air and

pavement temperature on specific roadways, allowing NDOT to make informed snow removal decisions, from utilizing alternate de-icing chemicals and making optimal use of materials and staff to practicing anti-icing techniques developed through years of research. Currently, NDOT is utilizing 73 RWIS sites across the state to assist with snow and ice control operations.

NDOT and the University of Nevada, Reno are working towards developing a Maintenance Decision Support System (MDSS). Using accurate weather and road condition information, the MDSS will predict local weather conditions with greater accuracy, allowing NDOT to increase the efficiency of winter road maintenance operations, thus reducing the cost of winter maintenance and increasing the level of service and public safety.

Street Sweeping Program

The Department has an active street sweeping program that utilizes both mechanical and vacuum based sweepers owned by NDOT and operated by Department personnel and approved NDOT contractors. Street sweeping is widely acknowledged as an effective source control stormwater BMP. Activities and responsibilities are largely relegated to NDOT Districts. In general, urban streets and highways are swept at least twice a year; once in the spring and once in the fall of each year.

3.10.3 Public Street Maintenance Practices and Program Elements

NDOT's Public Street Maintenance program is in place. Two Fact Sheets were created to better document street sweeping and snow and ice control practices. Note that the other BMPs listed at the beginning of this subsection all have an important role in maintaining the Department's owned and operated public streets, roadways and highways within the state. Complete Fact Sheets listing the measurable goals and implementation schedules can be found in Section 6 of this document.

BMP – MAINT-02 Snow and Ice Control Program

Public safety requires the Department to apply deicers/anti-icers and abrasives to several of the highways throughout the state (primarily in the northern portion). Materials used for snow and ice control have the potential to adversely impact receiving waters if not properly managed. Deicing/anti-icing agents typically include salt and sodium chloride brine solutions with magnesium chloride utilized in specific regions. Sand/salt mixture is the primary abrasive utilized.

The Department's Snow and Ice Control Program is documented in the Maintenance Management System, Section D, Chapter 11, Snow Removal: Plowing, Blading, Application of Abrasive and Chemical (Activity No. 151.01), which includes a statewide plan, district plans, and individual crew plans. The existing program includes prescriptions for sand application rate, maximum salt concentrations, and the calibration of sand spreaders. Sweeping of sanded streets is described in MAINT-03. The storage of sand and salt will

also be addressed as part of MAINT-06. Through the use of proper practices and procedures, the potential negative impacts from the application of deicers/anti-icers and abrasives can be mitigated to the MEP.

The objective of this BMP is to evaluate the existing program to ensure that all Permit requirements are addressed and implemented.

BMP Objectives:

1) Mitigate potential adverse effects of deicer/anti-icer and abrasive applications to the MEP through sound management practices and effective training.

    a. Document and implement management practices and procedures for the safe application of deicers/anti-icers and abrasives on highways throughout the state.

Snow and ice management practices on streets, roads, and highways in both urban and rural areas are to be implemented in a manner consistent with the existing NDOT Snow and Ice Control Program policies and guidelines. These guidelines include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets.

Routine Practices

- Conduct inspection of vehicles and equipment prior to leaving the facility to ensure proper working condition
- Perform routine calibration of salt/sand spreading equipment, allowing for increased delivery precision and efficiency
- Controlled application rates
- Continue the evaluation of alternative deicing products and application methods
- Store sand/salt indoors where possible
- Sweep the Maintenance Facility as needed, cleaning up any excess or spilled deicing agents and abrasives

Snow and Ice Control

Where abrasives and/or deicing agents are used on highways, the following will be recorded:

- Location of the source of abrasive materials

- Types and chemistry of deicing agents
- If magnesium chloride is used, application practices, i.e. controlled application rates, will be used to minimize any negative effects
- Results of studies on magnesium chloride will be reviewed and considered when relevant

Materials Analysis

Composite samples will be collected from traction and deicing material stockpiles and sent to a certified laboratory for the determinations listed below. Composite samples will be collected from one stockpile that represents all deliveries used for the season. If a new delivery is received, a composite sample will be collected from each new originating source. Analytical requirements are:

- Deicing Salt - will be analyzed for total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl)
- Alternative Deicers – will be analyzed for total nitrogen and total phosphorus
- Abrasives (sand or cinders) – will be analyzed for gradation, percent organic matter, volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus

Materials Storage

Composite samples will be collected from traction and deicing material stockpiles and sent to a certified laboratory for the determinations listed below. Composite samples will be collected from one stockpile that represents all deliveries used for the season. If a new delivery is received, a composite sample will be collected from each new originating source. Analytical requirements are:

- Sand and salt will be stored under cover, e.g. “Sprung Structures,” sand/salt sheds, etc., where possible.
- Install perimeter control BMPs around material piles as appropriate.
- Avoid placing sand/salt piles near stormwater facilities where possible.

BMP – MAINT-03 Street Sweeping Program

Sweeping the highways and roadways of the state are an important component in the Department’s Public Street Maintenance Program. Numerous studies have shown that mechanical and vacuum sweepers are an effective source control measure, removing

contaminants from paved surfaces before they can be transported off-site by stormwater related runoff. The Department has an existing Street Sweeping Program, described in the MMS. Additionally, the Department has prepared Fact Sheet SC-7, Street Sweeping and Vacuuming found in the Construction Site BMP Manual.

The intent of this BMP is to recognize the Department's Street Sweeping Program as an important stormwater source control BMP and to specify minimum sweeping frequencies and residuals disposal.

BMP Objectives:

1) Improve highway runoff water quality throughout the state through an effective Street Sweeping Program

NDOT and its contractors routinely sweep the streets, highways and paved maintenance facility lots, removing leaf litter, tracked dirt, sand and other accumulated debris. The following minimum activities are performed:

- All streets in urbanized areas are swept a minimum of two times per year, once in the spring and once in the fall
- Following the application of deicers and traction sands, all roads are swept as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall

Sweeper wastes are disposed in approved areas following appropriate disposal practices. The Maintenance Site Facility Manager is in charge of ensuring that sweeper wastes are disposed of properly.

The Department will examine the feasibility of recycling or re-using a portion of the sweeper wastes during this permit cycle.

The amount of sweeper waste accumulated, recycled and/or disposed of each year will be documented and included in the Annual Report.

3.11 Herbicide, Pesticide, and Fertilizer Application Program

Section III.R of the Permit requires the Department to develop an Herbicide, Pesticide, and Fertilizer Application Program and a Vegetative Control Program. The Permit requires that all staff directly involved in the application of pesticides, herbicides and fertilizers be trained to minimize potential contamination to adjacent waterways due to improper application. NDOT generally uses mechanical methods or burning to control roadside weed and plant growth; however, staff and service providers do apply herbicides along the roadways and right-of-ways throughout the state to combat invasive and noxious weeds, maintain public

safety (e.g., sight distances, clear signage), improve aesthetics, and reduce the potential for wildland fire. Departmental use and application of insecticides and fertilizers are relatively uncommon. NDOT's Herbicide application program is well developed and approved under Nevada's General Pesticide Permit.

At this time, the Department does not have a single statewide Vegetative Control Plan in place. The Department has developed a series of Corridor Plans for the eleven major state highways. A Corridor Plan is a written guide for landscape and aesthetic improvements for future projects. The plans all emphasize the use of native, drought tolerant, plant species in all new re-vegetation projects (which by itself reduces herbicide use). Corridor Plans include vegetation, precipitation, habitat, and soil considerations for project planning in Nevada's various ecosystems; however, the Permit requires that these plans be integrated into an overall statewide plan (II.R.1.B).

Presented in this sub-section is NDOT's Herbicide, Pesticide, and Fertilizer Application Program. This program is made up of several separate programs, activities, and guidance documents that span several Divisions and Districts. The Herbicide, Pesticide and Fertilizer Application Program described for this Permit consists of training, the use of approved practices, documented procedures and guidelines. Collectively these practices and procedures minimize the potential for herbicides, pesticides, and fertilizers to have undesirable offsite impacts. Also included in this subsection is a discussion of NDOT's vegetation management activities, both existing and proposed.

3.11.1 Permit Requirements for the Herbicide, Pesticide and Fertilizer Application Program

Section III.A.4 of the Permit requires that information about NDOT's Herbicide, Pesticide, and Fertilizer Application Program be described in this SWMP document. The Stormwater Education Section of the Permit (III.F) requires training for all staff directly involved in the application of pesticides, herbicides, and fertilizers. Section III.R of the Permit is titled Herbicide, Pesticide, and Fertilizer Program and contains the majority of applicable language and requirements for the Department's program with respect to stormwater. Applicable Permit requirements for NDOT's Herbicide, Pesticide, and Fertilizer Application Program are listed below:

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.k Herbicide, Pesticide and Fertilizer Application Program.

III.F. Stormwater Education Program

III.F.5.g NDOT shall train all staff directly involved in the application of pesticides, herbicides, and fertilizers. Training shall include:

III.F.5.g.i The potential for stormwater contamination resulting from misapplication or over-application of chemicals; and

III.F.5.g.ii Proper application procedures and BMPs

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program.

III.R. Herbicide, Pesticide and Fertilizer Program

III.R.1. NDOT shall develop a program to reduce the discharge of pollutants related to the application of herbicides, pesticides and fertilizers to the MEP. This program shall include:

III.R.1.a Implement Pesticide and Fertilizer Application Procedures

III.R.1.a.i NDOT shall continue to implement practices and procedures for NDOT staff and commercial applicators to only use Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers at NDOT facilities and roadside right-of-ways. NDOT shall design these practices to avoid chemical application when feasible and to minimize the amount of chemicals applied;

III.R.1.a.ii As part of the revised SWMP, NDOT shall develop BMPs to address the timing of applications in relation to expected precipitation events, proximity to water bodies, and other practices to minimize the runoff of pollutants. Applications of herbicides shall be performed during dry-weather periods to the extent possible, using methods to limit overspray;

III.R.1.a.iii If NDOT must apply pesticides in any area that is within, or directly adjacent to a water of the U.S., only pesticides approved for aquatic use shall be used;

III.R.1.a.iv NDOT shall review application practices annually and update procedures as needed to minimize runoff of pollutants;

III.R.1.a.v NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways; and

III.R.1.a.vi A narrative summary of the program will be included in the Annual Report.

III.R.1.b Vegetation Control

III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:

III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non-stormwater runoff;

III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;

III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and

III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.

3.11.2 Existing Herbicide, Pesticide, and Fertilizer Application Program

NDOT's Herbicide, Pesticide, and Fertilizer Application Program is administered by the Maintenance and Asset Management Division. NDOT has authorization to apply and discharge pesticides, fungicides, herbicides, rodenticides, and insecticides under the Nevada General Pesticide Permit NVG870001. Under the Pesticide General Permit, NDOT has prepared a Pesticide Discharge Management Plan (PDMP) that identifies the Pesticide Discharge Management Team, duties, and responsibilities. Outlined in the PDMP is a description of the procedures for minimizing pesticide discharges, equipment maintenance, spill prevention, and control methods that are used. The requirements in the Pesticide General Permit are more restrictive than those listed above.

Established procedures and guidelines for the roadside application of herbicides can be found in the Nevada Department of Transportation Maintenance Management System (MMS) Instructional Manual. Documented in Section D, Chapter 6 are the guidelines for the Application of Chemical Weed Spray. NDOT requires its contractors and service providers to have a similar program in place. Subject matter covered in this document includes the following:

- The use of only approved chemicals at prescribed rates
- Strict use of approved and calibrated application equipment
- Product selection (considerations include: applicator safety, target effectiveness and intended use, potential effects on nearby lands, plants, animals, and aquatic life)
- Annual review of product appropriateness, new and existing products
- Inventory and storage requirements (controlled access)
- Applicator safety - MSDS sheets, precautions, manufacturer's cautions, filling and washing directions, and protective clothing and equipment
- Safe disposal practices - residue control, container rinsing and disposal, and approvals
- Equipment requirements - calibration, maintenance, spray tips, wind gauges
- Daily equipment checks - check application equipment, tanks, hoses, spray wands, and nozzles daily for safety and proper application

- Chemicals mixed and used according to manufacturer's recommendations
- Dye should be mixed with chemicals to facilitate the identification of areas sprayed
- Cautions and alerts - to minimize drift, restrict and limit application activities to wind speeds less than 10 mph (16 kph)
- Supervisor review of the areas designated for weed control
- Special application restrictions - sensitive biological areas, waterways, lakes, reservoirs, rivers, and the Lake Tahoe Basin
- Special considerations - urban areas, proximity to waterways, private landscaping, and other extenuating circumstances
- Training requirements - all employees that work with restricted use herbicides must attend training performed by the Nevada Department of Agriculture and be certified chemical applicators
- Employees may use only products for which they are certified
- Employees requiring certification must be recertified every two years
- Maintenance and Asset Management Division will maintain records of all chemical applications, name of applicator, date and time of application, location, equipment, chemical, rate, target species, weather conditions, equipment breakdowns

As previously noted, the Department rarely uses insecticides and fertilizers. On occasion, NDOT staff will assist the U.S. Bureau of Land Management (BLM) and Nevada Department of Agriculture with Mormon Cricket control efforts. Fertilizer applications are typically limited to establishing cover and vegetation to prevent erosion following new construction projects, e.g. a component of hydroseed slurries. Landscaping is generally performed by qualified service providers. Fertilizer application method and rates are specified in the Department's contract documents and reviewed by NDOT's Registered Landscape Architects. Of note is that the General Permit requires re-establishment of 70% of the pre-construction vegetation cover or other appropriate stabilization (a driving force in the use of fertilizers for reestablishment of vegetative cover). General guidelines for landscaping and establishing vegetation for erosion control can be found in NDOT's Standard Specifications for Road and Bridge Construction Guide, Section 211 (NDOT, 2001) and Contract specific documentation.

3.11.3 Existing Vegetative Control Program

The Permit requires the development of a Vegetative Control Program that: 1) enhances use of native vegetation; 2) controls the application of fertilizers to minimize nutrient runoff to surface water; 3) integrates existing vegetation control management plans into an overall statewide plan; and 4) provides program updates in the Annual Report to NDEP.

The management and implementation of NDOT's Vegetative Control Program is a collaborative effort among various Divisions and Sections. Vegetation is not only utilized for its aesthetical qualities, but is an important component of NDOT's statewide erosion control and water quality efforts.

NDOT's Landscape Architecture Section assists with the planning and long-term management of floral communities and is tasked with designing landscaping features along state routes and corridors with an emphasis in urbanized settings. Most of Landscaping Architecture's efforts incorporate a native vegetation component integrated with various structural components, i.e. decorative rock, providing for visual enhancement and contrast along with stormwater and erosion control qualities.

Environmental Services Division assists with the development of post-construction re-vegetation prescriptions with a focus on region specific native plant species to mitigate the impacts of highway construction and maintenance activities throughout the state. Plant species utilized in these designs are selected specifically for their ability to thrive in a given region with minimal maintenance requirements. Environmental Services Division is a go-to source for Maintenance and Construction Crews for input regarding the management of vegetation within NDOT's right-of-way.

Hydraulics Section assists with incorporating native vegetation with structural stormwater controls as part of NDOT's ongoing water quality improvement projects within the Lake Tahoe Basin and Clear Creek watershed. These efforts not only treat stormwater discharge, but contribute to watershed stability by addressing source control problems.

Vegetation control efforts within NDOT's right-of-way are administered by NDOT's Maintenance and Asset Management Division. Maintenance Crews throughout the state control vegetation within certain areas of the roadway prism, e.g. immediate shoulder areas, to maintain a safe "clear zone" for traveling motorists. This is typically accomplished using conventional methods such as mowing and herbicide application. By utilizing selective weed control practices, Maintenance Crews also play an important role in the abatement and treatment of state listed noxious weed species.

In 2002, NDOT issued a Landscape and Aesthetics Master Plan for the Nevada State Highway System. The goal of this Master Plan was to "establish a landscape and aesthetics program for the Nevada state highway system and serve as a vehicle for NDOT and Nevada's communities to improve the quality of life in the state by allowing for the

beautification of highways, improve the state's public image, welcome visitors, and contribute to a tourist-based economy". The plan contained recommended policies and guiding principles, but does not outline a vegetation control program. The Master Plan set forth a policy that landscape and aesthetic treatments emphasize regionally-appropriate materials and drought-resistant plants. Furthermore, the 2002 Master Plan outlined a process for the development of a series of Corridor Plans for the major state highways.

The Corridor Planning process is complete for all eleven of Nevada's major highway corridors. A Corridor Plan is a written guide for landscape and aesthetic improvements for future projects. NDOT staff use the Corridor Plans to ensure that new project designs conform to the selected themes, cost range, material guidelines, and overall aesthetic "intent" for the corridor. Included in the Corridor Plans are the desired levels of landscape and aesthetic treatments and include some vegetation recommendations and the approach to control invasive and noxious weeds.

Another important tool NDOT utilizes for vegetative control and management is the University of Nevada's illustrated presentation and maps entitled *Mapping Ecosystems along Nevada Highways and the Development of Specifications for Vegetation Remediation*. This document provides information and guidelines for re-vegetation on various sites along highways where disturbance has occurred. The project emphasized native plant species selection and installation, maintenance requirements, and vegetation evaluation. The document identified the major plant communities from satellite imagery, and overlaid those plant communities with general soil classification units along highways across the state. The document also recommends procedures and management practices for vegetation remediation based on appropriate ecosystems and soil types.

3.11.4 Practices and Program Elements for the Herbicide, Pesticide, and Fertilizer Application Program

The Department's Herbicide, Pesticide, and Fertilizer Application Program is presently in place and well documented. The Permit requirement that all staff directly involved in the application of pesticides, herbicides and fertilizers be trained is listed in multiple locations in the Permit. NDOT has developed a programmatic BMP (TRAIN-03) that requires applicator certification and outlines measurable goals and reporting requirements with respect to the Stormwater MS4 Permit. The training requirements listed in TRAIN-03 are consistent with those listed in the Nevada General Pesticide Permit NVG870001.

Fertilizer use within the MS4 Permit area is limited primarily to the reestablishment of vegetation following construction type activities. Given this, a programmatic BMP (ENVR-05) was developed to further examine the Department's use of fertilizers and ascertain the need to develop guidelines and formal training for fertilizer applicators.

A summary of these two BMPs are listed below. Full BMP Fact Sheets for each practice, along with data collection and reporting requirements, measurable goals and implementation schedule, can be found in Section 6 of this document.

BMP – TRAIN-03 NDOT Herbicide Applicator Training

When mechanical methods are not feasible, NDOT staff or approved service providers apply herbicides for the control of weeds and nuisance vegetation. NDOT has authorization to apply herbicides under the Nevada General Pesticide Permit NVG870001 and maintains all required records, practices and procedures for compliance with this statewide general permit. Established procedures and guidelines for the roadside application of herbicides can be found in the NDOT Maintenance Management System (MMS) Instructional Manual.

State and federal laws require that only certified applicators apply or supervise the application of Restricted-Use Pesticides (RUP; herbicides are considered a sub-set of pesticides). The Nevada Department of Agriculture provides certification training for pesticide applicators. NDOT personnel who apply RUP and contractors that apply RUP or General Use herbicides to vegetation in the right-of-ways throughout the state are required to complete Nevada certified applicator training.

The intent of this BMP is to continue to ensure that applicators are properly trained, monitored and certified. Proper training is an important step in ensuring that herbicides are applied in a safe and effective manner so as to minimize the likelihood of off-site migration into waterways.

BMP Objectives:

1) Reduce the potential for herbicides to enter the waterways adjacent to NDOT right-of-ways through proper application and training.

NDOT will continue to ensure that employees are properly trained and certified (as required) and contractors are properly certified. To become certified, candidates must complete an 8-hour course and pass a written exam administered by the Department of Agriculture. Training sessions are offered regularly in Reno and Las Vegas and by video conference in Fallon, Winnemucca, Battle Mountain, Lovelock, Eureka and Tonopah. Recertification is required every two years. Maintenance and Asset Management Division maintains records of these.

NDOT's herbicide application program is administered by the Maintenance and Asset Management Division with the individual Districts charged with keeping records. On an annual basis, records pertaining to roadside herbicide application will be requested by the Environmental Services Division for inclusion in the Annual Report to NDEP.

NDOT uses Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers only in a manner consistent with product labels.

BMP – ENVR-04 Fertilizer Application

Although the Nevada Department of Agriculture is tasked with monitoring the safe and effective use of agricultural related chemicals, at this time there is no certification program for fertilizer applicators.

NDOT does not routinely apply fertilizers within the MS4 Permit area. NDOT's Landscape and Aesthetics Program emphasizes the use of native plant species that after establishment do not require fertilizer or irrigation. In general, fertilizers are limited to specific projects to help reestablish vegetation after construction activities, e.g. a component of hydroseed slurries. Fertilizer type and application rates are prescribed by the Department's Registered Landscape Architects and/or Environmental Services Division and closely monitored and inspected during plant placement. Fertilizer application by Maintenance Crews is very limited and site specific. Therefore, a fertilizer application training program is considered unnecessary at this time.

The intent of this BMP is to track the type and amount of fertilizers used within the MS4 Permit area for a two-year period and then assess the need for the development of a fertilizer application training program or other appropriate guidelines.

BMP Objectives:

1) Identify the need for a formalized fertilizer application training program by tracking the actual use of fertilizers within the MS4 Permit area

2) If required, develop a fertilizer application training program to reduce the potential for fertilizers to enter the waterways

Environmental Services Division will coordinate with the appropriate Department staff annually to assess fertilizer use within the MS4 Permit area. If the amount of fertilizer use is greater than expected or known to be an issue, NDOT may partner with the Nevada Landscape Association or the Nevada Department of Agriculture to assess the utility of developing a fertilizer applicator certification and training program or other appropriate guidelines.

Summarized below is the proposed practice for the development of a formalized statewide Vegetation Control Program.

BMP – ENVR-05 Vegetative Control Program

The Permit requires that NDOT develop a Vegetative Control Program that enhances the use of native vegetation, controls the application of fertilizers, and integrates existing vegetation control management plans into an overall statewide plan. Currently, the management and implementation of NDOT's Vegetative Control Program is a collaborative effort among various Divisions and Sections with the individual components existing in various Departmental programs, policies, and guidance documents

The intent of this BMP is to continue implementing vegetative control efforts and seek opportunities for improvement, while taking into account the goals and objectives of the Department. Nevada contains numerous distinct and diverse ecosystems with many different vegetation communities, thus necessitating the need for region specific approaches for specific program elements.

BMP Objectives:

1) Assess current vegetation management practices and determine where opportunities for improvement exist

2) Minimize erosion and improve stormwater runoff quality through the proper use and management of roadside vegetation throughout the state

Implementation of the Vegetative Control Program will require ongoing collaboration between various Divisions and Sections. Individual program elements, i.e. Landscape and Aesthetics Master Plan, Corridor Plans, etc., will continue to be incorporated. Appropriate Divisions and Sections will continue working together to ensure that Permit requirements are met without compromising individual goals and objectives such as visual aesthetics, water quality improvement, and public safety.

3.12 Clear Creek Master Stormwater Management Program (CCSWMP)

The Clear Creek watershed is located in Northern Nevada, immediately southwest of Carson City on the eastern front of the Sierra Nevada Carson Range. The watershed runs between Spooner Summit at the rim of the Lake Tahoe Basin and the Clear Creek confluence with Carson River. Clear Creek is a perennial stream with three perennial main branches and several small intermittent streams originating from springs and/or seeps. The average mean stream flow (1990-2007) is approximately 5.6 ft^3/s (USGS, 2009).

The Clear Creek watershed has an area of approximately 23 square miles (Carson City, 2007). The watershed lies within both the Carson City and Douglas County jurisdictional boundaries with the State of Nevada, with most of the land area under the jurisdiction of the U.S. Forest Service. Carson City and Douglas Counties, the Washoe Tribe of California and Nevada, the Bureau of Land Management, the State of Nevada, and NDOT represent the other significant land ownership groups (Carson City, 2007). NDOT is responsible for 380 acres of land within the watershed, or roughly 3% of the total watershed land area (Carson City, 2007).

Historically, the Clear Creek watershed has experienced significant erosion issues, primarily attributable to the parent materials of the watershed (decomposed granite), and to some extent, stormwater runoff from Highway 50, the main link between Nevada and South Lake Tahoe (USGS, 2009). The Department has made extensive improvements to Highway 50

and right-of-ways in the last 10 years with many of the severe erosion problems having been structurally addressed. Given the improvements to Highway 50 within the watershed, the Department considers the needs of Clear Creek (and associated stormwater BMPs) to be similar to all other areas of the state. Therefore, the stormwater practices and procedures described in this SWMP document are believed to be protective of Clear Creek to the MEP.

All of the Department's stormwater runoff control programs and practices described in this SWMP document apply to the Clear Creek watershed. The primary exception is that Clear Creek activities and improvements typically are administered and managed by NDOT's Hydraulics Section, with the Environmental Services Division in a support role. Over the past decade, NDOT's Hydraulics Section has been tasked with addressing highway related erosion, sedimentation, and environmental impacts to the Clear Creek watershed as part of the Department's Clear Creek Erosion Control Program.

Presented in this subsection is NDOT's Clear Creek Stormwater Management Program (CCSWMP). It is not substantially different than the program described in this document for the other Permit areas of the state. In accordance with the Permit requirements, this "separate" CCSWMP contains a description, or listing of the program elements to protect the watershed from degradation related to NDOT activities and practices. This CCSWMP is intended to reduce the discharge of pollutants from NDOT owned and operated facilities in the Clear Creek watershed to the MEP.

3.12.1 Permit Requirements

Section III.D of the Permit requires the Department to include a stormwater management program specifically for the Clear Creek watershed. Since NDOT operations within the Clear Creek watershed are not substantially different than those performed within the rest of the state, NDEP has concurred with NDOT's approach that the CCSWMP document can be addressed as a separate section in the Department's revised SWMP document. The applicable Clear Creek Permit requirements are summarized below.

III.D. Discharges to the Clear Creek Watershed

III.D.1. NDOT shall include a separate Clear Creek Master Stormwater Management Program ("CCSWMP") in its revised SWMP. The CCSWMP shall be implemented and enforced to reduce the discharge of pollutants to the Clear Creek watershed to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The revised CCSWMP shall include the following information:

III.D.1.a	A detailed description of BMPs that have been, or will be, implemented on NDOT construction projects located in the Clear Creek watershed;
III.D.1.b	A detailed description of sediment controls for all down-slope boundaries (and for those side-slope boundaries deemed appropriate as dictated by individual site conditions) that have been, or will be, used by NDOT on NDOT construction areas located in the Clear Creek watershed;

III.D.1.c	A detailed description of control techniques that have been or will be used by NDOT to the MEP to ensure no illicit discharge of pollutants into Clear Creek;
III.D.1.d	A detailed description of system design and engineering methods NDOT has used, or plans to use, to protect Clear Creek from illicit discharges of pollutants;
III.D.1.e	A schedule of implementation for all future short-term and long-term activities describing program development, implementation and maintenance;
III.D.1.f	An annual monitoring program to ensure the overall quality and health of Clear Creek;
III.D.1.g	An inventory and tracking program for all industrial facilities or maintenance yards that have the potential to discharge pollutants into Clear Creek;
III.D.1.h	NDOT's inspection program on its MS4 or construction sites to ensure that no illicit discharges of pollutants enter Clear Creek; and
III.D.1.i	Other provisions as NDEP determines appropriate for the control of such pollutants.

III.D.2. NDOT may partner with other MS4s to develop and implement the CCSWMP.

3.12.2 Clear Creek SWMP Elements

Clear Creek has not been identified by NDEP as a single small MS4 Permit Area. NDEP has elected to address stormwater related impacts to Clear Creek by including permit requirements in several different State of Nevada issued NPDES MS4 permits (see Section 3.12.3). Based on EPA's Phase II Small MS4 guidelines (EPA, 2005), implementation of the MEP standard typically requires the development and implementation of BMPs and the attainment of measurable goals related to six "minimum control measures". The six minimum control elements are (EPA, 2005):

1. **Public Education and Outreach**: Distributing educational materials and performing outreach to inform citizens about the impacts that polluted stormwater runoff discharges can have on water quality.

2. **Public Participation/Involvement**: Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel.

3. **Illicit Discharge Detection and Elimination**: Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system (includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

4. **Construction Site Runoff Control**: Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land (controls could include silt fences and temporary stormwater detention ponds).

5. **Post-Construction Runoff Control**: Developing, implementing, and enforcing a program to address discharges of post-construction stormwater runoff from new development and redevelopment areas. Applicable controls include preventative actions such as protecting sensitive areas (e.g., wetlands) or the use of structural BMPs such as vegetated swales or porous pavement.

6. **Pollution Prevention/Good Housekeeping**: Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques (e.g., regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch-basin cleaning).

NDOT's Clear Creek stormwater program addresses the above listed minimum control elements required for all small MS4 permit areas and several additional practices. Summarized in Table 3.12-1 are the CCSWMP control elements and the corresponding sections of this document that describe the Department's statewide practices applicable to Clear Creek. NDOT is a large individual MS4 permit holder; and therefore, must address additional requirements more restrictive than small MS4 areas.

Table 3.12-1. NDOT CCSWMP Stormwater Control Elements and Corresponding SWMP Document Reference Section

NDOT's CCSWMP Minimum Control Element	NDOT SWMP Section
Public Education, Public Participation and Outreach	Section 3.2
Construction Site Best Management Practices Program	Section 3.5
New Development and Redevelopment Program	Section 3.6
Illicit Discharge Detection and Elimination ("IDDE") Program	Section 3.7
Pollution Prevention/Good Housekeeping	
Industrial Facility Monitoring and Control	Section 3.8
Stormwater Discharges from NDOT Maintenance Facilities	Section 3.9
Public Street Maintenance Program	Section 3.10
Herbicide, Pesticide, and Fertilizer Application Program	Section 3.11
NDOT's Additional CCSWMP Control Elements	**NDOT SWMP Section**
Authorized and Non-Authorized Discharges	Section 2.1.4
Legal Authority	Section 3.1
MS4 Maps and Outfalls	Section 3.3
Discharges to Water Quality Impaired Waters and Sanitary Sewers	Section 3.4

3.12.3 Clear Creek SWMP Permittees

Rather than list multiple entities as co-permittees for the management of stormwater runoff in the Clear Creek watershed, NDEP has included separate MS4 Permit language in four different state NPDES stormwater permits. Those Permittees are:

1) NDOT
2) Carson City
3) Douglas County
4) Indian Hills General Improvement District (IHGID)

All of the above listed permittees are classified as small MS4s with the exception of NDOT. Each of the other permittees has prepared SWMP documents specific for the Clear Creek watershed as well (listed below).

- Carson City, 2007. Clear Creek Storm Water Management Program, R.D. Fellows, PE, Carson City Public Works, Carson City, NV, October 2007
- Douglas County, 2006. Clear Creek Stormwater Management Plan, Douglas County Community Development, Minden, NV, January 2006
- Indian Hills GID, 2006. Municipal Separate Strom Sewer System Storm Water Management Plan, Indian Hills General Improvement District, Carson City, NV, February, 2006

Although not a State of Nevada NPDES MS4 Permit holder, the Washoe Tribe of California and Nevada has prepared the following SWMP document:

- Washoe Tribe, 2008. Clear Creek Stormwater Management Plan, The Washoe Tribe of Nevada and California, Carson City, NV, December 2008

In the spring of 2012, representatives from the above agencies along with NDEP held a series of meetings to discuss the feasibility of addressing the needs of the Clear Creek watershed under a single permit. Items discussed include whether any programs and efforts could or should be combined and possibly developing a Memorandum of Understanding (MOU). At this time, two meetings have been held and discussions are on-going. The Department remains an active participant; however consensus from the separate MS4 permittees seems to suggest that stormwater management related programs for the Clear Creek watershed will continue to be implemented on an individual permit basis.

3.12.4 NDOT's Clear Creek Stormwater Permit Responsibilities

Each of the Clear Creek Permit requirements are listed and addressed below.

III.D.1.a A detailed description of BMPs that have been, or will be, implemented on NDOT construction projects located in the Clear Creek watershed

Many different stormwater BMPs are presently in use or may be used during construction projects within the Clear Creek area. BMPs used by NDOT in the Clear Creek watershed are the same as those prescribed elsewhere in the state and include the Programmatic BMPs described in this document and those described in the Department's Planning and Design Guide and the Construction Site BMPs Manual. Construction site BMPs fall into many different categories including: Temporary Sediment Control BMPs, Temporary Soil Stabilization BMPs, Tracking Control BMPs, Non-Storm Water Management BMPs, Waste Management and Materials Pollution Control BMPs, Permanent Soil Stabilization BMPs and Permanent Treatment Control BMPs.

III.D.1.b A detailed description of sediment controls for all down-slope boundaries (and for those side-slope boundaries deemed appropriate as dictated by individual site conditions) that have been, or will be, used by NDOT on NDOT construction areas located in the Clear Creek watershed

Sediment control BMPs used by NDOT in the Clear Creek watershed are the same as those prescribed elsewhere in the state and include the Programmatic BMPs described in this document and those described in the Department's Planning and Design Guide, Construction Site BMPs Manual, and Drainage Manual.

A wide array of erosion and sediment control structures have been constructed and implemented to reduce the impacts of stormwater discharge into Clear Creek. These improvements include additional piping, riprap channel lining and aprons, slope stabilization, re-grading, sediment removal, constructing stormwater detention facilities, repairing drainage structures, revegetation, and repairing slope blowouts. Yearly activities have been and will continue to be summarized in the Annual Report to NDEP.

III.D.1.c A detailed description of control techniques that have been or will be used by NDOT to the MEP to ensure no illicit discharge of pollutants into Clear Creek

The IDDE program for Clear Creek is the same as the statewide program described in Section 3.7 of this SWMP document. The Maintenance Division is responsible for routine inspection of roadways, right-of-ways, and outfalls. As part of NDOT's Stormwater Certification Training Program, NDOT Maintenance personnel are trained to recognize and report illicit discharges. The illicit discharge detection element of NDOT's statewide SWMP includes public outreach and education to illustrate to the public the hazards of illicit discharges to the health of receiving waters. The programs described in this SWMP document for the control of discharges from maintenance facilities, public litter removal, reporting hotline, sediment control, and spill control and prevention also apply to the Clear Creek watershed.

III.D.1.d A detailed description of system design and engineering methods NDOT has used, or plans to use, to protect Clear Creek from illicit discharges of pollutants

System design and engineering methods that the Department has or will use to protect Clear Creek from illicit discharges are the same as those used throughout other Permit areas of the state. Engineering descriptions and rationale for structural BMPs are provided in the Department's Planning and Design Guide, Construction Site BMPs Manual, and Drainage Manual. Common practice is to use any information gathered from observations of illicit discharges to review the engineering methods and control techniques to prevent future discharges. IDDE Programmatic BMPs are described in Section 3.7 of this SWMP document.

III.D.1.e A schedule of implementation for all future short-term and long-term activities describing program development, implementation and maintenance

For the Clear Creek watershed, short term activities include the continuation of routine maintenance activities and the implementation of the practices and procedures outlined in this revised SWMP document. NDOT will continue implementing small scale, site specific erosion control projects throughout the watershed on an annual basis. However, a proposed project schedule for the large scale Clear Creek watershed Storm Drain Project is presented in Table 3.12-2.

Table 3.12-2. NDOT Proposed Clear Creek Improvements and Tentative Implementation Date

Project	Scheduled Implementation	Description
Central Clear Creek Watershed Storm Drain Project (milepost CC 3.0 to 5.2)	2013	Construction of multiple smaller stormdrains, drop inlets, trench drains, slope flattening, grading, concrete curb and gutter, channel work with stabilization, and slip lining of cross culverts.
US-50 Spooner Summit Storm Drain Project (milepost DO 13.0 to 14.0)	2013	This project consists of drop inlet replacement, placement of new drop inlets, slope flattening, grading, concrete curb and gutter, channel work with stabilization, and slip lining of cross culverts.
US-50 Lower Clear Creek Watershed Storm Drain Project (milepost CC 5.2 to 7.6)	2013	This project includes construction of a stormdrain-trunkline, drop inlets, trench drains, detention basin, slope flattening, grading, concrete curb and gutter, channel work with stabilization and slip lining of cross culverts.
Package 1 and 2 of the US-50 Upper Clear Creek Watershed Storm Drain Project to the Tahoe Golf Club Drive Interchange milepost DO 14.0 to CC 3.0	2014	This project includes construction of a stormdrain-trunkline, drop inlets, trench drains, detention basin, slope flattening, grading, concrete curb and gutters, channel work with stabilization, and slip lining of cross culverts

III.D.1.f An annual monitoring program to ensure the overall quality and health of Clear Creek

NDOT is working on a new interlocal agreement with the USGS to continue water quality and sediment monitoring in Clear Creek. The USGS released a report in 2009 summarizing data collected during the 2004-2007 water years. It is expected that the USGS will release an updated report in 2014 summarizing recent data collection efforts. Execution of the new agreement will allow for the continuation of an ongoing study that focuses on monitoring stream flow, sediment loads (suspended and bed-load), sediment particle size distribution, and select chemical constituents within Clear Creek. Updates pertaining to results or changes in the Clear Creek monitoring program will be included in the Annual Report to NDEP.

III.D.1.g An inventory and tracking program for all industrial facilities or maintenance yards that have the potential to discharge pollutants into Clear Creek

NDOT owns three Maintenance facilities within the Clear Creek watershed:

1) Spooner East Maintenance Yard (US-50 milepost CC 13.4). This facility contains a brine tank, salt shed, and a decant basin (utilized for the primary treatment of stormwater and associated material from the Lake Tahoe Basin).

2) Oasis Pit (US-50 milepost CC 7.50). This location serves as an offsite material storage area for several maintenance stations in the surrounding area. Material stored at any given time may include granular backfill, chip seal aggregate, riprap, cold millings, salt and sand/salt, and other material. Waste material from sweeping operations and drainage facilities may also be stored prior to landfill disposal. A brine tank and miscellaneous highway infrastructure materials such as guard rail, corrugated metal pipes, and barrier rail can also be stored onsite. Oasis pit is also utilized by local Maintenance Crews as a snow disposal area.

3) Maintenance Re-Charge Area (FR-CC08). This area serves as a heavy equipment recharge facility, i.e. a small equipment staging area.

The Maintenance Facility program is described in Section 3.9 of this document. Site specific stormwater pollution control measures will be addressed in the respective Facility Pollution Prevention Plans. Maintenance activities within the Clear Creek watershed are consistent with the maintenance activities conducted throughout the state. NDOT does not own or operate any industrial facilities within the Clear Creek watershed.

As noted above, NDOT has constructed a stormwater decant facility at the Spooner East Maintenance Yard, which is located within the Clear Creek Watershed at its shared boundary with the Lake Tahoe watershed. Stormwater related material is removed from hydraulic facilities within the Lake Tahoe Basin on an annual basis. A portion of this material is transported to this decant facility, providing for separation of stormwater from solid material via evaporation. Once the material is dry, NDOT's Maintenance forces haul the remaining material out of the decant basin for subsequent disposal. A headgate valve was installed at the downstream side of the decant facility to facilitate the passage of on-site

generated stormwater runoff and snowmelt once the transported stormwater materials have been removed. This gate valve remains closed while the transported stormwater material temporarily resides in the decant basin.

III.D.1.h NDOT's inspection program on its MS4 or construction sites to ensure that no illicit discharges of pollutants enter Clear Creek

NDOT's Maintenance Division conducts routine inspections of outfalls, right-of-ways, road surfaces, culverts, and bridges. Maintenance personnel are trained to identify evidence of illicit discharges while performing day-to-day activities. Outfall screening and investigations are described in Fact Sheet MAINT-04 included in Section 6 of this document. Inspection and maintenance of structural BMPs is described in MAINT-05. IDDE response, corrective action and follow-up procedures are described in IDDE-04. These statewide BMP practices apply to the Clear Creek watershed as well.

III.D.1.i Other provisions as NDEP determines appropriate for the control of such pollutants

NDOT will remain in contact with NDEP and protect Clear Creek from pollution sources from NDOT owned and operated roadways to the MEP.

III.D.2 NDOT may partner with other MS4s to develop and implement the CCSWMP

NDOT may select to coordinate with other municipalities to develop and implement NDOT's CCSWMP. NDOT recognizes the importance of combining resources and developing a cooperative understanding between the other MS4s with regulatory responsibilities in the Clear Creek watershed. NDOT may coordinate efforts with Douglas County, Carson City and/or Indian Hills General Improvement District to develop joint programs to protect the health of the Clear Creek watershed. NDOT is a Clear Creek Watershed Council stakeholder and commits staff to attend meetings and functions as appropriate. NDOT coordinates efforts with public and private stakeholders to implement erosion control projects. At this time, the Department anticipates maintaining and implementing its own Clear Creek SWMP.

Section 4 Monitoring, Implementation, and Reporting

Presented in this section are details of how the Department will perform monitoring, implement the SWMP, and satisfy the Permit reporting requirements. A discussion of the Department's stormwater monitoring program and the associated requirement for record keeping is presented in Section 4.1. How this SWMP program will be implemented is described in Section 4.2, along with a prioritization of practices and a schedule of BMP implementation. Procedures for conducting a Permit required annual review are presented in Section 4.3. The required components of the Department's Annual Report to NDEP are listed in Section 4.4.

4.1 Stormwater Monitoring

Requirements relating to stormwater monitoring can be found in Sections III.W and IV.A of the Permit. Section III.W requires the Department to evaluate the existing data collection programs and include a discussion in the SWMP document. Permit Section IV.A outlines the requirement for a stormwater monitoring plan and the required recordkeeping. The Permit language is provided below.

Part III. Stormwater Management Program

III.W. Characterization Data

III.W.1. The revised SWMP shall evaluate whether existing data collection programs should be modified to improve characterization of stormwater discharges, effects of different BMPs on water quality, or ambient water quality. This information shall be submitted for approval as part of the annual monitoring plan required in Part IV.A of this permit.

Part IV. Monitoring, Recordkeeping, and Reporting

IV.A. Stormwater Monitoring

IV.A.1. NDOT shall submit a stormwater monitoring plan to NDEP for the following year on or before October 1 each year. In developing the plan, NDOT shall evaluate and update as necessary how monitoring may assist in making decisions about program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. Pending submittal of the annual monitoring plan, NDOT shall continue to implement the existing monitoring plan.

IV.A.2. When NDOT conducts monitoring at NDOT's permitted MS4, NDOT is required to comply with the following:

IV.A.2.a Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. This requirement does not prevent NDOT from analyzing or reporting samples that are representative of a limited situation (e.g. concentration at peak flow);

IV.A.2.b Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the CWA, unless other procedures are approved by NDEP.

IV.A.3. Records of monitoring information shall include:

IV.A.3.a The date, exact place, and time of sampling or measurements;

IV.A.3.b The names(s) of the individual(s) who performed the sampling or measurements;

IV.A.3.c The date(s) analyses were performed;

IV.A.3.d The names of the individuals who performed the analyses;

IV.A.3.e The analytical techniques or methods used; and,

IV.A.3.f The results of such analyses.

IV.A.4. Analyses shall be performed by a State of Nevada-certified laboratory. Laboratory reports shall be provided if requested by NDEP.

IV.A.5. If NDOT performs stormwater monitoring more frequently than required by the stormwater monitoring plan the results of such monitoring shall be reported. The monitoring results and analyses shall be submitted as part of the Annual Report.

4.1.1 Current Monitoring Program

The Department conducts routine monitoring and inspections within the MS4 Permit area specifically related to stormwater. Monitoring efforts are diverse and consist of both quantitative and qualitative assessments. Stormwater quality sampling efforts are conducted by both inter-Department staff, service providers, and/or through interlocal agreements. Monitoring efforts are summarized in the Annual Report to NDEP.

Construction activities that occur in sensitive watershed areas may have water quality monitoring requirements prescribed by regulatory agencies, e.g. NDEP. Typically these efforts are project specific and are required as conditions of construction-related water quality permits, e.g. Temporary Working in Waterways Permits

In the past, NDOT has participated in both the Las Vegas Valley and the Truckee Meadows Storm Water Management Programs. In developing this SWMP, NDOT has reviewed the experience with other MS4s and determined that a regional approach of partnering with other MS4s would be of benefit.

4.1.2 Stormwater Monitoring Plan

The Permit requires NDOT to develop and submit a Stormwater Monitoring Plan on an annual basis. A programmatic BMP Fact Sheet has been developed to outline the requirements for the Stormwater Monitoring Plan and how it will be prepared. The rationale, objectives, and procedure are briefly summarized below. The full fact sheet is included in Section 6.

BMP - ENVR-01 Stormwater Monitoring Plan

The Department is required to submit a stormwater monitoring plan to NDEP by October 1 of each year for the following (calendar) year.

Under this programmatic BMP, the Department will prepare a monitoring plan that describes how the Department will monitor (via inspection and/or sampling) stormwater related activities and issues throughout the state. In developing the plan, NDOT will consider how monitoring may assist in making decisions about program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals.

BMP Objectives:

1) Improve stormwater quality throughout the MS4 Permit area through effective monitoring, planning, and program implementation.

An important step is to identify the various types of monitoring (visual, sampling, etc.) currently performed and to assess their usefulness and utility. The Department will then draft monitoring goals and objectives. Based on the goals of the monitoring program, the approach will be developed so that the goals can be accomplished. NDOT may elect to partner with other MS4s; namely, Elko, Carson City, Las Vegas, and Truckee Meadows, to create a comprehensive monitoring approach to stormwater and stormwater related issues.

In the event that a water quality sampling element is developed, NDOT will follow the protocols listed in the Permit. The Permit requires the samples and measurements taken to be representative of the discharge in nature and volume. The analysis test procedures will conform to 40 CFR, Part 136 regulations pursuant to Section 304(h) of the CWA unless other procedures are approved by NDEP. Any water quality sampling records will include the following details of the sampling and analysis:

- The date, exact place, and time of sampling or measurements
- The name(s) of the individual(s) who performed the sampling or measurements
- The date(s) analyses were performed
- The names of the individuals who performed the analyses
- The analytical techniques or methods used
- The result from the analyses

Additionally, all analyses will be performed by a State of Nevada certified laboratory. Laboratory reports will be provided to NDEP upon request.

NDOT may elect to partner with other MS4s throughout the state to create a comprehensive monitoring approach to stormwater and stormwater related issues.

Each year, the Stormwater Monitoring Plan, goals and approach will be assessed to determine if the goals are being attained and if the information and data collected are adequate, appropriate or useful. The Department will modify them as appropriate to improve the utility of the program. Where possible, the Department will use the results of monitoring in making decisions and identifying trouble areas or the adequacy of practices. Any changes to the Stormwater Monitoring Plan will be submitted to NDEP as part of the Annual Report.

4.1.3 Record Keeping

The Permit requires the Department to maintain records of monitoring activities and information. Applicable permit requirements for monitoring related record keeping are listed below:

Part IV. Monitoring, Recordkeeping, and Reporting
IV.B. Record Keeping

IV.B.1. NDOT 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 permit, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the termination date of this permit. This period may be extended at the direction of NDEP at any time.

IV.B.2. NDOT shall submit the records to NDEP upon request. NDOT shall retain a copy of the SWMP required by this permit (including a copy of the permit language) at a location accessible to NDEP. NDOT shall make the records, including a copy of the SWMP, available to the public if requested to do so in writing.

IV.B.3. For public requests of records, NDOT may impose a reasonable fee for personnel time and copying expenses.

The Department will retain appropriate records of all monitoring related information. The records will include all information from the monitoring equipment, including calibration and maintenance records. The records will be accessible to NDEP upon request. Per the Permit requirements, NDOT will retain a copy of the NPDES Permit, application data required in this Permit, and this SWMP for the life of the Permit. A programmatic BMP Fact Sheet has been developed to outline the requirements of the record keeping and how a program will be developed. The rationale, objectives, and procedure are briefly summarized below. The full fact sheet is included in Section 6.

BMP – ENVR-02 Record Keeping

This BMP for record keeping pertains specifically to the Permit requirements relating to stormwater monitoring (Permit section IV.B). The Department considers stormwater monitoring to include both visual and maintenance related monitoring as well as water quality sample collection.

The intention of this BMP is to ensure that record keeping requirements listed in the Permit are adequately addressed. It is important that monitoring activities are documented, that calibration and maintenance records are kept, records are retained for the required period, and that the records are available for NDEP or public inspection. Under this BMP, the procedures for documentation will be developed and implemented.

BMP Objectives:

1) Collectively reduce the pollution associated with stormwater runoff from the MS4 Permit area through institutional control measures, including stormwater record keeping.

The Permit requires the Department to maintain records of all monitoring related information including:

- Sampling equipment calibration and maintenance records
- Original strip chart recordings for continuous monitoring instrumentation
- Copies of all reports required by the Permit
- A copy of the Permit
- Records of data used to apply for this Permit

The Department must maintain these records for a period of at least three (3) years from the termination date of this Permit. This period may be extended at the direction of NDEP at any time. NDOT will submit these records to NDEP upon request. The Department will make the above listed monitoring related records available to the public, if requested in writing.

NDOT's Environmental Services Division staff will develop the methods and procedures to comply with this Permit requirement. The initial step is to identify the various types of monitoring (visual, or water quality sampling performed) and by what Section or Division. Once an understanding of the various records is obtained, a procedure to centralize and store the records will be devised and implemented. Records and reports not on the Department's website will be made available upon request as required by the Permit.

4.2 Program Implementation

Presented in this section are the details of how the Department will implement the SWMP programs and practices. The Department may elect in the future to partner with other MS4 permit holders to implement some components of the SWMP. Presented in this sub-section is the implementation schedule for all of the BMPs that are not fully implemented at present.

4.2.1 Coordination

The promotion of internal communication efforts, as well as communication with other government agencies, is essential to fully implement the SWMP. The Water Quality Section within the Environmental Services Division serves as NDOT's primary point of contact with other Divisions and the three Districts for implementation. NDOT's Environmental Services Division routinely coordinates SWMP and Permit activities with the NDEP to promote a positive working relationship between regulator and permittee. A programmatic BMP Fact sheet for Departmental Stormwater Coordination (DEPT-05) can be found in Section 6.

The permit allows the Department to partner with other MS4 permit holders to implement all or part of the SWMP. The permit language is as follows:

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.11. NDOT may partner with other permitted MS4s to develop and implement all or part of NDOT's SWMP.

III.A.12. NDOT's SWMP shall clearly describe which Permittee is responsible for implementing each of the control measures; and

NDOT may someday elect to coordinate with other municipalities to develop and implement portions of NDOT's SWMP. Coordination efforts between NDOT and other MS4 permit holders will be noted in the Annual Report. In the event that a portion of this SWMP program is implemented by another permit holder, the responsibilities will be clearly defined.

4.2.2 Programatic BMP Implementation and Priorities

The Permit requires that the Department describe any proposed programs that it may implement during the life of this Permit to require additional controls on a system-wide basis, a watershed basis, a jurisdictional basis, or on individual outfalls. Also required is the identification of measurable goals for the BMPs, including the month and year in which the NDOT will accomplish the required actions. Permit language related to implementation is as follows:

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.5. NDOT shall fully implement all program elements outlined in the revised SWMP before the expiration date of this permit, unless other dates are specified;

III.A.6. NDOT shall provide a list of narrative and/or numerical measurable goals for each program listed in Part III.A.4. At a minimum, the revised SWMP shall include any measurable goals identified in this permit. NDOT may also identify additional measurable goals, as appropriate, priorities, frequencies, amounts, time-frames, or steps toward development of a program;

III.A.7. NDOT shall provide the dates, including the month and year in which NDOT will achieve each measurable goal;

III.A.8. NDOT shall provide the rationale for how and why NDOT selected each of the program elements and any measurable goals associated with the program;

III.A.9. NDOT shall provide the title(s) of the person(s) responsible for implementing and coordinating each program element;

III.A.10. NDOT shall describe any proposed programs, if applicable, that it may implement during the life of this permit to require additional controls on a system wide basis, a watershed basis, a jurisdictional basis, or on individual outfalls;

III.A.13. Pending submittal of the SWMP, NDOT shall continue to implement and maintain current BMPs detailed in NDOT's current SWMP.

Programmatic BMP Fact Sheets were developed to address the Permit requirements for each SWMP element. These Fact Sheets are presented in Section 6 of this document. Each Fact Sheet lists the rationale for use, program objectives, data collection requirements, measurable goals, and reporting requirements. Most of the 41 programmatic BMP Fact Sheets developed document existing practices with enhancements and increased procedural documentation. Each of the Fact Sheets has a table showing implementation status for the measurable goals. In addition, Table 4.2-1 summarizes these BMP tasks/measurable goals and their associated implementation schedules (FY 2013 - 2017).

Table 4.2-1. Implementation Schedule for the Measurable Goals for New and Enhanced BMPs

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
CONST-01	Construction Site Inspections	Regularly inspect all construction sites within the MS4 Permit area	X	X	X	X	X
		Revise NDOT's Weekly Construction Site Discharge Inspection Checklist		X			
CONST-02	Construction Site SWPPPs	Verify General Permit coverage and SWPPP development and implementation (as appropriate)	X	X	X	X	X
		Upon project completion, ensure the NOT and NOC is filed (as appropriate)	X	X	X	X	X
CONST-03	Nevada Contractors Guide for Construction Site BMPs	Provide access to current version of the document on NDOT's website		X	X	X	X
		Assist with future document revisions as necessary	This is not an NDOT document; therefore the time frame for revisions is unknown at this time				
DEPT-01	NDOT's Construction Site BMPs Manual	Review the current BMPs Manual, identifying material requiring revision and new material for inclusion		X			
		Develop a revised document and disseminate for use on construction projects within the MS4 Permit area			X		
		Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed)				X	
DEPT-02	Planning and Design Guide	Review the current PDG, identifying material requiring revision and appropriate new material for inclusion (including LID practices)		X			
		Develop a revised document and disseminate for use on new projects within the MS4 Permit area			X		
		Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed)				X	
DEPT-03	Plan Review Process	Review project plans to ensure that stormwater runoff from new and re-development projects is adequately addressed and treated to the MEP	X	X	X	X	X
DEPT-04	Legal Authority and Enforcement	Exercise current legal authority to enforce the provisions of NDOT's MS4 permit	X	X	X	X	X
		Provide written notice to NDEP of any proposal to modify the regulation or ordinances for stormwater discharges into the MS4	X	X	X	X	X
DEPT-05	Departmental Stormwater Coordination	Continue to facilitate, develop, and promote inner Department and inter-agency relationships	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
DEPT-06	Annual Review of the SWMP	Assess the overall effectiveness of the Department's SWMP by conducting an annual evaluation of the individual and collective programs	X	X	X	X	X
		Prepare an Annual Report summarizing SWMP related activities for the previous state fiscal year for submittal to NDEP by October 1st annually	X	X	X	X	X
		Incorporate and implement NDEP approved changes to the SWMP	X	X	X	X	X
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Northwest and Central Hydrographic Regions	X				
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4	X				
		Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Truckee River, Tahoe Basin, and Steamboat Creek Hydrographic Regions		X			
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4		X			
		Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Carson River Basin and Walker River Basin Hydrographic Regions			X		
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4			X		
		Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Snake River Basin and Humboldt River Basin Hydrographic Regions				X	
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4				X	
		Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Blackrock and Colorado River Hydrographic Regions					X
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4					X
		Initiate a process to identify BMPs for implementation as appropriate		X	X	X	X
DEPT-08	TMDL Listed Waters	Identify locations where NDOT owned roadways and ROWs intersect or parallel waterbodies that have NDEP approved TMDLs	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
		Determine if the TMDL constituents are commonly found in stormwater discharge from NDOT's MS4		X	X	X	X
		Initiate a process to identify BMPs for implementation as appropriate		X	X	X	X
DEPT-09	Lake Tahoe TMDL Memorandum of Agreement	Enter into the MOA within one year of TMDL approval	X				
		Upon entering into the MOA, begin developing a plan to accomplish NDOT's responsibilities for TMDL compliance	X				
DEPT-10	Mapping and Inventory of Structural BMPs and Major Outfalls	Continue mapping and stormwater infrastructure inventory efforts	X	X	X	X	X
		Develop criteria to be mapped and inventoried	X				
		Develop a multi-year implementation plan for the mapping and inventory of stormwater infrastructure and outfalls		X			
DEPT-11	Discharges into Sanitary Sewer Systems	Contact District personnel annually to identify instances of stormwater disposal into the sanitary sewer system	X	X	X	X	X
		In the event a new connection is found, immediately solicit an approval letter from the appropriate wastewater utility	X	X	X	X	X
DEPT-12	Industrial Facility Monitoring and Control Program	Perform annual review of NDOT owned facilities and determine if any are considered industrial facilities based on Permit criteria for industrial categories	X	X	X	X	X
		Should an NDOT facility be classified as industrial, develop an Industrial Facility Monitoring and Control Program	X	X	X	X	X
DEPT-13	Low Impact Development (LID) Techniques	Begin developing a preliminary list of potential LID techniques suitable for use along NDOT's highway environments	X	X	X	X	X
		From the list, identify the most viable LID techniques for use on highway projects in Nevada	X	X	X	X	X
		Incorporate the viable LID practices into future projects as appropriate	X	X	X	X	X
EDU-01	Public Outreach and Education Events	Participate in at least one public stormwater related outreach and education event annually	X	X	X	X	X
		Assess the need to further develop or build upon public outreach and education efforts	X	X	X	X	X
EDU-02	Public Litter Removal Programs	Continue the Adopt-A-Highway and Sponsor-A-Highway programs	X	X	X	X	X
EDU-03	Partnerships and Affiliations	Continue partnering efforts and affiliations	X	X	X	X	X
		Seek opportunities for new partnerships and affiliations	X	X	X	X	X
EDU-04	Demonstration Projects	Continue evaluating new technologies and practices for improving stormwater runoff quality	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
		Explore options to disseminate information and/or knowledge gained to the public from stormwater related projects		X	X	X	X
		Begin disseminating this information			X	X	X
EDU-05	Stormwater Management Program Webpage	Maintain and provide current information on SWMP webpage	X	X	X	X	X
		Provide webpage links to relevant NDOT SWMP documents			X	X	X
		Evaluate the need for webpage improvements annually	X	X	X	X	X
ENVR-01	Stormwater Monitoring Plan	Submit a stormwater monitoring plan to NDEP by October 1st annually	X	X	X	X	X
		Evaluate the data collected to assist with stormwater related decision making	X	X	X	X	X
		Conduct a yearly assessment of the adequacy of the stormwater monitoring program	X	X	X	X	X
ENVR-02	Record Keeping	Develop a procedure to collect and retain stormwater monitoring related records	X				
		Implement the record keeping plan		X	X	X	X
ENVR-03	Special Investigations	Conduct special investigations as needed to evaluate and resolve potential water quality related issues that may or may not be directly related to illicit discharges in the MS4 Permit area	X	X	X	X	X
ENVR-04	Fertilizer Application	Collect and assess fertilizer use data for a two year period			X	X	
		Evaluate the need for a fertilizer applicator training program					X
ENVR-05	Vegetative Control Program	Conduct internal project review meetings to facilitate ongoing collaboration between appropriate Divisions and Sections	X	X	X	X	X
		Assess current vegetation control practices; provide recommendations for improvement as necessary	X	X	X	X	X
IDDE-01	Illicit Discharge Reporting Website	Maintain web-based IDDE reporting hotline on an annual basis	X	X	X	X	X
		Assess the need for additional IDDE reporting telephone numbers on an annual basis	X	X	X	X	X
IDDE-02	Illicit Discharge Reporting and Response Database	Update the Database to record and track illicit discharges reported in the MS4 Permit areas	X	X	X	X	X
		Maintain the Database annually	X	X	X	X	X
IDDE-03	Spill Control and Prevention	Assess the need for program refinements on an annual basis	X	X	X	X	X
IDDE-04	IDDE Response, Corrective Action and Response	Respond to all reported discharges and spills within the MS4 Permit area	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
		Follow-up on reported events to ensure the situation is remedied	X	X	X	X	X
IDDE-05	Sanitary Sewer Exfiltration	Continue training and inspections for sanitary sewer exfiltration	X	X	X	X	X
		Continue to identify sanitary sewers during the plan review process	X	X	X	X	X
MAINT-01	Hazardous Materials Management	Continue the implementation of the Department's existing Hazardous Waste Management Program	X	X	X	X	X
		Identify any deficiencies in the existing program with respect to the requirements outlined in the Permit		X	X	X	X
		Develop BMPs as needed to address any deficiencies in the program			X	X	X
MAINT-02	Snow and Ice Control Program	Continue implementing the Department's current Snow and Ice Control Program	X	X	X	X	X
		Collect and analyze composite samples of sand and salt as specified in the Permit	X	X	X	X	X
		Identify any deficiencies in the existing program with respect to the requirements outlined in the Permit		X	X	X	X
		Develop BMPs as needed to address any deficiencies in the program			X	X	X
MAINT-03	Street Sweeping Program	Continue implementing the Department's Street Sweeping Program	X	X	X	X	X
		Continue sweeping urban streets at least twice a year (once in the spring and the fall)	X	X	X	X	X
		Continue sweeping sanded streets as soon as practicable after application, but no later than 4 days after the last snowfall	X	X	X	X	X
		Assess the idea of recycling sweeper waste	X	X	X		
MAINT-04	Outfall Screening and Investigations	Continue inspecting major outfalls within the MS4 Permit area	X	X	X	X	X
		Identify, track, and prioritize the stabilization and repairs to road segments where slopes are 3:1 or greater	X	X	X	X	X
		Develop schedules and a tracking system for the inspection and screening of major outfalls	X	X	X	X	X
		Report any evidence of illicit discharges	X	X	X	X	X
MAINT-05	Inspection and Maintenance of Structural BMPs	Continue inspecting and maintaining post-construction BMPs, storm sewer facilities, and highway slopes as part of NDOT's routine activities	X	X	X	X	X
		Determine post-construction BMP criteria and features to be mapped and inventoried		X			
		In conjunction with DEPT-10, develop an inventory listing of post-	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
		construction BMPs					
MAINT-06	Maintenance Facility FPPPs	Develop FPPPs for the Department's ten Major Maintenance Facilities	X	X			
		Develop FPPPs for the Department's designated Minor Maintenance Facilities		X			
		Develop FPPPs, or incorporate into existing Minor Facility FPPPs (as appropriate), new Department Maintenance facilities within 6 months of being designated a Major or Minor Facility	X	X	X	X	X
MAINT-07	Maintenance Facility Inspections	Perform annual inspections at designated Major and Minor Facilities. Modify or add BMPs as necessary within 30 calendar days of the inspection	X	X	X	X	X
		Perform routine inspections at designated Major and Minor Facilities according to frequencies specified in the FPPPs. Modify or add BMPs as necessary within 30 calendar days of the inspection		X	X	X	X
		Maintain BMPs listed in the FPPP in effective operating condition. Perform maintenance on ineffective BMPs within 7 calendar days of discovery and before the next anticipated storm event	X	X	X	X	X
		Review Maintenance Facility inspection forms annually and revise as necessary	X	X	X	X	X
MAINT-08	Maintenance Facility BMP Manual	Develop a Maintenance Facility-specific BMP manual and disseminate for use		X	X		
		Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed)				X	X
MAINT-09	Maintenance Facility Updates	Request an updated list of Maintenance facilities from the Asset Management and Maintenance Division, including information pertaining to facility operational changes, on an annual basis		X	X	X	X
		Apply the appropriate modifications to FPPP designations		X	X	X	X
		Modify, create, or annul Minor and Major FPPPs as appropriate		X	X	X	X
TRAIN-01	Stormwater Certification Training-Internal	Continue implementing the Department's Stormwater Certification Training Program	X	X	X	X	X
		Develop a Construction-specific stormwater training module			X	X	
		Develop a Maintenance-specific stormwater training module			X	X	
		Develop a Design-specific stormwater training module			X	X	
		Develop a Stormwater Certification Training 3-year refresher course			X	X	
		Ensure stormwater education material is current and relevant	X	X	X	X	X

BMP #	BMP Title	Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
TRAIN-02	Contractor Stormwater Education and Training-External	Continue with contractor partnering efforts with regards to construction site stormwater management	X	X	X	X	X
		Continue support of third party contractor stormwater education and training sessions as a means of meeting the Department's contractor stormwater education requirements	X	X	X	X	X
		Develop a stormwater training/outreach program for NDOT's contractors		X	X		
TRAIN-03	NDOT Herbicide Applicator Training	Ensure NDOT staff and service providers are properly certified for herbicide applications	X	X	X	X	X
		Continue to track and monitor the certification status of Department applicators	X	X	X	X	X

Target dates for specific-BMP implementation have been developed and are summarized below in Table 4.2-2. Those BMPs that are part of ongoing Department day-to-day activities (e.g. DEPT-03 Plan Review Process), have ongoing annual reviews/evaluations (e.g. DEPT-06 Annual Review of the SWMP), or are dependent upon other various factors that may or may not occur (e.g. DEPT-04 Legal Authority and Enforcement – stormwater regulation/ordinance modification), were not included in Table 4.2-2. Summaries for each BMP measureable goal will be provided in the Annual Report to NDEP.

Table 4.2-2. BMP Task/Measurable Goal Implementation Schedule and Attainment Date

#	BMP	Measurable Goal	Target Attainment	
			Month	Year
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Northwest and Central Hydrographic Regions	June 2013	
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4		
DEPT-10	Mapping and Inventory of Structural BMPs and Major Outfalls	Develop criteria to be mapped and inventoried	June	2013
ENVR-02	Record Keeping	Develop a procedure to collect and retain stormwater monitoring related records	December	2013
MAINT-06	Maintenance Facility FPPPs	Develop FPPPs for the Department's ten Major Maintenance facilities	December	2013
		Develop FPPPs for the Department's designated Minor Maintenance Facilities		
CONST-01	Construction Site Inspections	Revise NDOT's Weekly Construction Site Discharge Inspection Checklist	January	2014
CONST-03	Nevada Contractors Guide for Construction Site BMPs	Provide access to current version on NDOT's website	June	2014
DEPT-01	NDOT's Construction Site BMPs Manual	Review the current BMPs Manual, identifying material requiring revision and new material for inclusion	June	2014
DEPT-02	Planning and Design Guide	Review the current PDG, identifying material requiring revision and appropriate new material for inclusion (including LID practices)	June	2014
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Truckee River, Tahoe Basin, and Steamboat Creek Hydrographic Regions	June	2014
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4		
DEPT-09	Lake Tahoe TMDL Memorandum of Agreement	Enter into the MOA within one year of TMDL approval	June	2014
DEPT-10	Mapping and Inventory of Structural BMPs and Major	Develop a multi-year implementation plan for the mapping and inventory of stormwater infrastructure and outfalls	June	2014

#	BMP	Measurable Goal	Target Attainment	
			Month	Year
	Outfalls			
MAINT-05	Inspection and Maintenance of Structural BMPs	Determine post-construction BMP criteria and features to be mapped and inventoried	December	2014
DEPT-01	NDOT's Construction Site BMPs Manual	Develop a revised document and disseminate for use on construction projects within the MS4 Permit area	June	2015
DEPT-02	Planning and Design Guide	Develop a revised document and disseminate for use on new projects within the MS4 Permit area	June	2015
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Carson River Basin and Walker River Basin Hydrographic Regions	June 2015	
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4		
MAINT-08	Maintenance Facility BMP Manual	Develop a Maintenance Facility-specific BMP manual and disseminate for use	June	2015
TRAIN-02	Contractor Stormwater Education and Training-External	Develop a stormwater training/outreach program for NDOT's contractors	June	2015
EDU-05	Stormwater Management Program Webpage	Provide webpage links to relevant NDOT SWMP documents	December	2015
MAINT-03	Street Sweeping Program	Assess the idea of recycling sweeper waste	December	2015
TRAIN-01	Stormwater Certification Training-Internal	Develop a Construction-specific stormwater training module	December 2015	
		Develop a Maintenance-specific stormwater training module		
		Develop a Design-specific stormwater training module		
		Develop a Stormwater Certification Training 3-year refresher course		
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Snake River Basin and Humboldt River Basin Hydrographic Regions	June	2016
		Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4		
ENVR-04	Fertilizer Application	Collect and assess fertilizer use data for a two year period	June	2016
MAINT-08	Maintenance Facility BMP Manual	Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed)	June	2016
DEPT-01	NDOT's Construction Site BMPs Manual	Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed)	December	2016
DEPT-02	Planning and Design Guide	Develop and implement a protocol for conducing annual reviews and incorporating subsequent changes (as needed)	December	2016

#	BMP	Measurable Goal	Target Attainment	
			Month	Year
DEPT-07	Impaired Waters	Identify locations where NDOT roads and ROWs intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Blackrock and Colorado River Hydrographic Regions	June	2017
DEPT-07	Impaired Waters	Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4	June	2017
ENVR-04	Fertilizer Application	Evaluate the need for a fertilizer applicator training program	December	2017

4.2.3 Responsible Staff

Section III.A.9 of the Permit states that "NDOT shall provide the title(s) of the person(s) responsible for implementing and coordinating each program element". This information will be will be provided to NDEP in the Annual Report.

4.3 Annual Review of the SWMP

The Department's overall strategy for protecting receiving waters involves an iterative approach of planning, implementation, and evaluation to reduce the discharge of stormwater pollutants within the MS4 Permit area to the MEP. Each year, the Environmental Services Division will perform an annual review of the SWMP. In this review, BMPs and the achievement of the measurable goals will be evaluated. As part of the annual review, the Department will examine its activities, inspection reports, training, hot line tips and complaints, and water quality issues. Feedback from District staff is a critical component in constantly improving the program. Any need for new or revised BMPs will be assessed and presented in the Annual Report (as specified in Permit Section III.U).

Permit requirements pertaining to the annual review of the SWMP are listed below. A programmatic BMP Fact Sheet has been developed to outline the assessments to be conducted in the Annual Review of the SWMP. The rationale, objectives, and procedure are briefly summarized below. The full fact sheet is included in Section 6.

Part III. Stormwater Management Program

III.A. SWMP Revision

III.U. Annual Review and Updating the SWMP

III.U.1. NDOT must complete an annual review of the SWMP in conjunction with preparation of the Annual Report required under Part IV.C of this permit.

III.U.2. NDOT may change the SWMP during the life of the permit in accordance with the following procedures:

III.U.2.a Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to NDEP.

III.U.2.b Requests for changes replacing an ineffective, unfeasible, or inappropriate BMP specifically identified in the SWMP with an alternate BMP may be submitted to NDEP for approval at any time. If request is denied, NDEP will send NDOT a written response giving a reason for the decision. NDOT's modification requests must include the following:

III.U.2.b.i An analysis of why the BMP is ineffective, infeasible (including cost prohibitive), or otherwise should be revised or replaced, and

III.U.2.b.ii An analysis of why the replacement BMP is expected to be more effective, feasible, or appropriate than the BMP to be replaced.

Part IV. Monitoring, Recordkeeping, and Reporting

IV.C. Annual Reports

IV.C.1. NDOT shall continue to submit Annual Reports to NDEP by October 1 of each year of the permit term. Each Annual Report shall cover the period beginning July 1st of the previous year through June 30th of the current year.

IV.C.2. Each year, NDOT shall review its SWMP and report to NDEP on the status of the program, whether NDOT has identified any modifications, and the plans for implementing those modifications.

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.a Status of NDOT's compliance with permit conditions;

IV.C.3.b An assessment of the appropriateness of the identified BMPs, and revisions to previous assessments, if appropriate;

IV.C.3.c Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP;

IV.C.3.d Status of the achievement of measurable goals;

BMP – DEPT-06 Annual Review of the SWMP

Opportunities for program improvement often become apparent when the components are evaluated separately and collectively. Each year the Department will conduct an annual review of the SWMP. Under this BMP, each of the programmatic BMPs presented in Section 6 will be reviewed and qualitatively judged with respect to appropriateness and attainment of the measurable goals. Each of the eleven SWMP elements will be examined by considering the success of the associated programmatic BMPs collectively. As part of assessing the status of the SWMP, any areas of non-compliance with the Permit conditions will be reported and the corrective action proposed. Input from District staff with respect to their assessment of the success of programs, practices, and BMPs will be heavily weighted in the annual review. The last component of the annual review of the SWMP will be a listing of any program modifications identified during this assessment.

The overall objective of this BMP is to evaluate and improve the Department's SWMP through a series of annual self-assessments and the attainment of the measurable

goals/BMP tasks. The summary of this annual SWMP assessment will be included in the Annual Report to NDEP.

BMP Objectives:

1) Evaluate and improve the Department's SWMP through annual self assessment and measurable goal/BMP task attainment in an effort to mitigate stormwater pollutant discharge from NDOT's MS4 to the MEP.

Every year the Department will conduct an annual review of the SWMP with results included in the Annual Report to NDEP. The heart of the Department's stormwater program is the eleven Permit defined minimum control elements (Section III.A.4). The elements, as detailed in Section 3 of this document are:

1) NDOT's Legal Authority
2) NDOT's Stormwater Education Program
3) NDOT's MS4 Maps and Outfalls
4) Discharges to Water Quality Impaired Waters and Sanitary Sewers
5) Construction Site Best Management Practices ("BMPs") Program
6) New Development and Redevelopment Planning Program
7) NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program
8) Industrial Facility Monitoring and Control
9) Stormwater Discharges from NDOT Maintenance Facilities
10) Public Street Maintenance Program
11) Herbicide, Pesticide and Fertilizer Application Program

In addition to the text in Section 3, each of these elements is partially addressed through one or multiple programmatic BMPs, all of which have measurable goals/BMP tasks. With the element descriptions provided in Section 3 and the programmatic BMPs described in Section 6; collectively these activities, requirements, goals and documentation make up the program.

The procedures and protocols for this programmatic BMP are expected to be refined during this permit cycle. At this time, the following assessments and evaluations are expected as part of the annual review of the Department's SWMP:

Appropriateness of the Programmatic BMPs

The Permit requires an annual assessment "of the appropriateness of the identified BMPs" (Section IV.C.3.b). The Department interprets the term appropriateness as having the

properties, elements, and controls that are right for the intended purpose. Factors to consider when assessing appropriateness include, but are not limited to:

- BMP purpose, goals and objectives
- Intent
- Pollution sources, volume and mass
- Pollutant type (sediment, nutrient, organic, toxin)
- Receiving water concerns
- Pollutant removal capability
- Maintenance requirements and feasibility
- Local acceptance and integration
- District management procedures
- Operation and intensity
- Short-term and long-term costs

A narrative will be prepared and included in the Annual Report for those SWMP BMPs found to be inappropriate or inadequate for the stated purpose of the programmatic BMPs.

Status of the Individual BMP Measurable Goals/BMP Tasks

Multiple measurable goals/BMP tasks were established for each programmatic BMP. Assuming the needed data were collected, the attainability assessment should be a “yes” or “no”. Each of the measurable goals/BMP tasks and the attainment status will be summarized in the Annual Report. An explanation will be provided for measurable goals that were indeterminate, not recorded, delayed, or require revision. Redefining and refocusing measurable goals is expected and desirable. Any suggested revisions to the SWMP measurable goals/BMP tasks will be included in the Annual Report.

Evaluation of Program Elements

Typically, each of the eleven program elements has multiple associated programmatic BMPs. Many of the SWMP BMPs overlap multiple SWMP elements. For example, in this document, the IDDE program element has five different program specific BMP Fact Sheets (IDDE-01 through -05). The IDDE program also relies on tasks and activities described in BMP Fact Sheets CONST-01 and -02, DEPT-01 through -10, DEPT-13, EDU-01 through -05, ENVR-01 through -03, MAINT-01 through -05, and TRAIN-01 through -03. In this evaluation, the appropriateness of the BMPs and attainment status will be collectively considered in determining the success of the permit defined program element. The full criteria (success or failure) for this evaluation are yet to be defined.

Areas of Permit Non-Compliance

As required by Permit (IV.C.3.a), any areas of non-compliance with the Permit conditions will be reported and included in the annual review of the SWMP.

Input from District Staff

A critical component of the Department's annual review of the SWMP is soliciting feedback from District personnel. How well certain programs and practices work in the field are perhaps the most important measure of program effectiveness. District input will be included in the Annual Report as appropriate.

Progress towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the MEP

An overall general assessment of the program will be included in the Annual Report. All of the above described assessments will assist the Department in determining the SWMP's overall progress in achieving the MEP standard. A narrative statement will be prepared and included in the Annual Report.

Desired SWMP Modifications

The last component of the annual review of the SWMP will be a listing of any suggested SWMP modifications. The Department recognizes that the Permit allows for additions to the SWMP but not subtracting or replacing components without NDEP approval. SWMP revisions (i.e., subtractions to the SWMP document described activities) require written notification and approval from NDEP. Any requests for changes to replace an ineffective, unfeasible, or inappropriate BMP listed in this SWMP document and the proposed alternate BMP will be submitted to NDEP in the Annual Report along with the justification.

4.4 Annual Report

NDOT is required to submit an Annual Report to NDEP on or before October 1st annually. The Annual Report summarizes activities conducted under the SWMP and describes the progress towards the measurable goals and other assessments. The Annual Report period is for the previous fiscal year (July 1st through June 30th). Much of annual reporting requirements are similar to what NDOT has been providing in the past five years; however, the new permit requires several new assessments to be conducted and included in the Annual Report. These new assessments are outlined in this sub-section. Applicable permit language pertaining to the Annual Report is listed below.

Part IV. Monitoring, Recordkeeping, and Reporting

IV.C. Annual Reports

IV.C.1. NDOT shall continue to submit Annual Reports to NDEP by October 1 of each year of the permit term. Each Annual Report shall cover the period beginning July 1st of the previous year through June 30th of the current year.

IV.C.2. Each year, NDOT shall review its SWMP and report to NDEP on the status of the program, whether NDOT has identified any modifications, and the plans for implementing those modifications.

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.a Status of NDOT's compliance with permit conditions;

IV.C.3.b An assessment of the appropriateness of the identified BMPs, and revisions to previous assessments, if appropriate;

IV.C.3.c Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP;

IV.C.3.d Status of the achievement of measurable goals;

IV.C.3.e Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP, a description of any identified improvements to or degradation in water quality attributable to the program, and a description of any identified effects on attainment of water quality standards attributable to the program;

IV.C.3.f A summary of the stormwater activities NDOT plans to undertake during the next reporting cycle (including an implementation schedule and a fiscal analysis);

IV.C.3.g Changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;

IV.C.3.h Notice that NDOT is relying on another government entity to satisfy some of the permit obligations, as applicable; and

IV.C.3.i Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal stormwater quality management program. The assessment shall also identify known impacts of stormwater controls on ground water.

IV.C.3.j A summary of inspections performed and enforcement activity taken during the report cycle.

IV.C.3.k A summary of public education and outreach activity performed during the report cycle.

IV.C.3.l Annual expenditures for the reporting period, with a breakdown for the major elements of the SWMP, and the budget for the year following each annual report.

IV.C.3.m An original signed copy of all reports and plans required herein shall be submitted to the NDEP

4.4.1 Required Content

The specific requirements for the content of the Annual Report are listed in Section IV.C of the Permit. The essential components are:

- Permit compliance status
- Evaluation of selected BMPs appropriateness
- Progress towards reducing pollutants to the MEP
- Achievement status of measurable goals
- Monitoring data review
- NDOT stormwater activities for next reporting cycle
- Modifications to this SWMP
- NDOT's coordination with other MS4s
- Expected pollutant load reduction resulting from the SWMP
- Inspection and enforcement summary
- Summary of public outreach and education activities
- Annual expenditures for reporting period
- Original signed copy of all reports and plans required by the Permit submitted to NDEP

However, there are numerous other references in the Permit that obligate NDOT to report information, findings or changes in the Annual Report to NDEP. Listed in Table 4.4-1 is the permit language referencing those reporting requirements.

Table 4.4-1. Summary of Permit Requirements and Reporting Obligations

Permit Section	Subject	Reporting Requirement
II.B.2.e	TMDL and the WLA	Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report.
II.B.2.f	TMDL and WLA	Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report
II.B.3	303(d) listed waterbodies	NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.
III.F.5	NDOT staff stormwater training	NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report.
III.F.5.m	Public complaints or reports of spills	NDOT shall record and report the number of reports received from the public and investigated in the Annual Report
III.F.5.p	Adopt-A-Highway Program	NDOT shall report the number of volunteer groups participating in the Adopt-A-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report
III.H.5	Final stabilization of construction projects	NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.
III.H.6	Contractor enforcement actions	NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.
III.I.7	Program summary of all post-construction	NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.
III.L.2.f.v	Records of spills to the storm sewer	NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.
III.M.4	Inspection reports of compliance or non-compliance	(Inspection reports shall identify any incidents of non-compliance with the permit conditions.) The report shall be signed and certified in accordance with Part V.G (Signatory Requirements) of this permit and copies included in the SWPPP and the Annual Report.
III.N.14	NDOT's list of Industrial Facilities	NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.
III.O.1.e	Documentation of sweeper wastes	Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.
III.O.1.f III.O.1.g	Magnesium chloride practices	If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to Waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant. A narrative summary of the program will be included in the Annual Report.

Table 4.4-1. Summary of Permit Requirements and Reporting Obligations, Continued

Permit Section	Subject	Reporting Requirement
III.P.1.a.iv	Erosion abatement projects on road segments with slopes (3:1 or greater) that are prone to erosion and discharge of sediment	NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of-way or discharging to a water of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.
III.P.1.b.i.7	Documentation of volume of abrasives and deicing agents	Volume of abrasives and deicing agents used on individual highway segments shall be documented in the Annual Report.
III.P.1.c.i	Removal of debris and sediment from drain inlets	NDOT shall remove all debris and sediment from those inlets that pose a significant threat to water quality on an annual basis prior to the winter season each year. All debris and sediment removed from drain inlets shall be managed in accordance with all applicable laws and regulations. The amount of material removed shall be documented and included in the Annual Report
III.Q.1.b.i III.Q.1.b.ii	Inspect and record conditions of NDOT's storm sewer system	The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and determine maintenance needs; and NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.
III.Q.1.E.iii	Disposal of waste removed from NDOT's storm sewer system and facilities	NDOT shall properly dispose of waste removed from its storm sewer system and NDOT facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of shall be documented and included in the Annual Report.
III.R.1.a.v III.R.1.a.vi	Certification/ licensing of staff and commercial pesticide applicators	NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways. A narrative summary of the program will be included in the Annual Report.
III.R.1.b.i.4	Vegetation control management plans	In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.
III.S.3.d.i.9	SWPPP compliance	A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.
III.S.3.i	SWPPP compliance and amendments	SWPPPs may be amended at any time and any amendments shall be described in the Annual Report
III.U.1	Annual review of SWMP	NDOT must complete an annual review of the SWMP in conjunction with preparation of the Annual Report required under Part IV.C of this permit.
III.V.1	Annual review of guidance documents	NDOT shall annually review its 2006 Planning and Design Guide Manual and its 2006 Construction Site BMP Manual and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.
IV.A.5	Reporting stormwater monitoring results	If NDOT performs stormwater monitoring more frequently than required by the stormwater monitoring plan the results of such monitoring shall be reported. The monitoring results and analyses shall be submitted as part of the Annual Report.
IV.G.1 IV.G.2	Implementation of SWMP on areas added to NDOT's portion of the MS4	NDOT must implement the SWMP on all new areas added to NDOT's portion of the MS4 (or for which NDOT become responsible for implementation of stormwater quality controls) no later than one (1) year from addition of the new areas; and Information on all new annexed areas and any resulting updates required to the SWMP must be included in the Annual Report.

Table 4.4-1. Summary of Permit Requirements and Reporting Obligations, Continued

Permit Section	Subject	Reporting Requirement
V.F.1	Submittal of any relevant fact in NDOT's SWMP	If NDOT becomes aware that it has failed to submit any relevant facts in its revised SWMP, Annual Report or in any other report to NDEP, NDOT must promptly submit such facts or information to NDEP.

In addition to the Permit requirements for reporting, many of the programmatic BMP Fact Sheets in Section 6 have obligations for reporting. Listed in Table 4.4-2 are the BMPs and the reporting requirements from the reporting section of the Fact Sheets.

Table 4.4-2. Summary of Annual Reporting Requirements in the BMP Fact Sheets

BMP #	BMP Title	Reporting Requirements
CONST-01	Construction Site Inspection	NDOT will include a description of any enforcement actions taken (including Notices of Violations) and their subsequent resolution in the Annual Report.
CONST-02	Construction Site SWPPPs	A listing of NDOT's construction projects will be included in the Annual Report to NDEP. This listing will include the project name, location, General Permit numbers (as appropriate) and project status. Any projects that the Department considers to be complete (achieved final stabilization) will be reported.
CONST-03	Nevada Contractors Field Guide	Any efforts contributed by NDOT towards revising the BMP Field Guide will be documented in the Annual Report to NDEP.
DEPT-01	NDOT's Construction Site BMP Manual	Progress with the development of a revised BMP Manual and protocol for subsequent revisions will be summarized in the Annual Report to NDEP.
DEPT-02	NDOT's Planning and Design Guide Manual	Progress in the development of a revised PDG and protocol for subsequent revisions will be summarized in the Annual Report to NDEP.
DEPT-03	Plan Review Process	NDOT will provide a summary of this BMP in the Annual Report to NDEP.
DEPT-04	Legal Authority and Enforcement	Deficiencies and issues pertaining to legal authority will be noted in the Annual Report.
DEPT-05	Departmental Stormwater Coordination	General program overview will be documented in the SWMP. Specific exemplary examples of coordination efforts will be documented in the Annual Report to NDEP.
DEPT-06	Annual Review of the SWMP	Submit an Annual Report to NDEP summarizing the assessment and evaluation associated with the annual SWMP review, including the attainment of measurable goals/BMP task associated with each BMP as well as areas of Permit non-compliance with the proposed corrective action(s) taken.
DEPT-07	Impaired Waters	NDOT will include a section in the Annual Report describing the conditions(s) for which the water(s) were listed, and the progress in attaining the measurable goals listed.
DEPT-08	TMDL Listed Waters	NDOT will include a section in the Annual Report describing the condition(s) for which the water(s) were listed, and the progress in attaining the measurable goals listed.
DEPT-09	Lake Tahoe TMDL MOA	Progress and status of the MOA to be reported in the Annual Report.
DEPT-10	Mapping and Inventory of Structural BMPs and Major Outfalls	Results and progress will be documented in the Annual Report to NDEP.

Table 4.4-2. Summary of Annual Reporting Requirements in the BMP Fact Sheets, Continued

BMP #	BMP Title	Reporting Requirements
DEPT-11	Discharges into Sanitary Sewer Systems	Information pertaining to new stormwater connections to a sanitary sewer system will be included in the Annual Report to NDEP.
DEPT-12	Industrial Facility Monitoring and Control Program	Results of the industrial facility evaluation and the need to develop a control program will be included in the Annual Report to NDEP.
DEPT-13	Low Impact Development (LID) Techniques	Results and progress are to be documented in the Annual Report to NDEP.
EDU-01	Public Outreach and Education Events	Results and progress are to be reported in the Annual Report to NDEP.
EDU-02	Public Litter Removal Programs	NDOT will report the number of volunteer groups participating in the Adopt-A-Highway and Sponsor-A-Highway programs, number of miles cleaned, and the amount of trash collected in the Annual Report.
EDU-03	Partnerships and Affiliations	Results and progress towards supporting or enhancing our stormwater partnerships and affiliations will be documented in the Annual Report to NDEP.
EDU-04	Demonstration Projects	A summary of any demonstration projects being conducted, researched, or pursued by NDOT or partners (e.g. UNR) will be included in the Annual Report to NDEP.
EDU-05	Stormwater Management Program Webpage	Changes to the webpage will be reported in the Annual Report to NDEP.
ENVR-01	Stormwater Monitoring Plan	A summary of stormwater monitoring plan activities will be included in the Annual Report to NDEP.
ENVR-02	Record Keeping	Results and progress will be reported in the Annual Report to NDEP.
ENVR-03	Special Investigations	Record and document any special investigations conducted, the areas inspected, results and findings, and any remedial action taken for inclusion in the Annual Report.
ENVR-04	Fertilizer Application	Results and progress are to be reported in the Annual Report to NDEP.
ENVR-05	Vegetative Control Program	Results and progress are to be reported in the Annual Report to NDEP.
IDDE-01	Illicit Discharge Reporting Hotline	Revisions and updates to the public reporting component of the IDDE Program will be included in the Annual Report to NDEP. Any actual reports or tips received and the action taken will also be included in the Annual Report.
IDDE-02	Illicit Discharge Reporting and Response Database	Reported illicit discharges, actions, and follow-up activities within the MS4 Permit area will be documented in the Annual Report to NDEP.
IDDE-03	Spill Control and Prevention	Changes to the program will be documented in the Annual Report to NDEP.
IDDE-04	IDDE Response, Corrective Action and Follow-Up	Results and progress of reportable spill clean-up activities will be documented in the Annual Report.
IDDE-05	Sanitary Sewer Exfiltration	Reports of sanitary sewer exfiltration encounters within NDOT's right-of-way will be documented and included in the Annual Report to NDEP.
MAINT-01	Hazardous Materials Management	Results and progress will be reported in the Annual Report to NDEP.
MAINT-02	Snow and Ice Control Program	A narrative summary of the Department's Snow and Ice Control Program will be included in the Annual Report. This summary will include the volume or mass of abrasives and deicing agents used throughout the state.

Table 4.4-2. Summary of Annual Reporting Requirements in the BMP Fact Sheets, Continued

BMP #	BMP Title	Reporting Requirements
MAINT-03	Street Sweeping Program	Street sweeping activities, including the amount of material collected, will be summarized in the Annual Report to NDEP. Progress in the evaluation of the recycling and reuse of sweeper materials will also be included in the Annual Report.
MAINT-04	Outfall Screening and Investigations	Record areas inspected, results, and action taken (as appropriate). Findings and progress towards accomplishing the goals listed will be documented in the Annual Report to NDEP.
MAINT-05	Inspection and Maintenance of Structural BMPs	Results and progress are to be documented in the Annual Report to NDEP.
MAINT-06	Maintenance Facility FPPPs	Summaries of FPPP compliance activities will be included in the Annual Report to NDEP.
MAINT-07	Maintenance Facility Inspections	A summary of inspection activities will be included in the Annual Report to NDEP. Deficiencies found and the subsequent corrective actions will be included in the summary.
MAINT-08	Maintenance Facility BMP Manual	A summary of BMP progress will be included in the Annual Report to NDEP.
MAINT-09	Maintenance Facility Updates	A summary of Maintenance facility updates and FPPP modifications will be included in the Annual Report to NDEP.
TRAIN-01	Stormwater Certification Training – Internal	A summary of the Stormwater Certification program will be included in the Annual Report to NDEP.
TRAIN-02	Contractor Stormwater Education and Training – External	A program summary will be included in the Annual Report to NDEP
TRAIN-03	NDOT Herbicide Applicator Training	A narrative summary of the Herbicide, Pesticide and Fertilizer Application Program will be included in the Annual Report.

NDOT's Environmental Services Division will be responsible for submitting an Annual Report to NDEP by October 1 of each year.

Section 5 References

Carson City, 2007. Clear Creek Storm Water Management Program, R.D. Fellows, PE, Carson City Public Works, Carson City, NV, Oct 2007.

Douglas County, 2006. Clear Creek Stormwater Management Plan, Douglas County Community Development, Minden, NV, Jan 2006.

Indian Hills GID, 2006. Municipal Separate Strom Sewer System Storm Water Management Plan, Indian Hills General Improvement District, Carson City, NV, Feb. 2006.

NDEP, 2011. Final Lake Tahoe Total Maximum Daily Load Report 2011, Nevada Division of Environmental Protection (NDEP), Carson City, NV, Aug 2011.

NDEP, 2011. General Pesticide Permit NVG870001. Nevada Division of Environmental Protection (NDEP), Carson City, NV, Sep 2011.

NDEP, 2007. Stormwater General Permit (NVR100000), State of Nevada Division of Environmental (NDEP), Carson City, NV, Sept 2007.

NDOT, 2012. State of Nevada Transportation Facts and Figures 2011, Nevada Department of Transportation (NDOT), Carson City, NV, Feb 2012.

NDOT, 2011. State Maintained Highways of Nevada, Descriptions and Maps, Nevada Department of Transportation (NDOT), Carson City, NV, Jan 2011.

NDOT, 2011. Nevada Department of Transportation's Stormwater Management Program (SWMP) Annual Report for Fiscal Year 2011, Nevada Department of Transportation (NDOT), Carson City, NV, Nov 2011.

NDOT, 2010. State of Nevada Transportation Facts and Figures 2010, Nevada Department of Transportation (NDOT), Carson City, NV, 2010.

NDOT, 2010. Nevada Department of Transportation Road Design Guide, Nevada Department of Transportation (NDOT), Carson City, NV, 2010 Edition.

NDOT, 2010. Standard Plans for Road and Bridge Construction, Nevada Department of Transportation (NDOT) Carson City, NV, 2010 Edition.

NDOT, 2009. State of Nevada Department of Transportation Construction Manual, Nevada Department of Transportation (NDOT), Carson City, NV, Jan. 2009.

NDOT, 2009. Nevada Department of Transportation's Stormwater Management Program (SWMP) Annual Report for Fiscal Year 2009, Nevada Department of Transportation (NDOT), Carson City, NV, Sept 2009.

NDOT, 2007. Special Instructions for Survey, Mapping, or GIS Consultants, Nevada Department of Transportation (NDOT), Carson City, NV, Feb 2007.

NDOT, 2006. Storm Water Quality Manuals, Construction Site Best Management Practices (BMPs) Manual, Nevada Department of Transport (NDOT), Carson City, NV, Jan 2006.

NDOT, 2006. Drainage Manual, Second Edition, Nevada Department of Transportation (NDOT) Hydraulics Section, Carson City, NV, Dec 2006.

NDOT, 2006. Storm Water Quality Manuals, Planning and Design Guide, Nevada Department of Transport (NDOT), Carson City, NV, Jan 2006.

NDOT, 2005. Nevada Department of Transportation's Stormwater Management Program (SWMP) 2005, Nevada Department of Transportation (NDOT), Carson City, NV, Jan 2005.

NDOT, 2005. Clear Creek Storm Water Management Program, Nevada Department of Transportation (NDOT), Carson City, NV, Jan 2005.

NDOT, 2002. Pattern and Palette of Place: A Landscape and Aesthetics Master Plan for the Nevada State Highway System, Nevada Department of Transportation (NDOT), Carson City, NV, July 2002.

NDOT, 2001. Standard Specifications for Road and Bridge Construction, State of Nevada Department of Transportation (NDOT), Carson City, NV, 2001.

NDOT, 2001. Nevada Department of Transportation Maintenance Management System Instructional Manual, State of Nevada Department of Transportation (NDOT), Carson City, NV, 2001.

NDOT, 2001. Nevada Department of Transportation Maintenance Management System Instructional Manual, State of Nevada Department of Transportation (NDOT), Carson City, NV, 2001.

UNR, 2002. Mapping Ecosystems Along Nevada Highways and the Development of Specifications for Vegetation Remediation, University of Nevada (UNR), Reno, NV, Sept. 2002

USGS, 2009. Sediment Loads and Yield, and Selected Water-Quality Parameters in Clear Creek, Carson City and Douglas County Nevada, Water Years 2004–07, Seiler, R.L., and J.L Wood, Scientific Investigations Report 2009–5005, U.S. Geological Survey, Reston, Virginia, 2009

Washoe Tribe, 2008. Clear Creek Stormwater Management Plan, The Washoe Tribe of Nevada and California, Carson City, NV, Dec 2008.

Wood Rogers, 2009. Geotechnical Investigation for Lake Tahoe Environmental Improvement Program Phase II, SR207, Wood Rodgers, Reno, NV, Feb. 2009.

Section 6 Programmatic BMP Fact Sheets

Fact Sheet Index

Fact Sheet Index, Continued

Construction Site Inspections

BMP ID: CONST-01	Ref: SWMP Section 3.5

Rationale/Practice Description:

All NDOT construction sites are managed by a Resident Engineer (RE) familiar with Stormwater General Permit (General Permit) requirements. Contractors are responsible for the construction site and the day to day activities pertaining to stormwater pollution control, including documented stormwater inspections, as specified in the General Permit.

NDOT and contractor inspectors verify that best management practices (BMPs) are in place, site appropriate and that they are adequately maintained throughout the construction activity. Inspectors check that the conditions and practices described in the SWPPP are appropriate and that all aspects of the General Permit are in compliance. NDOT and contractor stormwater inspectors work together to ensure that the discharge of construction site pollutants is reduced to the MEP, and areas experiencing erosion are minimized. When required, enforcement is initiated through NDOT's on-site RE.

NDOT Right-of-Way Division staff routinely inspects non-NDOT construction activity, e.g. utility work, which occurs within the right-of-way to ensure encroachment permit requirements are adhered to, including state and federal stormwater regulations.

NDOT and their contractors are required to perform stormwater self-inspections per the requirements of the General Permit:

- Within 24 hours of the end of a storm event 0.5 inches or greater
- At the minimum of once every seven calendar days
- As specified in the SWPPP and/or Special Provision, and/or
- As directed by the RE

NDOT has created the Weekly Construction Site Discharge Inspection Checklist for NDOT inspectors (Appendix D). This checklist provides assistance with inspection criteria and the proper course of action once the inspection is completed. Under this BMP, a revised version of this inspection checklist will be prepared during this permit cycle and will incorporate guidance for identifying inspection priorities and enforcing control measures, which consider the nature of the construction activity and specific site characteristics; i.e. topography, soils and receiving water quality.

NDOT will work with the contractor to correct any deficiencies noted in the inspection reports. In general, repairs and/or placement of temporary pollution control BMPs are to begin within 24 hours of notification of a deficiency and shall be completed within 7 days. Should this restriction be exceeded, the RE has the authority to immediately suspend work until the repairs are completed or the issue resolved.

BMP Objectives:

1) To prevent, or minimize to the MEP, stormwater pollutant discharge resulting from construction activities within NDOT's right-of-way.

BMP Tasks/Measurable Goals:

1) Regularly inspect all construction sites within the MS4 Permit area to verify that BMPs are properly implemented and that site runoff is adequately treated or contained.
    a. Document inspection and enforcement activity to maintain compliance with the General Permit and NDOT's MS4 permit.
2) Revise the existing Weekly Construction Site Discharge Inspection Checklist.
    a. Submit revised checklist to NDEP for review.

Responsibility:

Environmental Services, Construction and Right-of-Way Divisions

Data Collection Requirements:

Construction Site Inspections

BMP ID: CONST-01	Ref: SWMP Section 3.5

Field inspectors are required to maintain written documentation of inspections performed, corrective actions taken, and Notices of Violation/Citations/Stop Work Orders issued.

Reporting Requirements:

NDOT will include a description of any enforcement actions taken (including Notice of Violations), and their subsequent resolution in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Regularly inspect all construction sites within the MS4 Permit area.	X	X	X	X	X
Revise NDOT's Weekly Construction Site Discharge Inspection Checklist.	X	X			

Permit Requirements:

Part III. Stormwater Management Program

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;

III.G.1.a.iii Site inspections and enforcement;

III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;

III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file a NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

Construction Site Inspections	
BMP ID: CONST-01	**Ref: SWMP Section 3.5**

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4

Construction Site SWPPPs

BMP ID: CONST-02 | **Ref: SWMP Section 3.5**

Rationale/Practice Description:

The Stormwater General Permit (General Permit) issued by the NDEP and EPA requires the development and implementation of a SWPPP, which is a written document that describes how the operator(s) will satisfy permit requirements for preventing and controlling construction site stormwater pollutant discharges. SWPPPs include pertinent information such as: site maps showing drainage and discharge locations; the locations of stormwater control measures; a description of the site; BMPs to be implemented (e.g. erosion and sediment controls); site inspections and maintenance procedures. NDOT's contractors shall develop a SWPPP prior to filing the NOI to obtain coverage under the General Permit. NDOT will ensure that the SWPPP is developed and implemented.

NDOT has developed new contract language directing its contractors to develop and implement a SWPPP regardless of General Permit procurement.

Contractors are required to contact NDOT Environmental Services staff prior to applying for any project related permits or the onset of any site activities. NDOT Environmental Services staff reviews with the contractor any anticipated permit requirements, site BMPs, additional controls and restrictions, nearby waterways and impairments, atypical site issues, NDOT imposed constraints, and NDOT's expectations of the contractor with respect to the control of construction site stormwater runoff.

Through contract language, NDOT's contractors are required to reference NDOT's contract # while filing the NOI and to provide a signed copy of the NOI to the Resident Engineer (as appropriate). NDOT will assist the contractor with filing the NOI if necessary. Upon project completion, NDOT will direct the contractor to file the NOT to begin the process of closing out the General Permit, or to file the NOC to transfer complete ownership of the Permit to NDOT.

BMP Objectives:

1) To prevent, or minimize to the MEP, construction site stormwater pollutant discharges through the use of appropriate construction site BMPs.

BMP Tasks/Measurable Goals:

1) Verify that all NDOT construction projects requiring General Permit coverage have an NOI filed, and a SWPPP developed and implemented.
    a. Assist the contractor as necessary with the NOI filing.
2) Upon project completion, ensure that the NOT or NOC is filed as appropriate.

Responsibility:

Environmental Services and Construction Divisions

Data Collection Requirements:

None at this time.

Reporting Requirements:

A listing of NDOT's construction projects will be included in the Annual Report to NDEP. This listing will include the project name, location, General Permit numbers (as appropriate) and project status. Any projects that the Department considers to be complete (achieved final stabilization) will be reported.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Verify that all NDOT construction projects requiring General Permit coverage have an NOI filed, and that a SWPPP is developed and implemented.	X	X	X	X	X
Upon project completion, ensure that the NOT or	X	X	X	X	X

Construction Site SWPPPs

BMP ID: CONST-02	Ref: SWMP Section 3.5					
NOC is filed as appropriate.						

Permit Requirements:

III.F. Stormwater Education Program

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and nonstructural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans.

III.F.5.h.i The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site activities

Part III. Stormwater Management Program

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;

III.G.1.a.iii Site inspections and enforcement;

III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;

III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

Nevada Contractors Field Guide for Construction Site BMPs

BMP ID: CONST-03 | **Ref: SWMP Section 3.5**

Rationale/Practice Description:

The Nevada Contractors Field Guide for Construction Site Best Management Practices (BMPs) (Nevada Field Guide) manual was released in June 2008. The goal of the Nevada Field Guide was to provide guidance for incorporating erosion prevention and sediment control BMPs into active construction sites in the state. Practices described in the Nevada Field Guide include construction materials, wastes and BMPs for maintenance, fueling and cleaning activities. The Nevada Field Guide includes sections on pre-project planning and operational activities, as well as practical guidance for erosion prevention and sediment control. The Nevada Field Guide provides numerous illustrations and photos of acceptable and non-acceptable construction site structures and practices to control runoff, as well as suggestions and guidance for proper BMP implementation.

Local contractor BMP training courses utilize the Nevada Field Guide as it is recognized by NDEP as an acceptable resource for implementing construction site BMPs. The Nevada Field Guide was produced by a collection of local agencies, not including NDOT. The use of the Nevada Field Guide is acknowledged; however, on NDOT contracts, construction site BMPs shall be implemented per NDOT's Construction Site BMPs Manual with the Nevada Field Guide utilized as a supplemental resource.

The Nevada Field Guide was developed by NDEP, the Truckee Meadows Storm Water Permit Coordinating Committee, Washoe County Regional Water Planning Commission and the Clark County Regional Flood Control District. This document was not developed by NDOT; however NDOT will assist and support efforts to revise and update the Nevada Field Guide as necessary.

BMP Objectives:

1) Recognize the use and application of concepts presented in the Nevada Field Guide by employees, contractors, and design engineers within NDOT's MS4 permit area.

BMP Tasks/Measurable Goals:

1) Provide access to a current version of the Nevada Field Guide on NDOT's website.
2) Assist and support efforts to revise and update the Nevada Field Guide as necessary.

Responsibility:

Environmental Services Division

Data Collection Requirements:

None at this time.

Reporting Requirements:

Any efforts contributed by NDOT towards revising the BMP Field Guide will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Provide access to a current version of the Nevada Field Guide on NDOT's website.		X	X	X	X
If necessary, assist in the process to revise and update the document.	This is not NDOT's document; therefore the time frame for revisions is unknown at this time.				

Permit Requirements:

III.F. Stormwater Education Program

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and nonstructural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans.

III.F.5.h.i The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site

Nevada Contractors Field Guide for Construction Site BMPs	
BMP ID: CONST-03	**Ref: SWMP Section 3.5**

activities

Part III. Stormwater Management Program

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;

III.G.1.a.iii Site inspections and enforcement;

III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;

III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

III.V. Updating NDOT's Manuals

III.V.1. NDOT shall annually review its 2006 Planning and Design Guide Manual and its 2006 Construction Site BMP Manual and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.

NDOT's Construction Site BMP Manual

BMP ID: DEPT-01 | **Ref: SWMP Section 3.5**

Rationale/Practice Description:

NDOT issued its Construction Site BMP Manual (BMP Manual) in January 2006. Outlined in this manual is information pertaining to various water quality related permit requirements, NDOT's contract requirements, minimum requirements, temporary soil stabilization, sediment control, housekeeping, and tracking control measures for construction sites throughout the state.

The Department's BMP Manual serves as a guidance document for the minimum stormwater pollution control measures to be implemented during construction on all projects within NDOT's right-of-way. The BMP Manual is referenced by both NDOT and contractor personnel.

A revised BMP Manual and protocol for subsequent revisions will be developed under this programmatic BMP.

BMP Objectives:

1) To provide guidance and reasonable uniform procedures to affect an efficient and standardized application of stormwater BMPs for construction activities along the state's highway system.
2) To provide employees and other users with general information relevant to stormwater activities and responsibilities of the Department.

BMP Tasks/Measurable Goals:

1) Review the current BMP Manual, identifying material requiring revision and new material for inclusion.
2) Develop a final document and disseminate for use on construction projects within the MS4 Permit area.
3) Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).

Responsibility:

Environmental Services, Design and Construction Divisions

Data Collection Requirements:

None at this time.

Reporting Requirements:

Progress with the development of a revised BMP Manual and protocol for subsequent revisions will be summarized in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Review the current BMPs Manual, identifying material requiring revision and new material for inclusion.		X	X		
Develop a final document and disseminate for use on construction projects within the MS4 Permit area.			X		
Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).				X	X

Permit Requirements:

Part III. Stormwater Management Program

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies

NDOT's Construction Site BMP Manual	
BMP ID: DEPT-01	**Ref: SWMP Section 3.5**

or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;

III.G.1.a.iii Site inspections and enforcement;

III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;

III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

III.V. Updating NDOT's Manuals

III.V.1. NDOT shall annually review its 2006 Planning and Design Guide Manual and its 2006 Construction Site BMP Manual and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.

NDOT's Planning and Design Guide

BMP ID: DEPT-02 | **Ref: SWMP Section 3.6**

Rationale/Practice Description:

NDOT issued its Storm Water Quality Planning and Design Guide (PDG) manual in January 2006. Outlined in the manual is NDOT's process for selecting and designing BMPs and incorporating them into new and significant redevelopment projects. Described in the PDG are critical documents that must be prepared prior to new construction, such as the Alternative Design Field Survey Report (ADFS), Preliminary Design Field Study Report (PDFS), Environmental Documents, and the Plans, Specifications, and Estimates (PS&E).

The planning and design approach described in the PDG has been developed for use in conjunction with NDOT's Roadway Design and Drainage Design Manuals. The PDG also provides guidance for incorporating requirements in the PS&E to ensure that NDOT's contractors comply with applicable permits, NDOT policy, and implements appropriate construction site BMPs.

A revised BMP Manual and protocol for subsequent revisions will be developed under this programmatic BMP.

BMP Objectives:

1) To provide employees and other users with guidance for incorporating permanent stormwater quality controls into new projects during the planning and design phase.
2) Address key regulatory, policy, and technical requirements to implement permanent stormwater BMPs into the design of all new NDOT projects.

BMP Tasks/Measurable Goals:

1) Review the current PDG, identifying material requiring revision and appropriate new material for inclusion (including appropriate low impact development (LID) practices).
2) Develop a final document and disseminate for use on new projects within the MS4 permit area.
3) Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).

Responsibility:

Environmental Services, Design and Construction Divisions

Data Collection Requirements:

None at this time.

Reporting Requirements:

Progress in the development of a revised PDG and protocol for subsequent revisions will be summarized in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Review the current PDG, identifying material requiring revision and appropriate new material for inclusion (including LID practices).		X	X		
Develop a revised document and disseminate for use on new projects within the MS4 Permit area.			X		
Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).				X	X

Permit Requirements:

NDOT's Planning and Design Guide

BMP ID: DEPT-02	Ref: SWMP Section 3.6

III.I. Discharges from New Development and Redevelopment

III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.V. Updating NDOT's Manuals

III.V.1. NDOT shall annually review its 2006 Planning and Design Guide Manual and its 2006 Construction Site BMP Manual and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.

Plan Review Process

BMP ID: DEPT-03	Ref: SWMP Sections 3.5 & 3.6

Rationale/Practice Description:

The plan review process is an important step in ensuring that stormwater runoff from new and redevelopment projects are treated to the MEP. Project design is a collaborative process between numerous NDOT Divisions, including Right-of-Way, Structures, Construction, Materials, Environmental Services, Design, Safety Engineering, and Maintenance and Asset Management. Project plans are routed through the appropriate Department Divisions in a sequential manner for review. Plan review addresses key regulatory, policy, and technical requirements necessary to implement permanent stormwater BMPs into the design of all NDOT projects.

From a stormwater perspective, the critical design review is performed by the Environmental Services and Design Divisions (i.e. Hydraulics, Landscape Architecture and Roadway Design Sections). It is within these two NDOT Divisions that the design and incorporation of permanent stormwater quality controls into new projects is assured.

The Environmental Services and Design Divisions review project plans and designs for issues and constraints related to water quality, quantity, drainage, feasibility, treatment and permit compliance. Consideration during the plan and design review include:

- MS4 permit applicability (i.e. projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale).
- Delineate drainage areas, define total disturbed area, and review climatic conditions and site hydrology.
- Assess potential stormwater quality impacts associated with the proposed project and develop/evaluate options to avoid or reduce these impacts. Ensure that stormwater is discharged in a manner that does not cause nuisance conditions, or erosion in receiving channels and down-slope properties.
- Evaluate the need, type, and location of permanent (post-construction) stormwater pollution control BMPs.
- Evaluate the potential for discharges into receiving Waters of the United States and impaired water status (303(d) or TMDL listing); implement appropriate mitigation measures as appropriate.
- Evaluate the stability of highway slopes 3:1 or greater and actively eroding with sediment leaving NDOT's right-of-way or discharging into a Waters of the U.S. and incorporate stabilization measures as appropriate to the MEP.
- Project status or compliance with conditions in regulations, ordinances, permits (e.g. Stormwater General Permit), and contracts.
- Promotion and incorporation of LID practices when feasible.
- Review of construction site BMPs and SWPPPs (as necessary).
- Review of expected authorized discharges and the potential for non-authorized discharges.
- Identify priority and watershed pollutant reduction opportunities (e.g. improvements to existing urban runoff control structures).

A comprehensive discussion of the stormwater related activities addressed during planning and design phase of each NDOT project can be found in NDOT's Planning and Design Guide (see DEPT-02).

BMP Objectives:

1) Address stormwater runoff concerns or known issues during the design phase of new

Plan Review Process

BMP ID: DEPT-03 | **Ref: SWMP Sections 3.5 & 3.6**

and redevelopment projects through the project planning and review process.

BMP Tasks/Measurable Goals:

1) Review project plans to ensure that stormwater runoff from new and re-development projects is adequately addressed and treated to the MEP.
   a. Incorporate permanent stormwater quality features and BMPs as appropriate.
   b. Promote low impact development design features where practicable.

Responsibility:

Environmental Services and Design Divisions

Data Collection Requirements:

Document all projects reviewed for stormwater considerations.

Reporting Requirements:

NDOT will provide a summary of this BMP in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Review project plans to ensure that stormwater runoff from new and re-development projects is adequately addressed and treated to the MEP.	X	X	X	X	X

Permit Requirements:

Part I. Permit Coverage and Authorized Discharges under this Permit

I.A. Permit Area

I.A.1. This permit covers state and interstate highways and their right-of-ways within the jurisdictional boundary of the Nevada Department of Transportation ("NDOT" or "Permittee") served by, or otherwise contributing to discharges into receiving Waters of the United States from municipal separate storm sewer systems ("MS4s") owned or operated by NDOT.

I.B. Authorized Discharges

I.B.1. This permit authorizes new or existing discharges composed entirely of stormwater (and allowable non-stormwater discharges) into NDOT's MS4 (excluding Indian Lands), as defined in 40 Code of Federal Regulations ("CFR") §122.26. NDOT is authorized to discharge in accordance with its approved Stormwater Management Program ("SWMP"), and other terms and conditions of this permit.

I.C. Non-Authorized Discharges

I.C.3. Stormwater discharges associated with construction activity as defined in 40 CFR§122.26(b)(14)(x) or 40 CFR§122.26(b)(15) are identified and permitted through a separate NPDES General Construction Activity permit. These discharges are authorized under NDEP's General Permit NVR100000.

I.C.4. If it is determined that NDOT's discharges cause or contribute to an instream exceedance of water quality standards, NDEP may require corrective action or an application for a separate individual permit or alternative.

I.C.5. NDOT shall comply with all applicable Federal, State, or local laws, regulations, or ordinances.

Part II. Discharges to Water Quality Impaired Waters

II.A. Impaired Waters Listing on 303(d) List

II.A.1. NDOT must evaluate whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e. impaired waterbody). Information concerning the most current 303(d) list can be found on NDEP's website. If NDOT has discharges meeting this criterion, or if there is a Total Maximum Daily Load ("TMDL") on receiving waters, NDOT must comply with Part II.B. Part II does not apply if NDOT does not have discharges meeting this criterion.

II.B. Total Maximum Daily Load

II.B.1. NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must comply with Part II.B.2. If there is no TMDL, NDOT must comply with Part II.B.3.

II.B.2. If a TMDL is approved for any waterbody into which NDOT discharges, NDOT shall:

II.B.3. NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual

Plan Review Process

BMP ID: DEPT-03	Ref: SWMP Sections 3.5 & 3.6

Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

II.C. Discharges to Lake Tahoe and Tributaries to Lake Tahoe

II.C.1. The Lake Tahoe TMDL, scheduled to be adopted by EPA in 2011, identifies urban stormwater as the primary source of fine sediment particles and phosphorous that impairs the clarity of Lake Tahoe. The TMDL Implementation Plan identifies NDOT as a responsible party that will be required to implement controls to reduce fine sediment particle and nutrient loads consistent with specified TMDL WLAs for stormwater.

Part III. Stormwater Management Program

III.B. Legal Authority

III.B.1.c Require compliance with conditions in regulation, ordinances, permits, contracts or orders;

III.F. Stormwater Education Program

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.I. Discharges from New Development and Redevelopment

III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.P. Measures to Control Discharge from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair,

Plan Review Process	
BMP ID: DEPT-03	**Ref: SWMP Sections 3.5 & 3.6**

maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a Highway Maintenance Activities

III.P.1.a.ii. Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of-way or discharging to a Water of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

Legal Authority and Enforcement

BMP ID: DEPT-04 | **Ref: SWMP Section 3.1**

Rationale/Practice Description:

NDOT's legal authority within the MS4 permit area prohibiting illicit discharges and providing authorization to conduct associated measures necessary to determine compliance and non-compliance (i.e. inspections, monitoring, etc.) can be found within several different Nevada Revised Statutes (NRS). Based on a review of the new Permit and the statutes, adequate legal authority exists to empower NDOT to administer the requirements of the Permit and the procedures outlined in this SWMP document (a review of NDOT's legal authority can be found in Section 3.1 of this document).

NDOT's enforcement capabilities with regards to illicit discharges as specifically defined in the Permit, however, are limited by state statutes. NDOT will endeavor to resolve issues with illicit discharges should the responsible party be known. However, NDOT will seek assistance from the Nevada Division of Environmental Protection (NDEP) when enforcement action is warranted.

BMP Objectives:

1) Through statutes and enforcement, improve the quality of stormwater discharges within NDOT's MS4 Permit area.

BMP Tasks/Measurable Goals:

1) Exercise current legal authority to enforce the provisions of NDOT's MS4 permit.
2) Provide written notice to NDEP regarding any formal proposal to modify regulations or ordinances regulating stormwater discharges into the MS4.

Responsibility:

Environmental Services Division and District Engineers

Data Collection Requirements:

NDOT staff will keep a record of any legal needs, statute deficiencies, or other issues that arise throughout the fiscal year and provide a summary in the Annual Report to NDEP.

Reporting Requirements:

Deficiencies and issues pertaining to legal authority will be noted in the Annual Report to NDEP.

Implementation Schedule:

Measureable Goals	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Exercise current legal authority to enforce the provisions of NDOT's MS4 permit.	X	X	X	X	X
Provide written notice to NDEP for any formal proposal to modify regulations or ordinances regulating stormwater discharges into NDOT's MS4.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program
III.B. Legal Authority

III.B.1. The revised SWMP shall describe NDOT's legal authority that has been established by statute, regulation, or contract documents which authorizes or enables NDOT to:

III.B.1.a Prohibit illicit discharges to the MS4;

III.B.1.b Control discharges to NDOT's MS4 from spills, dumping or disposal of materials other than stormwater;

III.B.1.c Require compliance with conditions in regulation, ordinances, permits, contracts or orders; and

III.B.1.d Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the prohibition of illicit discharges to the MS4s.

III.B.2. NDOT shall provide written notice to NDEP of any formal proposal to modify the regulation or ordinances regulating stormwater discharges into the MS4. Before any regulation or ordinance is modified, NDEP shall [be provided] at least thirty (30) days to review and comment on the proposed modification.

Departmental Stormwater Coordination

BMP ID: DEPT-05 | **Ref: SWMP Section 3.2**

Rationale/Practice Description:

The promotion of internal communication efforts, as well as communication with other government agencies, is essential to facilitate compliance with the Permit. The Water Quality Section within the Environmental Services Division serves as NDOT's primary point of contact with other Divisions and the three Districts for water quality and Permit related issues. The Environmental Services Division and Hydraulics Section (within the Design Division) routinely coordinate with other Divisions within the Department as well as other federal and state agencies, including the Nevada Division of Environmental Protection (NDEP), the U.S. Army Corps of Engineers, and the Tahoe Regional Planning Agency, during all phases of a construction project (most notably project design review) to ensure that construction activities and design components are consistent with stormwater permitting and other environmental requirements. NDOT Design and District personnel routinely coordinate project efforts with surrounding municipalities and local stakeholders.

NDOT's Environmental Services Division routinely coordinates project and Permit activities with the NDEP to promote a positive working relationship between regulator and permittee. NDOT will continue to keep open lines of communication with other government agencies and local stakeholders, including other MS4 entities (see EDU-03) and NDEP.

BMP Objectives:

1) Continue promoting inner Department and inter-agency communication efforts to facilitate Permit compliance.

BMP Tasks/Measurable Goals:

1) Continue to facilitate, develop and promote inner Department and inter-agency relationships to assist in Permit compliance.

Responsibility:

Environmental Services Division and Design Division

Data Collection Requirements:

None at this time.

Reporting Requirements:

General program overview will be documented in the SWMP. Specific exemplary examples of coordination efforts will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue to facilitate, develop, and promote inner Department and inter-agency relationships.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program
III.F. Stormwater Education Program

III.F.5.q NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:

III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP.

Annual Review of the SWMP

BMP ID: DEPT-06 | **Ref: SWMP Section 4.3**

Rationale/Practice Description:

Opportunities for program improvement often become apparent when the components are evaluated separately and collectively. Each year the Department will conduct an annual review of its SWMP. An Annual Report will be prepared and submitted to NDEP by Oct. 1 annually summarizing SWMP related activities for the previous state fiscal year (July 1 through June 30).

Each of the programmatic BMPs presented in Section 6 will be reviewed and qualitatively evaluated with respect to appropriateness and attainment of the measurable goals/BMP tasks. Each of the eleven SWMP elements will be examined by considering the success of the associated programmatic BMPs collectively. As part of assessing the status of the SWMP, any areas of non-compliance with the Permit conditions will be reported and the corrective action proposed. Pertinent input from District staff with respect to their assessment of the success of programs, practices, and BMPs will be weighted in the annual review. The last component of the annual review of the SWMP will be a listing of any program modifications identified during this assessment.

BMP Objectives:

1) Evaluate and improve the Department's SWMP through annual self assessment and measureable goal/BMP task attainment in an effort to mitigate stormwater pollutant discharge from NDOT's MS4 to the MEP.

BMP Tasks/Measurable Goals:

1) Assess the overall effectiveness of the Department's SWMP by conducting an annual evaluation of the individual and collective programs.
    a) Based on the annual SWMP review, recommend program changes and enhancements to NDEP each year as appropriate.
2) Prepare and submit an Annual Report to NDEP by October 1st annually which summarized SWMP related activities for the previous state fiscal year.
3) Incorporate and implement NDEP approved changes to the SWMP.

Responsibility:

Environmental Services Division

Data Collection Requirements:

Data that pertain to the attainment of the measurable goals/BMP tasks for each BMP will be collected annually.

Reporting Requirements:

Submit an Annual Report to NDEP summarizing the assessment and evaluation associated with the annual SWMP review, including the attainment of measurable goals/BMP task associated with each BMP as well as areas of Permit non-compliance with the proposed corrective action(s) taken.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Assess the overall effectiveness of the Department's SWMP by conducting an annual evaluation of the individual and collective programs.	X	X	X	X	X
Prepare an Annual Report summarizing SWMP related activities for the previous state fiscal year for submittal to NDEP by October 1st annually.	X	X	X	X	X
Incorporate and implement NDEP approved changes to the SWMP		X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program

Annual Review of the SWMP

BMP ID: DEPT-06	Ref: SWMP Section 4.3

III.A. SWMP Revision

III.U. Annual Review and Updating the SWMP

III.U.1. NDOT must complete an annual review of the SWMP in conjunction with preparation of the Annual Report required under Part IV.C of this permit.

III.U.2. NDOT may change the SWMP during the life of the permit in accordance with the following procedures:

III.U.2.a Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to NDEP.

III.U.2.b Requests for changes replacing an ineffective, unfeasible, or inappropriate BMP specifically identified in the SWMP with an alternate BMP may be submitted to NDEP for approval at any time. If request is denied, NDEP will send NDOT a written response giving a reason for the decision. NDOT's modification requests must include the following:

III.U.2.b.i An analysis of why the BMP is ineffective, infeasible (including cost prohibitive), or otherwise should be revised or replaced, and

III.U.2.b.ii An analysis of why the replacement BMP is expected to be more effective, feasible, or appropriate than the BMP to be replaced.

Part IV. Monitoring, Recordkeeping, and Reporting

IV.C. Annual Reports

IV.C.1. NDOT shall continue to submit Annual Reports to NDEP by October 1 of each year of the permit term. Each Annual Report shall cover the period beginning July 1st of the previous year through June 30th of the current year.

IV.C.2. Each year, NDOT shall review its SWMP and report to NDEP on the status of the program, whether NDOT has identified any modifications, and the plans for implementing those modifications.

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.a Status of NDOT's compliance with permit conditions;

IV.C.3.b An assessment of the appropriateness of the identified BMPs, and revisions to previous assessments, if appropriate;

IV.C.3.c Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP;

IV.C.3.d Status of the achievement of measurable goals

Impaired Waters

BMP ID: DEPT-07	Ref: SWMP Section 3.4

Rationale/Practice Description:

The Permit requires NDOT to evaluate whether stormwater discharges from any part of the MS4 Permit area contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e., impaired waterbody). NDOT is required to include a section in the Annual Report describing the condition(s) for which the water(s) was listed, and to evaluate possible BMPs that might be practicably implemented.

Nevada's current 303(d) within NDEP's 2008-2010 Water Quality Integrated Report (WQIP) has 211 separate listings of impaired waters located across the State. These waterbodies and stream reaches are impaired for a variety of water quality constituents, many of which could be present in stormwater runoff. Preliminary assessments suggest there are several locations where NDOT's roadways intersect or parallel a number of the listed impaired waters. During the evaluations, if it is determined that stormwater discharge from NDOT's MS4 contribute to, or aggravate, the 303(d) listed water quality impairment, NDOT will begin the process of evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

The procedure to conduct this analysis will be developed and refined (as necessary) during this permit cycle. It is expected, however, that NDOT will perform a comparative analysis of the current roadway Geographic Information System (GIS) database and NDEP's current 303(d) list GIS database to ascertain data points where NDOT owned roadways either intersect or parallel waterbodies that are included in the 303(d) Impaired Waters List. The proximity of NDOT properties and activities to the impaired waters is expected to greatly narrow the requirement for analysis and scrutiny.

Next, the 303(d) water quality impairments can be compared to the constituents that are commonly found in stormwater runoff from NDOT roadways. At this point, the instances can likely be reduced to a small number and the data reviewed on a case by case basis. Data to be considered could include water quality data, flow, geochemical and geological data, precipitation, and NDOT's footprint.

In the event that the final analysis indicates that stormwater runoff within NDOT's MS4 Permit area contributes directly or indirectly to a 303(d) waterbody, BMPs will be identified, created or modified for possible inclusion in the SWMP.

Due to the large number of variables and complexity of this analysis, this task is scheduled to be accomplished over a period of several years. NDOT, however, will take a hydrographic region approach to this assessment.

The methodology pertaining to the procedures and BMP progress will be summarized in NDOT's Annual Report to NDEP.

BMP Objectives:

1) To determine if stormwater discharge from NDOT's MS4 contributes directly or indirectly to the listing of a waterbody on Nevada's most current 303(d) list.
2) To mitigate stormwater discharge from NDOT's MS4 into current 303(d) listed waterways in regards to the constituents of concern.

BMP Tasks/Measurable Goals:

1) Identify locations where NDOT owned roadways and right-of-ways intersect or parallel waterbodies that are on the current 303(d) impaired waters list.
2) Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.
    a. Make an assessment/determination if there is the potential for NDOT's stormwater runoff to aggravate the impairment.

Impaired Waters

BMP ID: DEPT-07 | **Ref: SWMP Section 3.4**

3) In the event it is determined that stormwater discharge from NDOT's MS4 Permit area aggravates a 303(d) listing, NDOT will initiate a process to identify BMPs that might practicably be implemented to mitigate the conditions.

Responsibility:

Environmental Services Division

Data Collection Requirements:

This BMP will require the examination of several types of data and documentation. Information to be reviewed may include: NDOT roadway GIS databases, NDEP's 303(d) GIS database, regional soil surveys, geological formations, maps, watershed activities, stream flow, historical precipitation, land use type, water chemistry data and watershed reports.

Reporting Requirements:

NDOT will include a section in the Annual Report describing the conditions(s) for which the water(s) were listed, and the progress in measurable goal attainment.

Implementation Schedule:

Measureable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Northwest and Central Hydrographic Regions.	X				
Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.	X				
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Truckee River, Tahoe Basin, and Steamboat Creek Hydrographic Regions.		X			
Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.		X			
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Carson River Basin and Walker River Basin Hydrographic Regions.			X		
Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.			X		
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Snake River Basin and Humboldt River Basin Hydrographic Regions.				X	
Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.				X	
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel water bodies that are on the 2008-2010 303(d) list within the Blackrock Desert Region and Colorado River Basin Hydrographic Regions.					X

Impaired Waters

BMP ID: DEPT-07		Ref: SWMP Section 3.4			
Determine if the impaired constituents are commonly found in stormwater discharge from NDOT's MS4.					X
Initiate a process to identify BMPs for implementation as appropriate.		X	X	X	X

Permit Requirements:

Part II. Discharges to Water Quality Impaired Waters

II.B. Total Maximum Daily Load

II.B.1. NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must comply with Part II.B.2. If there is no TMDL, NDOT must comply with Part II.B.3.

II.B.2. If a TMDL is approved for any waterbody into which NDOT discharges, NDOT shall:

II.B.2.a Determine and report whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from NDOT's MS4;

II.B.2.b Determine and report whether the TMDL includes a pollutant wasteload allocation ("WLA") or other performance requirements specifically for stormwater discharge from NDOT's MS4;

II.B.2.c Determine and report whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge;

II.B.2.d Assess whether the WLAs are being met through implementation of existing stormwater control measures or if additional control measures are necessary;

II.B.2.e Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report. A schedule of implementation for all planned controls shall be included in the revised SWMP as described in Part III of this permit.

II.B.2.f Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report;

II.B.2.g The monitoring program required by Section IV.A of this permit shall be customized to determine whether the stormwater controls are adequate to meet the WLA to the Maximum Extent Practicable ("MEP"); and,

II.B.2.h If no WLA currently exists, but is developed during the term of this permit, then NDOT's BMPs outlined in the approved, updated SWMP are expected to be sufficient for the duration of the existing permit period; and

II.B.2.i The need for an iterative approach to control pollutants in stormwater discharges is recognized. If NDOT determines that additional or modified controls are necessary, the SWMP will be updated pursuant to Part III.U.2 of this permit and will describe the type and schedule for the control additions and/or revisions, and an analysis that demonstrates the overall effectiveness.

II.B.3. NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual Report describing the condition(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

TMDL Listed Waters

BMP ID: DEPT-08	Ref: SWMP Section 3.4

Rationale/Practice Description:

NDOT is required to determine if stormwater discharge from the MS4 Permit area discharges to a waterbody for which a TMDL has been developed and approved by the NDEP. TMDLs have been approved for the following thirteen waterbodies throughout the state: Bryant Creek, Carson River, Dixie Creek, Hanks Creek, East Owyhee River, Mill Creek, Humboldt River, Truckee River, Virgin River, Walker River, Walker Lake, Las Vegas Wash, and Lake Tahoe. A preliminary assessment utilizing GIS capabilities suggests there are several locations where NDOT's roadways intersect or parallel a waterbody for which a TDML has been developed.

The rationale behind this BMP is to determine if stormwater runoff from NDOT owned and maintained roadways and right-of-way contribute to, or aggravate, the TMDL listed water quality impairment. The general approach to be used is similar to that of DEPT-07 (Impaired Waters). The procedure to conduct this analysis will be developed and refined (as necessary) during this permit cycle. It is expected that NDOT will perform a comparative analysis of the current roadway Geographic Information System (GIS) database and NDEP's current TMDL GIS database to ascertain areas or points where NDOT owned roadways either intersect or parallel the TMDL waterbodies. Next, the TMDL water quality impairments can be compared to the constituents that are commonly found in stormwater runoff from NDOT roadways. At this point, the instances can likely be reduced to a small number and the data reviewed on a case by case basis. Data to be considered could include water quality data, flow, geochemical and geological data, precipitation and NDOT's footprint.

In the event that the final analysis indicates that stormwater runoff within NDOT's MS4 Permit area contributes directly or indirectly to a waterbody that has an approved TMDL, BMPs will be identified, created, or modified for possible inclusion into the SWMP.

Due to the large number of variables and complexity of this analysis, this task is scheduled to be accomplished over a period of several years. It is anticipated that DEPT-08 will be implemented simultaneously with DEPT-07.

The methodology pertaining to the procedures and BMP progress will be summarized in NDOT's Annual Report to NDEP.

BMP Objectives:

1) To determine if stormwater discharge from NDOT's MS4 permit area contributes directly or indirectly to the listing of a waterbody that has an NDEP approved TMDL.
2) To mitigate stormwater discharge from NDOT's MS4 into NDEP approved TMDL listed waterways in regards to the constituents of concern.

BMP Tasks/Measurable Goals:

1) Identify locations where NDOT owned roadways and right-of-ways intersect or parallel waterbodies that have NDEP approved TMDLs.
2) Determine if the TMDL constituents are commonly found in stormwater discharge from NDOT's MS4.
    a. Make an assessment/determination if there is the potential for NDOT's stormwater runoff to aggravate the impairment.
3) In the event that a waterbody with an established TMDL is found to be aggravated by runoff from NDOT's MS4 Permit area, NDOT will initiate a process to identify, list, and develop appropriate BMPs to mitigate the impacts.

Responsibility:

Environmental Services Division

Data Collection Requirements:

This BMP will require the examination of several types of data and documentation. Information to

TMDL Listed Waters

BMP ID: DEPT-08	Ref: SWMP Section 3.4

be reviewed may include: NDOT roadway GIS databases, NDEP's 303(d) GIS database, regional soil surveys, geological formations, maps, watershed activities, stream flow, historical precipitation, land use type, water chemistry data and watershed reports.

Reporting Requirements:

NDOT will include a section in the Annual Report describing the conditions(s) for which the water(s) were listed, and the progress in measurable goal attainment.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Identify locations where NDOT owned roadways and right-of-ways intersect or parallel waterbodies that have NDEP approved TMDLs.	X	X	X	X	X
Determine if the TMDL constituents are commonly found in stormwater discharge from NDOT's MS4.		X	X	X	X
Initiate a process to identify BMPs for implementation as appropriate.		X	X	X	X

Permit Requirements:

Part II. Discharges to Water Quality Impaired Waters

II.B. Total Maximum Daily Load

II.B.1. NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must comply with Part II.B.2. If there is no TMDL, NDOT must comply with Part II.B.3.

II.B.2. If a TMDL is approved for any waterbody into which NDOT discharges, NDOT shall:

II.B.2.a Determine and report whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from NDOT's MS4;

II.B.2.b Determine and report whether the TMDL includes a pollutant wasteload allocation ("WLA") or other performance requirements specifically for stormwater discharge from NDOT's MS4;

II.B.2.c Determine and report whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge;

II.B.2.d Assess whether the WLAs are being met through implementation of existing stormwater control measures or if additional control measures are necessary;

II.B.2.e Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report. A schedule of implementation for all planned controls shall be included in the revised SWMP as described in Part III of this permit.

II.B.2.f Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report;

II.B.2.g The monitoring program required by Section IV.A of this permit shall be customized to determine whether the stormwater controls are adequate to meet the WLA to the Maximum Extent Practicable ("MEP"); and,

II.B.2.h If no WLA currently exists, but is developed during the term of this permit, then NDOT's BMPs outlined in the approved, updated SWMP are expected to be sufficient for the duration of the existing permit period; and

II.B.2.i The need for an iterative approach to control pollutants in stormwater discharges is recognized. If NDOT determines that additional or modified controls are necessary, the SWMP will be updated pursuant to Part III.U.2 of this permit and will describe the type and schedule for the control additions and/or revisions, and an analysis that demonstrates the overall effectiveness.

II.B.3. NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

Lake Tahoe TMDL Memorandum of Agreement

BMP ID: DEPT-09 | **Ref: SWMP Section 3.4**

Rationale/Practice Description:

The EPA approved NDEP's Lake Tahoe TMDL in August of 2011. Under the CWA, the NDEP must establish TMDLs for impaired waters of high priority.

Under the Permit, NDOT is required to enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL within one year of TMDL approval. The MOA will outline NDOT's programmatic activities and responsibilities for implementation of the TMDL. Anticipated elements for inclusion in the MOA include:

- Pollutant load reduction milestone schedule based on TMDL allocations
- A Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones
- Participation in the Lake Clarity Crediting Program and the Regional Stormwater Monitoring Program

NDOT may partner with Washoe and Douglas Counties in assistance in implementing the Lake Tahoe TMDL. Conditions and actions to be included in the MOA are presently under negotiation. The rationale behind this BMP is to define NDOT's Lake Tahoe TMDL related responsibilities, conditions of the MOA, and determine how best to carry out the necessary actions for compliance with the Permit and the TMDL, ultimately improving the water quality of the Lake.

BMP Objectives:

1) Enter into an MOA with NDEP for TMDL implementation in an effort to improve the clarity of Lake Tahoe through stormwater pollutant load reduction.

BMP Tasks/Measurable Goals:

1) Enter into the MOA with NDEP within one year of TMDL approval.
2) Upon entering into the MOA, begin developing a plan to accomplish NDOT's responsibilities for TMDL compliance.

Responsibility:

Environmental Services Division and Hydraulics Section

Data Collection Requirements:

None at this time

Reporting Requirements:

Progress and status of the MOA will be reported in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal:	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Enter into the MOA with NDEP within one year of TMDL approval.	X				
Upon entering into the MOA, begin developing a plan to accomplish NDOT's responsibilities for TMDL compliance.	X				

Permit Requirements:

II.C. Discharges to Lake Tahoe and Tributaries to Lake Tahoe

II.C.1. The Lake Tahoe TMDL, scheduled to be adopted by EPA in 2011, identifies urban stormwater as the primary source of fine sediment particles and phosphorous that impairs the clarity of Lake Tahoe. The TMDL Implementation Plan identifies NDOT as a responsible party that will be required to implement controls to reduce fine sediment particle and nutrient loads consistent with specified TMDL WLAs for stormwater.

II.C.2. Within one year of NDEP's approval of the Lake Tahoe TMDL, NDOT shall enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL. The MOA shall establish programmatic activities and responsibilities to which NDOT shall commit for implementation of the TMDL. Anticipated elements for inclusion in the MOA include, but are not

Lake Tahoe TMDL Memorandum of Agreement	
BMP ID: DEPT-09	**Ref: SWMP Section 3.4**
limited to: a method for calculating and establishing baseline WLAs for stormwater; pollutant load reduction milestone schedule based on TMDL allocations; a Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones; and participation in the Lake Clarity Crediting Program and Regional Stormwater Monitoring Program.	
II.C.3. Part II.C of this permit may be reopened for modification by NDEP in order to incorporate WLAs for stormwater or to amend provisions requiring consistency with changes to the Lake Tahoe TMDL or the MOA.	

Mapping and Inventory of Structural BMPs and Major Outfalls

BMP ID: DEPT-10	Ref: SWMP Sections 3.3, 3.6, 3.10

Rationale/Practice Description:

The Permit requires NDOT to develop and maintain maps and an inventory of stormwater pollution control BMPs and major outfalls (as defined by the Permit) for both existing infrastructure and new development (or significant redevelopment). NDOT's Location Division/GIS Section manages and coordinates the Department's GIS mapping and geodatabase activities within the state. NDOT continues to build and refine the maps and locations of significant infrastructure, including stormwater structural BMPs and major outfalls required by the Permit.

The total roadway system mileage maintained by NDOT is over 5,400 miles in length within a state that has a total area of 110,567 square miles. Therefore, the mapping and inventory effort required to meet permit requirements is substantial and will require numerous years to fully accomplish. The Environmental Services Division and Hydraulics Section, with assistance from the GIS Section, have initiated mapping efforts in select areas of the state, e.g., the Clear Creek Watershed and the Lake Tahoe Basin.

NDOT will continue its current GIS mapping activities and build upon these efforts by developing a multi-year, implementable plan that takes into account specific data collection criteria (e.g., facility type, size, location, etc.) that will be recorded and mapped as part of its GIS program.

Once the criteria have been established, NDOT will develop a comprehensive list of all the items that need to be recorded and mapped. Next, an implementation schedule will be created to determine the priority that these features are mapped and recorded into NDOT's GIS database. Updated maps will be made available to NDEP with each Annual Report or upon request. The maps will include stormwater BMPs and stormwater infrastructure for existing areas, as well as for areas of new and significant development and redevelopment. Due to the wide array of post-construction BMPs utilized on NDOT's projects, mapping and inventory efforts will focus on detention/water quality basins, stormwater treatment vaults (including media treatment devices) and mitigation wetlands.

In the event that NDOT contracts out mapping efforts, NDOT's Location Division has prepared a document (Special Instructions for Survey, Mapping or GIS Consultants, Feb. 2007) that outlines uniform policies, procedures, and minimum standards for developing mapping and survey information for the Department.

The intent of this BMP is to ensure that NDOT's stormwater mapping and inventory effort fulfills the requirements specified in the Permit.

BMP Objectives:

1) Develop a GIS based inventory of stormwater outfalls and post-construction (permanent) BMPs to assist with implementing various aspects of NDOT's SWMP.

BMP Tasks/Measurable Goals:

1) Continue with stormwater facility mapping and inventory efforts.
2) Develop a list of criteria that identifies stormwater facility related features to be identified, mapped, and included in the GIS based inventory.
3) Develop a multi-year implementation plan for the mapping and inventory of stormwater infrastructure and outfalls.

Responsibility:

Environmental Services and Location Divisions and Hydraulics Section

Data Collection Requirements:

Mapping and inventory related information including hydraulic facility type, size, and location.

Mapping and Inventory of Structural BMPs and Major Outfalls

BMP ID: DEPT-10	Ref: SWMP Sections 3.3, 3.6, 3.10

Reporting Requirements:

Results and progress will be documented in the Annual Report to NDEP

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue with stormwater facility mapping and inventory efforts.	X	X	X	X	X
Develop criteria to be mapped and inventoried	X				
Develop a multi-year implementation plan for the mapping and inventory of stormwater infrastructure and outfalls.		X			

Permit Requirements:

III.C. MS4 Maps and Outfalls

III.C.1. The revised SWMP shall include, at a minimum, maps of NDOT's MS4 for different sections of Nevada, including the location of any major outfall that discharges to Waters of the United States. An outfall is defined in Part VI of this permit.

III.I. Discharges from New Development and Redevelopment

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:

III.Q.1.a. Inventory Post-Construction Stormwater Pollution Control BMPs

III.Q.1.a.i NDOT shall develop and maintain an inventory of its post-construction stormwater pollution control BMPs;

III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and

III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major post-construction stormwater pollution control BMPs statewide as part of the revised SWMP.

Part VI. Definitions

VI.K. Outfall is defined at 40CFR§122.26 as: Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer ("MS4") outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe, which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit.

Discharges into Sanitary Sewer Systems

BMP ID: DEPT-11 | **Ref: SWMP Section 3.4**

Rationale/Practice Description:

NDEP regulates stormwater discharges into sanitary sewers to protect surface water quality in the event of rain driven sewer overflows and wastewater treatment plant upsets. Section III.E.1 of the Permit requires NDOT to have written confirmation from the utility or agency for any NDOT stormwater discharges into facilities treating domestic sewage that are not owned or operated by the Department. Presently, NDOT has identified two such connections and has obtained letters authorizing the discharge from the utilities treating the water.

NDOT periodically asks the Districts to report any instances of stormwater connections into the sanitary sewer system. In the event that any new connections are located or planned, NDOT will immediately solicit an approval letter from the appropriate wastewater treatment utility or agency. New connections will be reported to NDEP and included in the Annual Report.

BMP Objectives:

1) To identify instances of disposal of NDOT stormwater runoff into sanitary sewer systems within the MS4 permit area.

BMP Tasks/Measurable Goals:

1) Request information from the three Districts regarding new stormwater connections to a sanitary sewer system.
2) Obtain the appropriate, written approvals from the wastewater utility authorizing the stormwater connections.

Responsibility:

Environmental Services Division

Data Collection Requirements:

This BMP requires that each of the Districts is contacted annually for the purpose of reporting any instances of stormwater disposal into the sanitary sewer system. Results of the request, along with any follow up activities, will be recorded and reported.

Reporting Requirements:

Information pertaining to new stormwater connections to a sanitary sewer system will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Contact District personnel annually to identify instances of stormwater disposal into the sanitary sewer system.	X	X	X	X	X
In the event a new connection is found, immediately solicit an approval letter from the appropriate wastewater utility.	X	X	X	X	X

Permit Requirements:

III.E. Discharges into Sanitary Sewer Systems

III.E.1. For discharges into facilities treating domestic sewage, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, that are not owned or operated by NDOT, the following shall be provided by NDOT:

III.E.1.a Written and signed confirmation from each facility authorizing the discharge of pollutants into the facility's sanitary sewer system; and,

III.E.1.b All authorizations obtained by NDOT shall be included with the revised SWMP.

Industrial Facility Monitoring and Control Program

BMP ID: DEPT-12 | **Ref: SWMP Section 3.8**

Rationale/Practice Description:

The Permit requires the Department to develop and describe an Industrial Facility Monitoring and Control Program to monitor and control pollutants in stormwater discharges into the MS4 Permit area from municipal landfills, hazardous waste treatment, disposal and recovery facilities, and other industrial facilities. At this time, NDOT does not own or operate any industrial facilities within the MS4 Permit area (Maintenance Facilities are considered municipal activities rather than industrial activities, see Permit Section III.S.1 and the validation letter from NDEP in Appendix C).

At least annually, NDOT Environmental Services Division staff will evaluate if there are any new facilities or any change in activities at existing facilities that may be considered industrial activities rather than municipal. Staff, in conjunction with NDEP assistance, will evaluate if regulations have changed that might reclassify the Department's facilities.

If single or qualifying industrial facilities owned by NDOT are found to be located within the MS4 Permit area, the Department will then develop a detailed Industrial Facility Monitoring and Control Program. This program will include:

1) Program priorities and procedures for inspections
2) Control measures for discharges
3) A monitoring program for stormwater discharges
4) An inventory of industrial facilities

BMP Objectives:

1) Mitigate stormwater pollutant discharge from Permit defined industrial facilities.

BMP Tasks/Measurable Goals:

1) Determine if NDOT owns any industrial facilities as defined by the Permit.
2) Develop an appropriate Industrial Facility Monitoring and Control Program in the event NDOT owns any Permit defined industrial facilities.

Responsibility:

Environmental Services Division

Data Collection Requirements:

List and track any NDOT owned facility classified as industrial as defined by the Permit.

Reporting Requirements:

Results of the industrial facility evaluation and progress towards developing an Industrial Facility Monitoring and Control Program (as appropriate) will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Perform annual review of NDOT owned facilities and determine if any are considered industrial facilities based on Permit criteria for industrial categories.	X	X	X	X	X
Should an NDOT owned facility be classified as industrial, develop an Industrial Facility Monitoring and Control Program.	X	X	X	X	X

Permit Requirements:

I.C. Non-Authorized Discharges

I.C.1. This permit does not authorize the following:

I.C.2. Stormwater discharges associated with industrial activity as defined in 40 CFR§122.26(b)(14)(i)-(ix) and (xi) are identified and permitted through a separate NPDES General Industrial Activity permit. These discharges are authorized under NDEP's General Permit NVR050000.

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

Industrial Facility Monitoring and Control Program	
BMP ID: DEPT-12	**Ref: SWMP Section 3.8**

III.A.4.h Industrial Facility Monitoring and Control

III.K. Industrial Facility Monitoring and Control

III.K.1. The revised SWMP shall describe NDOT's program to monitor and control pollutants in stormwater discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial facilities that NDOT determines are contributing a substantial pollutant loading to the MS4. The program shall:

III.K.1.a Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges; and,

III.K.1.b Describe a monitoring program for stormwater discharges associated with the industrial facilities identified in this section, to be implemented during the term of the permit in accordance with the monitoring programs defined in Part IV.A of this permit.

III.N. Scope of Inspections

III.N.14. NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.

III.S. NDOT Maintenance Yards Management Program

III.S.1. NDOT shall prepare SWPPPs for all its Maintenance Facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP.

Low Impact Development (LID) Techniques

BMP ID: DEPT-13 | **Ref: SWMP Section 3.6**

Rationale/Practice Description:

Section III.I.2 of the Permit requires that NDOT promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of its New Development and Redevelopment Program. NDOT promotes source reduction of stormwater contaminants in several different programs, including education and street sweeping. The LID approach to stormwater treatment and conveyance typically focuses on replicating pre-development site conditions. LID techniques mimic the natural hydrology of a site by use of stormwater structural BMPs that store, evaporate, and detain runoff close to the source. For highway departments, LID techniques present a challenge because of the cost, right-of-way constraints, and increased maintenance requirements.

Under this BMP, NDOT will explore LID techniques for possible inclusion into NDOT's Storm Water Planning and Design Guide. This may be accomplished by communicating with other transportation agencies and local municipalities, vendor contact and trade shows and literature review. Over a five-year period, a short list of LID techniques applicable for NDOT projects will be developed. This list will then be used to assist with the evaluation, promotion, and integration of LID practices into future design and retrofit projects as appropriate.

BMP Objectives:

1) Increase Department knowledge about LID practices applicable to highway environments.
2) Promote the inclusion of LID techniques into future NDOT projects.

BMP Tasks/Measurable Goals:

1) Begin developing a preliminary list of potential LID techniques suitable for use along NDOT's highway environments.
2) From the list, identify the most viable LID techniques for use.
3) Incorporate the viable LID practices into future projects as appropriate.

Responsibility:

Environmental Services and Design Divisions

Data Collection Requirements:

Assemble a list of LID techniques. Collect information on applicable LID techniques/practices that could be used on future NDOT projects

Reporting Requirements:

Results and progress are to be documented in the Annual Report to NDEP

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Begin developing a preliminary list of potential LID techniques suitable for use along NDOT's highway environments.	X	X	X	X	X
From the list, identify the most viable LID techniques for use on highway projects in Nevada.	X	X	X	X	X
Incorporate the viable LID practices into future projects as appropriate.	X	X	X	X	X

Permit Requirements:

III.I. Discharges from New Development and Redevelopment

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

Low Impact Development (LID) Techniques	
BMP ID: DEPT-13	**Ref: SWMP Section 3.6**

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

Public Outreach and Education Events

BMP ID: EDU-01	Ref: SWMP Section 3.2

Rationale/Practice Description:

NDOT participates in a variety of collaborative community events to provide public outreach and education with respect to stormwater each year. At these events and festivals, NDOT and partners strive to bring awareness to the public about how their individual involvement can help reduce transportation related pollutants and improve water quality. In addition to conversation with the public, education and outreach is achieved using a variety of handouts, displays and promotional items. NDOT does not conduct any mass media advertising but participates in various regional outreach and education activities. Public education is an important element in preventing water quality impacts from storm water pollution. The rationale for this BMP is simply to increase awareness of water quality issues, storm water pollution, and NDOT's stormwater management activities.

In conjunction with EDU-03, NDOT will continue to participate in local events to educate the public about stormwater issues.

NDOT will continue to take a regional approach in addressing the general public education element to help fulfill Permit requirements. Examples of potential public outreach opportunities include:

- The Reno River Festival
- Earth Day Celebration (Reno) and Earth Day Birthday (Las Vegas)
- Truckee River Snapshot Day
- Eco Jam
- Las Vegas Wash and Wetlands Cleanup

These events are well attended by the public who have a wide range of interests. Many in attendance have a strong focus on environmental issues and can be expected to share and propagate the water quality message.

NDOT's participation in these events includes staff volunteer time and/or financial assistance. Financial support is used to purchase educational related materials.

These events promote a general sense of watershed stewardship and inform the general public about actions they can take to reduce transportation related pollutants and improve water quality.

BMP Objectives:

1) Educate the public about stormwater quality, BMPs, and NDOT's efforts to protect the waterways of the state from stormwater runoff.
2) Inform the public of the effects of roadside dumping and litter and the effects on water quality.
3) Increase awareness of water quality issues, storm water pollution, and NDOT's role in storm water management.

BMP Tasks/Measurable Goals:

1) Participate in at least one public stormwater related outreach and education event annually.
2) Assess the need to further develop or build upon public outreach and education efforts.

Responsibility:

Environmental Services Division

Data Collection Requirements:

Record the name and date of the event attended, any financial contributions, and the staff present.

Public Outreach and Education Events

BMP ID: EDU-01	Ref: SWMP Section 3.2

Reporting Requirements:

Results and progress are to be reported in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Participate in at least one public stormwater related outreach and education event annually.	X	X	X	X	X
Assess the need to further develop or build upon public outreach and education efforts.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.b NDOT's Stormwater Education Program;

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:

III.F.5.j.i The methods for disseminating information;

III.F.5.j.ii The target audiences and how they were selected; and

III.F.5.j.iii The target pollutants and sources and how they were selected.

III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

IV.C. Annual Reports

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.k A summary of public education and outreach activity performed during the report cycle.

Public Litter Removal Programs

BMP ID: EDU-02 | **Ref: SWMP Section 3.2**

Rationale/Practice Description:

NDOT's statewide public litter removal campaign plays an important role in keeping the highways clean and preventing trash and debris from entering the waterways of the state. Currently, NDOT administers two successful public litter removal programs:

- Adopt-A-Highway - A program for litter removal on most state highways for individuals and community service groups. The program raises public awareness of litter and roadside dumping through signage and participation. Volunteers contribute to the community by adopting and maintaining a section of highway. NDOT posts signs acknowledging the volunteers and their efforts, thereby increasing public awareness.
- Sponsor-A-Highway - A program for litter removal on high-traffic volume urban freeways in the Las Vegas and Reno areas. Firms and organizations seeking recognition for community service may select pre-qualified litter removal contractors for litter removal services on sections of Las Vegas and Reno area freeways.

These programs demonstrate the commitment of the public to clean highways as well as aid NDOT with its stormwater management program goals. Sponsors and participants are visually recognized for their efforts through the posting of signs in their respective areas. To sustain program momentum, NDOT will continue to invest funds and internal resources and promote public participation into both litter removal programs.

BMP Objectives:

1) Encourage public participation in removing trash and debris from the MS4 Permit area.
   a. Remove trash and debris before they enter the stormwater conveyance system and the waterways of the state.
   b. Improve the visibility of cleanup efforts to encourage litter prevention.

BMP Tasks/Measurable Goals:

1) Continue utilizing the Adopt-A-Highway and Sponsor-A-Highway programs to remove trash and debris within NDOT's MS4 permit area.

Responsibility:

Communications, Maintenance and Asset Management, and Environmental Services Divisions

Data Collection Requirements:

NDOT will record the number of volunteer groups participating, number of miles cleaned, and the amount of trash collected.

Reporting Requirements:

NDOT will report the number of volunteer groups participating in the Adopt-A-Highway and Sponsor-A-Highway programs, number of miles cleaned, and the amount of trash collected in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue the Adopt-A-Highway and Sponsor-A-Highway programs.	X	X	X	X	X

Permit Requirements:

Part III.F Stormwater Education Program

III.F.5.o NDOT shall continue to implement the Adopt-A-Highway program;

III.F.5.p NDOT shall report the number of volunteer groups participating in the Adopt-A-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report.

Partnerships and Affiliations

BMP ID: EDU-03	Ref: SWMP Section 3.2

Rationale/Practice Description:

NDOT maintains numerous partnerships and affiliations with a variety of organizations, groups, and agencies throughout the State of Nevada that share common stormwater program related objectives. These relationships allow NDOT to maximize expertise, technical/educational resources, and economic resources to increase public awareness about stormwater management responsibilities. These affiliations also allow NDOT the ability to communicate its message about the importance of stormwater quality to a diverse demographic segment of the population.

NDOT regularly receives agendas from other MS4 entity public stormwater meetings such as the Truckee Meadows Storm Water Permit Coordinating Committee, Las Vegas Valley Storm Water Quality Management Committee and Elko Stormwater Advisory Committee, with NDOT personnel attending these meetings as necessary.

NDOT is a strong advocate of promoting partnering efforts with contractors and stakeholders in an effort to help achieve better project results. In cooperation with the Associated General Contractors of America, the Construction Industry and the larger community, NDOT has developed a partnering guide ("Guide to Partnering on NDOT Projects") to support its commitment to partnering as a way of doing business. Partnering is an effective tool in promoting an open dialogue of communication between NDOT and its contractors in all aspects of a highway construction project, including construction site stormwater management.

NDOT will continue to foster and strengthen the existing relationships with current partners and affiliations. In addition, NDOT will seek opportunities with new partnerships that can help improve, support, and proliferate common stormwater related goals and objectives.

Some examples of NDOT's current and past partners and affiliations are:

- American Association of State Highway and Transportation Officials (AASHTO)
- Association of General Contractors (AGC)
- American Society of Civil Engineers (ASCE)
- Federal Highway Administration (FHWA)
- Truckee Meadows Storm Water Permit Coordinating Committee
- Las Vegas Valley Stormwater Quality Management Committee
- Elko Stormwater Advisory Committee
- Nevada Division of Environmental Protection (NDEP)
- Tahoe Regional Planning Agency (TRPA)
- University of Nevada, Reno (UNR)
- University of Nevada Cooperative Extension (UNCE)

NDOT will continue to support partnering efforts as described in NDOT's "Guide to Partnering on NDOT Projects" and other cooperative endeavors and affiliations. NDOT will continue to keep open lines of communication with government agencies, other state DOTs, and local stakeholders.

BMP Objectives:

1) Partner with various groups, agencies, and stakeholders to help reduce pollution associated with stormwater runoff through mutual support, benefit, shared expertise, and outreach and education.

BMP Tasks/Measurable Goals:

1) Continue partnering efforts and affiliations.
2) Seek opportunities to create new partnerships and affiliations.

Partnerships and Affiliations

BMP ID: EDU-03	Ref: SWMP Section 3.2

Responsibility:

Environmental Services and Construction Divisions and Hydraulics Section

Data Collection Requirements:

Keep a list of all agencies, groups, partnerships and affiliations that the Department interacts with for stormwater control, research, monitoring, and education purposes. Document the nature of interaction, support and relationship.

Reporting Requirements:

Results and progress towards supporting or enhancing the Department's stormwater partnerships and affiliations will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue partnering efforts and affiliations.	X	X	X	X	X
Seek opportunities to create new partnerships and affiliations.	X	X	X	X	X

Permit Requirements:

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.b NDOT's Stormwater Education Program

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");

III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and

III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.

III.F.5.i NDOT shall provide information in the revised SWMP that discusses how NDOT will ensure that NDOT construction contractors have been adequately trained in BMP installation and maintenance, the ability to recognize activities that may impact stormwater quality, and the procedures in place to prevent or report an illicit discharge or illicit connection to the MS4.

III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:

III.F.5.j.i The methods for disseminating information;

III.F.5.j.ii The target audiences and how they were selected; and

III.F.5.j.iiiThe target pollutants and sources and how they were selected.

III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.F.5.q NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:

Partnerships and Affiliations	
BMP ID: EDU-03	**Ref: SWMP Section 3.2**

III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and

III.F.5.q.ii NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

IV.C. Annual Reports

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.k A summary of public education and outreach activity performed during the report cycle.

Demonstration Projects

BMP ID: EDU-04 | **Ref: SWMP Section 3.2**

Rationale/Practice Description:

NDOT continually strives to improve stormwater runoff quality. One of the ways this is achieved is through identifying and evaluating new technologies and practices. Low impact development (LID) techniques, improved street sweeping technologies, alternate deicing systems, and stormwater treatment vaults are all examples of past NDOT demonstration projects. Once evaluated, viable technologies can then be advanced into practice. Over the past decade, manufacturers and researchers have made enormous strides in the technologies and techniques to treat and mitigate stormwater pollution.

The protocol for conducting stormwater demonstration projects may vary with the technology or procedure being evaluated. Possible steps may include:

- Identify the need
- Identify technologies and partners (vendors or university personnel)
- Identify funding
- Establish a trial/testing location
- Develop evaluation protocols
- Conduct the project
- Evaluate results
- Disseminate results
- Incorporate viable technologies into practice

Where possible, results of the demonstration projects will be incorporated into training, educational materials, and regional BMPs.

BMP Objectives:

1) Incorporate viable technologies and advances into the Department's stormwater management program by conducting, researching, or pursuing demonstration projects.

BMP Tasks/Measurable Goals:

1) Continue evaluating new technologies and practices for improving stormwater runoff quality.
2) Assess options to disseminate information and/or knowledge gained to the public from stormwater related projects.
3) Following the assessment, begin disseminating this information.

Responsibility:

Environmental Services, Roadway Design and Research Divisions

Data Collection Requirements:

Data collection requirements will vary with the demonstration project.

Reporting Requirements:

A summary of any demonstration projects being conducted, researched, or pursued by NDOT or partners will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continuing evaluating new technologies and practices for improving stormwater runoff quality.	X	X	X	X	X
Explore options to disseminate information and/or knowledge gained to the public from stormwater related projects.		X	X	X	X
Begin disseminating this information.			X	X	X

Demonstration Projects	
BMP ID: EDU-04	**Ref: SWMP Section 3.2**
Permit Requirements:	

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

III.F.5.b NDOT shall train all staff directly involved in managing non-stormwater discharges. The training shall include:

III.F.5.b.iv The BMPs that shall be employed to minimize the discharge of pollutants;

III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and

III.F.5.q.ii NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.

Stormwater Management Program Webpage

BMP ID: EDU-05 | **Ref: SWMP Section 3.2**

Rationale/Practice Description:

As part of its main website, NDOT maintains a Stormwater Management Program webpage. On this page, important information can be found pertaining to NDOT's stormwater program, several documents for download, and contact information. The website is a vital tool in NDOT's Stormwater Education and Outreach Program and an effective way to disseminate information to all interested parties.

Website Address:
http://www.nevadadot.com/About_NDOT/NDOT_Divisions/Engineering/Environmental_Services/Storm_Water_Management_Program.aspx

BMP Objectives:

1) Promote public awareness of water quality issues, stormwater pollution, and NDOT's role in stormwater management.
    a. Provide a single location for NDOT BMPs, Stormwater Quality Manuals, SWMP revisions, and updated stormwater program information.
    b. Provide a mechanism for public input as well as contact information.

BMP Tasks/Measurable Goals:

1) Maintain and provide current information on the existing Stormwater Management Program webpage.
2) Provide a link on the webpage to relevant NDOT Stormwater Management Program documents.
3) Evaluate the need for webpage improvements on an annual basis.

Responsibility:

Environmental Services Division

Data Collection Requirements:

None at this time.

Reporting Requirements:

Changes and updates to the webpage will be reported in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Maintain and provide current information on SWMP webpage.	X	X	X	X	X
Provide webpage links to relevant NDOT SWMP documents.	X	X	X	X	X
Evaluate the need for webpage improvements annually.	X	X	X	X	X

Permit Requirements:

Part III.F Stormwater Education Program

III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:

III.F.5.j.i The methods for disseminating information;

III.F.5.j.ii The target audiences and how they were selected; and

III.F.5.j.iii The target pollutants and sources and how they were selected.

III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

Stormwater Monitoring Plan

BMP ID: ENVR-01 | **Ref: SWMP Section 4.1**

Rationale/Practice Description:

The Department is required to submit a stormwater monitoring plan to NDEP by October 1 of each year for the following (calendar) year.

An important step is to identify the various types of monitoring (visual, sampling, etc.) currently performed and to assess their usefulness and utility. The Department will then draft monitoring goals and objectives. Based on the goals of the monitoring program, the approach will be developed so that the goals can be accomplished. NDOT may elect to partner with other MS4s; namely, Elko, Carson City, Las Vegas, and Truckee Meadows, to create a comprehensive monitoring approach to stormwater and stormwater related issues.

In the event that a water quality sampling element is developed, NDOT will follow the protocols listed in the Permit. The Permit requires the samples and measurements taken to be representative of the discharge in nature and volume. The analysis test procedures will conform to 40 CFR, Part 136 regulations pursuant to Section 304(h) of the CWA unless other procedures are approved by NDEP. Any water quality sampling records will include the following details of the sampling and analysis:

- The date, exact place, and time of sampling or measurements
- The name(s) of the individual(s) who performed the sampling or measurements
- The date(s) analyses were performed
- The names of the individuals who performed the analyses
- The analytical techniques or methods used
- The result from the analyses

All laboratory analyses will be performed by a State of Nevada certified laboratory. Laboratory reports will be provided to NDEP upon request.

BMP Objectives:

1) Improve stormwater quality throughout the MS4 Permit area through effective monitoring, planning, and program implementation.

BMP Tasks/Measurable Goals:

1) Develop a Stormwater Monitoring Plan for submittal to NDEP by October 1st annually.
2) Evaluate the data collected to assist with stormwater related decision making.

Responsibility:

Environmental Services Division and Hydraulics Section

Data Collection Requirements:

None (other than those to be outlined in the Stormwater Monitoring Plan)

Reporting Requirements:

A summary of stormwater monitoring plan activities will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal:	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Submit a stormwater monitoring plan to NDEP by October 1st annually.	X	X	X	X	X
Evaluate the data collected to assist with stormwater related decision making.	X	X	X	X	X
Conduct a yearly assessment of the adequacy of the stormwater monitoring program.	X	X	X	X	X

Stormwater Monitoring Plan

BMP ID: ENVR-01	Ref: SWMP Section 4.1

Permit Requirements:

Part IV. Monitoring, Recordkeeping, and Reporting

IV.A. Stormwater Monitoring

IV.A.1. NDOT shall submit a stormwater monitoring plan to NDEP for the following year on or before October 1 each year. In developing the plan, NDOT shall evaluate and update as necessary how monitoring may assist in making decisions about program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. Pending submittal of the annual monitoring plan, NDOT shall continue to implement the existing monitoring plan.

IV.A.2. When NDOT conducts monitoring at NDOT's permitted MS4, NDOT is required to comply with the following:

IV.A.2.a Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. This requirement does not prevent NDOT from analyzing or reporting samples that are representative of a limited situation (e.g. concentration at peak flow);

IV.A.2.b Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the CWA, unless other procedures are approved by NDEP.

IV.A.3. Records of monitoring information shall include:

IV.A.3.a The date, exact place, and time of sampling or measurements;

IV.A.3.b The names(s) of the individual(s) who performed the sampling or measurements;

IV.A.3.c The date(s) analyses were performed;

IV.A.3.d The names of the individuals who performed the analyses;

IV.A.3.e The analytical techniques or methods used; and,

IV.A.3.f The results of such analyses.

IV.A.4. Analyses shall be performed by a State of Nevada-certified laboratory. Laboratory reports shall be provided if requested by NDEP.

IV.A.5. If NDOT performs stormwater monitoring more frequently than required by the stormwater monitoring plan the results of such monitoring shall be reported. The monitoring results and analyses shall be submitted as part of the Annual Report.

Record Keeping

BMP ID: ENVR-02	Ref: SWMP Section 4.1

Rationale/Practice Description:

This BMP for record keeping pertains specifically to the Permit requirements relating to stormwater monitoring (Permit section IV.B). The Department considers stormwater monitoring to include both visual and maintenance related monitoring as well as water quality sample collection.

The Permit requires the Department to maintain records of all monitoring related information including:

- Sampling equipment calibration and maintenance records
- Original strip chart recordings for continuous monitoring instrumentation
- Copies of all reports required by Permit
- A copy of the Permit
- Records of data used to apply for this Permit

The Department must maintain these records for a period of at least three (3) years from the termination date of this permit. This period may be extended at the direction of NDEP at any time. NDOT will submit these records to NDEP upon request. The Department will make the above listed monitoring related records available to the public, if requested in writing.

NDOT's Environmental Services Division staff will develop the methods and procedures to comply with this Permit requirement. The initial step is to identify the various types of monitoring (visual, or water quality sampling performed) and by what Section or Division. Once an understanding of the various records is obtained, a procedure to centralize and store the records will be devised and implemented. Records and reports not on the Department's website will be made available upon request as required by the Permit.

BMP Objectives:

1) Collectively reduce the pollution associated with stormwater runoff from the MS4 Permit area through institutional control measures, including stormwater record keeping.

BMP Tasks/Measurable Goals:

1) Develop a procedure for implementation to collect and retain all records related to stormwater monitoring as defined in the Permit.

Responsibility:

Environmental Services Division and Hydraulics Section

Data Collection Requirements:

Monitoring related information as defined in the Permit

Reporting Requirements:

Results and progress will be reported in the Annual Report to NDEP

Implementation Schedule:

Task	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Develop a procedure to collect and retain stormwater monitoring related records.	X				
Implement the record keeping plan.		X	X	X	X

Permit Requirements:

Part IV. Monitoring, Recordkeeping, and Reporting
IV.B. Record Keeping

IV.B.1. NDOT 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

Record Keeping	
BMP ID: ENVR-02	**Ref: SWMP Section 4.1**

all reports required by this permit, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the termination date of this permit. This period may be extended at the direction of NDEP at any time.

IV.B.2. NDOT shall submit the records to NDEP upon request. NDOT shall retain a copy of the SWMP required by this permit (including a copy of the permit language) at a location accessible to NDEP. NDOT shall make the records, including a copy of the SWMP, available to the public if requested to do so in writing.

IV.B.3. For public requests of records, NDOT may impose a reasonable fee for personnel time and copying expenses.

Special Investigations

BMP ID: ENVR-03	Ref: SWMP Section 3.7

Rationale/Practice Description:

On occasion, personnel from NDOT's Environmental Services Division are dispatched to conduct special investigations related to water quality. Investigations may be in response to reports of illicit discharge, habitat impairment, TMDLs, or a variety of other environmental related issues. Investigations may include sample collection, measurements and photography, field chemistry determinations, and documentation. These investigations are not scheduled and are conducted on an as-needed basis.

The Permit requires a description of the procedures used for field screening for the control and elimination of illicit discharges. A generalized procedure is as follows:

Investigation Sites: Locations to be investigated will be identified through: 1) reports and tips, 2) known water quality issues, 3) issues found during routine inspection of stormwater infrastructure, 4) outfall investigation results, 5) IDDE database follow-ups, 6) dry-weather monitoring activities (ENVR-02)

Preparation: For specific investigations, preparation activities may include gathering topographic, site design and underground service maps of the area, preparing worksheets and notebooks, and charging digital cameras and GPS units. Depending on the investigation, water quality sample bottles, labels, preservatives, chain-of-custody forms, and an ice chest may be prepared. Prior to traveling to the site, health and safety considerations, traffic control, and right-of-way constraints will be reviewed.

On-Site Activities: Activities to be conducted on-site will vary with the nature of the investigation; however the following information, at the minimum, will be documented: the location of the discharge area, the date and time of the investigation, hydraulic facilities, the type of discharge, and the cause/source of the discharge activity (if known). For investigations relating to flowing water, observations to be made include: flow rate, odor, color, floatables, foam, algae growth, staining, and oil sheens. Other typical observations include: weather, land uses, nearby features, erosion, structural damage or impairment, sanitary sewer-related debris, solid waste, and source.

Post Field Work Activities: Investigation-related information, observations, and results are recorded. Significant observations and findings (evidence of illicit discharges or impaired stormwater quality features) are immediately reported to the appropriate Department personnel. Action taken is commensurate with the threat to receiving waters. Routine post-inspection activities include documentation and if applicable exportation of data from GPS units and water quality meters, instrument calibrations, and data entry into the IDDE database. Findings of an illicit discharge will be reported to NDEP.

The rationale for this BMP is to investigate and respond to unanticipated and unknown environmental issues related to stormwater and other discharges within the MS4 Permit area.

BMP Objectives:

1) Protect receiving water quality within the MS4 Permit area through investigation, information gathering, and response.

BMP Tasks/Measurable Goals:

1) Conduct special investigations as needed to evaluate and resolve potential water quality related issues that may or may not be directly related to illicit discharges within the MS4 Permit area.

Responsibility:

Environmental Services Division

Data Collection Requirements:

Data to be collected were outlined above.

Reporting Requirements:

Special Investigations

BMP ID: ENVR-03	Ref: SWMP Section 3.7

Record and document any special investigations conducted, the areas inspected, results and findings, and any remedial action taken for inclusion in the Annual Report.

Implementation Schedule:

Measurable Goals	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Conduct special investigations as needed to evaluate and resolve potential water quality related issues that may or may not be directly related to illicit discharges within the MS4 Permit area.	X	X	X	X	X

Permit Requirements:

III.F. Stormwater Education Program

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges

III.F.5.a.ii The procedures for outfall screening and investigation;

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.

Fertilizer Application

BMP ID: ENVR-04 | **Ref: SWMP Section 3.11**

Rationale/Practice Description:

Although the Nevada Department of Agriculture is tasked with monitoring the safe and effective use of agricultural related chemicals, at this time there is no certification program for fertilizer applicators.

NDOT does not routinely apply fertilizers within the MS4 Permit area. NDOT's Landscape and Aesthetics Program emphasizes the use of native plant species that after establishment do not require fertilizer or irrigation. In general, fertilizers are limited to specific projects to help reestablish vegetation after construction activities. Fertilizer type and application rates are prescribed by the Department's Registered Landscape Architects and closely monitored and inspected during plant placement. Fertilizer application by Maintenance Crews is very limited and site specific. Therefore, a fertilizer application training program is considered unnecessary at this time.

Environmental Services will coordinate with the appropriate Department staff annually to assess fertilizer use within the MS4 Permit area. If the amount of fertilizer use is greater than expected or known to be an issue, NDOT will assess the utility of developing a fertilizer applicator certification and training program or other appropriate guidelines. NDOT may coordinate with outside agencies such as the Nevada Landscape Association and/or the Nevada Department of Agriculture to assist with program development.

BMP Objectives:

1) To reduce the potential for fertilizers to enter receiving waterways.

BMP Tasks/Measurable Goals:

1) Identify the need for a formalized fertilizer application training program by tracking the actual use of fertilizers within the MS4 Permit area for a two year period.
2) If the need is identified, develop a fertilizer application training program.

Responsibility:

Environmental Services Division, Maintenance and Asset Management Division, Landscape Architecture Section

Data Collection Requirements:

Environmental Services Division staff will collect fertilizer use data for a two-year period.

Reporting Requirements:

Results and progress are to be reported in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Collect and assess fertilizer use data for a two year period.		X	X		
Evaluate the need for a fertilizer applicator training program.				X	

Permit Requirements:

Part III. Stormwater Management Program
III.R. Herbicide, Pesticide and Fertilizer Program

III.R.1. NDOT shall develop a program to reduce the discharge of pollutants related to the application of herbicides, pesticides and fertilizers to the MEP. This program shall include:

III.R.1.a Implement Pesticide and Fertilizer Application Procedures

III.R.1.a.i NDOT shall continue to implement practices and procedures for NDOT staff and commercial applicators to only use Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers at NDOT facilities and roadside right-of-ways. NDOT shall design these practices to avoid chemical application when feasible and to minimize the amount of

Fertilizer Application	
BMP ID: ENVR-04	**Ref: SWMP Section 3.11**

chemicals applied;

III.R.1.a.ii As part of the revised SWMP, NDOT shall develop BMPs to address the timing of applications in relation to expected precipitation events, proximity to water bodies, and other practices to minimize the runoff of pollutants. Applications of herbicides shall be performed during dry-weather periods to the extent possible, using methods to limit overspray;

III.R.1.a.iii If NDOT must apply pesticides in any area that is within, or directly adjacent to a Waters of the U.S., only pesticides approved for aquatic use shall be used;

III.R.1.a.iv NDOT shall review application practices annually and update procedures as needed to minimize runoff of pollutants;

III.R.1.a.v NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways; and

III.R.1.a.vi A narrative summary of the program will be included in the Annual Report.

III.R.1.b Vegetation Control

III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:

III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non stormwater runoff;

III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;

III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and

III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.

Vegetative Control Program

BMP ID: ENVR-05 | **Ref: SWMP Section 3.11**

Rationale/Practice Description:

The Permit requires that NDOT develop a Vegetative Control Program that enhances the use of native vegetation, controls the application of fertilizers, and integrates existing vegetation control management plans into an overall statewide plan. Currently, the management and implementation of NDOT's Vegetative Control Program is a collaborative effort among various Divisions and Sections with the individual components existing in various Department programs, policies, and guidance documents.

Implementation of the Vegetative Control Program will require ongoing collaboration between various Divisions and Sections. Individual program elements, i.e. Landscape and Aesthetics Master Plan, Corridor Plans, etc. will continue to be incorporated. Appropriate Divisions and Sections will continue working together to ensure that Permit requirements are met without compromising Department goals and objectives such as visual aesthetics, water quality improvement and public safety.

BMP Objectives:

1) Minimize and improve stormwater runoff quality through the proper use and management of roadside vegetation within the MS4 Permit area.

BMP Tasks/Measurable Goals:

1) Assess current vegetation management practices and determine where opportunities for improvement exist.
2) Conduct internal project review meetings to facilitate ongoing collaboration between appropriate Divisions and Sections.

Responsibility:

Environmental Services, Design, and Maintenance and Asset Management Divisions

Data Collection Requirements:

Stormwater monitoring data, if applicable.

Reporting Requirements:

Results and progress are to be reported in the Annual Report to NDEP.

Implementation Schedule:

Task	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Conduct internal project review meetings to facilitate ongoing collaboration between appropriate Divisions and Sections.	X	X	X	X	X
Assess current vegetation control practices; provide recommendations for improvement as necessary.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program
III.R. Herbicide, Pesticide and Fertilizer Program
III.R.1.b Vegetation Control

III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:

III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non stormwater runoff;

III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;

III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and

III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any

Vegetative Control Program	
BMP ID: ENVR-05	**Ref: SWMP Section 3.11**
changes in the Annual Report.	

Illicit Discharge Reporting Website

BMP ID: IDDE-01	Ref: SWMP Section 3.7

Rationale/Practice Description:

NDOT has developed a link on its web page (www.nevadadot.com) to facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system. The link titled "Report Illegal Roadside Discharge" is located on the bottom of the Department's main web page. The "Report Illicit Discharge" page (depicted below) has text defining what an illicit discharge is, how to generate a report, and information regarding the Nevada Division of Environmental Protection's spill reporting hotline.

How to Report an Illicit Discharge

If a potential illicit discharge is identified within NDOT's right-of-way, contact NDOT Environmental Services, Water Quality Section at (775) 888-7013. The following are questions you will be asked:

1. What is the location? (The more detail the better, i.e. road number, milepost, intersection, etc.)
2. What is the description of the discharge? (dry weather flow, odor or discoloration, visible contaminants, etc.)
3. What is the discharge frequency? (continuous - almost all the time, intermittent - occasional, transitory - rarely occurring)
4. What is the source of the discharge? (Do you have an idea of where the illicit discharge may be coming from?)

Your information will be used to document and initiate the investigation. NDOT appreciates your help in assisting with this monitoring effort and looks forward to partnering with the public to protect water quality for the great state of Nevada!

Spill Reporting Hotline- NV Division of Environmental Protection

In addition, a pollutant spill of any quantity that affects a Nevada waterway must be reported to the Nevada Division of Environmental Protection's (NDEP) spill reporting hotline. Please visit the spill reporting hotline webpage for information regarding pollutant spills, releases, and spill reporting information. In addition, please contact NDOT's Environmental Services Water Quality Section should any reportable spill or release occur within NDOT's right-of-way.

Contact

NDOT Environmental Services Water Quality Section

(775) 888-7013

Under this programmatic BMP, the web based hotline will be maintained and monitored. Any hotline reports received will be given priority in response, clean-up and enforcement. In the event that problem areas of dumping are identified, NDOT will post and advertise the reporting hotline number locally.

BMP Objectives:

1) To provide a readily accessible way for the public to report illicit discharges or other water quality related concerns observed within NDOT's MS4 Permit area.
2) To provide a mechanism for detection and mitigation of illicit discharges.
3) To encourage active public involvement and stewardship.

BMP Tasks/Measurable Goals:

1) Document and respond to all tips and reports received (refer to IDDE-02).

Illicit Discharge Reporting Website

BMP ID: IDDE-01	Ref: SWMP Section 3.7

2) Ensure NDOT's IDDE reporting website is maintained and up to date.
3) Assess the need to post illicit discharge reporting telephone numbers in areas where illicit discharges or illegal dumping are found to be a recurring problem.

Responsibility:

Environmental Services Division

Data Collection Requirements:

All calls and reports received will be documented by Environmental Services staff.

Reporting Requirements:

Revisions and updates to the public reporting component of the IDDE Program will be included in the Annual Report to NDEP. Any actual reports or tips received and the action taken will also be included in the Annual Report.

Implementation Schedule:

Measureable Goals	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Maintain the web-based IDDE reporting hotline on an annual basis.	X	X	X	X	X
Assess the need for additional IDDE reporting telephone numbers on an annual basis.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program

III.F. Stormwater Education Program

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.1 NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.F.5.m NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s

Illicit Discharge Reporting and Response Database

BMP ID: IDDE-02 | **Ref: SWMP Section 3.7**

Rationale/Practice Description:

NDOT has developed an Illicit Discharge Reporting and Response Database (Database), to record and track illicit discharges within the MS4 Permit area. The Database will facilitate in the documentation process, the identification of problem areas, and the reporting of corrective actions and subsequent Departmental response and follow-up. Reports of illicit discharges within NDOT's MS4 Permit area will be entered into the database maintained by Environmental Services staff.

Under Section III.F.5.m of the Permit, NDOT is required to implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. In addition, Section III.F.5.n requires NDOT to record and report the number of reports received from the public and investigated.

Under this BMP, the Database will be utilized and maintained. This BMP will assist with assessing the need to post telephone numbers in areas where illicit discharges and illegal dumping are found to be a recurring problem.

BMP Objectives:

1) To facilitate the tracking of illicit discharges and identification of potential problem areas within the MS4 Permit area.
2) Improve stormwater runoff quality through the reduction of illicit discharges.

BMP Tasks/Sub Tasks:

1) Illicit discharges reported to Environmental Services Division will be recorded in the Database.
2) Ensure the Database is maintained and up to date.

Responsibility:

Environmental Services Division

Data Collection Requirements:

Information to be recorded in the Database when an illicit discharge report is received will include discharge type, location, and actions. Other information may include photo documentation, geospatial coordinates, and analytical results. When reports are received that a potential illicit discharge may be present, NDEP shall be notified and follow-up activities will be documented in the database.

Reporting Requirements:

Reported illicit discharges, actions, and follow-up activities within the MS4 Permit area will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measureable Goals	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Use the Database to record and track illicit discharges reported in the MS4 Permit areas.	X	X	X	X	X
Maintain the Database annually.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management
III.F Stormwater Education Program

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.F.5.m NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall

Illicit Discharge Reporting and Response Database	
BMP ID: IDDE-02	**Ref: SWMP Section 3.7**

evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;

III.F.5.n NDOT shall record and report the number of reports received from the public and investigated in the Annual Report.

III.J Illicit Discharge Detection and Elimination Program

III.J.1 The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s

Spill Control and Prevention

BMP ID: IDDE-03	Ref: SWMP Section 3.7

Rationale/Practice Description:

Spill prevention, containment, and response are important elements in protecting the storm drain system and receiving waters from hazardous discharges. Reducing toxic and/or hazardous materials is critical to the health and safety of the population and aquatic resources. The control and cleanup of spills is regulated under multiple permit sub-headings, including Legal Authority, Education, IDDE, Maintenance Yards, and Facility Inspections. Under Section III.J.1.d (IDDE) of the Permit, NDOT must describe procedures to prevent, contain, and respond to spills that may discharge into the MS4. For transportation agencies, spills are most likely to occur on roadways from vehicle accidents or from mishaps at maintenance and construction sites. Elements of NDOT's Spill Control and Prevention Program can be found in section WM-4 of NDOT's Construction Site Best Management Practices (BMP) Manual, NDOT's Maintenance Management System Manual, and through communication with Environmental Services Division's Hazardous Materials Section.

Prevention: NDOT reduces the likelihood of spills through a variety of practices, including SWPPPs, BMPs, inspections, and internal education efforts.

Containment: Other than emergency containment of spills using on-site sorbents (e.g., pads, pigs, pillows, etc.), containment techniques and procedures are generally built-in to a fixed site, e.g. a Maintenance yard or construction site staging area. Proper spill containment practices rely on the right equipment, materials, training and responsiveness.

Response: Spill response is outlined in IDDE-04.

The effectiveness and need for improvement for the Spill Control and Prevention practice will be assessed annually. Refinements will be developed as necessary to control and prevent/minimize spills with the MS4 Permit area.

BMP Objectives:

1) Implement an effective spill control and prevention program to prevent/minimize the release of substances potentially harmful to receiving waters within the MS4 Permit area.

BMP Tasks/Measurable Goals:

1) Communicate with NDOT staff regarding the effectiveness of current spill control and prevention efforts.

Responsibility:

Maintenance and Asset Management, Equipment, Construction and Environmental Services Divisions

Data Collection Requirements:

None at this time.

Reporting Requirements:

Changes to the program will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measureable Goals	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Assess the need for program refinements on an annual basis.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program

III.B. Legal Authority

III.B.1. The revised SWMP shall describe NDOT's legal authority that has been established by statute, regulation, or contract documents which authorizes or enables NDOT to:

III.B.1.a Prohibit illicit discharges to the MS4;

III.B.1.b Control discharges to NDOT's MS4 from spills, dumping or disposal of materials other than stormwater;

Spill Control and Prevention

BMP ID: IDDE-03	Ref: SWMP Section 3.7

III.F. Stormwater Education Program

III.F.5.f NDOT shall train all staff who may be involved in waste disposal, spill prevention and response. Training shall include:

III.F.5.f.i Procedures to prevent, contain, and respond to spills; and

III.F.5.f.ii Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.L. Stormwater Discharges from NDOT Maintenance Facilities

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from Maintenance Facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT Maintenance Facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills of toxic materials by NDOT staff at NDOT Maintenance Facilities to prevent or minimize discharges to the storm sewer system or receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT Maintenance Facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT Maintenance Facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and

III.L.2.f.v NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.N. Scope of Inspections

III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;

III.S. NDOT Maintenance Yards Management Program

III.S.3.d Stormwater Management Controls

III.S.3.d.i.4 Spill prevention and response procedures;

III.S.3.d.vi A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:

III.S.3.d.vi.3 Spill prevention and response procedures

IDDE Response, Corrective Action and Follow-Up

BMP ID: IDDE-04	Ref: SWMP Sections 3.7, 3.10

Rationale/Practice Description:

An important component of NDOT's IDDE program is the elimination of potential pollutants through timely response, clean-up, and follow-up activities. The rationale for this programmatic BMP is simply to protect and improve stormwater runoff water quality by reducing known and potential contaminants.

During routine repair, maintenance or cleaning activities, NDOT will ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as excessive sedimentation or foreign materials. Upon discovery, NDOT will initiate an investigation to identify likely sources, remedy the situation (as appropriate) and implement appropriate BMPs to the MEP.

When evidence of illicit discharges are found (through routine monitoring, sampling, outfall and channel investigations, street sweeping, hotline tips, routine maintenance, site audits, etc.), immediate response is taken to mitigate the issue. After corrective action, a follow-up is performed to ensure that clean-up efforts were sufficient. Follow-up also includes the implementation of BMPs as appropriate.

Response: Public safety and emergency personnel officials are typically the first responders to spills, accidents, and dumping on NDOT's roadways and rights-of-way. The Nevada Highway Patrol (NHP) serves as the statewide coordinator for all hazardous substance spill incidents occurring on state maintained highways. NDOT Maintenance personnel are generally responders to highway spills and carry a laminated wallet-sized spill response reference card issued by NDOT's Hazardous Materials Section within the Environmental Services Division to assist in proper response procedures. Summarized on the card are reportable release thresholds, required information to report, and phone numbers for NDEP and the Nevada Division of Emergency Management. In addition, NDOT Maintenance crew vehicles now house a copy of the Emergency Response Guidebook, a reference for first responders during the initial phase of dangerous goods/hazardous materials transportation and spill incidences.

Corrective Action: Corrective actions are instance and site specific, but typically involve clean-up, education, and future mitigation measures. The Hazardous Materials Section, within the NDOT Environmental Services Division, coordinates with NDEP's Bureau of Corrective Actions for spill response and clean-up. NDOT's Maintenance and Asset Management Division has a statewide internal guidance policy addressing HazMat call-out procedures for handling hazardous material releases along, and within, NDOT's right-of-way. As part of this internal guidance policy, NDOT has contracted with a service provider to respond to material releases within NDOT's right-of-way statewide.

Follow-Up: Information pertaining to spills/discharges and the corresponding response (i.e. clean-up) will be entered into the Illicit Discharge Reporting and Response Database (see IDDE-02). Remediation and follow-up procedures will be documented. Upon notice of the completion of clean-up, an NDOT staff member will confirm that the incident has been adequately addressed.

NDOT will continue to partner with NDEP for enforcement action assistance as necessary.

BMP Objectives:

1) Minimize the impacts of illicit discharges within the MS4 Permit area through response, corrective action, and enforcement (as appropriate).

BMP Tasks/Measurable Goals:

1) Respond to and mitigate illicit discharges in the MS4 Permit area through response, clean-up, and enforcement (as appropriate).
2) Follow-up on reported events to ensure the situation is remedied and the potential for future occurrences is minimized.

IDDE Response, Corrective Action and Follow-Up

BMP ID: IDDE-04 | **Ref: SWMP Sections 3.7, 3.10**

Responsibility:

Environmental Services, Maintenance and Asset Management and Right-of-Way Divisions

Data Collection Requirements:

Data collection and documentation for this BMP are the same as those listed in IDDE-02. NDOT will document actions taken that relate to illicit discharges reported within the MS4 Permit area. Results of investigations, findings, clean-up orders, enforcement actions, and follow-up steps are summarized in the Illicit Discharge Reporting and Response database.

Reporting Requirements:

Results and progress of reportable spill clean-up activities will be documented in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Respond to all reported discharges and spills within the MS4 Permit area.	X	X	X	X	X
Follow-up on reported events to ensure the situation is remedied.	X	X	X	X	X

Permit Requirements:

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not, a description of additional activities to be undertaken to control exfiltration.

III.Q.1.d Perform Repair, Maintenance, and Cleaning

III.Q.1.d.NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and

III.Q.1.d.ii During repair, maintenance or cleaning activities, NDOT shall ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as significant loads of a specific pollutant(s) or material(s). Upon discovery, NDOT shall initiate an investigation to target likely sources and implement a BMP program to reduce the sources of the pollutant or material to the MEP.

Sanitary Sewer Exfiltration

BMP ID: IDDE-05	Ref: SWMP Section 3.7

Rationale/Practice Description:

How to look for and identify evidence of sanitary sewer exfiltration into the stormwater system is covered in NDOT's employee Stormwater Certification training program. Observations and inspections for sanitary sewer exfiltration are accomplished as part of the routine, day to day activities by NDOT personnel (i.e. staff from Construction, Maintenance, and Environmental) that work in the right-of-way on a daily basis. Adequate training is important to the success of identification and mitigation of sanitary sewer exfiltration.

NDOT staff maintains a working relationship with local agencies and municipalities. Each local municipal MS4 permittee has the same obligation to identify exfiltration and minimize illicit discharges. In the event of an issue, NDOT will request that the local authorities inspect and flow test sewers that intersect NDOT right-of-ways.

Prior to the onset of any new construction, all sewer lines are identified and contractors are made aware of all underground services, minimizing the likelihood of line damage and leakage.

NDOT will work with local authorities, including NDEP, when occurrences of sanitary sewer exfiltration are encountered.

BMP Objectives:

1) Minimize the likelihood of sanitary sewer exfiltration through training and inspection.
2) To protect receiving water quality from domestic wastewater.

BMP Tasks/Sub-Tasks

1) Continue training and inspections for sanitary sewer exfiltration within NDOT's right-of-way.
2) Continue to identify sewer lines as part of the plan review process.

Responsibility:

Environmental Services, Design, Maintenance and Asset Management, Construction, and Right-of-Way Divisions

Data Collection Requirements:

In the event a situation is encountered, information such as location, description, and corrective action will be documented.

Reporting Requirements:

Reports of sanitary sewer exfiltration encounters within NDOT's right-of-way will be documented and included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue training and inspections for sanitary sewer exfiltration.	X	X	X	X	X
Continue to identify sanitary sewers during the plan review process.	X	X	X	X	X

Permit Requirements:

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the

Sanitary Sewer Exfiltration	
BMP ID: IDDE-05	**Ref: SWMP Section 3.7**

permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.

III.F. Stormwater Education Program

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges

III.F.5.a.ii The procedures for outfall screening and investigation

Hazardous Materials Management

BMP ID: MAINT-01	Ref: SWMP Section 3.9

Rationale/Practice Description:

Other than fuels and small amounts of lubricants, toxic and hazardous materials are generally found only at the Major Maintenance Facilities. Preventing the release of toxic and/or hazardous materials at these facilities is critical to NDOT's employee safety as well as protecting stormwater runoff quality. Typical examples of toxic and/or hazardous materials that can be found at Maintenance Facilities include petroleum products, antifreeze, non-chlorinated flashpoint adjusted solvents, various surface cleaners, and surface coating materials (e.g. latex paint). The Department's Hazardous Materials Management Program relies on the right equipment, materials, procedures, training, and site design elements.

The Department has an existing program described in Section C of the Maintenance Management System (MMS) that conforms to the requirements of Title 40 CFR Parts 261, 262 and OSHA. Training is provided by Facility Maintenance Supervisors. BMPs for the handling, storage, use and disposal of hazardous materials are included in each FPPP.

The Permit requires the Department to develop procedures and practices ("Maintenance Facility Material Management BMPs") to address the following:

- Training
- Tracking and documentation
- Material delivery
- Storage areas, containment and labeling requirements
- Inventory, recordkeeping and inspections
- Safe handling (MSDS sheets, label instructions)
- Material use (examples – paints, lubricants, fuels, herbicides, etc.)
- Spill response, sorbents, clean-up procedures, reportable amounts, contacts, and notifications
- Recycling and disposal
- Hazardous materials reduction strategy

NDOT's Environmental Services Division staff will investigate if the existing program and/or documentation addresses the Permit requirements related to hazardous materials and Maintenance Facilities. This will be accomplished in a series of meetings with staff from Environmental, Equipment, and Maintenance and Asset Management Divisions.

Note that spill control and prevention practices were addressed in IDDE-03 (Spill Control and Prevention).

BMP Objectives:

1) Mitigate potential releases of toxic and hazardous materials from NDOT's Maintenance facilities through sound management practices and effective training.

BMP Tasks/Measurable Goals:

1) Continue implementing the Department's existing Hazardous Waste Management Program for the safe handling, storage, and disposal of toxic and hazardous materials at Maintenance facilities.
2) Identify any deficiencies in the existing Hazardous Waste Management Program with respect to the requirements outlined in the Permit.
3) Develop BMPs or guidance documentation for implementation to address any known program deficiencies.

Responsibility:

Environmental Services, Equipment, and Maintenance and Asset Management Divisions

Hazardous Materials Management

BMP ID: MAINT-01	Ref: SWMP Section 3.9

Data Collection Requirements:

None at this time.

Reporting Requirements:

Results and progress will be reported in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue the implementation of the Department's existing Hazardous Waste Management Program.	X	X	X	X	X
Identify any deficiencies in the existing program with respect to the requirements outlined in the Permit.		X	X	X	X
Develop BMPs as needed to address any deficiencies in the program.			X	X	X

Permit Requirements:

III.L. Stormwater Discharges from NDOT Maintenance Facilities

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT Maintenance Facilities and each of the following Maintenance Facility areas:

III.L.2.c.v Use absorbents to clean spilled materials;

III.L.2.c.vii Clean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

III.L.2.d.ii Use drip pans under vehicles and equipment;

III.L.2.d.iii Keep an organized inventory of materials used in the shop;

III.L.2.d.iv Drain all parts of fluid prior to disposal;

III.L.2.d.v Use dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and

III.L.2.d.vi Treat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.

III.L.2.e NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.);

III.L.2.e.ii Move storage indoors whenever practical;

III.L.2.e.iii Install berms/dikes around the areas;

III.L.2.e.iv Minimize run-on of stormwater to the areas;

III.L.2.e.v Use dry cleanup methods; and

III.L.2.e.vi Treat, recycle, or properly dispose of collected stormwater runoff. Note: The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from Maintenance Facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT Maintenance Facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills of toxic materials by NDOT staff at NDOT Maintenance Facilities to prevent or minimize discharges to the storm sewer system or receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT Maintenance Facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT

Hazardous Materials Management	
BMP ID: MAINT-01	**Ref: SWMP Section 3.9**
	Maintenance Facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and
III.L.2.f.v	NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report

Snow and Ice Control Program

BMP ID: MAINT-02	Ref: SWMP Section 3.10

Rationale/Practice Description:

Public safety requires the Department to occasionally apply deicers/anti-icers and abrasives to several of the highways throughout the state (primarily in the northern portion). Materials used for snow and ice control have the potential to adversely impact receiving waters if not properly managed. Deicing/anti-icing agents include salt, brine solutions, and occasionally magnesium chloride. Sand with salt is the primary abrasive used.

The Department's Snow and Ice Control Program is documented in the Maintenance Management System, Section D, Chapter 11, Snow Removal: Plowing, Blading, Application of Abrasive and Chemical (Activity No. 151.01), which requires a statewide plan, District plans, and individual crew plans. The existing program includes prescriptions for sand application rate, maximum salt concentrations, and the calibration of sand spreaders. Sweeping of sanded streets is described in MAINT-03. The storage of sand/salt will also be addressed as part of MAINT-06.

Routine Practices Include

- Conduct inspection of vehicles and equipment prior to leaving the facility to ensure proper working condition
- Perform routine calibration of spreading equipment, allowing for increased delivery precision and efficiency
- Controlled application rates
- Continue the evaluation of alternative deicing products and application methods
- Store sand/salt indoors where possible
- Sweeping Maintenance Facilities as needed, cleaning up any excess or spilled deicing agents and abrasives

Snow and Ice Control

Where abrasives and/or de-icing agents are used on highways, the following will be recorded:

- Location of the source of abrasive materials
- Types and chemistry of deicing agents
- If magnesium chloride is used, controlled application practices will be used to minimize any negative effects
- Results of any studies on magnesium chloride will be reviewed and considered when relevant

Materials Analysis:

Composite samples will be collected from traction and deicing material stockpiles and sent to a certified laboratory for the determinations listed below. Composite samples will be collected from one stockpile that represents all deliveries used for the season. If a new delivery is received, a composite sample will be collected from each new originating source. Analytical requirements are:

- Deicing Salt - will be analyzed for total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl)
- Alternative Deicers – will be analyzed for total nitrogen and total phosphorus
- Abrasives (sand or cinders) –will be analyzed for gradation, percent organic matter, volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus

Materials Storage:

- Sand and salt will be stored under cover, e.g. "Sprung Structures," sand/salt sheds, etc. where possible
- Install perimeter control BMPs around material piles as appropriate
- Avoid placing sand/salt piles near stormwater facilities where possible

Snow and Ice Control Program

BMP ID: MAINT-02 | **Ref: SWMP Section 3.10**

Snow and ice management practices on streets, roads, and highways in both urban and rural areas are to be implemented in a manner consistent with NDOT's Snow and Ice Control Program's policies and guidelines. These include prescriptions for sand application rates, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets.

Through the use of proper practices and procedure, the potential negative impacts from the application of deicers/anti-icers and abrasives can be mitigated to the MEP.

BMP Objectives:

1) Mitigate potential adverse effects of deicer/anti-icer and abrasive applications to the MEP through sound management practices and effective training.
    a. Document and implement management practices and procedures for the safe application of deicers/anti-icers and abrasives on highways throughout the state.

BMP Tasks/Measurable Goals:

1) Continue implementing the Department's existing Snow and Ice Control Program.
    a. Collect and analyze composite samples of sand and salt as specified in the Permit.
2) Identify any deficiencies in the existing program with respect to the requirements outlined in the Permit.
3) Develop measures to address any deficiencies identified in the program.

Responsibility:

Maintenance and Asset Management and Environmental Services Divisions

Data Collection Requirements:

Each Maintenance District will collect and maintain accurate records of the dates, locations, and quantities of deicing/anti-icing and abrasive materials applied.

Reporting Requirements:

A narrative summary of the Department's Snow and Ice Control Program will be included in the Annual Report. This summary will include the volume or mass of abrasives and deicing agents used throughout the state.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue implementing the Department's existing Snow and Ice Control Program.	X	X	X	X	X
Collect and analyze composite samples of sand and salt as specified in the Permit.	X	X	X	X	X
Identify any deficiencies in the existing program with respect to the requirements outlined in the Permit.		X	X	X	X
Develop BMPs as needed to address any deficiencies in the program.			X	X	X

Permit Requirements:

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:

III.O.1.a Snow and ice management practices on streets, roads, and highways in urbanized areas shall be implemented in a manner consistent with NDOT's policies and guidelines. These guidelines shall include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets;

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

Snow and Ice Control Program

BMP ID: MAINT-02	Ref: SWMP Section 3.10

III.O.1.c Leaf litter and debris on all streets in urbanized areas shall be swept a minimum of two times per year, once in the spring and once in the fall;

III.O.1.d Sweeping of sanded streets in urbanized areas shall be performed as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall;

III.O.1.e Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.

III.O.1.f If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to Waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant.

III.O.1.g A narrative summary of the program will be included in the Annual Report.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.b **Snow and Ice Control**

III.P.1.b.i Where abrasives and/or de-icing agents are used on highways, the following shall be recorded:

III.P.1.b.i.1 Location of the source of abrasives materials;

III.P.1.b.i.2 Types and chemistry of de-icing agents;

III.P.1.b.i.3 Deicing salt shall be analyzed for: total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl);

III.P.1.b.i.4 Alternative deicers shall be analyzed for total nitrogen and total phosphorus;

III.P.1.b.i.5 Type and chemistry of abrasives with the gradation and percent organic matter. Gradation and percent organic matter shall be determined from composite samples. The composite samples shall be taken from one stockpile that represents all deliveries from the originating source. Composite samples shall be taken from every new delivery from a new originating source;

III.P.1.b.i.6 Abrasives shall be analyzed for volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus; and

III.P.1.b.i.7 Volume of abrasives and deicing agents used on individual highway segments shall be documented in the Annual Report.

Street Sweeping Program

BMP ID: MAINT-03 | **Ref: SWMP Section 3.10**

Rationale/Practice Description:

Sweeping the highways and roadways of the state are an important component in the Department's Public Street Maintenance Program. Numerous studies have shown that mechanical and vacuum sweepers are an effective source control measure, removing contaminants from paved surfaces before they can be transported off-site by stormwater runoff.

The Department has an existing Street Sweeping Program, described in the MMS. Additionally, the Department has prepared Fact Sheet SC-7, Street Sweeping and Vacuuming found in the Construction Site BMP Manual.

NDOT and its contractors routinely sweep the streets, highways and paved Maintenance Facility lots, removing leaf litter, tracked dirt, sand, and other accumulated materials. The following minimum activities are performed:

- All streets in urbanized areas are swept a minimum of two times per year, once in the spring and once in the fall
- Following the application of deicers and traction sands, all roads are swept as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall

Maintenance Supervisors are tasked with ensuring that sweeper wastes are disposed of properly.

The Department will assess the idea of recycling sweeper wastes during this permit cycle.

BMP Objectives:

1) Improve highway stormwater runoff quality through an effective Street Sweeping Program.

BMP Tasks/Measurable Goals:

1) Continue implementing the Department's Street Sweeping Program.
   a. Sweep urbanized streets at least twice a year (once in the spring and fall).
   b. Sweep sanded areas following application as soon as conditions permit after snow storms, but no later than 4 days following the last snowfall.
2) Assess the idea of recycling sweeper waste.

Responsibility:

Maintenance and Asset Management and Environmental Services Divisions

Data Collection Requirements:

Each of the Maintenance Districts will keep records of the roadways swept, the dates of sweeping, and amount of material collected.

Reporting Requirements:

Street sweeping activities, including the amount of material collected, will be summarized in the Annual Report to NDEP. Progress in the evaluation of the recycling and reuse of sweeper materials will also be included in the Annual Report.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue implementing the Department's Street Sweeping Program.	X	X	X	X	X
Continue sweeping urban streets at least twice a year (once in the spring and fall).	X	X	X	X	X
Continue sweeping sanded streets as soon as practicable after application, but no later than 4 days following the last snowfall.	X	X	X	X	X
Assess the idea of recycling sweeper waste.	X	X	X		

Street Sweeping Program

BMP ID: MAINT-03	Ref: SWMP Section 3.10

Permit Requirements:

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, **street sweeping**, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:

III.O.1.a Snow and ice management practices on streets, roads, and highways in urbanized areas shall be implemented in a manner consistent with NDOT's policies and guidelines. These guidelines shall include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets;

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

III.O.1.c Leaf litter and debris on all streets in urbanized areas shall be swept a minimum of two times per year, once in the spring and once in the fall;

III.O.1.d Sweeping of sanded streets in urbanized areas shall be performed as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall;

III.O.1.e Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.

III.O.1.f If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to Waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant.

III.O.1.g A narrative summary of the program will be included in the Annual Report.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a **Highway Maintenance Activities**

III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iii Establish schedules for implementing appropriate controls; and

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of way or discharging to a Waters of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

V.I. Proper Operation and Maintenance

V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.

Outfall Screening and Investigations

BMP ID: MAINT-04	Ref: SWMP Sections 3.7, 3.10

Rationale/Practice Description:

The Code of Federal Regulations defines a "major outfall" as an MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit (see 40CFR§122.26).

Presented in this BMP is a generalized procedure for conducting outfall screening and inspections. Hydraulics and Environmental Services personnel routinely assess drainage structures during pre-construction surveys. However, outfall screening and investigations have long been carried out by NDOT's Maintenance and Asset Management Division as part of routine duties (see MAINT-05, Inspections and Maintenance of Structural BMPs). Aside from the inspection of infrastructure for structural integrity and functionality, any observations pertaining to illicit discharges are also noted and reported to District and Environmental Services Division personnel (see TRAIN-01). Outfall screening and investigations include both scheduled and non-scheduled activities (e.g., floods or complaints). The most substantial task in accomplishing this BMP is the identification of outfalls that meet the Permit definition. Once NDOT has identified the location of the major outfalls, a schedule for inspection can be established.

NDOT owns and operates nearly 5,400 linear miles of roadways statewide, with countless culverts and waterway crossings. The majority of these hydraulic structures, however, would not be considered major outfalls. The first step in this BMP is to identify and locate all structures (or features) that meet the Permit definition of "major outfall". This task will be performed as part of BMP DEPT-10 (Mapping and Inventory of Structural BMPs). This is a very large task, given that the drainage area and the size (diameter) of the conveyance structure and drainage area must be calculated for thousands of miles of roads and right-of-ways. Efforts to inventory hydraulic structures along several sections of state roadways have already begun, most notably within the Lake Tahoe Basin and Clear Creek watershed areas. Given the size of the MS4 Permit area, the diffuse nature of the State roadway system, and limited resources, it is anticipated that this task will take multiple years to complete, perhaps beyond the cycle of this NPDES MS4 Permit.

While outfall location and mapping efforts continue, screening activities can will continue to be a part of NDOT's routine activities. Each year, NDOT Maintenance staff inspects hundreds of miles of roadway surfaces, bridges, culverts, outfalls, cut-slopes, detention ponds, etc., and help establish a schedule for service, repair, or maintenance. NDOT will continue to perform these inspections; any evidence of illicit discharges, non-approved activity, and dumping will be noted and reported (see TRAIN-01 and IDDE-02). Once the major outfalls have been located, a more formalized schedule for outfall investigations can be developed.

Under this BMP, major outfalls will continue to be identified, formalized schedules for conducting inspections will be developed, and a mechanism for identifying priorities and listing improvements will be developed. However, this is predicated upon the success of DEPT-10.

This BMP will also assist the Department to identify, track, and prioritize the stabilization and repairs to road segments where slopes are 3:1 or greater, as required by the Permit.

BMP Objectives:

1) Reduce potential stormwater quality impacts through the inspection and screening of the

Outfall Screening and Investigations

BMP ID: MAINT-04 | **Ref: SWMP Sections 3.7, 3.10**

Department's major outfalls.

BMP Tasks/Measurable Goals:

1) Continue inspecting major outfalls within the MS4 Permit area.
    a. Identify, track, and prioritize the stabilization and repairs to road segments where slopes are 3:1 or greater.
2) Develop schedules and a tracking system for the inspection and screening of major outfalls.
3) Report any evidence of illicit discharges.

Responsibility:

Maintenance and Asset Management and Environmental Services Divisions

Data Collection Requirements:

Areas inspected, Maintenance Crew and time period are recorded by the Maintenance and Asset Management Division. Any evidence of illicit discharges are reported and cleaned-up as described in IDDE-02, -03, and -04.

Reporting Requirements:

Record areas inspected, results, and action taken (as appropriate). Findings and progress towards accomplishing the goals listed will be documented in the Annual Report to NDEP.

Implementation Schedule:

Task	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue inspecting major outfalls within the MS4 Permit area.	X	X	X	X	X
Identify, track, and prioritize the stabilization and repairs to road segments where slopes are 3:1 or greater.	X	X	X	X	X
Develop schedules and a tracking system for the inspection and screening of major outfalls.	X	X	X	X	X
Report any evidence of illicit discharges.	X	X	X	X	X

Permit Requirements:

III.F. Stormwater Education Program

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges

III.F.5.a.ii The procedures for outfall screening and investigation;

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;

III.J.1.f A description of educational activities, public information activities, and other appropriate activities

Outfall Screening and Investigations	
BMP ID: MAINT-04	**Ref: SWMP Sections 3.7, 3.10**

to facilitate the proper management and disposal of used oil and toxic materials; and

III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a **Highway Maintenance Activities**

III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iii Establish schedules for implementing appropriate controls; and

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of way or discharging to a Waters of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1.b **Inspect Storm Sewer System**

III.Q.1.b.i The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and determine maintenance needs; and

III.Q.1.b.ii NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.

III.Q.1.c **Develop Maintenance Schedules and Priorities**

III.Q.1.c.i NDOT shall identify routine maintenance schedules and maintenance priorities for its storm sewer system, including roadways to minimize pollutant discharges from the storm sewer system; and

III.Q.1.c.ii NDOT shall evaluate priorities and update the maintenance schedule annually.

III.Q.1.d **Perform Repair, Maintenance, and Cleaning**

III.Q.1.d.i NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and

Inspection and Maintenance of Structural BMPs

BMP ID: MAINT-05 | **Ref: SWMP Sections 3.6 & 3.10**

Rationale/Practice Description:

The Permit requires NDOT to inventory, inspect and maintain post-construction BMPs and general storm sewer infrastructure. Currently, NDOT inspects and maintains post-construction BMPs, storm sewer facilities, and highway slopes as part of routine maintenance activities and in response to reported issues and emergency circumstances, i.e. flooding and stakeholder concerns. NDOT has the responsibility of maintaining over 5,400 miles of highway infrastructure across the State. As part of their routine activities, Maintenance Crews inspect and maintain post-construction BMPs and general storm sewer facilities.

The Department will continue to inspect and record conditions of its storm sewer system, including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and identify maintenance needs. In addition, Maintenance Crews will continue to assist with addressing slope stabilization needs as part of their routine maintenance activities.

Due to the large number and diverse array of post-construction BMPs throughout the Permit area, greater attention will be focused on those post-construction BMPs that are less self-sustaining in nature and require a level of service to maintain stormwater treatment functionality as designed, e.g. stormwater treatment vaults, detention basins, etc. Inspection and maintenance of general storm sewer facilities will continue as part of NDOT's routine maintenance activities with schedules developed at the District and/or individual Maintenance Crew level.

During inspection and maintenance, any evidence of illicit discharges or illegal dumping will be evaluated (see IDDE-04).

The Department will properly dispose of waste removed from the storm sewer system and other facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of will be documented and included in the Annual Report.

It is anticipated that the efforts associated with the Mapping and Inventory Program (see DEPT-10) and Outfall Screening and Investigations Program (see MAINT-04) will help facilitate and improve upon these processes.

BMP Objectives:

1) Reduce potential stormwater quality impacts through inspection and maintenance of structural stormwater BMPs.

BMP Tasks/Measurable Goals:

1) Continue inspecting and maintaining post-construction BMPs, storm sewer facilities, and highway slopes as part of NDOT's routine activities.
2) Incorporate a post-construction BMP component to NDOT's stormwater infrastructure inventory program.
    a. Determine criteria and features to be mapped and inventoried.
    b. In conjunction with DEPT-10, develop an inventory listing of post-construction BMPs.

Responsibility:

Environmental Services and Maintenance and Asset Management Divisions and Hydraulics Section

Data Collection Requirements:

Post-construction BMP and general storm sewer facility maintenance activities will continue to be documented in the Maintenance Management System, including the volume of material removed. Post-construction BMP inventory data will be added to stormwater infrastructure GIS databases (see DEPT-10). Known inspections and field screenings conducted by other Divisions will be documented as well.

Inspection and Maintenance of Structural BMPs

BMP ID: MAINT-05 | **Ref: SWMP Sections 3.6 & 3.10**

Reporting Requirements:

Results and progress are to be documented in the Annual Report to NDEP

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue inspecting and maintaining post-construction BMPs, storm sewer facilities, and highway slopes as part of NDOT's routine activities.	X	X	X	X	X
Determine post-construction BMP criteria and features to be mapped and inventoried.		X			
In conjunction with DEPT-10, develop an inventory listing of post-construction BMPs.	X	X	X	X	X

Permit Requirements:

Part III. Stormwater Management Program

III.I. Discharges from New Development and Redevelopment

III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:

Inspection and Maintenance of Structural BMPs

BMP ID: MAINT-05	Ref: SWMP Sections 3.6 & 3.10

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a **Highway Maintenance Activities**

III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iii Establish schedules for implementing appropriate controls; and

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of way or discharging to a Waters of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

III.P.1.c.ii Drain inlets which contain significant materials must be considered for an IDDE investigation and considered for an enhanced BMP program focused on reducing the sources of the material found in the inlet.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:

III.Q.1.a **Inventory Post-Construction Stormwater Pollution Control BMPs**

III.Q.1.a.i NDOT shall develop and maintain an inventory of its postconstruction stormwater pollution control BMPs;

III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and

III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major postconstruction stormwater pollution control BMPs statewide as part of the revised SWMP.

III.Q.1.b **Inspect Storm Sewer System**

III.Q.1.b.i The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and determine maintenance needs; and

III.Q.1.b.ii NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.

III.Q.1.c **Develop Maintenance Schedules and Priorities**

III.Q.1.c.i NDOT shall identify routine maintenance schedules and maintenance priorities for its storm sewer system, including roadways to minimize pollutant discharges from the storm sewer system; and

III.Q.1.c.ii NDOT shall evaluate priorities and update the maintenance schedule annually.

III.Q.1.d **Perform Repair, Maintenance, and Cleaning**

III.Q.1.d.i NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and

III.Q.1.d.ii During repair, maintenance or cleaning activities, NDOT shall ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as significant loads of a specific pollutant(s) or material(s). Upon discovery, NDOT shall initiate an investigation to target likely sources and implement a BMP program to reduce the sources of the pollutant or material to the MEP.

III.Q.1.e **Implement BMPs for Repair, Maintenance, and Cleaning**

III.Q.1.e.i NDOT shall implement appropriate BMPs to reduce the potential for releases of pollutants to the storm sewer system or to Waters of the U.S. when performing repair, maintenance, or cleaning of its storm sewer system, including roadways;

III.Q.1.e.ii NDOT shall implement BMPs to minimize the discharge of pollutants from unpaved roads, shoulders, and parking lots, such as permanent stabilization / erosion control BMPs and paving

Inspection and Maintenance of Structural BMPs	
BMP ID: MAINT-05	**Ref: SWMP Sections 3.6 & 3.10**

unpaved roads, and parking lots;

III.Q.1.e.iii NDOT shall properly dispose of waste removed from its storm sewer system and NDOT facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of shall be documented and included in the Annual Report.

III.Q.1.f **Roadside Management Program**

III.Q.1.f.i NDOT shall continue to implement the BMPs described in its *Construction Site BMP Field Manual.*

V.I. Proper Operation and Maintenance

V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.

Maintenance Facility FPPPs

BMP ID: MAINT-06	Ref: SWMP Section 3.9

Rationale/Practice Description:

The Maintenance Yards Management Section of the Permit (Section III.S) requires the development and implementation of Stormwater Pollution Prevention Plans (SWPPPs) for all of NDOT's maintenance yards, storage areas, batch plants and facilities. NDOT has chosen to identify these plans as Facility Pollution Prevention Plans (FPPPs) for consistency and differentiation from transitory construction sites. Note that the content of the Department's FPPPs are consistent with that described in the Permit for a SWPPP and a "Runoff Control Plan" (III.S.3.a).

Section III.L. of the Permit (Stormwater Discharges from NDOT Maintenance Facilities) requires NDOT to describe measures that will be used to control discharges from NDOT Maintenance Facilities. A FPPP is one of the most useful and fundamental elements of NDOT's SWMP. The FPPP is the written document that describes how the Department will address and satisfy the Permit requirements for preventing, controlling, and treating stormwater runoff from Maintenance Facilities. The FPPP describes procedures, BMPs, inspections, maintenance requirements, and unique site elements and constraints that collectively control site runoff and pollution to the MEP.

The purpose of the FPPP is to formally identify stormwater pollution sources; develop BMPs to reduce potential stormwater runoff impacts; identify and document BMP maintenance and inspection schedules; and ultimately be a useful guidance tool. NDOT's Environmental Services Division will oversee the development of the FPPPs. Protocol for the development of FPPPs will include site visits for information gathering; preparation of a draft FPPP document for internal review for accuracy, conformance, and implementability; and development of a final FPPP document. NDOT may request NDEP to assist with document review as necessary.

The following ten Maintenance facilities have been designated as Major facilities (based on the criteria that the facility conducts major equipment repairs and houses multiple crews), and therefore will receive individual site specific FPPPs: Las Vegas North, Tonopah, Las Vegas South, Carson City, Reno/Sparks, Fallon, Elko, Ely, Winnemucca, and Wells. At a minimum, the following information shall be incorporated into each Major facility FPPP:

I. Activity description
II. Facility site map
III. Description of potential pollutant sources, including an evaluation of that potential
IV. Stormwater management controls (including a schedule for implementation)
    a. Runoff control plan administrator
    b. Preventative maintenance
    c. Good housekeeping
    d. Spill prevention and response procedures
    e. BMPs for pollutant sources
    f. Evaluation of non-stormwater discharges
    g. Employee training
    h. Inspection procedures

Following the development of the Major facility FPPPs, remaining Maintenance stations and appropriate off-site storage areas will fall under their respective umbrella Minor facility FPPPs, with site-specific considerations incorporated as necessary. At a minimum, the following information shall be incorporated into each Minor facility FPPP:

I. Map showing the location of each facility in the group
II. Location address, type of operation, facility size, and receiving water drainage basin
III. Description of potential pollutant sources, including an evaluation of that potential

Maintenance Facility FPPPs

BMP ID: MAINT-06	Ref: SWMP Section 3.9

IV. Stormwater management controls
   a. Preventative maintenance measures
   b. Good housekeeping
   c. Spill prevention and response procedures
   d. BMPs
   e. Evaluation for non-stormwater discharges
   f. Inspection procedures

Copies of all Major facility FPPPs shall be kept at the facility and Environmental Services Division. Copies of the Minor facility FPPPs shall be kept at the appropriate District Headquarters office and Environmental Services Division.

A summary of compliance with the FPPPs shall be submitted by each plan administrator to Environmental Services Division by September 1 of each year.

The Permit (Section III.S.J) requires the FPPPs to be completed and implemented according to the following schedule: 10 percent of the facilities within twelve months of the effective date of the Permit; another 40 percent within twenty-four months of the effective date of the Permit; and the remaining 50 percent within thirty six months of the effective date of the Permit. NDOT is currently scheduled to have all FPPPs developed by the end of 2013.

BMP Objectives:

1) Prevent, or reduce to the MEP, potential stormwater pollutant discharges from Department Maintenance facilities through the development of FPPPs.

BMP Tasks/Measurable Goals:

1) Develop FPPPs for the Department's designated Major Facilities.
2) Develop FPPPs for the Department's designated Minor Facilities.
3) Develop FPPPs, or incorporate into existing Minor FPPPs (as appropriate), new Department Maintenance Facilities within 6 months of being designated as a Major or Minor Facility.

Responsibility:

Environmental Services, Maintenance and Asset Management, and Equipment Divisions

Data Collection Requirements:

None. As the plans are prepared, the site constraints, applicable BMPs and specific site activities will be internally documented by the Environmental Services Division and integrated into the FPPP documents as appropriate.

Reporting Requirements:

Summaries of FPPP compliance activities will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Develop FPPPs for the Department's ten Major Maintenance Facilities.	X	X			
Develop FPPPs for the Department's designated Minor Maintenance Facilities.		X			
Develop FPPPs, or incorporate into existing Minor Facility FPPPs (as appropriate), new Department Maintenance facilities within 6 months of being designated as a Major or Minor Facility.		X	X	X	X

Permit Requirements:

III. Stormwater Discharges from NDOT Maintenance Facilities

III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT

Maintenance Facility FPPPs

BMP ID: MAINT-06	Ref: SWMP Section 3.9

Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide.

III.L.1.a NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;

III.L.1.b NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to Waters of the U.S. or to the storm sewer system;

III.L.1.c NDOT shall properly select, install, and maintain BMPs in accordance with any relevant manufacturer specifications and good engineering practices; and

IIIlL.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas; and salt and sand storage locations and snow disposal areas.

III.L.2 NDOT shall implement the following BMPs at its maintenance facilities:

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:

III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;

III.L.2.c.ii Use drip pans under vehicles and equipment;

III.L.2.c.iiiStore vehicles and equipment indoors whenever practicable

III.L.2.c.ivInstall berms or dikes around the areas;

III.L.2.c.v Use absorbents to clean spilled materials;

III.L.2.c.viRoof or cover storage areas whenever practicable; and

III.L.2.c.viiClean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

III.L.2.d.ii Use drip pans under vehicles and equipment;

III.L.2.d.iiiKeep an organized inventory of materials used in the shop;

III.L.2.d.ivDrain all parts of fluid prior to disposal

III.L.2.d.vUse dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and

III.L.2.d.viTreat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.

III.L.2.e. NDOT shall describe and implement BMPs that prevent or minimize contamination or stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g. for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g. “Used Oil,” “Spent Solvents,” etc.):

III.L.2.e.iiMove storage indoors whenever practical

III.L.2.e.iiiInstall berms/dikes around the areas;

III.L.2.e.ivMinimize run-on of stormwater to the areas;

III.2.e.v Use dry cleanup methods; and

III.L.2.e.viTreat, recycle, or properly dispose of collected stormwater runoff. ***Note:*** *The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.*

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous

Maintenance Facility FPPPs

BMP ID: MAINT-06	Ref: SWMP Section 3.9

materials by NDOT staff at NDOT maintenance facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills or toxic materials by NDOT staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system of receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and

III.L.2.f.v. NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

III.S. NDOT Maintenance Yards Management Program

III.S.1. NDOT shall prepare SWPPPs for all its Maintenance Facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP;

III.S.2. Generic SWPPP elements can be used for activities that are performed at more than one Maintenance Facility; however, each site must be evaluated separately and provided with appropriate site specific BMPs.

III.S.3. NDEP staff has the authority to require the submittal of a SWPPP at any time, to require changes to a SWPPP, and to require the implementation of the provisions of a SWPPP. SWPPPs shall include the following elements:

III.S.3.a NDOT shall develop and implement runoff control plans for the following NDOT-owned and/or operated facilities that do not have independent NPDES Stormwater permits:

III.S.3.a.i Vehicle Maintenance Facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling and lubrication);

III.S.3.a.ii Asphalt and concrete batch plants which are not already individually permitted;

III.S.3.a.iii Solid-waste transfer stations;

III.S.3.a.iv Exposed stockpiles of materials, including stockpiles of road deicing salt, salt and sand, sand, roto-mill material; and

III.S.3.a.v Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles.

III.S.3.b NDOT shall provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of the revised SWMP. This list shall indicate which sites are considered "major" and which are considered "minor", and set out the reasons for the designations.

III.S.3.c Runoff control plans for "major" facilities shall contain the following:

III.S.3.c.i Activity description;

III.S.3.c.ii Facility site map; and

III.S.3.c.iii A description of potential pollutant sources, including an evaluation of that potential.

III.S.3.d Stormwater Management Controls

III.S.3.d.i The description of stormwater management controls shall address the following minimum components, including a schedule for implementing such controls:

III.S.3.d.i.1 Runoff control plan administrator;

III.S.3.d.i.2 Preventive maintenance;

III.S.3.d.i.3 Good housekeeping;

III.S.3.d.i.4 Spill prevention and response procedures;

III.S.3.d.i.5 BMPs for pollutant sources;

III.S.3.d.i.6 Evaluation for non-stormwater discharges;

III.S.3.d.i.7 Employee training;

III.S.3.d.i.8 Inspection procedures; and

III.S.3.d.i.9 A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.

III.S.3.d.ii "Minor" facilities shall be grouped together by type, and one runoff control plan shall be developed for each group. Grouped runoff control plans shall contain:

III.S.3.d.iii A map showing the location of each facility in the group on a map of the city or state;

Maintenance Facility FPPPs	
BMP ID: MAINT-06	**Ref: SWMP Section 3.9**

III.S.3.d.iv For each facility in the group include the address, type of operation, size of the facility, and receiving water drainage basin;
III.S.3.d.v A description of potential pollutant sources, including an evaluation of that potential;
III.S.3.d.vi A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:
III.S.3.d.vi.1 Preventive maintenance measures;
III.S.3.d.vi.2 Good housekeeping;
III.S.3.d.vi.3 Spill prevention and response procedures;
III.S.3.d.vi.4 BMPs;
III.S.3.d.vi.5 Evaluation for non-stormwater discharges; and
III.S.3.d.vi.6 Inspection Procedures
III.S.3.e Copies of the "major" facility runoff control plans shall be kept on the facility site and on file with NDOT's main office. They shall be submitted to NDEP upon request.
III.S.3.f Copies of the "minor" facility group runoff control plans shall be kept on file with the Regional District Office. They shall be submitted to NDEP upon request;
III.S.3.f Both major and minor facilities shall be inspected by the Permittee at least one (1) time each year, after the SWPPP has been completed;
III.S.3.h NDOT shall implement the provisions of the runoff control plans required under this part as a condition of this MS4 permit. NDEP reserves the right to review those plans, and to require additional measures to prevent and control pollution as needed;
III.S.3.i SWPPPs may be amended at any time and any amendments shall be described in the Annual Report; and
III.S.3.j The SWPPPs shall be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this permit, another 40 percent within twenty-four (24) months of the effective date of this permit, and the remaining 50 percent within thirty-six (36) months of the effective date of this permit. A list of these facilities shall be submitted to NDEP at these times.

Maintenance Facility Inspections

BMP ID: MAINT-07	Ref: SWMP Section 3.9

Rationale/Practice Description:

Section III.M of the Permit requires the Department to conduct comprehensive Maintenance Facility inspections with inspection reports at least once per year. Additionally, routine inspections are required to ensure that facility FPPPs address any significant changes to the facility's operations or BMP implementation procedures. The scope of these inspections and the associated reporting requirements are specified in Section III.N of the Permit.

The nine Major Department Maintenance Facilities (see Section 3.9.3) as well as designated Minor Maintenance Facilities will be inspected at least annually by the Environmental Services Division. Associated offsite material storage areas for each Maintenance Facility will be inspected on an as needed basis. The components and elements of the annual inspections are listed below. In addition to annual inspections, routine inspections will be performed on a quarterly basis by the designated on-site FPPP Administrator and/or Environmental Services Division.

Maintenance facility inspections shall include all of the following areas/activities:

- Storage areas for vehicles and equipment awaiting maintenance
- Fueling areas (including mobile fueling)
- Indoor and outdoor vehicle/equipment maintenance areas
- Material storage areas
- Material source stockpile(s) to determine if piles are protected from run-on, run-off, and if materials are contributing to off-site discharges
- Vehicle/equipment cleaning areas and loading/unloading areas
- Onsite waste storage and disposal areas

Inspections will cover all areas exposed to precipitation as well as areas where spills and leaks have occurred. Inspectors shall

- Inspect and document all BMPs identified in the FPPP along with areas inspected and conditions found
- Inspect all discharge locations to determine whether BMPs are effective in preventing significant impacts to waters of the U.S., where accessible
    - Where discharge locations are inaccessible, inspections shall occur at nearby downstream locations to the extent that the inspections are practicable
- Locations where vehicles enter or exit the site for evidence of off-site sediment tracking
- Look for evidence of, or the potential for, pollutants entering the drainage system.

Annual inspection and quarterly inspection reports will include the following information:

- The inspection date
- The name(s), title(s) and qualifications of the person(s) making the inspection
- Weather information and a description of any discharges occurring at the time of the inspection
- The location(s) of discharges of sediment or other pollutants from the site (if any)
- The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location
- The location(s) where additional BMPs are needed that did not exist at the time of previous inspections
- The corrective action(s) required, including any changes to the FPPP and implementation dates
- The identification of all sources of non-stormwater discharges, if any, and the associated BMPs
- Where applicable, the identification or change in material storage areas, and evidence of,

Maintenance Facility Inspections

BMP ID: MAINT-07 | **Ref: SWMP Section 3.9**

or potential for, pollutant discharges from these areas not listed in the FPPP

Inspection reports will identify any incidents of non-compliance with the Permit or FPPP. Where a report does not identify any incidents of non-compliance, the report will contain a certification that the activities are in compliance with the FPPP and the Permit. The report shall be signed and certified in accordance with Part V.G of the Permit and copies included in the FPPP and the Annual Report to NDEP.

Based on the results of the routine and annual inspections, NDOT will modify the site FPPPs as necessary to include additional or modified BMPs designed to correct problems identified. The Department will complete any revisions to the FPPPs and modify or add BMPs as necessary within thirty (30) calendar days following an inspection. District and/or Maintenance personnel will be required to follow-up on all inspection deficiencies and new BMPs to ensure that appropriate action was taken in response to issues noted.

FPPP listed BMPs shall be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance shall be performed within seven days of discovery and prior to the next anticipated storm event.

In the event that sediment or other materials escape the site, the Department will remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. Any accumulation will be removed within seven (7) days of discovery (unless precluded by legal, regulatory, or physical access constraints). The Department will make all reasonable efforts to obtain access, and in such instances, removal and stabilization will also be within seven (7) days of obtaining access.

BMP Objectives:

1) Ensure implementation of effective BMPs to prevent, or reduce to the MEP, potential stormwater pollutant discharges from Department Maintenance facilities.

BMP Tasks/Measurable Goals:

1) Perform annual inspections at designated Major and Minor Maintenance facilities
    a. Modify or add BMPs as necessary within thirty calendar days following an inspection.
2) Perform routine inspections at designated Major and Minor Maintenance facilities according to frequencies specified in the FPPP.
    a. Modify or add BMPs as necessary within thirty calendar days following an inspection.
3) Maintain BMPs listed in the FPPP in effective operating condition.
    a. Perform maintenance on ineffective BMPs with seven days of discovery and before the next anticipated storm event.
4) Review Maintenance facility inspection forms on an annual basis and revise as necessary.

Responsibility:

Environmental Services, Asset Management and Maintenance, and Equipment Divisions

Data Collection Requirements:

Information related to annual and routine inspections.

Reporting Requirements:

A summary of inspection activities will be included in the Annual Report to NDEP. Deficiencies found and the subsequent corrective actions will be included in the summary.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017

Maintenance Facility Inspections

BMP ID: MAINT-07	Ref: SWMP Section 3.9				
Perform annual inspections at designated Major and Minor Maintenance Facilities. Modify or add BMPs as necessary within thirty calendar days of the inspection.	X	X	X	X	X
Perform routine inspections at designated Major and Minor Maintenance Facilities according to frequencies specified in the FPPPs. Modify or add BMPs as necessary within thirty calendar days of the inspection.		X	X	X	X
Maintain BMPs listed in the FPPP in effective operating condition. Perform maintenance on ineffective BMPs within seven calendar days of discovery and before the next anticipated storm event.	X	X	X	X	X
Review Maintenance facility inspection forms annually and revise as necessary.	X	X	X	X	X

Permit Requirements:

III.M. Comprehensive Maintenance Facility Inspection

III.M.1. NDOT shall conduct a Comprehensive Maintenance Facility Inspection at least once each year. NDOT shall also conduct routine visual inspections to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.

III.M.2. NDOT shall complete an inspection report for all Maintenance Facility inspections. At a minimum the report shall include:

III.M.2.a The inspection date;

III.M.2.b The name(s), title(s) and qualifications of the person(s) making the inspection. The list of qualified personnel shall either be on or attached to the report or alternatively, if the SWPPP documents the qualifications of the inspectors by name, that portion of the SWPPP may be referenced;

III.M.2.c Weather information and a description of any discharges occurring at the time of the inspection;

III.M.2.d The location(s) of discharges of sediment or other pollutants from the site, if any;

III.M.2.e The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location;

III.M.2.f The location(s) where additional BMPs are needed that did not exist at the time of inspection;

III.M.2.g The corrective action(s) required, including any changes to the SWPPP and implementation dates;

III.M.2.h The identification of all sources of non-stormwater discharges, if any, and the associated BMPs;

III.M.2.i Where applicable, the identification of material storage areas, and evidence of or potential for pollutant discharges from these areas;

III.M.3. Inspection reports shall identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the activities are in compliance with the SWPPP and this permit; and

III.M.4. The report shall be signed and certified in accordance with Part V.G of this permit and copies included in the SWPPP and the Annual Report.

III.N. Scope of Inspections

III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;

III.N.2. Inspections of the maintenance yard shall include all the following areas/activities:

III.N.2.a Storage areas for vehicles and equipment awaiting maintenance;

III.N.2.b Fueling areas (including mobile fueling);

III.N.2.c Indoor and outdoor vehicle/equipment maintenance areas;

III.N.2.d Material storage areas;

III.N.2.e Material source stockpile(s) to determine if piles are protected from run-on, run-off, if materials are contributing to off-site discharges;

III.N.2.f Vehicle/equipment cleaning areas and loading/unloading areas; and

III.N.2.g Onsite waste storage or disposal;

III.N.3. NDOT shall inspect and document all BMPs identified in the SWPPP along with areas inspected and the conditions found;

Maintenance Facility Inspections	
BMP ID: MAINT-07	**Ref: SWMP Section 3.9**
III.N.4. NDOT shall inspect discharge locations to determine whether BMPs are effective in preventing significant impacts to Waters of the U.S., where accessible;	
III.N.5. Where discharge locations are inaccessible, NDOT shall inspect nearby downstream locations to the extent that the inspections are practicable; and	
III.N.6. NDOT shall inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.	
III.N.7. Based on the results of the inspection, NDOT shall modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. NDOT shall complete revisions to the SWPPP and modify or add BMPs as necessary within thirty (30) calendar days following the inspection. NDOT shall implement tracking and follow-up procedures to ensure that appropriate action is taken in response to issues noted during inspections.	
III.N.8. If sediment or other materials escape the site, NDOT shall remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. The removal shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. NDOT shall use all reasonable efforts to obtain access, and in such instances, removal and stabilization shall take place within seven (7) days of obtaining access.	

Maintenance Facility BMP Manual

BMP ID: MAINT-08 | **Ref: SWMP Section 3.9**

Rationale/Practice Description:

Maintenance operations are an essential component in meeting the Department's core mission, "Providing a better transportation system through Nevada through our unified and dedicated efforts." The Department's Asset Management and Maintenance Division (Maintenance) is tasked with ensuring the state's highway system is properly maintained to as high a level as possible, consistent with the budget, work plan, policies, and program objectives.

Maintenance facilities are strategically located throughout the Department's three Districts statewide to provide a level of service necessary in keeping the state's highway system in a safe and operable condition. These facilities primarily consist of maintenance stations and yards, sand/salt and aggregate piles, and various material storage areas. Day-to-day operations at these facilities can have a negative impact on receiving water quality. Responsible stormwater management through the development and implementation of BMPs is necessary to ensure that stormwater discharges from these facilities do not significantly impact the water quality of a receiving waterbody.

The development of a Maintenance facility-specific BMP manual will assist Maintenance, Equipment, and various District personnel with implementing and maintaining BMPs at Maintenance facilities statewide. This document will serve as a valuable reference for incorporating BMPs into day-to-day facility operations, to help facilitate the implementation of Major and Minor FPPPs (MAINT-06), and serve as a guidance tool when conducting facility stormwater inspections (MAINT-07).

BMP Objectives:

1) Prevent, or minimize to the MEP, stormwater pollutant discharges from the Department's Maintenance facilities.
2) Develop written guidance that provides direction and consistency with implementing BMP practices at the Department's Maintenance facilities.

BMP Tasks/Measurable Goals:

1) Develop a Maintenance facility-specific BMP Manual.
2) Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).

Responsibility:

Environmental Services, Asset Management and Maintenance, and Equipment Divisions

Data Collection Requirements:

None at this time.

Reporting Requirements:

A summary of BMP progress will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Develop a Maintenance Facility-specific BMP Manual and disseminate for use.		X	X		
Develop and implement a protocol for conducting annual reviews and incorporating subsequent changes (as needed).				X	X

Permit Requirements:

III. Stormwater Discharges from NDOT Maintenance Facilities

III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide.

Maintenance Facility BMP Manual	
BMP ID: MAINT-08	**Ref: SWMP Section 3.9**

III.L.1.a NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;

III.L.1.b NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to Waters of the U.S. or to the storm sewer system;

III.L.1.c NDOT shall properly select, install, and maintain BMPs in accordance with any relevant manufacturer specifications and good engineering practices; and

IIIIL.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas; and salt and sand storage locations and snow disposal areas.

III.L.2 NDOT shall implement the following BMPs at its maintenance facilities:

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:

III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;

III.L.2.c.ii Use drip pans under vehicles and equipment;

III.L.2.c.iiiStore vehicles and equipment indoors whenever practicable

III.L.2.c.ivInstall berms or dikes around the areas;

III.L.2.c.v Use absorbents to clean spilled materials;

III.L.2.c.viRoof or cover storage areas whenever practicable; and

III.L.2.c.viiClean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

III.L.2.d.ii Use drip pans under vehicles and equipment;

III.L.2.d.iiiKeep an organized inventory of materials used in the shop;

III.L.2.d.ivDrain all parts of fluid prior to disposal

III.L.2.d.vUse dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and

III.L.2.d.viTreat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.

III.L.2.e. NDOT shall describe and implement BMPs that prevent or minimize contamination or stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g. for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g. “Used Oil,” “Spent Solvents,” etc.):

III.L.2.e.iiMove storage indoors whenever practical

III.L.2.e.iiiInstall berms/dikes around the areas;

III.L.2.e.ivMinimize run-on of stormwater to the areas;

III.2.e.v Use dry cleanup methods; and

III.L.2.e.viTreat, recycle, or properly dispose of collected stormwater runoff. ***Note:*** *The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.*

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills or toxic materials by NDOT

Maintenance Facility BMP Manual	
BMP ID: MAINT-08	**Ref: SWMP Section 3.9**

staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system of receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and

III.L.2.f.v. NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.M. Comprehensive Maintenance Facility Inspection

III.M.1. NDOT shall conduct a Comprehensive Maintenance Facility Inspection at least once each year. NDOT shall also conduct routine visual inspections to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.

III.M.2. NDOT shall complete an inspection report for all Maintenance Facility inspections. At a minimum the report shall include:

III.M.2.a The inspection date;

III.M.2.b The name(s), title(s) and qualifications of the person(s) making the inspection. The list of qualified personnel shall either be on or attached to the report or alternatively, if the SWPPP documents the qualifications of the inspectors by name, that portion of the SWPPP may be referenced;

III.M.2.c Weather information and a description of any discharges occurring at the time of the inspection;

III.M.2.d The location(s) of discharges of sediment or other pollutants from the site, if any;

III.M.2.e The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location;

III.M.2.f The location(s) where additional BMPs are needed that did not exist at the time of inspection;

III.M.2.g The corrective action(s) required, including any changes to the SWPPP and implementation dates;

III.M.2.h The identification of all sources of non-stormwater discharges, if any, and the associated BMPs;

III.M.2.i Where applicable, the identification of material storage areas, and evidence of or potential for pollutant discharges from these areas;

III.M.3. Inspection reports shall identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the activities are in compliance with the SWPPP and this permit; and

III.M.4. The report shall be signed and certified in accordance with Part V.G of this permit and copies included in the SWPPP and the Annual Report.

III.N. Scope of Inspections

III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;

III.N.2. Inspections of the maintenance yard shall include all the following areas/activities:

III.N.2.a Storage areas for vehicles and equipment awaiting maintenance;

III.N.2.b Fueling areas (including mobile fueling);

III.N.2.c Indoor and outdoor vehicle/equipment maintenance areas;

III.N.2.d Material storage areas;

III.N.2.e Material source stockpile(s) to determine if piles are protected from run-on, run-off, if materials are contributing to off-site discharges;

III.N.2.f Vehicle/equipment cleaning areas and loading/unloading areas; and

III.N.2.g Onsite waste storage or disposal;

III.N.3. NDOT shall inspect and document all BMPs identified in the SWPPP along with areas inspected and the conditions found;

III.N.4. NDOT shall inspect discharge locations to determine whether BMPs are effective in preventing significant impacts to Waters of the U.S., where accessible;

III.N.5. Where discharge locations are inaccessible, NDOT shall inspect nearby downstream locations to the extent that the inspections are practicable; and

III.N.6. NDOT shall inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.

III.N.7. Based on the results of the inspection, NDOT shall modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. NDOT shall complete revisions to the SWPPP and modify or add BMPs as necessary within thirty (30) calendar days following the inspection. NDOT shall implement tracking and follow-up procedures to ensure that

Maintenance Facility BMP Manual	
BMP ID: MAINT-08	**Ref: SWMP Section 3.9**
appropriate action is taken in response to issues noted during inspections. III.N.8. If sediment or other materials escape the site, NDOT shall remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. The removal shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. NDOT shall use all reasonable efforts to obtain access, and in such instances, removal and stabilization shall take place within seven (7) days of obtaining access.	

Maintenance Facility Updates

BMP ID: MAINT-09	Ref: SWMP Section 3.9

Rationale/Practice Description:

The Maintenance Yards Management Section of the Permit (Section III.S) requires the development and implementation of Stormwater Pollution Prevention Plans (SWPPPs) for all of NDOT's maintenance yards, storage areas, batch plants and facilities. NDOT has chosen to identify these plans as Facility Pollution Prevention Plans (FPPPs) for consistency and differentiation from transitory construction sites. Note that the content of the Department's FPPPs are consistent with that described in the Permit for a SWPPP and a "Runoff Control Plan" (III.S.3.a).

The following ten Maintenance facilities have been designated as Major facilities (based on the criteria that the facility conducts major equipment repairs and houses multiple crews), and therefore will receive individual site specific FPPPs: Las Vegas North, Tonopah, Las Vegas South, Carson City, Reno/Sparks, Fallon, Elko, Ely, Winnemucca, and Wells. Remaining Maintenance stations and appropriate off-site storage areas will fall under their respective umbrella FPPPs, with site-specific considerations incorporated as necessary.

The Maintenance facility BMP (MAINT-06) addresses the development of FPPPs for designated Major and Minor Maintenance facilities. This BMP, however, describes the process for developing FPPPs for new Maintenance facilities, or altering existing FPPPs should an existing facility be discontinued or change designations, i.e. Minor to Major.

On an annual basis, Environmental Services Division will submit a request to the Asset Management and Maintenance Division requesting an updated list of Maintenance facilities throughout the three Districts. A newly constructed facility, e.g. a new Maintenance station, will be assessed and assigned an appropriate designation, i.e. Major or Minor. Depending on the designation, the facility will then be added to one of the existing FPPPs for Minor facilities (as appropriate), or issued a site specific Major facility FPPP. Both shall occur within six months of Environmental Services being notified that the new facility is fully operational.

In the event that a designated Minor facility undergoes a change in operation and subsequently falls under the criteria of a Major facility, the appropriate Minor FPPP will be adjusted and a new site specific Major facility FPPP will be developed within six months of Environmental Services being notified of the operational change.

In the event that a designated Minor facility is discontinued from service, the appropriate FPPP will be updated within six months of Environmental Services being notified of the change. In the event that a Major facility is discontinued and no longer in service, or undergoes an operational change and subsequently falls under the criteria of a Minor facility, the Major FPPP will be annulled and the appropriate Minor FPPP will be updated (as necessary) within six months of Environmental Services being notified of the operational change.

BMP Objectives:

1) Prevent, or minimize to the MEP, stormwater pollutant discharges from the Department's Maintenance facilities.
2) Introduce a process that addresses changes to Maintenance facility FPPP designations and subsequent FPPP development or modification.

BMP Tasks/Measurable Goals:

1) Request an updated list of Maintenance facilities from the Asset Management and Maintenance Division, including information pertaining to facility operational changes, on an annual basis.
2) Apply the appropriate modifications to FPPP designations.
3) Modify, create, or annul Minor and Major FPPPs as appropriate.

Maintenance Facility Updates

BMP ID: MAINT-09	Ref: SWMP Section 3.9

Responsibility:

Environmental Services, Maintenance and Asset Management, and Equipment Divisions

Data Collection Requirements:

Information pertaining to the status of Maintenance facilities; site-specific information required for the development of new FPPPs as necessary (see MAINT-06).

Reporting Requirements:

A summary of Maintenance facility updates and FPPP modifications will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Request an updated list of Maintenance facilities from the Asset Management and Maintenance Division, including information pertaining to facility operational changes, on an annual basis.		X	X	X	X
Apply the appropriate modifications to FPPP designations.		X	X	X	X
Modify, create, or annul Minor and Major FPPPs as appropriate.		X	X	X	X

Permit Requirements:

III. Stormwater Discharges from NDOT Maintenance Facilities

III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide.

III.L.1.a NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;

III.L.1.b NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to Waters of the U.S. or to the storm sewer system;

III.L.1.c NDOT shall properly select, install, and maintain BMPs in accordance with any relevant manufacturer specifications and good engineering practices; and

IIIIL.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas; and salt and sand storage locations and snow disposal areas.

III.L.2 NDOT shall implement the following BMPs at its maintenance facilities:

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:

III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;

III.L.2.c.ii Use drip pans under vehicles and equipment;

III.L.2.c.iiiStore vehicles and equipment indoors whenever practicable

III.L.2.c.ivInstall berms or dikes around the areas;

III.L.2.c.v Use absorbents to clean spilled materials;

III.L.2.c.viRoof or cover storage areas whenever practicable; and

III.L.2.c.viiClean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

Maintenance Facility Updates

BMP ID: MAINT-09	Ref: SWMP Section 3.9

III.L.2.d.ii Use drip pans under vehicles and equipment;
III.L.2.d.iiiKeep an organized inventory of materials used in the shop;
III.L.2.d.ivDrain all parts of fluid prior to disposal
III.L.2.d.vUse dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and
III.L.2.d.viTreat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.
III.L.2.e. NDOT shall describe and implement BMPs that prevent or minimize contamination or stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:
III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g. for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g. “Used Oil,” “Spent Solvents,” etc.):
III.L.2.e.iiMove storage indoors whenever practical
III.L.2.e.iiiInstall berms/dikes around the areas;
III.L.2.e.ivMinimize run-on of stormwater to the areas;
III.2.e.v Use dry cleanup methods; and
III.L.2.e.viTreat, recycle, or properly dispose of collected stormwater runoff. ***Note:*** *The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.*
III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:
III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities to prevent spills;
III.L.2.f.ii NDOT shall implement practices and procedures for handling spills or toxic materials by NDOT staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system of receiving waters;
III.L.2.f.iiiNDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;
III.L.2.f.ivNDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and
III.L.2.f.v.NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration offsite;

III.S. NDOT Maintenance Yards Management Program

III.S.1. NDOT shall prepare SWPPPs for all its Maintenance Facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP;
III.S.2. Generic SWPPP elements can be used for activities that are performed at more than one Maintenance Facility; however, each site must be evaluated separately and provided with appropriate site specific BMPs.
III.S.3. NDEP staff has the authority to require the submittal of a SWPPP at any time, to require changes to a SWPPP, and to require the implementation of the provisions of a SWPPP. SWPPPs shall include the following elements:
III.S.3.a NDOT shall develop and implement runoff control plans for the following NDOT-owned and/or operated facilities that do not have independent NPDES Stormwater permits:
III.S.3.a.iVehicle Maintenance Facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling and lubrication);
III.S.3.a.ii Asphalt and concrete batch plants which are not already individually permitted;
III.S.3.a.iii Solid-waste transfer stations;
III.S.3.a.iv Exposed stockpiles of materials, including stockpiles of road deicing salt, salt and sand, sand, roto-mill material; and

Maintenance Facility Updates	
BMP ID: MAINT-09	**Ref: SWMP Section 3.9**

III.S.3.a.v Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles.

III.S.3.b NDOT shall provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of the revised SWMP. This list shall indicate which sites are considered "major" and which are considered "minor", and set out the reasons for the designations.

III.S.3.c Runoff control plans for "major" facilities shall contain the following:

III.S.3.c.i Activity description;

III.S.3.c.ii Facility site map; and

III.S.3.c.iii A description of potential pollutant sources, including an evaluation of that potential.

III.S.3.d Stormwater Management Controls

III.S.3.d.i The description of stormwater management controls shall address the following minimum components, including a schedule for implementing such controls:

III.S.3.d.i.1 Runoff control plan administrator;

III.S.3.d.i.2 Preventive maintenance;

III.S.3.d.i.3 Good housekeeping;

III.S.3.d.i.4 Spill prevention and response procedures;

III.S.3.d.i.5 BMPs for pollutant sources;

III.S.3.d.i.6 Evaluation for non-stormwater discharges;

III.S.3.d.i.7 Employee training;

III.S.3.d.i.8 Inspection procedures; and

III.S.3.d.i.9 A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.

III.S.3.d.ii "Minor" facilities shall be grouped together by type, and one runoff control plan shall be developed for each group. Grouped runoff control plans shall contain:

III.S.3.d.iii A map showing the location of each facility in the group on a map of the city or state;

III.S.3.d.iv For each facility in the group include the address, type of operation, size of the facility, and receiving water drainage basin;

III.S.3.d.v A description of potential pollutant sources, including an evaluation of that potential;

III.S.3.d.vi A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:

III.S.3.d.vi.1 Preventive maintenance measures;

III.S.3.d.vi.2 Good housekeeping;

III.S.3.d.vi.3 Spill prevention and response procedures;

III.S.3.d.vi.4 BMPs;

III.S.3.d.vi.5 Evaluation for non-stormwater discharges; and

III.S.3.d.vi.6 Inspection Procedures

III.S.3.e Copies of the "major" facility runoff control plans shall be kept on the facility site and on file with NDOT's main office. They shall be submitted to NDEP upon request.

III.S.3.f Copies of the "minor" facility group runoff control plans shall be kept on file with the Regional District Office. They shall be submitted to NDEP upon request;

III.S.3.f Both major and minor facilities shall be inspected by the Permittee at least one (1) time each year, after the SWPPP has been completed;

III.S.3.h NDOT shall implement the provisions of the runoff control plans required under this part as a condition of this MS4 permit. NDEP reserves the right to review those plans, and to require additional measures to prevent and control pollution as needed;

III.S.3.i SWPPPs may be amended at any time and any amendments shall be described in the Annual Report; and

III.S.3.j The SWPPPs shall be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this permit, another 40 percent within twenty-four (24) months of the effective date of this permit, and the remaining 50 percent within thirty-six (36) months of the effective date of this permit. A list of these facilities shall be submitted to NDEP at these times.

Stormwater Certification Training - Internal

BMP ID: TRAIN-01	Ref: SWMP Section 3.2

Rationale/Practice Description:

In October 2011, NDOT began the implementation of its Stormwater Certification Training Program with the assistance of NDEP staff. The procedures and content of the program are summarized below.

1) Topics Covered in NDOT's Stormwater Certification Training

While NDOT expects the Training Program to evolve over time, its initial Stormwater Certification Training Program covers the following topics:

- Procedures for illicit discharge detection, investigation, and field screening procedures
- Response to illicit discharges or illicit connections, improper disposal and dumping
- Procedures for outfall screening and investigation
- Authorized and non-authorized discharges as defined by the Permit
- Common pollutants of concern that may be associated with non-stormwater discharges
- BMPs employed to minimize the discharge of pollutants
- Requirements of the Permit
- NDEP's General Permit NVR100000 for Construction Activities for structural and nonstructural BMPs on construction sites
- Stormwater Pollution Prevention Plans ("SWPPPs")
- Compliance, enforcement, and contractual processes to minimize stormwater discharges
- Post-construction stormwater BMPs to prevent or minimize water quality impacts
- Design standards, maintenance requirements, and planning as related to stormwater
- Potential sources of contaminants related to repair and maintenance activities
- Proper maintenance, housekeeping, and repair of BMPs to prevent discharges to the storm sewer system and Waters of the U.S.
- Spill prevention and response procedures
- Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system
- NDOT's pesticide, herbicide, and fertilizer application program
- As applicable, used oil and spent solvent management, fueling procedures, general good housekeeping practices, and used battery management

2) Training Sessions

Training is conducted at the District level by Certified Stormwater Trainers. District supervisors are required to identify employees that require training.

a. Certified Stormwater Trainers

To become a NDOT Certified Stormwater Trainer, each applicant must be recommended by their District Manager. After being selected into the Trainer Certification Program, each applicant must attend an eight hour stormwater BMP course and score an 80% or higher on a 50 question exam. In addition to successfully completing the stormwater BMPs course, each prospective trainer will

Stormwater Certification Training - Internal

BMP ID: TRAIN-01 | **Ref: SWMP Section 3.2**

have the opportunity to participate in additional "Train the Trainer" courses provided by the NDOT Training Division to refine and improve upon their skills as an instructor.

b. Certified Stormwater Inspectors

NDOT is required to train personnel (within 12 months of hire) who are directly involved with activities that may impact stormwater quality, observe an illicit discharge, or that may generate or manage non-stormwater discharges. The required employees involved in the following activities are to be trained:

- Staff who are involved in activities that may impact stormwater quality
- Staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system
- Personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges
- Staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system
- Staff directly involved in managing non-stormwater discharges
- Staff directly involved in performing construction site inspections
- Staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review
- Staff directly involved in storm sewer system maintenance, street repair, and road improvement
- Staff who may be involved in waste disposal, spill prevention and response
- Staff working at industrial sites (excluding material source sites)

Similar to the Trainer Certification Program, all new employees (within 12 months of hire), existing staff when job responsibilities change, and all employees that are involved with or may observe NDOT Stormwater practices must attend the 8 hour stormwater BMPs seminar and score a 80% or higher on a 50 question exam at the end. In addition, all employees are also required to attend and successfully complete a refresher of this course at least once every three (3) years.

3) Certification Training Records

Upon the completion of the class, the Certified Trainers distribute the "sign-in-sheets", containing the information required for data entry, and the exams for verification of successful completion, to NDOT Environmental Services Division. When all information is received and reviewed by Environmental Services, the data is entered into a database of Stormwater Certified Employees and certification cards are prepared and returned to the Certified Trainer. The Certified Trainer signs and distributes the certification cards to the appropriate employees.

The database of Stormwater Certified Inspectors contains the following information:

- First and Last Name
- Certification Number – assigned upon successful completion of the course
- Crew Number – assigned work station of certified employee
- District – district in which that work station is located
- Certification Date – date of successful completion
- Expiration Date – date the employee must complete the refresher (3 years)

NDOT's database is kept and maintained in the NDOT Environmental Services Division.

Stormwater Certification Training - Internal

BMP ID: TRAIN-01 | **Ref: SWMP Section 3.2**

Environmental Services will assist the Districts with coordinating refresher trainings when needed.

4) Updating Course Content/Training Materials

Updates to the training material will be developed and implemented by NDOT Environmental Services. The training material will be reviewed annually to verify compliance with NDOT's MS4 Permit, Construction Stormwater General Permit, NDOT Specifications and Water Quality Manuals, input from NDEP, and feed-back from the training sessions.

BMP Objectives:

1) Educate all NDOT personnel who are directly involved in activities that may impact stormwater quality, observe an illicit discharge, or may generate or manage non-stormwater discharges.

BMP Tasks/Measurable Goals:

1) Continue implementing the Department's Stormwater Certification Training Program.
2) Develop Department discipline-specific stormwater training modules.
   a. Construction
   b. Maintenance
   c. Design
3) Develop a Stormwater Certification Training 3-year refresher course.
4) Ensure stormwater education material is current and relevant.

Responsibility:

Environmental Services, Construction, Asset Management and Maintenance, and Training Divisions

Data Collection Requirements:

Data collection includes the items required for the Stormwater Certified Employee Database outlined above (certification number, name, crew number, NDOT District, certification and expiration dates). It is anticipated that data collection criteria will be modified as the Stormwater Certification Training program further develops.

Reporting Requirements:

A summary of the Stormwater Certification program will be included in the Annual Report to NDEP.

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue implementing the Department's Stormwater Certification Training Program.	X	X	X	X	X
Develop a Construction-specific stormwater training module.		X	X		
Develop a Maintenance-specific stormwater training module.		X	X		
Develop a Design-specific stormwater training module.		X	X		
Develop a Stormwater Certification Training 3-year refresher course.		X			
Ensure stormwater education material is current and relevant.	X	X	X	X	X

Permit Requirements:

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

Stormwater Certification Training - Internal

BMP ID: TRAIN-01	Ref: SWMP Section 3.2

III.F.2. NDOT shall implement an Employee Stormwater Training Program and shall outline the program in the SWMP. The program shall provide for NDOT's employees identified in this permit to receive initial training within twelve (12) months of the effective date of this permit and refresher training at least once every three (3) years thereafter. NDOT shall also provide training to new staff within the first year of hire, and to existing staff when job responsibilities change to newly incorporate stormwater duties.

III.F.3. NDOT shall keep records of all employees who receive stormwater training.

III.F.4. NDOT shall provide stormwater awareness training to educate personnel at all levels of responsibility who are involved in activities that may impact stormwater quality and those staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system.

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges and connections, and improper disposal/dumping; and

III.F.5.a.ii The procedures for outfall screening and investigation;

III.F.5.b NDOT shall train all staff directly involved in managing non-stormwater discharges. The training shall include:

III.F.5.b.i The types of discharges allowed under this permit and those that are prohibited;

III.F.5.b.ii The distinction between non-stormwater discharges and potential pollutant sources;

III.F.5.b.iii The pollutants of concern that may be in non-stormwater discharges; and

III.F.5.b.iv The BMPs that shall be employed to minimize the discharge of pollutants;

III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");

III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and

III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;

III.F.5.e NDOT shall train all staff directly involved in storm sewer system maintenance, street repair, and road improvement. Training shall include:

III.F.5.e.i Potential sources of contaminants related to repair and maintenance activities; and

III.F.5.e.ii Proper maintenance, housekeeping, and repair BMPs to prevent discharges to the storm sewer system and Waters of the U.S.

III.F.5.f NDOT shall train all staff who may be involved in waste disposal, spill prevention and response. Training shall include:

III.F.5.f.i Procedures to prevent, contain, and respond to spills; and

III.F.5.f.ii Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system.

III.F.5.g NDOT shall train all staff directly involved in the application of pesticides, herbicides, and fertilizers. Training shall include:

III.F.5.g.i The potential for stormwater contamination resulting from misapplication or over-application of chemicals; and

III.F.5.g.ii Proper application procedures and BMPs;

III.F.5.h NDOT shall train all staff working at industrial sites (excluding material source sites). Training shall include:

III.F.5.h.i The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site

Stormwater Certification Training - Internal	
BMP ID: TRAIN-01	**Ref: SWMP Section 3.2**

activities; and

III.F.5.h.ii As applicable, used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

III.S. NDOT Maintenance Yards Management Program

III.S.3.d Stormwater Management Controls

III.S.3.d.i The description of stormwater management controls shall address the following minimum components, including a schedule for implementing such controls:

III.S.3.d.i.7 Employee training

Contractor Stormwater Education and Training - External

BMP ID: TRAIN-02	Ref: SWMP Section 3.2

Rationale/Practice Description:

NDOT partners with licensed contractors for the construction of portions of the highway systems in Nevada. Both the Department and its contractors share in the responsibilities of ensuring that highway projects are in compliance with state and federal water pollution control requirements, notably the Nevada Construction Site Stormwater General Permit. Contractor stormwater education and training is an important element in protecting state waterways from construction site stormwater pollutant discharge.

Many contractors are presented with opportunities to attend various third party stormwater training programs, including the Contractor Construction Site BMPs Training Sessions held by the Associated General Contractors (AGC) in both Northern and Southern Nevada. Sessions are eight hours in length. Each participant is given a copy of the Nevada Construction Site General Permit and the Nevada Contractors Field Guide for Construction Site BMPs. Pending the exam at the end of the session, attendees are issued a certificate and if desired, professional development hours (PDHs). Curricula include: the requirements of the Construction Site General Permit, SWPPPs, working in or near waterways, non-stormwater discharges, BMP selection and implementation, and site inspections. Additional construction site BMP training programs are hosted by Truckee Meadows Stormwater Permit Coordinating Committee and the Las Vegas Stormwater Management Program.

NDOT relies on the strength of its partnering program, from the beginning of a contract to the end, to help educate contractors in the importance of managing construction site stormwater runoff. Prior to the onset of construction, the Department's Environmental Services Division will provide a general overview of the project from a stormwater pollution control aspect, providing insight into both NDOT and contractor responsibilities. Although NDOT has stormwater inspection oversight during construction, inspections are conducted by both the contractor and NDOT on a regular basis in an effort to maintain stormwater regulatory compliance through open communication.

To assist contractors with the implementation of appropriate temporary pollution control measures on NDOT projects, contractors are required to utilize NDOT's Construction Site Best Management Practices (BMPs) Handbook. This document not only provides helpful recommendations for selecting appropriate construction site BMPs, but also serves as an educational tool by providing a general overview of stormwater regulations and construction site stormwater management.

Per contract specifications, NDOT requires its contractors to designate a Water Pollution Control Manager (WPCM) to assist with overseeing construction site stormwater pollution control measures. The WPCM is required to have a minimum of 8 hours of stormwater related training within the last three years that includes stormwater permitting requirements, implementation and inspection of temporary pollution control BMPs, recognition of construction activities that may impact stormwater quality, and identification of illicit discharges or illicit connections to the storm sewer system. Training certificates are to be submitted to the Resident Engineer prior to the start of construction activities.

To compliment the contractor training requirements in the special provisions, NDOT will begin efforts to develop a stormwater training/outreach program specifically for NDOT's contractors.

BMP Objectives:

1) Ensure that NDOT's contractors are adequately trained in construction site stormwater pollution control measures to prevent, or minimize to the MEP, construction related impacts to receiving waterways from NDOT's construction projects.

BMP Tasks/Measurable Goals:

1) Continue with contractor partnering efforts with regards to construction site stormwater

Contractor Stormwater Education and Training - External

BMP ID: TRAIN-02 | **Ref: SWMP Section 3.2**

management.

2) Continue support of third party contractor stormwater education and training sessions as a means of meeting the Department's contractor stormwater education requirements.
3) Begin developing a stormwater training/outreach program for NDOT's contractors.

Responsibility:

Environmental Services Division

Data Collection Requirements:

None at this time.

Reporting Requirements:

A program summary will be included in the Annual Report to NDEP

Implementation Schedule:

Measurable Goal	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Continue with contractor partnering efforts with regards to construction site stormwater management.	X	X	X	X	X
Continue support of third part contractor stormwater education and training sessions as a means of meeting the Department's contractor stormwater education requirements.	X	X	X	X	X
Begin developing a stormwater training/outreach program for NDOT's contractors.		X	X		

Permit Requirements:

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.b NDOT's Stormwater Education Program

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");

III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and

III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;

III.F.5.i NDOT shall provide information in the revised SWMP that discusses how NDOT will ensure that NDOT construction contractors have been adequately trained in BMP installation and maintenance, the ability to recognize activities that may impact stormwater quality, and the procedures in place to prevent or report an illicit discharge or illicit connection to the MS4.

III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to

Contractor Stormwater Education and Training - External	
BMP ID: TRAIN-02	**Ref: SWMP Section 3.2**

the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:

III.F.5.j.i The methods for disseminating information;

III.F.5.j.ii The target audiences and how they were selected; and

III.F.5.j.iii The target pollutants and sources and how they were selected.

III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.F.5.m NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;

III.F.5.n NDOT shall record and report the number of reports received from the public and investigated in the Annual Report;

III.F.5.o NDOT shall continue to implement the Adopt-A-Highway program;

III.F.5.p NDOT shall report the number of volunteer groups participating in the Adopt-A-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report; and

III.F.5.q NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:

III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and

III.F.5.q.ii NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

IV.C. Annual Reports

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.k A summary of public education and outreach activity performed during the report cycle.

NDOT Herbicide Applicator Training

BMP ID: TRAIN-03	Ref: SWMP Section 3.11

Rationale/Practice Description:

When mechanical methods are not feasible, NDOT staff or approved service providers apply herbicides for the control of weeds and nuisance vegetation. NDOT has authorization to apply herbicides under the Nevada General Pesticide Permit (NVG870001) and maintains all required records, practices and procedures for compliance with this statewide general permit. Established procedures and guidelines for the roadside application of herbicides can be found in the NDOT Maintenance Management System (MMS) Instructional Manual.

State and federal laws require that only certified applicators apply or supervise the application of Restricted-Use Pesticides (RUP; herbicides are considered a sub-set of pesticides). The Nevada Department of Agriculture provides certification training for pesticide applicators. NDOT personnel and contractors that apply herbicides to vegetation in the right-of-ways throughout the state are required to complete Nevada certified applicator training.

NDOT will continue to ensure that employees are properly trained and certified (as required) and service providers are properly certified. To become certified, candidates must complete an 8-hour course and pass a written exam administered by the Department of Agriculture. Training sessions are offered regularly in Reno and Las Vegas and by video conference in Fallon, Winnemucca, Battle Mountain, Lovelock, Eureka and Tonopah. Recertification is required every two years.

NDOT's herbicide application program is administered by the Maintenance and Asset Management Division with the individual Districts charged with keeping records. On an annual basis, records pertaining to roadside herbicide application will be requested by the Environmental Services Division for inclusion in the Annual Report to NDEP.

NDOT uses Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers only in a manner consistent with product labels.

Proper training is an important step in ensuring that herbicides are applied in a safe and effective manner so as to minimize the likelihood of off-site migration into waterways.

BMP Objectives:

1) Reduce the potential for herbicides to enter the waterways adjacent to NDOT right-of-ways through proper application and training.

BMP Tasks/Measurable Goals:

1) Ensure that Department staff is properly trained and certified (as required) for herbicide application.
2) Continue to track and monitor the certification status of Department applicators internally.
3) Ensure that the Department's service providers are properly certified.

Responsibility:

Maintenance and Asset Management and Environmental Services Divisions

Data Collection Requirements:

Maintenance and Asset Management Division will maintain a record of staff that are certified applicators and when recertification is required.

Reporting Requirements:

A narrative summary of the Herbicide, Pesticide and Fertilizer Application Program will be included in the Annual Report.

Implementation Schedule:

Task	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Ensure NDOT staff and service providers are	X	X	X	X	X

NDOT Herbicide Applicator Training						
BMP ID: TRAIN-03				**Ref: SWMP Section 3.11**		
properly certified for herbicide applications.						
Continue to track and monitor the certification status of Department applicators.	X	X	X	X	X	

Permit Requirements:

Part III. Stormwater Management Program

III.R. Herbicide, Pesticide and Fertilizer Program

III.R.1. NDOT shall develop a program to reduce the discharge of pollutants related to the application of herbicides, pesticides and fertilizers to the MEP. This program shall include:

III.R.1.a Implement Pesticide and Fertilizer Application Procedures

III.R.1.a.i NDOT shall continue to implement practices and procedures for NDOT staff and commercial applicators to only use Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers at NDOT facilities and roadside right-of-ways. NDOT shall design these practices to avoid chemical application when feasible and to minimize the amount of chemicals applied;

III.R.1.a.ii As part of the revised SWMP, NDOT shall develop BMPs to address the timing of applications in relation to expected precipitation events, proximity to water bodies, and other practices to minimize the runoff of pollutants. Applications of herbicides shall be performed during dry-weather periods to the extent possible, using methods to limit overspray;

III.R.1.a.iii If NDOT must apply pesticides in any area that is within, or directly adjacent to a Waters of the U.S., only pesticides approved for aquatic use shall be used;

III.R.1.a.iv NDOT shall review application practices annually and update procedures as needed to minimize runoff of pollutants;

III.R.1.a.v NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways; and

III.R.1.a.vi A narrative summary of the program will be included in the Annual Report.

III.R.1.b Vegetation Control

III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:

III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non stormwater runoff;

III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;

III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and

III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.

Section 7 Index of Permit Requirements

Presented in this section is NDOT's 2010 NPDES Stormwater MS4 Permit (NV0023329) in table form (Table 7.1-1). The table has two columns. The left most column contains the permit language and section number and right most column has a listing or cross reference as to how the Department is addressing the permit requirement under this revised Stormwater Management Program and document. Since NDOT's stormwater program is dynamic, as the program changes and BMPs are fully implemented, this table is subject to change.

Table 7.1-1 Permit Language and NDOT's Stormwater Program Components

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
Part I. Permit Coverage and Authorized Discharges under this Permit	Section 2.1
I.A. Permit Area	Section 2.1
I.A.1. This permit covers state and interstate highways and their right-of-ways within the jurisdictional boundary of the Nevada Department of Transportation ("NDOT" or "Permittee") served by, or otherwise contributing to discharges into receiving Waters of the United States from municipal separate storm sewer systems ("MS4s") owned or operated by NDOT.	Section 2.1.2
I.B. Authorized Discharges	Section 2.1.4
I.B.1. This permit authorizes new or existing discharges composed entirely of stormwater (and allowable non-stormwater discharges) into NDOT's MS4 (excluding Indian Lands), as defined in 40 Code of Federal Regulations ("CFR") §122.26. NDOT is authorized to discharge in accordance with its approved Stormwater Management Program ("SWMP"), and other terms and conditions of this permit.	Section 2.1.4
I.B.2. The following are authorized discharges:	Section 2.1.4
I.B.2.a Stormwater discharges. This permit authorizes stormwater discharges to Waters of the United States from NDOT's MS4 identified in Part I.B.2.b, except discharges excluded in Part I.C.	Section 2.1.4
I.B.2.b Non-stormwater discharges. NDOT is authorized to discharge the following non-stormwater sources provided that the Nevada Division of Environmental Protection ("NDEP") has not determined these sources to be substantial contributors of pollutants to NDOT's MS4:	Section 2.1.4
I.B.2.b.i Potable water line flushing during testing or fire hydrant testing;	Section 2.1.4
I.B.2.b.ii Diverted stream flows not requiring a separate permit;	Section 2.1.4
I.B.2.b.iii Springs or rising ground waters;	Section 2.1.4

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
I.B.2.b.iv Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a storm sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.);	Section 2.1.4
I.B.2.b.v Discharges from potable water sources not requiring a separate permit;	Section 2.1.4
I.B.2.b.vi Residential foundation and/or footing drains;	Section 2.1.4
I.B.2.b.vii Air conditioning condensate;	Section 2.1.4
I.B.2.b.viii Irrigation water from lawns and landscaping;	Section 2.1.4
I.B.2.b.ix Water from residential crawl space pumps;	Section 2.1.4
I.B.2.b.x Flows from natural riparian habitats and wetlands not requiring a separate permit;	Section 2.1.4
I.B.2.b.xi De-chlorinated swimming pool discharges;	Section 2.1.4
I.B.2.b.xii Individual residential car washing;	Section 2.1.4
I.B.2.b.xiii Water incidental to street sweeping (including associated sidewalks and medians) and that is not associated with construction activities;	Section 2.1.4
I.B.2.b.xiv Discharges or flows from firefighting activities; and	Section 2.1.4
I.B.2.b.xv Dewatering activities not requiring a separate permit.	Section 2.1.4
I.C. Non-Authorized Discharges	Section 2.1.4
I.C.1. This permit does not authorize the following:	Section 2.1.4
I.C.1.a Discharges of non-stormwater, whether or not mixed with stormwater, unless such non-stormwater discharges are:	Section 2.1.4
I.C.1.a.i Currently covered under a separate National Pollution Discharge Elimination System (“NPDES”) permit, or	Section 2.1.4
I.C.1.a.ii Included in Part I.B. 2 of this permit, or	Section 2.1.4
I.C.1.a.iii Determined not to be a substantial contributor of pollutants to Waters of the U.S. by NDEP.	Section 2.1.4
I.C.1.b Stormwater discharges currently covered under a separate NPDES permit.	Section 2.1.4
I.C.1.c Discharges that do not comply with the Nevada’s anti-degradation policy for water quality standards.	Section 2.1.4
I.C.2. Stormwater discharges associated with industrial activity as defined in 40 CFR§122.26(b)(14)(i)-(ix) and (xi) are identified and permitted through a separate NPDES General Industrial Activity permit. These discharges are authorized under NDEP’s General Permit NVR050000.	Section 2.1.4 Section 3.8 DEPT-12
I.C.3. Stormwater discharges associated with construction activity as defined in 40 CFR§122.26(b)(14)(x) or 40 CFR§122.26(b)(15) are identified and permitted through a separate NPDES General Construction Activity permit. These discharges are authorized under NDEP’s General Permit NVR100000.	Section 2.1.4 Section 3.5 DEPT-01 through 04
I.C.4. If it is determined that NDOT’s discharges cause or contribute to an in-stream exceedance of water quality standards, NDEP may require corrective action or an application for a separate individual permit or	Section 2.1.4 Section 3.4 DEPT-07 and 08

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
alternative.	
I.C.5. NDOT shall comply with all applicable Federal, State, or local laws, regulations, or ordinances.	Section 2.1
Part II. Discharges to Water Quality Impaired Waters	Section 3.4
II.A. Impaired Waters Listing on 303(d) List	Section 3.4
II.A.1. NDOT must evaluate whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e. impaired waterbody). Information concerning the most current 303(d) list can be found on NDEP's website. If NDOT has discharges meeting this criterion, or if there is a Total Maximum Daily Load ("TMDL") on receiving waters, NDOT must comply with Part II.B. Part II does not apply if NDOT does not have discharges meeting this criterion.	Section 3.4 DEPT-07 through 09
II.B. Total Maximum Daily Load	Section 3.4
II.B.1. NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must comply with Part II.B.2. If there is no TMDL, NDOT must comply with Part II.B.3.	Section 3.4 DEPT-08 and 09
II.B.2. If a TMDL is approved for any waterbody into which NDOT discharges, NDOT shall:	Section 3.4 DEPT-08 and 09
II.B.2.a Determine and report whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from NDOT's MS4;	Section 3.4 DEPT-08 and 09
II.B.2.b Determine and report whether the TMDL includes a pollutant wasteload allocation ("WLA") or other performance requirements specifically for stormwater discharge from NDOT's MS4;	Section 3.4 DEPT-08 and 09
II.B.2.c Determine and report whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge;	Section 3.4 DEPT-08 and 09
II.B.2.d Assess whether the WLAs are being met through implementation of existing stormwater control measures or if additional control measures are necessary;	Section 3.4 DEPT-08 and 09
II.B.2.e Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report. A schedule of implementation for all planned controls shall be included in the revised SWMP as described in Part III of this permit.	Section 3.4 DEPT-08 and 09
II.B.2.f Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report;	Section 3.4 DEPT-08 and 09
II.B.2.g The monitoring program required by Section IV.A of this permit shall be customized to determine whether the stormwater controls are adequate to meet the WLA to the Maximum Extent Practicable ("MEP"); and,	Section 3.4
II.B.2.h If no WLA currently exists, but is developed during the term of this permit, then NDOT's BMPs outlined in the approved, updated SWMP are expected to be sufficient for the duration of the existing permit period; and	Section 3.4
II.B.2.i The need for an iterative approach to control pollutants in stormwater discharges is recognized. If NDOT determines that additional or modified controls are necessary, the SWMP will be updated pursuant to Part III.U.2 of this permit and will describe the type and schedule for the control additions and/or revisions, and an analysis that demonstrates the overall effectiveness.	Section 1.4 Section 2.1 Section 4.5
II.B.3. NDOT must determine whether the MS4 discharges to a water on	Section 3.4

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.	DEPT-07
II.C. Discharges to Lake Tahoe and Tributaries to Lake Tahoe	Section 3.4
II.C.1. The Lake Tahoe TMDL, scheduled to be adopted by EPA in 2011, identifies urban stormwater as the primary source of fine sediment particles and phosphorous that impairs the clarity of Lake Tahoe. The TMDL Implementation Plan identifies NDOT as a responsible party that will be required to implement controls to reduce fine sediment particle and nutrient loads consistent with specified TMDL WLAs for stormwater.	Section 3.4 DEPT-09
II.C.2. Within one year of NDEP's approval of the Lake Tahoe TMDL, NDOT shall enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL. The MOA shall establish programmatic activities and responsibilities to which NDOT shall commit for implementation of the TMDL. Anticipated elements for inclusion in the MOA include, but are not limited to: a method for calculating and establishing baseline WLAs for stormwater; pollutant load reduction milestone schedule based on TMDL allocations; a Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones; and participation in the Lake Clarity Crediting Program and Regional Stormwater Monitoring Program.	Section 3.4 DEPT-09
II.C.3. Part II.C of this permit may be reopened for modification by NDEP in order to incorporate WLAs for stormwater or to amend provisions requiring consistency with changes to the Lake Tahoe TMDL or the MOA.	Section 3.4 DEPT-09
Part III. Stormwater Management Program	
III.A. SWMP Revision	Section 2.1
III.A.1. NDOT shall review its existing SWMP to determine whether its current programs need revising to meet the requirements of this permit. NDOT shall implement and enforce its revised SWMP to reduce the discharge of pollutants from NDOT's MS4 to the maximum extent practicable ("MEP") to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act ("CWA").	Section 2.1
III.A.2. NDOT shall review, revise as necessary and submit an updated SWMP to NDEP for its review and approval within eighteen (18) months of the effective date of this permit and shall implement the revised SWMP no later than two (2) years after receiving NDEP's approval;	Section 2.1
III.A.2.a Before the updated SWMP is submitted to NDEP for its review, it shall be made available for public comment at a meeting noticed in accordance with the Nevada open meeting law;	Section 2.1
III.A.2.b The Permittees shall compile any comments received as part of the process in III.A.2, describe the actions taken concerning the public comments and include this information in the revised SWMP;	Section 2.1
III.A.3. Within thirty (30) days after the revised SWMP has been approved by NDEP, NDOT shall make the revised SWMP available to the public on its Web page or at another public location (i.e. NDOT office(s)).	Section 2.1
III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:	Section 2.1
III.A.4.a NDOT's Legal Authority;	Section 3.1
III.A.4.b NDOT's Stormwater Education Program;	Section 3.2
III.A.4.c NDOT's MS4 Maps and Outfalls;	Section 3.3
III.A.4.d Discharges to Water Quality Impaired Waters and Sanitary Sewers;	Section 3.4

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.A.4.e Construction Site Best Management Practices ("BMPs") Program;	Section 3.5
III.A.4.f New Development and Redevelopment Planning Program;	Section 3.6
III.A.4.g NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;	Section 3.7
III.A.4.h Industrial Facility Monitoring and Control;	Section 3.8
III.A.4.i Stormwater Discharges from NDOT Maintenance Facilities;	Section 3.9
III.A.4.j Public Street Maintenance Program; and	Section 3.10
III.A.4.k Herbicide, Pesticide and Fertilizer Application Program.	Section 3.11
III.A.5. NDOT shall fully implement all program elements outlined in the revised SWMP before the expiration date of this permit, unless other dates are specified;	Section 2.1 Section 2.1
III.A.6. NDOT shall provide a list of narrative and/or numerical measurable goals for each program listed in Part III.A.4. At a minimum, the revised SWMP shall include any measurable goals identified in this permit. NDOT may also identify additional measurable goals, as appropriate, priorities, frequencies, amounts, time-frames, or steps toward development of a program;	Section 2.2 Section 6
III.A.7. NDOT shall provide the dates, including the month and year in which NDOT will achieve each measurable goal;	Section 2.2 Section 6
III.A.8. NDOT shall provide the rationale for how and why NDOT selected each of the program elements and any measurable goals associated with the program;	Section 2.2 Section 6
III.A.9. NDOT shall provide the title(s) of the person(s) responsible for implementing and coordinating each program element;	Section 2.2 Section 6
III.A.10. NDOT shall describe any proposed programs, if applicable, that it may implement during the life of this permit to require additional controls on a system wide basis, a watershed basis, a jurisdictional basis, or on individual outfalls;	Section 3
III.A.11. NDOT may partner with other permitted MS4s to develop and implement all or part of NDOT's SWMP.	Section 4.2.1 EDU-03
III.A.12. NDOT's SWMP shall clearly describe which Permittee is responsible for implementing each of the control measures; and	Section 2.2 Section 6
III.A.13. Pending submittal of the SWMP, NDOT shall continue to implement and maintain current BMPs detailed in NDOT's current SWMP.	Section 2.1 Section 2.1
III.B. Legal Authority	Section 3.1
III.B.1. The revised SWMP shall describe NDOT's' legal authority that has been established by statute, regulation, or contract documents which authorizes or enables NDOT to:	Section 3.1 DEPT-04
III.B.1.a Prohibit illicit discharges to the MS4;	Section 3.1 DEPT-04
III.B.1.b Control discharges to NDOT's MS4 from spills, dumping or disposal of materials other than stormwater;	Section 3.1 DEPT-04
III.B.1.c Require compliance with conditions in regulation, ordinances, permits, contracts or orders; and	Section 3.1 DEPT-04
III.B.1.d Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the prohibition of illicit discharges to the MS4s.	Section 3.1 DEPT-04
III.B.2. NDOT shall provide written notice to NDEP of any formal proposal to modify the regulation or ordinances regulating stormwater discharges into the MS4. Before any regulation or ordinance is modified, NDEP shall at least thirty (30) days to review and comment on the proposed modification.	Section 3.1 DEPT-04
III.C. MS4 Maps and Outfalls	Section 3.3
III.C.1. The revised SWMP shall include, at a minimum, maps of NDOT's MS4 for different sections of Nevada, including the location of any major outfall that discharges to Waters of the United States. An outfall is defined	Section 3.3 DEPT-10

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
in Part VI of this permit.	
III.D. Discharges to the Clear Creek Watershed	Section 3.12
III.D.1. NDOT shall include a separate Clear Creek Master Stormwater Management Program ("CCSWMP") in its revised SWMP. The CCSWMP shall be implemented and enforced to reduce the discharge of pollutants to the Clear Creek watershed to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The revised CCSWMP shall include the following information:	Section 3.12
III.D.1.a A detailed description of BMPs that have been, or will be, implemented on NDOT construction projects located in the Clear Creek watershed;	Section 3.12
III.D.1.b A detailed description of sediment controls for all down-slope boundaries (and for those side-slope boundaries deemed appropriate as dictated by individual site conditions) that have been, or will be, used by NDOT on NDOT construction areas located in the Clear Creek watershed;	Section 3.12
III.D.1.c A detailed description of control techniques that have been or will be used by NDOT to the MEP to ensure no illicit discharge of pollutants into Clear Creek;	Section 3.12
III.D.1.d A detailed description of system design and engineering methods NDOT has used, or plans to use, to protect Clear Creek from illicit discharges of pollutants;	Section 3.12
III.D.1.e A schedule of implementation for all future short-term and long-term activities describing program development, implementation and maintenance;	Section 3.12
III.D.1.f An annual monitoring program to ensure the overall quality and health of Clear Creek;	Section 3.12
III.D.1.g An inventory and tracking program for all industrial facilities or maintenance yards that have the potential to discharge pollutants into Clear Creek;	Section 3.12
III.D.1.h NDOT's inspection program on its MS4 or construction sites to ensure that no illicit discharges of pollutants enter Clear Creek; and	Section 3.12
III.D.1.i Other provisions as NDEP determines appropriate for the control of such pollutants.	Section 3.12
III.D.2. NDOT may partner with other MS4s to develop and implement the CCSWMP.	Section 3.12
III.E. Discharges into Sanitary Sewer Systems	Section 3.4
III.E.1. For discharges into facilities treating domestic sewage, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, that are not owned or operated by NDOT, the following shall be provided by NDOT:	Section 3.4 DEPT-11
III.E.1.a Written and signed confirmation from each facility authorizing the discharge of pollutants into the facility's sanitary sewer system; and,	Section 3.4 DEPT-11
III.E.1.b All authorizations obtained by NDOT shall be included with the revised SWMP.	Section 3.4 Appendix C
III.F. Stormwater Education Program	Section 3.2
III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater quality impacts.	Section 3.2 TRAIN-01
III.F.2. NDOT shall implement an Employee Stormwater Training Program and shall outline the program in the SWMP. The program shall provide for NDOT's employees identified in this permit to receive initial training within twelve (12) months of the effective date of this permit and refresher training at least once every three (3) years thereafter. NDOT shall also provide	Section 3.2 TRAIN-01

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
training to new staff within the first year of hire, and to existing staff when job responsibilities change to newly incorporate stormwater duties.	
III.F.3. NDOT shall keep records of all employees who receive stormwater training.	Section 3.2 TRAIN-01
III.F.4. NDOT shall provide stormwater awareness training to educate personnel at all levels of responsibility who are involved in activities that may impact stormwater quality and those staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system.	Section 3.2 TRAIN-01
III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:	Section 3.2 TRAIN-01
III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:	Section 3.2 TRAIN-01
III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges and connections, and improper disposal/dumping; and	Section 3.2 TRAIN-01
III.F.5.a.ii The procedures for outfall screening and investigation;	Section 3.2 TRAIN-01
III.F.5.b NDOT shall train all staff directly involved in managing non-stormwater discharges. The training shall include:	Section 3.2 TRAIN-01
III.F.5.b.i The types of discharges allowed under this permit and those that are prohibited;	
III.F.5.b.ii The distinction between non-stormwater discharges and potential pollutant sources;	
III.F.5.b.iii The pollutants of concern that may be in non-stormwater discharges; and	
III.F.5.b.iv The BMPs that shall be employed to minimize the discharge of pollutants;	
III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:	Section 3.2 TRAIN-01
III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");	
III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and	
III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.	
III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:	Section 3.2 TRAIN-01
III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and	Section 3.2 TRAIN-01
III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;	Section 3.2 TRAIN-01
III.F.5.e NDOT shall train all staff directly involved in storm sewer system maintenance, street repair, and road improvement. Training shall include:	Section 3.2 TRAIN-01
III.F.5.e.i Potential sources of contaminants related to repair	Section 3.2

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
and maintenance activities; and	TRAIN-01
III.F.5.e.ii Proper maintenance, housekeeping, and repair BMPs to prevent discharges to the storm sewer system and Waters of the U.S.	Section 3.2 TRAIN-01
III.F.5.f NDOT shall train all staff who may be involved in waste disposal, spill prevention and response. Training shall include:	Section 3.2 TRAIN-01 IDDE-03 and 04
III.F.5.f.i Procedures to prevent, contain, and respond to spills; and	Section 3.2 TRAIN-01 IDDE-03 and 04
III.F.5.f.ii Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system.	Section 3.2 TRAIN-01 MAINT-01
III.F.5.g NDOT shall train all staff directly involved in the application of pesticides, herbicides, and fertilizers. Training shall include:	Section 3.11 TRAIN-03
III.F.5.g.i The potential for stormwater contamination resulting from misapplication or over-application of chemicals; and	Section 3.11 TRAIN-03
III.F.5.g.ii Proper application procedures and BMPs;	Section 3.11 TRAIN-03
III.F.5.h NDOT shall train all staff working at industrial sites (excluding material source sites). Training shall include:	Section 3.2 Section 3.8 TRAIN-01
III.F.5.h.i The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site activities; and	Section 3.2 TRAIN-01
III.F.5.h.ii As applicable, used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.	Section 3.2 TRAIN-01 MAINT-01
III.F.5.i NDOT shall provide information in the revised SWMP that discusses how NDOT will ensure that NDOT construction contractors have been adequately trained in BMP installation and maintenance, the ability to recognize activities that may impact stormwater quality, and the procedures in place to prevent or report an illicit discharge or illicit connection to the MS4.	Section 3.2 TRAIN-02 DEPT-01
III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:	Section 3.2 EDU-01 through 05
III.F.5.j.i The methods for disseminating information;	Section 3.2 EDU-01 through 05
III.F.5.j.ii The target audiences and how they were selected; and	Section 3.2 EDU-01 through 05
III.F.5.j.iii The target pollutants and sources and how they were selected.	Section 3.2 EDU-01through 05
III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;	Section 3.2 EDU-01 through 05
III.F.5.l NDOT shall implement a Public Involvement/Participation Program to encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.	Section 3.2 EDU-01 through 05
III.F.5.m NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or	Section 3.2 Section 3.7 IDDE-01, 03, 04 ENVR-03

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;	
III.F.5.n NDOT shall record and report the number of reports received from the public and investigated in the Annual Report;	Section 3.7 IDDE-01 and 04
III.F.5.o NDOT shall continue to implement the Adopt-a-Highway program;	Section 3.7 EDU-02
III.F.5.p NDOT shall report the number of volunteer groups participating in the Adopt-a-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report; and	Section 3.7 EDU-02
III.F.5.q NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:	Section 3.2 DEPT-05
III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and	Section 3.2 DEPT-05
III.F.5.q.ii NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.	Section 3.2 Section 3.12 EDU-03
III.G. Construction Site BMP Program	Section 3.5
III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:	Section 3.5 CONST-01 through 03
III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:	Section 3.5 DEPT-03
III.G.1.a.i Review of construction site plans;	Section 3.5 DEPT-03
III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;	Section 3.5 CONST-01 and 02
III.G.1.a.iii Site inspections and enforcement;	Section 3.5 CONST-01 and 02
III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;	Section 3.5 CONST-02 DEPT-01 and 02
III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and	Section 3.5 CONST-01 through 03 DEPT-01
III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;	Section 3.5 CONST-02 and 03 DEPT-01 and 02
III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to Waters of the U.S. The SWMP shall be revised to address these requirements	Section 3.5 CONST-01

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
and have a program and a schedule for inspections; and	
III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities.	Section 3.5 CONST-01 DEPT-03
III.H. NDOT Contractors Performing Construction Activities	Section 3.5
III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.	Section 3.5 CONST-01 and 02 DEPT-03
III.H.2. NDOT shall ensure that the contractor's NOI references the construction site as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.	Section 3.5 CONST-01 and 02 DEPT-03
III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.	Section 3.5 CONST-01 and 02 DEPT-03 and 04
III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.	Section 3.5 CONST-01 and 02 DEPT-03 and 04
III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.	Section 3.5 CONST-01 and 02
III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.	Section 3.5 CONST-01 and 02
III.I. Discharges from New Development and Redevelopment	Section 3.6
III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 Permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;	Section 3.6 DEPT-02
III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;	Section 3.6 DEPT-13
III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;	Section 3.6 DEPT-02
III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters.	Section 3.6 Section 3.4

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;	DEPT-02, 07 and 08
III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering Waters of the U.S.;	Section 3.6 DEPT-02
III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and	Section 3.6 DEPT-02, 03, 06
III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.	Section 3.6 DEPT-10, 11 MAINT-04 and 05
III.J. Illicit Discharge Detection and Elimination Program	Section 3.7
III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:	Section 3.7
III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to Waters of the United States;	Section 3.7 EDU-01,02,05 IDDE-01 through 05 MAINT-03 through 07 TRAIN-01, through 03 DEPT-04, 10 through 12 CONST-01 and 02
III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;	Section 3.7 CONST-01 and 02 DEPT-10 and 11 IDDE-01 through 05 MAINT-04 and 05 TRAIN-01 through 03
III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;	Section 3.7 CONST-01 and 02 DEPT-10 and 11 IDDE-01 through 05 MAINT-04 and 05 TRAIN-01 through 03
III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;	Section 3.7 IDDE-03 and 04
III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;	Section 3.7 EDU-01 through 03 and 05 IDDE-04 and 05
III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and	Section 3.7 EDU-01 through 03 IDDE-01
III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.	Section 3.7 IDDE-05 MAINT-04
III.K. Industrial Facility Monitoring and Control	Section 3.8
III.K.1. The revised SWMP shall describe NDOT's program to monitor and control pollutants in stormwater discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial	Section 3.8 DEPT-12

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
facilities that NDOT determines are contributing a substantial pollutant loading to the MS4. The program shall:	
III.K.1.a Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges; and,	Section 3.8 DEPT-12
III.K.1.b Describe a monitoring program for stormwater discharges associated with the industrial facilities identified in this section, to be implemented during the term of the permit in accordance with the monitoring programs defined in Part IV.A of this permit.	Section 3.8 DEPT-12
III.L. Stormwater Discharges from NDOT Maintenance Facilities	Section 3.9
III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide:	Section 3.9
III.L.1.a NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;	Section 3.9 MAINT-06
III.L.1.b NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to Waters of the U.S. or to the storm sewer system;	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.1.c NDOT shall properly select, install, and maintain all BMPs in accordance with any relevant manufacturer specifications and good engineering practices; and	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas.	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.2. NDOT shall implement the following BMPs at its maintenance facilities:	Section 3.9
III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:	Section 3.9 MAINT-01 through 09 TRAIN-01 DEPT-05
III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;	Section 3.9 MAINT-06 through 09
III.L.2.c.ii Use drip pans under vehicles and equipment;	Section 3.9 MAINT-06 through 09
III.L.2.c.iii Store vehicles and equipment indoors whenever practicable;	Section 3.9 MAINT-06 through 09
III.L.2.c.iv Install berms or dikes around the areas;	Section 3.9 MAINT-06 through 09
III.L.2.c.v Use absorbents to clean spilled materials;	Section 3.9 MAINT-01,06 through 09
III.L.2.c.vi Roof or cover storage areas whenever practicable; and	Section 3.9 MAINT-06 through 09
III.L.2.c.vii Clean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.	Section 3.9 MAINT-01,06 through 09
III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for	Section 3.9 MAINT-01,06 through 09

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:	
III.L.2.d.i Perform maintenance activities indoors whenever practicable;	Section 3.9 MAINT-01, 06 through 09
III.L.2.d.ii Use drip pans under vehicles and equipment;	Section 3.9 MAINT-01, 06 through 09
III.L.2.d.iii Keep an organized inventory of materials used in the shop;	Section 3.9 MAINT-01, 06 through 09
III.L.2.d.iv Drain all parts of fluid prior to disposal;	Section 3.9 MAINT-01, 06 through 09
III.L.2.d.v Use dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and	Section 3.9 MAINT-01, 06 through 09
III.L.2.d.vi Treat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.	Section 3.9 MAINT-01, 06 through 09
III.L.2.e NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:	Section 3.9 MAINT-01 through 03 and 05 through 09
III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., “Used Oil,” “Spent Solvents,” etc.);	Section 3.9 MAINT-01 and 05 through 09
III.L.2.e.ii Move storage indoors whenever practical;	Section 3.9 MAINT-01 and 05 through 07
III.L.2.e.iii Install berms/dikes around the areas;	Section 3.9 MAINT-01 and 05 through 09
III.L.2.e.iv Minimize run-on of stormwater to the areas;	Section 3.9 MAINT-01 and 05 through 09
III.L.2.e.v Use dry cleanup methods; and	Section 3.9 MAINT-01 and 05 through 09
III.L.2.e.vi Treat, recycle, or properly dispose of collected stormwater runoff. Note: The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.	Section 3.9 MAINT-01, 05 through 09
III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04
III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities to prevent spills;	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04
III.L.2.f.ii NDOT shall implement practices and procedures for handling spills of toxic materials by NDOT staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system or receiving waters;	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04
III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04
III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and	
III.L.2.f.v NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.	Section 3.9 MAINT-01 and 05 through 09 IDDE-03 and 04
III.M. Comprehensive Maintenance Facility Inspection	Section 3.9
III.M.1. NDOT shall conduct a Comprehensive Maintenance Facility Inspection at least once each year. NDOT shall also conduct routine visual inspections to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.	Section 3.9 MAINT-06, 07, 09
III.M.2. NDOT shall complete an inspection report for all maintenance facility inspections. At a minimum the report shall include:	Section 3.9 MAINT-06, 07, 09
III.M.2.a The inspection date;	Section 3.9 MAINT-06, 07, 09
III.M.2.b The name(s), title(s) and qualifications of the person(s) making the inspection. The list of qualified personnel shall either be on or attached to the report or alternatively, if the SWPPP documents the qualifications of the inspectors by name, that portion of the SWPPP may be referenced;	Section 3.9 MAINT-06, 07, 09
III.M.2.c Weather information and a description of any discharges occurring at the time of the inspection;	Section 3.9 MAINT-06, 07, 09
III.M.2.d The location(s) of discharges of sediment or other pollutants from the site, if any;	Section 3.9 MAINT-06, 07, 09
III.M.2.e The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location;	Section 3.9 MAINT-06, 07, 09
III.M.2.f The location(s) where additional BMPs are needed that did not exist at the time of inspection;	Section 3.9 MAINT-06, 07, 09
III.M.2.g The corrective action(s) required, including any changes to the SWPPP and implementation dates;	Section 3.9 MAINT-06, 07, 09
III.M.2.h The identification of all sources of non-stormwater discharges, if any, and the associated BMPs;	Section 3.9 MAINT-06, 07, 09
III.M.2.i Where applicable, the identification of material storage areas, and evidence of or potential for pollutant discharges from these areas;	Section 3.9 MAINT-06, 07, 09
III.M.3. Inspection reports shall identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the activities are in compliance with the SWPPP and this permit; and	Section 3.9 MAINT-06, 07, 09
III.M.4. The report shall be signed and certified in accordance with Part V.G of this permit and copies included in the SWPPP and the Annual Report.	Section 3.9 MAINT-06, 07, 09
III.N. Scope of Inspections	Section 3.9
III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;	Section 3.9 MAINT-06, 07, 09
III.N.2. Inspections of the maintenance yard shall include all the following areas/activities:	Section 3.9 MAINT-06, 07, 09
III.N.2.a Storage areas for vehicles and equipment awaiting maintenance;	Section 3.9 MAINT-06, 07, 09
III.N.2.b Fueling areas (including mobile fueling);	Section 3.9 MAINT-06, 07, 09
III.N.2.c Indoor and outdoor vehicle/equipment maintenance areas;	Section 3.9 MAINT-06, 07, 09
III.N.2.d Material storage areas;	Section 3.9 MAINT-02, 06, 07, 09
III.N.2.e Material source stockpile(s) to determine if piles are protected from run-on, run-off, if materials are contributing to off-site discharges;	Section 3.9 MAINT-02, 06, 07, 09

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.N.2.f Vehicle/equipment cleaning areas and loading/unloading areas; and	Section 3.9 MAINT-06, 07, 09
III.N.2.g Onsite waste storage or disposal;	Section 3.9 MAINT-01, 06, 07, 09
III.N.3. NDOT shall inspect and document all BMPs identified in the SWPPP along with areas inspected and the conditions found;	Section 3.9 MAINT-06, 07, 09
III.N.4. NDOT shall inspect discharge locations to determine whether BMPs are effective in preventing significant impacts to Waters of the U.S., where accessible;	Section 3.9 MAINT-06, 07, 09
III.N.5. Where discharge locations are inaccessible, NDOT shall inspect nearby downstream locations to the extent that the inspections are practicable; and	Section 3.9 MAINT-06, 07, 09
III.N.6. NDOT shall inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.	Section 3.9 MAINT-06, 07, 09
III.N.7. Based on the results of the inspection, NDOT shall modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. NDOT shall complete revisions to the SWPPP and modify or add BMPs as necessary within thirty (30) calendar days following the inspection. NDOT shall implement tracking and follow-up procedures to ensure that appropriate action is taken in response to issues noted during inspections.	Section 3.9 MAINT-06, 07, 09 DEPT-06
III.N.8. If sediment or other materials escape the site, NDOT shall remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. The removal shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. NDOT shall use all reasonable efforts to obtain access, and in such instances, removal and stabilization shall take place within seven (7) days of obtaining access.	Section 3.9 MAINT-06, 07, 09 DEPT-06
III.N.9. Inspections shall be performed by qualified personnel as defined in Part VI of this permit; and	Section 3.9 MAINT-06, 07, 09 TRAIN-01
III.N.10. NDOT shall retain a record of each inspection and of any actions taken as part of the SWPPP for at least five (5) years from the expiration date of this permit;	Section 3.9 MAINT-06, 07, 09
III.N.11. For existing BMPs that need to be modified or, if additional BMPs are necessary for any reason, implementation shall be completed within thirty (30) days, and before the next storm event;	Section 3.9 MAINT-06, 07, 09
III.N.12. All BMPs including erosion and sediment control BMPs identified in the SWPPP shall be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance shall be performed within seven (7) days of discovery and before the next anticipated storm event to maintain the continued effectiveness of stormwater BMPs. If implementation before the next storm event is impracticable, the reason(s) for delay must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible;	Section 3.9 MAINT-06, 07, 09
III.N.13. Facilities as requiring monitoring shall follow the requirements therein; and	Section 3.9 MAINT-06, 07, 09
III.N.14. NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.	Section 3.9 MAINT-06, 07, 09
III.O. Public Street Maintenance Program in Urbanized Areas	Section 3.10
III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:	Section 3.10 MAINT-02, 03 TRAIN-03

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.O.1.a Snow and ice management practices on streets, roads, and highways in urbanized areas shall be implemented in a manner consistent with NDOT's policies and guidelines. These guidelines shall include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets;	Section 3.10 MAINT-02, 03
III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration off-site;	Section 3.10 MAINT-02, 06, 08
III.O.1.c Leaf litter and debris on all streets in urbanized areas shall be swept a minimum of two times per year, once in the spring and once in the fall;	Section 3.10 MAINT-02, 03
III.O.1.d Sweeping of sanded streets in urbanized areas shall be performed as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall;	Section 3.10 MAINT-02, 03
III.O.1.e Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.	Section 3.10 MAINT-01, 02, 03
III.O.1.f If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to Waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant.	Section 3.10 MAINT-01, 02, 03
III.O.1.g A narrative summary of the program will be included in the Annual Report.	Section 3.10 MAINT-01, 02, 03
III.P. Measures to Control Discharges from Roadways	Section 3.10
III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to Waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:	Section 3.10 MAINT-01 through 07 ENVR-04, 05 DEPT-04, 05, 10, 11, IDDE-04, 05 TRAIN-01, 02
III.P.1.a Highway Maintenance Activities	Section 3.10
III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;	Section 3.10 MAINT-02, 03, 04, 05
III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);	Section 3.6 and 3.10 DEPT-03 MAINT-04
III.P.1.a.iii Establish schedules for implementing appropriate controls; and	Section 3.10 MAINT-04
III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of-way or discharging to a water of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.	Section 3.6 and 3.10 DEPT-03 MAINT-04 MAINT-05
III.P.1.b Snow and Ice Control	Section 3.10
III.P.1.b.i Where abrasives and/or de-icing agents are used on highways, the following shall be recorded:	Section 3.10 MAINT-02 and 03

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.P.1.b.i.1 Location of the source of abrasives materials;	Section 3.10 MAINT-02 and 03
III.P.1.b.i.2 Types and chemistry of de-icing agents;	Section 3.10 MAINT-02 and 03
III.P.1.b.i.3 Deicing salt shall be analyzed for: total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl);	Section 3.10 MAINT-02 and 03
III.P.1.b.i.4 Alternative deicers shall be analyzed for total nitrogen and total phosphorus;	Section 3.10 MAINT-02 and 03
III.P.1.b.i.5 Type and chemistry of abrasives with the gradation and percent organic matter. Gradation and percent organic matter shall be determined from composite samples. The composite samples shall be taken from one stockpile that represents all deliveries from the originating source. Composite samples shall be taken from every new delivery from a new originating source;	Section 3.10 MAINT-02 and 03
III.P.1.b.i.6 Abrasives shall be analyzed for volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus; and	Section 3.10 MAINT-02 and 03
III.P.1.b.i.7 Volume of abrasives and deicing agents used on individual highway segments shall be documented in the Annual Report.	Section 3.10 MAINT-02 and 03
III.P.1.c Storm Water Drainage System Facilities Maintenance	Section 3.10
III.P.1.c.i NDOT shall remove all debris and sediment from those inlets that pose a significant threat to water quality on an annual basis prior to the winter season each year. All debris and sediment removed from drain inlets shall be managed in accordance with all applicable laws and regulations. The amount of material removed shall be documented and included in the Annual Report; and	Section 3.10 DEPT-10 MAINT-05
III.P.1.c.ii Drain inlets which contain significant materials must be considered for an IDDE investigation and considered for an enhanced BMP program focused on reducing the sources of the material found in the inlet.	Section 3.10 DEPT-10 MAINT-05 IDDE-04 TRAIN-01
III.Q. Storm Sewer System and Highway Maintenance	Section 3.10
III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:	Section 3.10
III.Q.1.a Inventory Post-Construction Stormwater Pollution Control BMPs	Section 3.10 DEPT-10
III.Q.1.a.i NDOT shall develop and maintain an inventory of its post-construction stormwater pollution control BMPs;	Section 3.10 DEPT-10
III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and	Section 3.10 DEPT-10
III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major post-construction stormwater pollution control BMPs statewide as part of the revised SWMP.	Section 3.10 DEPT-10
III.Q.1.b Inspect Storm Sewer System	Section 3.10 MAINT-04 and 05
III.Q.1.b.i The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify	Section 3.10 MAINT-04 and 05

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
potential sources of pollutants and determine maintenance needs; and	
III.Q.1.b.ii NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.	Section 3.10 MAINT-04 and 05
III.Q.1.c Develop Maintenance Schedules and Priorities	Section 3.10 MAINT-04 and 05
III.Q.1.c.i NDOT shall identify routine maintenance schedules and maintenance priorities for its storm sewer system, including roadways to minimize pollutant discharges from the storm sewer system; and	Section 3.10 MAINT-04 and 05
III.Q.1.c.ii NDOT shall evaluate priorities and update the maintenance schedule annually.	Section 3.10 MAINT-04 and 05
III.Q.1.d Perform Repair, Maintenance, and Cleaning	Section 3.10 MAINT-04 and 05
III.Q.1.d.i NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and	Section 3.10 MAINT-04 and 05
III.Q.1.d.ii During repair, maintenance or cleaning activities, NDOT shall ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as significant loads of a specific pollutant(s) or material(s). Upon discovery, NDOT shall initiate an investigation to target likely sources and implement a BMP program to reduce the sources of the pollutant or material to the MEP.	Section 3.10 MAINT-04 and 05 IDDE-04 and 05 TRAIN-01
III.Q.1.e Implement BMPs for Repair, Maintenance, and Cleaning	Section 3.10 MAINT-04 and 05
III.Q.1.e.i NDOT shall implement appropriate BMPs to reduce the potential for releases of pollutants to the storm sewer system or to Waters of the U.S. when performing repair, maintenance, or cleaning of its storm sewer system, including roadways;	Section 3.10 MAINT-04 and 05
III.Q.1.e.ii NDOT shall implement BMPs to minimize the discharge of pollutants from unpaved roads, shoulders, and parking lots, such as permanent stabilization / erosion control BMPs and paving unpaved roads, and parking lots;	Section 3.10 MAINT-04 and 05
III.Q.1.e.iii NDOT shall properly dispose of waste removed from its storm sewer system and NDOT facilities, including dredge spoil, accumulated sediments, and floatable or other debris. The amount removed and disposed of shall be documented and included in the Annual Report.	Section 3.10 MAINT-01, 04, 05
III.Q.1.f Roadside Management Program	Section 3.10
III.Q.1.f.i NDOT shall continue to implement the BMPs described in its Construction Site BMP Field Manual.	Section 3.10 DEPT-01 and 05 MAINT-04 and 05
III.R. Herbicide, Pesticide and Fertilizer Program	Section 3.11
III.R.1. NDOT shall develop a program to reduce the discharge of pollutants related to the application of herbicides, pesticides and fertilizers to the MEP. This program shall include:	Section 3.11 TRAIN-03
III.R.1.a Implement Pesticide and Fertilizer Application Procedures	Section 3.11 TRAIN-03
III.R.1.a.i NDOT shall continue to implement practices and procedures for NDOT staff and commercial applicators to only use Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers at NDOT facilities and roadside right-of-ways. NDOT shall design these practices to avoid chemical application when feasible and	Section 3.11 TRAIN-03

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
to minimize the amount of chemicals applied;	
III.R.1.a.ii As part of the revised SWMP, NDOT shall develop BMPs to address the timing of applications in relation to expected precipitation events, proximity to water bodies, and other practices to minimize the runoff of pollutants. Applications of herbicides shall be performed during dry-weather periods to the extent possible, using methods to limit overspray;	Section 3.11 TRAIN-03
III.R.1.a.iii If NDOT must apply pesticides in any area that is within, or directly adjacent to a water of the U.S., only pesticides approved for aquatic use shall be used;	Section 3.11 TRAIN-03
III.R.1.a.iv NDOT shall review application practices annually and update procedures as needed to minimize runoff of pollutants;	Section 3.11 TRAIN-03
III.R.1.a.v NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways; and	Section 3.11 TRAIN-03
III.R.1.a.vi A narrative summary of the program will be included in the Annual Report.	Section 3.11 TRAIN-03
III.R.1.b Vegetation Control	Section 3.11 ENVR-05 TRAIN-03
III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:	Section 3.11 ENVR-05
III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non-stormwater runoff;	Section 3.11 ENVR-05
III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;	Section 3.11 ENVR-05 TRAIN-03
III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and	Section 3.11 ENVR-04
III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.	Section 3.11 ENVR-05
III.S. NDOT Maintenance Yards Management Program	Section 3.9
III.S.1. NDOT shall prepare SWPPPs for all its maintenance facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP;	Section 3.9 MAINT-06 and 08
III.S.2. Generic SWPPP elements can be used for activities that are performed at more than one maintenance facility; however, each site must be evaluated separately and provided with appropriate site specific BMPs.	Section 3.9 MAINT-06 and 08
III.S.3. NDEP staff has the authority to require the submittal of a SWPPP at any time, to require changes to a SWPPP, and to require the implementation of the provisions of a SWPPP. SWPPPs shall include the following elements:	Section 3.9 MAINT-06 and 08

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.S.3.a NDOT shall develop and implement runoff control plans for the following NDOT-owned and/or operated facilities that do not have independent NPDES Stormwater permits:	Section 3.9 MAINT-06 and 09
III.S.3.a.i Vehicle maintenance facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling and lubrication);	Section 3.9 MAINT-06 and 09
III.S.3.a.ii Asphalt and concrete batch plants which are not already individually permitted;	Section 3.9 MAINT-06 and 09
III.S.3.a.iii Solid-waste transfer stations;	Section 3.9 MAINT-06 and 09
III.S.3.a.iv Exposed stockpiles of materials, including stockpiles of road deicing salt, salt and sand, sand, roto-mill material; and	Section 3.9 MAINT-06 and 09
III.S.3.a.v Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles.	Section 3.9 MAINT-01, 06, 09
III.S.3.b NDOT shall provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of the revised SWMP. This list shall indicate which sites are considered "major" and which are considered "minor", and set out the reasons for the designations.	Section 3.9 MAINT-06 and 09
III.S.3.c Runoff control plans for "major" facilities shall contain the following:	Section 3.9 MAINT-06 and 09
III.S.3.c.i Activity description;	Section 3.9 MAINT-06 and 09
III.S.3.c.ii Facility site map; and	Section 3.9 MAINT-06 and 09
III.S.3.c.iii A description of potential pollutant sources, including an evaluation of that potential.	Section 3.9 MAINT-06 and 09
III.S.3.d Stormwater Management Controls	Section 3.9 MAINT-06 and 09
III.S.3.d.i The description of stormwater management controls shall address the following minimum components, including a schedule for implementing such controls:	Section 3.9 MAINT-06 and 09
III.S.3.d.i.1 Runoff control plan administrator;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.2 Preventive maintenance;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.3 Good housekeeping;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.4 Spill prevention and response procedures;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.5 BMPs for pollutant sources;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.6 Evaluation for non-stormwater discharges;	Section 3.9 MAINT-06 and 09
III.S.3.d.i.7 Employee training;	Section 3.9 MAINT-06 and 09 TRAIN-01
III.S.3.d.i.8 Inspection procedures; and	Section 3.9 MAINT-07
III.S.3.d.i.9 A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.	Section 3.9 MAINT-07
III.S.3.d.ii "Minor" facilities shall be grouped together by type, and one runoff control plan shall be developed for each group. Grouped runoff control plans shall contain:	Section 3.9 MAINT-06 and 09
III.S.3.d.iii A map showing the location of each facility in the group on a map of the city or state;	Section 3.9 DEPT-10

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
III.S.3.d.iv For each facility in the group include the address, type of operation, size of the facility, and receiving water drainage basin;	Section 3.9 DEPT-10
III.S.3.d.v A description of potential pollutant sources, including an evaluation of that potential;	Section 3.9 DEPT-10
III.S.3.d.vi A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:	Section 3.9 MAINT-06 and 09
III.S.3.d.vi.1 Preventive maintenance measures;	Section 3.9 MAINT-06 and 09
III.S.3.d.vi.2 Good housekeeping;	Section 3.9 MAINT-06 and 09
III.S.3.d.vi.3 Spill prevention and response procedures;	Section 3.9 MAINT-06
III.S.3.d.vi.4 BMPs;	Section 3.9 MAINT-06
III.S.3.d.vi.5 Evaluation for non-stormwater discharges; and	Section 3.9 MAINT-06
III.S.3.d.vi.6 Inspection Procedures.	Section 3.9 MAINT-06, 07, 09
III.S.3.e Copies of the "major" facility runoff control plans shall be kept on the facility site and on file with NDOT's main office. They shall be submitted to NDEP upon request.	Section 3.9 MAINT-06 and 09
III.S.3.f Copies of the "minor" facility group runoff control plans shall be kept on file with the Regional District Office. They shall be submitted to NDEP upon request;	Section 3.9 MAINT-06 and 09
III.S.3.g Both major and minor facilities shall be inspected by the Permittee at least one (1) time each year, after the SWPPP has been completed;	Section 3.9 MAINT-06, 07, 09
III.S.3.h NDOT shall implement the provisions of the runoff control plans required under this part as a condition of this MS4 Permit. NDEP reserves the right to review those plans, and to require additional measures to prevent and control pollution as needed;	Section 3.9 MAINT-06, 07, 09
III.S.3.i SWPPPs may be amended at any time and any amendments shall be described in the Annual Report; and	Section 3.9 MAINT-06, 07, 09
III.S.3.j The SWPPPs shall be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this permit, another 40 percent within twenty-four (24) months of the effective date of this permit, and the remaining 50 percent within thirty-six (36) months of the effective date of this permit. A list of these facilities shall be submitted to NDEP at these times.	Section 3.9 MAINT-06, 07, 09
III.T. Sharing Responsibility	Section 4.2
III.T.1. NDOT may either share responsibility or assign responsibility with one or more regulated MS4s, and may implement BMPs individually, as a group, or through consultants. The SWMP shall include a description of the BMP and how responsibility is being shared or assigned.	Section 4.2.1 EDU-03
III.U. Annual Review and Updating the SWMP	Section 4.5
III.U.1. NDOT must complete an annual review of the SWMP in conjunction with preparation of the Annual Report required under Part IV.C of this permit.	Section 4.5 DEPT-06
III.U.2. NDOT may change the SWMP during the life of the permit in accordance with the following procedures:	Section 4.5 DEPT-06
III.U.2.a Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to NDEP.	Section 4.5 DEPT-06
III.U.2.b Requests for changes replacing an ineffective, unfeasible, or inappropriate BMP specifically identified in the SWMP with an	Section 4.5 DEPT-06

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
alternate BMP may be submitted to NDEP for approval at any time. If request is denied, NDEP will send NDOT a written response giving a reason for the decision. NDOT's modification requests must include the following:	
III.U.2.b.i An analysis of why the BMP is ineffective, infeasible (including cost prohibitive), or otherwise should be revised or replaced, and	Section 4.5 DEPT-06
III.U.2.b.ii An analysis of why the replacement BMP is expected to be more effective, feasible, or appropriate than the BMP to be replaced.	Section 4.5 DEPT-06
III.V. Updating NDOT's Manuals	DEPT-01 and 02
III.V.1. NDOT shall annually review its 2006 Planning and Design Guide Manual and its 2006 Construction Site BMP Manual and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.	DEPT-01 and 02
III.W. Characterization Data	Section 4.1.1
III.W.1. The revised SWMP shall evaluate whether existing data collection programs should be modified to improve characterization of stormwater discharges, effects of different BMPs on water quality, or ambient water quality. This information shall be submitted for approval as part of the annual monitoring plan required in Part IV.A of this permit.	Section 4.1.1
Part IV. Monitoring, Recordkeeping, and Reporting	Sections 4.1
IV.A. Stormwater Monitoring	Section 4.1
IV.A.1. NDOT shall submit a stormwater monitoring plan to NDEP for the following year on or before October 1 each year. In developing the plan, NDOT shall evaluate and update as necessary how monitoring may assist in making decisions about program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. Pending submittal of the annual monitoring plan, NDOT shall continue to implement the existing monitoring plan.	Section 4.1 ENVR-01
IV.A.2. When NDOT conducts monitoring at NDOT's permitted MS4, NDOT is required to comply with the following:	Section 4.1 ENVR-01
IV.A.2.a Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. This requirement does not prevent NDOT from analyzing or reporting samples that are representative of a limited situation (e.g. concentration at peak flow);	Section 4.1 ENVR-01
IV.A.2.b Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the CWA, unless other procedures are approved by NDEP.	Section 4.1 ENVR-01
IV.A.3. Records of monitoring information shall include:	Section 4.1 ENVR-01
IV.A.3.a The date, exact place, and time of sampling or measurements;	Section 4.1 ENVR-01
IV.A.3.b The names(s) of the individual(s) who performed the sampling or measurements;	Section 4.1 ENVR-01
IV.A.3.c The date(s) analyses were performed;	Section 4.1 ENVR-01
IV.A.3.d The names of the individuals who performed the analyses;	Section 4.1 ENVR-01
IV.A.3.e The analytical techniques or methods used; and,	Section 4.1 ENVR-01
IV.A.3.f The results of such analyses.	Section 4.1 ENVR-01
IV.A.4. Analyses shall be performed by a State of Nevada-certified laboratory. Laboratory reports shall be provided if requested by NDEP.	Section 4.1 ENVR-01

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
IV.A.5. If NDOT performs stormwater monitoring more frequently than required by the stormwater monitoring plan the results of such monitoring shall be reported. The monitoring results and analyses shall be submitted as part of the Annual Report.	Section 4.1 ENVR-01
IV.B. Record Keeping	Section 4.1
IV.B.1. NDOT 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 permit, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the termination date of this permit. This period may be extended at the direction of NDEP at any time.	Section 4.1 ENVR-02
IV.B.2. NDOT shall submit the records to NDEP upon request. NDOT shall retain a copy of the SWMP required by this permit (including a copy of the permit language) at a location accessible to NDEP. NDOT shall make the records, including a copy of the SWMP, available to the public if requested to do so in writing.	Section 4.1 ENVR-02
IV.B.3. For public requests of records, NDOT may impose a reasonable fee for personnel time and copying expenses.	Section 4.1 ENVR-02
IV.C. Annual Reports	Section 4.6
IV.C.1. NDOT shall continue to submit Annual Reports to NDEP by October 1 of each year of the permit term. Each Annual Report shall cover the period beginning July 1st of the previous year through June 30th of the current year.	Section 4.4
IV.C.2. Each year, NDOT shall review its SWMP and report to NDEP on the status of the program, whether NDOT has identified any modifications, and the plans for implementing those modifications.	Section 4.4
IV.C.3. At a minimum the Annual Report shall include:	Section 4.4
IV.C.3.a Status of NDOT's compliance with permit conditions;	Section 4.4
IV.C.3.b An assessment of the appropriateness of the identified BMPs, and revisions to previous assessments, if appropriate;	Section 4.3 DEPT-06
IV.C.3.c Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP;	Section 4.3 DEPT-06
IV.C.3.d Status of the achievement of measurable goals;	Section 4.5 DEPT-06
IV.C.3.e Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP, a description of any identified improvements to or degradation in water quality attributable to the program, and a description of any identified effects on attainment of water quality standards attributable to the program;	Section 4.3
IV.C.3.f A summary of the stormwater activities NDOT plans to undertake during the next reporting cycle (including an implementation schedule and a fiscal analysis);	Section 4.4
IV.C.3.g Changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;	Section 4.4
IV.C.3.h Notice that NDOT is relying on another government entity to satisfy some of the permit obligations, as applicable; and	Section 4.4, 4.2.1
IV.C.3.i Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal stormwater quality management program. The assessment shall also identify known impacts of stormwater controls on ground water.	Section 4.4
IV.C.3.j A summary of inspections performed and enforcement activity taken during the report cycle.	Section 4.4
IV.C.3.k A summary of public education and outreach activity	Section 4.4

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
performed during the report cycle.	
IV.C.3.l Annual expenditures for the reporting period, with a breakdown for the major elements of the SWMP, and the budget for the year following each annual report.	Section 4.4
IV.C.3.m An original signed copy of all reports and plans required herein shall be submitted to the NDEP at the following address:	Section 4.4
IV.D. Annual Fee	Section 2.1
IV.D.1. NDOT shall remit an annual review and services fee by July 1 of every year in accordance with Nevada Administrative Code ("NAC") 445A.232 until this permit is terminated.	Section 2.1
IV.E. Continued Permit Coverage	Section 2.1
IV.E.1. NDOT shall submit written correspondence to NDEP requesting continued permit coverage under the new NDOT MS4 Permit and signed in accordance with the signatory requirements of Part V.G of this permit, no later than 180 days before this permit expires.	Section 2.1
IV.F. Changes by NDEP	Section 2.3
IV.F.1. Formal changes requested by NDEP must be made in writing, set forth the time schedule for NDOT to develop the changes, and offer NDOT the opportunity to propose alternative program changes to meet the objective of the requested modification. If NDOT does not agree to the requested changes, changes required by NDEP will be made in accordance with 40CFR§124.5, 40CFR§122.62, or as appropriate 40CFR§122.63.	Section 2.3
IV.F.2. NDEP may request formal changes to the SWMP as needed to:	Section 2.3
IV.F.2.a Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;	Section 2.3
IV.F.2.b Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements; and,	Section 2.3
IV.F.2.c Include such other conditions deemed necessary by NDEP to comply with the requirements of the CWA.	Section 2.3
IV.G. Responsibility for Stormwater Management Program Implementation	Section 2.3
IV.G.1. NDOT must implement the SWMP on all new areas added to NDOT's portion of the MS4 (or for which NDOT become responsible for implementation of stormwater quality controls) no later than one (1) year from addition of the new areas; and	Section 2.3 DEPT-10
IV.G.2. Information on all new annexed areas and any resulting updates required to the SWMP must be included in the Annual Report.	Section 2.3 DEPT-10
Part V. Standard Permit Conditions	Section 2.3
V.A. Duty to Comply	Section 2.3
V.A.1. NDOT must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of CWA and is grounds for an enforcement action; permit termination; revocation and re-issuance; modification; or for denial of a permit renewal application.	Section 2.3
V.B. Continuation of the Expired Permit	Section 2.3
V.B.1. If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. NDOT will automatically remain covered by the continued permit until the earlier of:	Section 2.3
V.B.1.a Re-issuance or replacement of this permit; or	Section 2.3
V.B.1.b Issuance of another individual permit for NDOT discharges.	Section 2.3
V.C. Need to Halt or Reduce Activity Not a Defense	Section 2.3
V.C.1. It shall not be a defense for NDOT in an enforcement action that it would have been necessary to halt or reduce the permitted activity under	Section 2.3

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
NDOT's control in order to maintain compliance with the conditions of this permit.	
V.D. Duty to Mitigate	Section 2.3
V.D.1. NDOT must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.	Section 2.3
V.E. Duty to Provide Information	Section 2.3
V.E.1. NDOT must furnish to NDEP any information that is requested by NDEP and needed to determine compliance with this permit or other information.	Section 2.3
V.F. Other Information	Section 2.3
V.F.1. If NDOT becomes aware that it has failed to submit any relevant facts in its revised SWMP, Annual Report or in any other report to NDEP, NDOT must promptly submit such facts or information to NDEP.	Section 2.3
V.G. Signatory Requirements	Section 2.3
V.G.1. All applications, reports, certifications, or information submitted to NDEP, or that this permit requires be maintained by NDOT shall be signed and certified as follows:	Section 2.3
V.G.1.a Applications. All applications shall be signed by a duly authorized representative of NDOT.	Section 2.3
V.G.1.b Reports and Other Information. All reports required by the permit and other information requested by NDEP or the authorized representative of NDEP shall be signed by a person described above from NDOT or by a duly authorized representative of that person. A person is a duly authorized representative only if:	Section 2.3
V.G.1.b.i Signed Authorization. The person described above submits the authorization in writing to NDEP.	Section 2.3
V.G.1.b.ii Authorization with Specified Responsibility. 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 manager, operator, superintendent, or position of equivalent responsibility for environmental matter for the regulated entity.	Section 2.3
V.G.1.c Changes to Authorization. If an authorization is no longer accurate because a different person has the responsibility for the overall operation of the MS4, a new authorization satisfying the requirement above must be submitted to NDEP prior to or together with any reports, information, or applications to be signed by an authorized representative.	Section 2.3
V.H. Property Rights	Section 2.3
V.H.1. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.	Section 2.3
V.I. Proper Operation and Maintenance	Section 3.9 and 3.10
V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.	Section 3.9 Section 3.10
V.J. Inspection and Entry	Section 2.3
V.J.1. NDOT shall allow NDEP or an authorized representative (including an authorized contractor acting as a representative of the Administrator) upon the presentation of credentials and other documents as may be required by law, to do any of the following:	Section 2.3
V.J.1.a Enter NDOT's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;	Section 2.3

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
V.J.1.b Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;	Section 2.3
V.J.1.c Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) practices, or operations regulated or required under this permit; and	Section 2.3
V.J.1.d Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.	Section 2.3
V.K. Permit Actions	Section 2.3
V.K.1. This permit may be modified, revoked and reissued, or terminated for cause. NDOT's filing of a request for a permit modification, revocation and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.	Section 2.3
V.L. Permit Transfers	Section 2.3
V.L.1. This permit is not transferable to any person. NDEP may require modification or revocation and re-issuance of the permit to incorporate such other requirements as may be necessary under the CWA.	Section 2.3
V.M. Anticipated Noncompliance	Section 2.3
V.M.1. NDOT shall give advance notice to NDEP of any planned changes in the permitted MS4 or activity which may result in noncompliance with this permit.	Section 2.3
V.N. State Environmental Laws	Section 2.3
V.N.1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve NDOT from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.	Section 2.3
V.N.2. No condition of this permit releases NDOT from any responsibility or requirements under other environmental statutes or regulations.	Section 2.3
V.O. Severability	Section 2.3
V.O.1. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit under any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.	Section 2.3
V.P. Procedures for Modification or Revocation	Section 2.3
V.P.1. Permit modification or revocation will be conducted according to 40CFR§122.62, 122.63, 122.64 and 124.5.	Section 2.3
V.Q. Availability of Reports	Section 2.3
V.Q.1. Except for data determined to be confidential under Nevada Revised Statutes ("NRS") 445A.665, all reports and plans submitted in accordance with the terms of this permit shall be available for public inspection at NDEP's office. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.	Section 2.3
V.R. Furnishing False Information and Tampering with Monitoring Devices	Section 2.3
V.R.1. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document submitted or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than	Section 2.3

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
$10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, pursuant to NRS 445A.300 to 445A.730, inclusive.	
V.S. Penalty for Violation of Permit Conditions	Section 2.3
V.S.1. NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.710.	Section 2.3
V.T. Permit Modification, Suspension or Revocation	Section 2.3
V.T.1. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:	Section 2.3
V.T.1.a Violation of any terms or conditions of this permit;	Section 2.3
V.T.1.b Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;	Section 2.3
V.T.1.c A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or	Section 2.3
V.T.1.d To impose specific requirements for BMPs or annual reporting requirements in accordance with 40CFR§122.62 or §122.63.	Section 2.3
V.T.2. NDOT may request that NDEP reopen and modify this permit.	Section 2.3
Part VI. Definitions	Section 2.3
VI.A. All definitions contained in Section 502 of the CWA and 40CFR§122 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the Statute or Regulation takes precedence.	---
VI.B. Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.	---
VI.C. Control Measure as used in this Permit, refers to any BMP or other method used to prevent or reduce the discharge of pollutants to Waters of the United States.	---
VI.D. CWA or The Act means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.	---
VI.E. Discharge, when used without a qualifier, refers to “discharge of a pollutant” as defined at 40CFR§122.2.	---
VI.F. Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.	---
VI.G. Illicit Discharge is defined at 40CFR§122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from firefighting activities.	---
VI.H. MEP is an acronym for "Maximum Extent Practicable,” the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in stormwater discharges that was established by CWA§402(p).	---
VI.I. MS4 is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Las Vegas Valley MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Las Vegas Valley MS4 includes MS4s operated by the City of Las Vegas, the City of North Las	---

Permit Requirement	SWMP Document Section and/or BMP Fact Sheet
Vegas, the City of Henderson, the Clark County Regional Flood Control District, and Clark County).	
VI.J. Municipal Separate Storm Sewer is defined at 40CFR§122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to Waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40CFR§122.2.	---
VI.K. Outfall is defined at 40CFR§122.26 as: Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer ("MS4") outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit.	---
VI.L. Permitting Authority means the Nevada Division of Environmental Protection.	---
VI.M. Qualified Person means a person knowledgeable in the principles and practice of erosion and sediment controls and who possesses the skills to assess conditions at the site that could impact stormwater quality and the effectiveness of the BMPs selected to control the quality of the stormwater discharges.	---
VI.N. Small Municipal Separate Storm Sewer System is defined at 40CFR§122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to Waters of the United States, but is not defined as "large"' or "medium" MS4. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.	---
VI.O. Stormwater is defined at 40CFR§122.26(b)(13) and means stormwater runoff, snowmelt runoff, and surface runoff and drainage.	---
VI.P. Stormwater Management Program (SWMP) refers to a comprehensive program to manage the quality of stormwater discharged from the MS4.	---

Appendices

A – Maps and District Facilities

B – Permit

C – Authorizations

D – Inspection Checklist

Appendix A Maps and District Facilities

Table A-1. Inventory of NDOT Maintenance Facilities, Yards, Material Stockpile and Vehicle Storage Locations

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
1	LAS VEGAS	DISTRICT 1 HQ	Clark	SR	SR578	0.5	36°10' 53.772"	-115°8' 11.602"
1	LAS VEGAS HANGER	HANGER	Clark	OS	N/A	0	36°5' 45.507"	-115°9' 57.394"
1	MT. CHARLESTON	MAINTENANCE STATION	Clark	SR	SR157	5.1	36°16' 19.160"	-115°34' 29.222"
1	INDIAN SPRINGS	MAINTENANCE STATION	Clark	OS	MACFARLANE AVENUE	0	36°34' 14.438"	-115°40' 15.093"
1	SEARCHLIGHT	MAINTENANCE STATION	Clark	SR	SR164	18.4	35°27' 57.160"	-114°55' 18.401"
1	MT. SPRINGS	MAINTENANCE STATION	Clark	SR	SR160	21.3	36°1' 22.498"	-115°30' 24.493"
1	GLENDALE	MAINTENANCE STATION	Clark	FR	FRCL55	94	36°40' 23.003"	-114°31' 23.452"
1	GOLDFIELD	MAINTENANCE STATION	Esmeralda	OS	SOUTH STREET	19.3	37°42' 18.329"	-117°14' 32.179"
1	PANACA	MAINTENANCE STATION	Lincoln	SR	SR319	1.7	37°47' 26.229"	-114°22' 33.906"
1	ALAMO	MAINTENANCE STATION	Lincoln	US	US93	41	37°22' 11.210"	-115°9' 33.533"
1	ALAMO	MAINTENANCE STATION	Lincoln	US	US93	41	37°22' 11.210"	-115°9' 33.533"
1	MINA	MAINTENANCE STATION	Mineral	US	US95	15.3	38°23' 8.738"	-118°6' 23.865"
1	MONTGOMERY PASS	MAINTENANCE STATION	Mineral	AR	ARMI01	0	37°58' 37.645"	-118°19' 11.181"
1	BEATTY	MAINTENANCE STATION	Nye	US	US95	59.9	36°54' 36.833"	-116°45' 23.175"
1	TONOPAH	MAINTENANCE STATION	Nye	US	US95	150.1	38°3' 44.161"	-117°13' 25.026"
1	BIG SMOKEY	MAINTENANCE STATION	Nye	SR	SR376	53.3	38°47' 0.240"	-117°10' 26.286"
1	BLUE JAY	MAINTENANCE STATION	Nye	US	US6	67.3	38°22' 20.339"	-116°13' 29.472"
1	SOUTH LAS VEGAS	MAINTENANCE YARD	Clark	OS	LOOP ROAD	0	36°4' 10.532"	-115°12' 10.924"
1	GABBS	MATERIALS SITE	Nye	SR	SR361	12.8	38°55' 11.564"	-117°56' 23.986"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
	INTERNATIONAL 2							
1	COTTONTAIL	SALT-SAND	Esmeralda	SR	SR266	40.2	37°30' 2.894"	-117°11' 10.882"
1	COLEDALE	SALT-SAND	Esmeralda	US	US6	80.6	38°1' 35.361"	-117°52' 50.562"
1	GOLDFIELD	SALT-SAND	Esmeralda	OS	SOUTH STREET	19.3	37°42' 17.658"	-117°14' 30.380"
1	TOQUIMA	SALT-SAND	Lander	SR	SR376	17.7	39°24' 4.419"	-116°56' 39.170"
1	PIOCHE	SALT-SAND	Lincoln	US	US93	153.4	38°24' 16.629"	-114°37' 45.591"
1	ALAMO	SALT-SAND	Lincoln	US	US93	38.9	37°22' 9.075"	-115°9' 31.685"
1	JCT 93/318	SALT-SAND	Lincoln	SR	SR318	0.1	37°31' 44.080"	-115°13' 15.124"
1	MINA	SALT-SAND	Mineral	US	US95	15.1	38°22' 58.405"	-118°6' 25.587"
1	ALAMO	MAINTENANCE STATION	Lincoln	US	US93	41	37°22' 11.210"	-115°9' 33.533"
1	MINA	MAINTENANCE STATION	Mineral	US	US95	15.3	38°23' 8.738"	-118°6' 23.865"
1	MONTGOMERY PASS	MAINTENANCE STATION	Mineral	AR	ARMI01	0	37°58' 37.645"	-118°19' 11.181"
1	BEATTY	MAINTENANCE STATION	Nye	US	US95	59.9	36°54' 36.833"	-116°45' 23.175"
1	TONOPAH	MAINTENANCE STATION	Nye	US	US95	150.1	38°3' 44.161"	-117°13' 25.026"
1	BIG SMOKEY	MAINTENANCE STATION	Nye	SR	SR376	53.3	38°47' 0.240"	-117°10' 26.286"
1	BLUE JAY	MAINTENANCE STATION	Nye	US	US6	67.3	38°22' 20.339"	-116°13' 29.472"
1	SOUTH LAS VEGAS	MAINTENANCE YARD	Clark	OS	LOOP ROAD	0	36°4' 10.532"	-115°12' 10.924"
1	GABBS INTERNATIONAL 2	MATERIALS SITE	Nye	SR	SR361	12.8	38°55' 11.564"	-117°56' 23.986"
1	GABBS INTERNATIONAL	STOCKPILE	Nye	SR	SR361	13	38°55' 13.266"	-117°57' 12.928"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
2	RENO	DISTRICT 2 HQ	Washoe	OS	GALLETTI WAY	0	39°31' 57.918"	-119°46' 49.243"
2	CARSON CITY HANGAR	HANGER	Carson City	OS	COLLEGE PARKWAY	0	39°11' 27.162"	-119°43' 58.688"
2	HOT SPRINGS FACILITY	MAINTENANCE HQ	Carson City	OS	OLD HOT SPRINGS ROAD	0	39°11' 30.825"	-119°45' 12.570"
2	TAHOE GOLF CLUB DR	MAINTENANCE RECHARGE	Carson City	FR	FRCC08	0	39°7' 1.462"	-119°50' 40.422"
2	CARSON CITY	MAINTENANCE STATION	Carson City	FR	FRCC04	0.4	39°9' 17.786"	-119°45' 44.207"
2	COLD SPRINGS	MAINTENANCE STATION	Churchill	AR	ARCH01	0	39°24' 42.061"	-117°50' 22.108"
2	FALLON	MAINTENANCE STATION	Churchill	SR	SR115	4.5	39°27' 59.168"	-118°45' 47.714"
2	SPOONER	MAINTENANCE STATION	Douglas	AR	ARDO01	0	39°5' 45.108"	-119°54' 37.694"
2	GARDNERVILLE	MAINTENANCE STATION	Douglas	OS	PINENUT ROAD	0	38°54' 45.807"	-119°41' 28.790"
2	FERNLEY	MAINTENANCE STATION	Lyon	FR	FRLY04	0.1	39°36' 31.393"	-119°15' 53.655"
2	WELLINGTON	MAINTENANCE STATION	Lyon	SR	SR829	3	38°45' 3.459"	-119°22' 9.058"
2	YERINGTON	MAINTENANCE STATION	Lyon	SR	SR208	29	38°59' 32.356"	-119°9' 45.978"
2	HAWTHORNE	MAINTENANCE STATION	Mineral	OS	8TH STREET	0	38°31' 45.680"	-118°36' 59.754"
2	LOVELOCK	MAINTENANCE STATION	Pershing	OS	GRANNEL AVENUE	0	40°10' 37.574"	-118°28' 48.002"
2	VIRIGINIA CITY	MAINTENANCE STATION	Storey	SR	SR341	2.5	39°17' 55.609"	-119°39' 19.272"
2	INCLINE VILLAGE	MAINTENANCE STATION	Washoe	SR	SR431	0.1	39°15' 9.225"	-119°58' 16.026"
2	RENO YARD	MAINTENANCE STATION	Washoe	OS	GALLETTI WAY	0	39°31' 58.260"	-119°46' 57.728"
2	OASIS PIT	MAINTENANCE YARD	Carson City	US	US50	7.2	39°7' 9.012"	-119°46' 39.977"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
2	WONDER	MAINTENANCE YARD	Churchill	US	US50	60.5	39°17' 15.250"	-118°9' 43.289"
2	FALLON SOUTH	MAINTENANCE YARD	Churchill	US	US95	23.3	39°26' 5.578"	-118°46' 55.602"
2	SPOONER EAST	MAINTENANCE YARD	Douglas	US	US50	13.4	39°6' 20.670"	-119°53' 27.429"
2	KINGSBURY	MAINTENANCE YARD	Douglas	SR	SR207	8.9	38°57' 16.688"	-119°50' 54.136"
2	YERINGTON	MAINTENANCE YARD	Lyon	SR	SR339	11.1	38°59' 18.030"	-119°10' 56.919"
2	SCHURZ	MAINTENANCE YARD	Mineral	US	US95A	82.8	38°56' 26.865"	-118°48' 39.338"
2	LOVELOCK NORTH	MAINTENANCE YARD	Pershing	SR	SR396	1.6	40°11' 22.582"	-118°28' 0.979"
2	LOVELOCK STOCKPILE	MAINTENANCE YARD	Pershing	FR	FRPE01	16.1	40°9' 52.729"	-118°29' 6.343"
2	STEAD	MAINTENANCE YARD	Washoe	US	US395	23.9	39°37' 13.427"	-119°53' 12.950"
2	GALENA CREEK	MAINTENANCE YARD	Washoe	SR	SR431	17.2	39°21' 14.211"	-119°51' 21.130"
2	MT. ROSE	MAINTENANCE YARD	Washoe	SR	SR431	13.1	39°20' 23.152"	-119°52' 33.774"
2	WINTERS RANCH	MAINTENANCE YARD	Washoe	SR	SR429	7.8	39°18' 30.364"	-119°49' 30.639"
2	LOVELOCK	MAINTENANCE STATION	Pershing	OS	GRANNEL AVENUE	0	40°10' 37.574"	-118°28' 48.002"
2	VIRIGINIA CITY	MAINTENANCE STATION	Storey	SR	SR341	2.5	39°17' 55.609"	-119°39' 19.272"
2	INCLINE VILLAGE	MAINTENANCE STATION	Washoe	SR	SR431	0.1	39°15' 9.225"	-119°58' 16.026"
2	RENO YARD	MAINTENANCE STATION	Washoe	OS	GALLETTI WAY	0	39°31' 58.260"	-119°46' 57.728"
2	OASIS PIT	MAINTENANCE YARD	Carson City	US	US50	7.2	39°7' 9.012"	-119°46' 39.977"
2	WONDER	MAINTENANCE YARD	Churchill	US	US50	60.5	39°17' 15.250"	-118°9' 43.289"
2	FALLON SOUTH	MAINTENANCE YARD	Churchill	US	US95	23.3	39°26' 5.578"	-118°46' 55.602"
2	SPOONER EAST	MAINTENANCE YARD	Douglas	US	US50	13.4	39°6' 20.670"	-119°53' 27.429"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
2	KINGSBURY	MAINTENANCE YARD	Douglas	SR	SR207	8.9	38°57' 16.688"	-119°50' 54.136"
2	YERINGTON	MAINTENANCE YARD	Lyon	SR	SR339	11.1	38°59' 18.030"	-119°10' 56.919"
2	SCHURZ	MAINTENANCE YARD	Mineral	US	US95A	82.8	38°56' 26.865"	-118°48' 39.338"
2	LOVELOCK NORTH	MAINTENANCE YARD	Pershing	SR	SR396	1.6	40°11' 22.582"	-118°28' 0.979"
2	LOVELOCK STOCKPILE	MAINTENANCE YARD	Pershing	FR	FRPE01	16.1	40°9' 52.729"	-118°29' 6.343"
2	STEAD	MAINTENANCE YARD	Washoe	US	US395	23.9	39°37' 13.427"	-119°53' 12.950"
2	GALENA CREEK	MAINTENANCE YARD	Washoe	SR	SR431	17.2	39°21' 14.211"	-119°51' 21.130"
2	MT. ROSE	MAINTENANCE YARD	Washoe	SR	SR431	13.1	39°20' 23.152"	-119°52' 33.774"
2	WINTERS RANCH	MAINTENANCE YARD	Washoe	SR	SR429	7.8	39°18' 30.364"	-119°49' 30.639"
2	GALENA	MAINTENANCE YARD	Washoe	SR	SR431	23.7	39°23' 48.728"	-119°45' 32.799"
2	CLEAR ACRE YARD	MAINTENANCE YARD	Washoe	IR	580	27.5	39°33' 11.835"	-119°47' 20.928"
2	CARSON CITY	NDOT HQ	Carson City	FR	FRCC04	0.3	39°9' 24.320"	-119°45' 49.342"
2	LANDMARK	NDOT HQ	Carson City	FR	FRCC01	1.9	39°7' 11.446"	-119°46' 15.399"
2	TRINITY	SALT-SAND	Churchill	US	US95	58.9	39°56' 26.567"	-118°44' 54.327"
2	LEVIATHAN	SALT-SAND	Douglas	US	US395	8.8	38°48' 12.670"	-119°36' 24.096"
2	HEAVENLY	SALT-SAND	Douglas	SR	SR207	3.7	38°58' 41.582"	-119°53' 11.240"
2	DOUGLAS COUNTY	SALT-SAND	Douglas	OS	AIRPORT ROAD	0	39°0' 17.963"	-119°45' 35.546"
2	GARDNERVILLE	SALT-SAND	Douglas	OS	PINENUR ROAD	0	38°54' 37.760"	-119°41' 31.014"
2	DAYTON EAST	SALT-SAND	Lyon	US	US50	12	39°18' 13.221"	-119°30' 48.928"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
2	SILVER SPRINGS	SALT-SAND	Lyon	US	US50	29.3	39°24' 53.696"	-119°13' 34.530"
2	EXIT 119	SALT-SAND	Pershing	IR	IR80	31	40°20' 3.745"	-118°19' 16.348"
2	HUMBOLDT HOUSE	SALT-SAND	Pershing	IR	IR80	49.9	40°35' 54.937"	-118°15' 5.045"
2	SALT PILES OUTSIDE	SALT-SAND	Pershing	FR	FRPE408	0	40°20' 16.251"	-118°18' 46.617"
2	TRACY	SALT-SAND	Washoe	FR	FRWA15	31.9	39°34' 1.146"	-119°30' 5.745"
3	ELKO	DISTRICT 3 HQ	Elko	OS	IDAHO STREET	0	40°50' 46.557"	-115°45' 1.012"
3	NDOT WELLS CON FIELD OFFICE	MAINTENANCE OFFICE	Elko	SR	SR223	74.2	41°6' 31.287"	-114°58' 27.978"
3	INDEPENDENCE VALLEY	MAINTENANCE STATION	Elko	SR	SR226	19.5	41°18' 6.655"	-116°6' 53.597"
3	NORTH FORK	MAINTENANCE STATION	Elko	SR	SR225	50.6	41°29' 0.504"	-115°48' 55.124"
3	CONTACT	MAINTENANCE STATION	Elko	US	US93	125.3	41°46' 9.149"	-114°45' 8.599"
3	PEQUOP	MAINTENANCE STATION	Elko	FR	FREL43	97.6	41°3' 42.135"	-114°31' 54.275"
3	RUBY VALLEY	MAINTENANCE STATION	Elko	SR	SR229	35.5	40°37' 55.904"	-115°15' 57.305"
3	WELLS	MAINTENANCE STATION	Elko	SR	SR223	0.8	41°6' 45.573"	-114°58' 10.606"
3	WEST WENDOVER	MAINTENANCE STATION	Elko	FR	FREL59	0	40°44' 36.148"	-114°3' 51.818"
3	CURRIE	MAINTENANCE STATION	Elko	AR	AREL74	0	40°15' 59.550"	-114°44' 44.450"
3	EMIGRANT	MAINTENANCE STATION	Eureka	FR	FREU08	0.1	40°39' 0.192"	-116°18' 9.969"
3	EUREKA	MAINTENANCE STATION	Eureka	US	US50	36.6	39°31' 4.613"	-115°57' 45.964"
3	QUINN RIVER	MAINTENANCE STATION	Humboldt	SR	SR140	51.8	41°45' 55.575"	-118°32' 59.718"
3	OROVADA	MAINTENANCE STATION	Humboldt	US	US95	57.7	41°34' 6.469"	-117°47' 4.137"

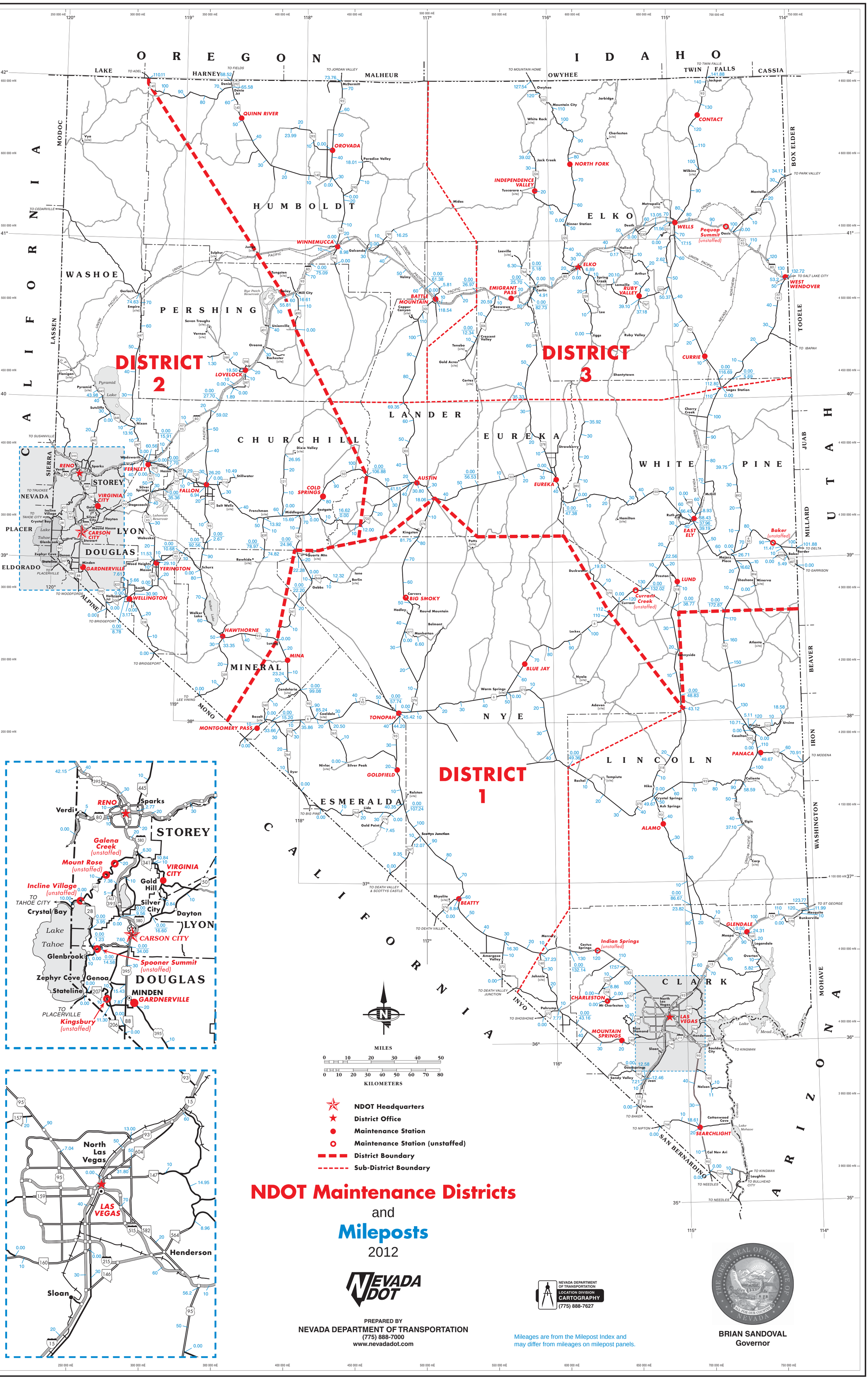
DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
3	WINNEMUCCA	MAINTENANCE STATION	Humboldt	OS	WEST 4TH STREET	0	40°58' 1.425"	-117°44' 25.533"
3	AUSTIN	MAINTENANCE STATION	Lander	SR	SR305	31	39°30' 11.162"	-117°5' 0.037"
3	BATTLE MOUNTAIN	MAINTENANCE STATION	Lander	OS	4TH STREET	0	40°38' 13.660"	-116°56' 3.459"
3	CURRANT	MAINTENANCE STATION	Nye	AR	ARNY47	0	38°49' 3.301"	-115°20' 51.991"
3	ELY	MAINTENANCE STATION	White Pine	US	US93	54.4	39°15' 30.213"	-114°51' 42.514"
3	LUND	MAINTENANCE STATION	White Pine	SR	SR318	11.9	38°52' 14.455"	-115°0' 32.262"
3	BAKER	MAINTENANCE STATION	White Pine	AR	ARWP12	0	39°5' 12.749"	-114°14' 15.569"
3	WELLS EAST YARD	MAINTENANCE YARD	Elko	IR	IR80	74.5	41°6' 6.752"	-114°54' 20.461"
3	PARADISE VALLEY	MAINTENANCE YARD	Humboldt	US	US95	36.6	41°17' 23.165"	-117°41' 30.624"
3	SALVAGE YARD	MAINTENANCE YARD	Humboldt	FR	FRHU15	9.4	40°55' 39.710"	-117°47' 58.214"
3	MAGGIE SUMMIT ROAD	MATERIALS SITE	Elko	SR	SR225	78.7	41°46' 47.390"	-115°56' 41.958"
3	INDEPENDENCE VALLEY	SALT-SAND	Elko	SR	SR226	19.4	41°18' 1.226"	-116°6' 55.482"
3	NORTH FOLK	SALT-SAND	Elko	SR	SR225	51.4	41°29' 32.119"	-115°49' 26.080"
3	MOUNTAIN CITY	SALT-SAND	Elko	SR	SR225	109.1	41°48' 56.401"	-115°57' 7.483"
3	DEETH	SALT-SAND	Elko	SR	SR230	0.6	41°3' 55.078"	-115°17' 13.098"
3	HD SUMMIT	SALT-SAND	Elko	US	US93	95.6	41°22' 31.048"	-114°47' 7.857"
3	EXIT 365, INDEPENDENCE VALLEY	SALT-SAND	Elko	FR	FREL38	87.3	41°5' 29.507"	-114°42' 39.745"
3	MONTELLO	SALT-SAND	Elko	SR	SR233	20.8	41°14' 11.978"	-114°13' 18.942"
3	ELKO	SALT-SAND	Elko	SR	SR535	20.5	40°48' 31.259"	-115°49' 34.817"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
3	HALLECK	SALT-SAND	Elko	IR	IR80	42.8	40°57' 23.040"	-115°28' 58.412"
3	SILVERTON PASS	SALT-SAND	Elko	IR	IR80	112.1	40°55' 32.968"	-114°19' 38.119"
3	WARM SPRINGS	SALT-SAND	Elko	US	US93	49.5	40°45' 28.044"	-115°2' 11.132"
3	UNNAMED	SALT-SAND	Elko	US	US93A	30.2	40°25' 38.543"	-114°10' 43.338"
3	SPRING CREEK	SALT-SAND	Elko	SR	SR228	0.6	40°46' 39.640"	-115°40' 41.495"
3	CARLIN	SALT-SAND	Elko	OS		4.2	40°43' 43.245"	-116°4' 55.758"
3	WENDOVER	SALT-SAND	Elko	FR	FREL59	0	40°44' 35.594"	-114°3' 53.394"
3	NORTH OF CURRIE	SALT-SAND	Elko	US	US93	13.7	40°17' 23.922"	-114°45' 48.863"
3	NEW TUSCARORA JUNCTION	SALT-SAND	Elko	SR	SR225	56.5	41°11' 3.497"	-115°49' 24.906"
3	RUBY VALLEY	SALT-SAND	Elko	SR	SR229	35.6	40°37' 50.928"	-115°15' 59.722"
3	ALPHA	SALT-SAND	Eureka	SR	SR278	35.3	40°0' 59.858"	-116°11' 32.869"
3	UNNAMED	SALT-SAND	Eureka	SR	SR278	61.3	40°22' 16.978"	-116°6' 45.039"
3	DUNPHY	SALT-SAND	Eureka	FR	FREU02	5.5	40°41' 50.643"	-116°33' 17.073"
3	1000 CREEK	SALT-SAND	Humboldt	SR	SR140	88.2	41°53' 59.408"	-118°59' 24.839"
3	GOLCONDA SUMMIT	SALT-SAND	Humboldt	IR	IR80	36.1	40°55' 18.111"	-117°23' 37.228"
3	VALMY	SALT-SAND	Humboldt	FR	FRHU10	1.3	40°47' 19.108"	-117°7' 42.617"
3	BUTTON POINT	SALT-SAND	Humboldt	IR	IR80	24.1	41°0' 54.007"	-117°34' 22.782"
3	MCDERMITT	SALT-SAND	Humboldt	US	US95	85.3	41°57' 38.804"	-117°42' 36.806"
3	HUMBOLDT	SALT-SAND	Humboldt	SR	SR795	1.2	41°0' 17.693"	-117°43' 53.461"
3	UNNAMED	SALT-SAND	Humboldt	SR	SR140	14.4	41°24' 52.565"	-118°3' 33.355"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
3	QUINN RIVER	SALT-SAND	Humboldt	SR	SR140	51.9	41°45' 58.879"	-118°33' 7.376"
3	SALVAGE YARD	SALT-SAND	Humboldt	FR	FRHU15	9.4	40°55' 38.451"	-117°48' 4.274"
3	SR140 STOCKPILE	SALT-SAND	Humboldt	SR	SR140	109.8	41°59' 26.504"	-119°19' 7.981"
3	HUMBOLDT	SALT-SAND	Humboldt	US	US95	2.5	41°0' 22.394"	-117°43' 56.710"
3	ARGENTA	SALT-SAND	Lander	IR	IR80	19.2	40°39' 43.542"	-116°44' 6.767"
3	ANTELOPE VALLEY	SALT-SAND	Lander	SR	SR305	41.9	40°2' 45.681"	-117°11' 3.613"
3	NEW PASS	SALT-SAND	Lander	US	US50	0.4	39°32' 26.950"	-117°28' 44.678"
3	BATTLE MOUNTAIN	SALT-SAND	Lander	IR	IR80	4.2	40°39' 47.464"	-116°57' 46.034"
3	AUSTIN	SALT-SAND	Lander	US	US50	23.1	39°30' 2.784"	-117°4' 58.948"
3	UNNAMED	SALT-SAND	Lincoln	SR	SR318	43.67	38°4' 40.806"	-114°58' 51.514"
3	SUNNYSIDE	SALT-SAND	Nye	SR	SR318	21.2	38°27' 7.994"	-115°0' 44.067"
3	CURRANT	SALT-SAND	Nye	US	US6	128.2	38°49' 3.337"	-115°20' 51.957"
3	COSGRAVE	SALT-SAND	Pershing	FR	FRPE21	0	40°47' 24.923"	-117°59' 37.644"
3	LUND	SALT-SAND	White Pine	SR	SR318	11.9	38°52' 14.653"	-115°0' 30.703"
3	LAGES STATION	SALT-SAND	White Pine	US	US93	112.9	40°3' 54.105"	-114°36' 53.947"
3	STRAWBERRY	SALT-SAND	White Pine	US	US50	3.9	39°22' 28.477"	-115°50' 18.363"
3	MOORMAN	SALT-SAND	White Pine	US	US50	34.2	39°21' 20.434"	-115°20' 11.967"
3	ROBINSON SUMMIT	SALT-SAND	White Pine	US	US50	44	39°25' 47.060"	-115°10' 54.850"
3	SCHELLBOURNE	SALT-SAND	White Pine	US	US93	92.7	39°47' 48.574"	-114°44' 28.024"
3	MAJORS PLACE	SALT-SAND	White Pine	US	US6/50/93	27	39°1' 28.424"	-114°34' 48.379"

DIST.	FACILITY NAME	TYPE	COUNTY	TYPE	ROUTE	MILEPOST	LATITUDE	LONGITUDE
3	ELY	SALT-SAND	White Pine	US	US93	54.4	39°15' 33.944"	-114°51' 41.450"
3	CEDAR PARK	SALT-SAND	White Pine	US	US6	40.36	39°13' 39.613"	-114°51' 34.913"
3	IIIPAH	SALT-SAND	White Pine	US	US50	27.9	39°22' 55.303"	-115°25' 32.161"
3	GRIMES PIT	STOCKPILE	Lander	US	US50	54.3	39°28' 23.474"	-116°38' 2.951"
3	ELDORADO	STOCKPILE	White Pine	SR	SR490	0	39°18' 52.555"	-114°52' 8.534"

NDOT Maintenance Districts and Mileposts 2012



PREPARED BY
NEVADA DEPARTMENT OF TRANSPORTATION
(775) 888-7000
www.nevadadot.com

NEVADA DEPARTMENT OF TRANSPORTATION
LOCATION DIVISION
CARTOGRAPHY
(775) 888-7627

Mileages are from the Milepost Index and may differ from mileages on milepost panels.

BRIAN SANDOVAL
Governor

ASPHALT ZONE CHART & MAINTENANCE DISTRICTS

PREPARED BY
NEVADA DEPARTMENT OF TRANSPORTATION
LOCATION DIVISION

- N.D.O.T. Headquarters
- District Office
- Maintenance Station
- District Boundary
- 00 Mileposts

MILE
0 10 20 30 40 50
KILOMETER
0 10 20 30 40 50 60 70 80

BASE HIGHWAY MAP

NEVADA

2011

Brian Sandoval, *Governor*

Susan Martinovich, P.E., *Director*

DISTRICT 1
Zone 1
Las Vegas
Sub District

DISTRICT 2
Zone 2
Reno/Carson City
Sub District

DISTRICT 3
Zone 3
Elko
Sub District

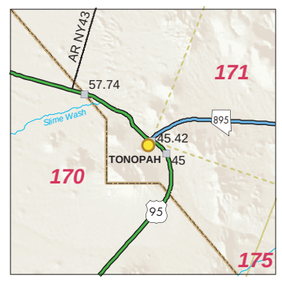
DISTRICT
Zone 4
Ely
Sub District

DISTRICT
Zone 5
Tonopah
Sub District

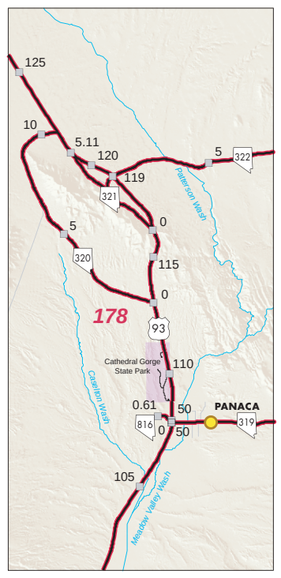
DISTRICT
Zone 6
Winnemucca
Sub District

Comments or suggestions should be directed to:
Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712
(775) 888-7000
www.nevadadot.com

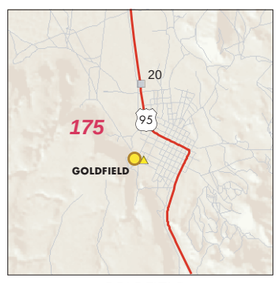
Nevada Department of Transportation
District I
MS4 Map



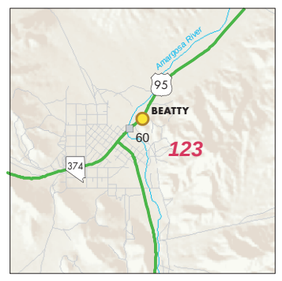
TONOPAH



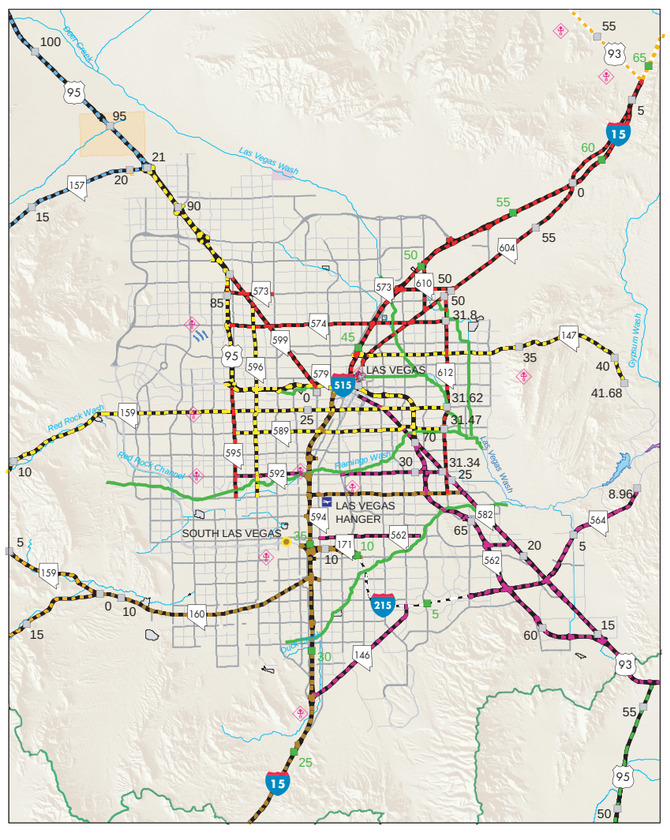
PANACA



GOLDFIELD



BEATTY



LAS VEGAS

LAS VEGAS MAINTENANCE CREWS

- 122
- 124
- 126
- 127
- 129

LEGEND

MAINTENANCE FEATURES

- DISTRICT 1 HQ
- MAINTENANCE STATION
- MAINTENANCE YARD
- SALT-SAND
- COMMUNICATION TOWER
- REST AREA
- TRUCK PARKING
- ROAD WEATHER INFORMATION SYSTEM (RWIS)
- NDOT HANGER

STREAMS AND WATERBODIES

- PERENNIAL
- INTERMITTENT
- DRY
- INTERMITTENT
- PERENNIAL
- 303(d) STREAMS
- TMDL STREAMS
- 303(d) LAKES
- TMDL LAKES

MILEPOSTS

- GREEN - STATE MILEPOST
- WHITE - COUNTY MILEPOST

BOUNDARIES

- STATE PARKS
- BUREAU OF INDIAN AFFAIRS
- HYDROLOGIC REGION

TONOPAH MAINTENANCE CREWS

- 170
- 171

PANACA MAINTENANCE CREWS

- 178

GOLDFIELD MAINTENANCE CREWS

- 175

BEATTY MAINTENANCE CREWS

- 123

Map Scale = 1:520,000

0 10 20 40 60 80 Miles

0 15 30 60 90 120 Kilometers

Brian Sandoval
Governor

Rodolfo Malfabon, P.E.
Director
1263 South Stewart Street
Carson City, NV 89712
(775) 888-7000

This map is for display purposes only.
Map compiled from best available data sources.
Mileages may differ from mileages on milepost panels.
Not all features may be portrayed due to scale.
Fourth Edition 2013

NEVADA DEPARTMENT OF TRANSPORTATION
LOCATION DIVISION
CARTOGRAPHY
(775) 888-7627

Nevada Department of Transportation
District II MS4 Map

OREGON

CALIFORNIA

DISTRICT 3

DISTRICT 1

RENO

FALLON

CARSON CITY

SMITH VALLEY

HAWTHORNE

FERNLEY

YERINGTON

LOVELOCK

Humboldt

Washoe

Pershing

Churchill

Storey

Lyon

Carson City

Douglas

Mineral

Nye

Lander

Pyramid Lake Indian Reservation

Reno/Sparks Indian Colony (Hungry Valley Reservation)

Fallon Indian Reservation

Stewart Indian Colony

Yerington Indian Reservation (campbell Ranch)

Walker River Indian Reservation

Summit Lake Indian Reservation

LEGEND

MAINTENANCE FEATURES

- NDOT HQ
- DISTRICT 2 HQ
- MAINTENANCE STATION
- MAINTENANCE YARD
- SALT-SAND
- COMMUNICATION TOWER
- REST AREA
- TRUCK PARKING
- ROAD WEATHER INFORMATION SYSTEM (RWIS)
- NDOT HANGER
- MAINTENANCE HQ

STREAMS AND WATERBODIES

- PERENNIAL
- INTERMITTENT
- DRY
- INTERMITTENT
- PERENNIAL

MILEPOSTS

- GREEN - STATE MILEPOST
- WHITE - COUNTY MILEPOST
- 303(d) STREAMS
- TMDL STREAMS
- 303(d) LAKES
- TMDL LAKES

BOUNDARIES

- STATE PARKS
- BUREAU OF INDIAN AFFAIRS
- HYDROLOGIC REGION

MAINTENANCE CREWS (FALLON)

- 237 Hawthorne
- 280 Fallon
- 281 Fallon
- 282 Coldsprings

MAINTENANCE CREWS (CARSON)

- 227 Gardnerville
- 250 Reno SR431
- 270 CC US395
- 271 Spooner
- 272 CC US50
- UNDER CONSTRUCTION

MAINTENANCE CREWS (FERNLEY)

- 225 Fernley
- 231 Nixon
- 235 Wellington
- 236 Yerignton
- 283 Lovelock

MAINTENANCE CREWS (RENO

- 234 Virginia City
- 251 Reno US395
- 252 Reno I580
- 253 Reno I80

Map Scale = 1:438,000

1 in = 7 miles

0 5 10 20 30 40 Miles

0 10 20 40 60 80 Kilometers

N

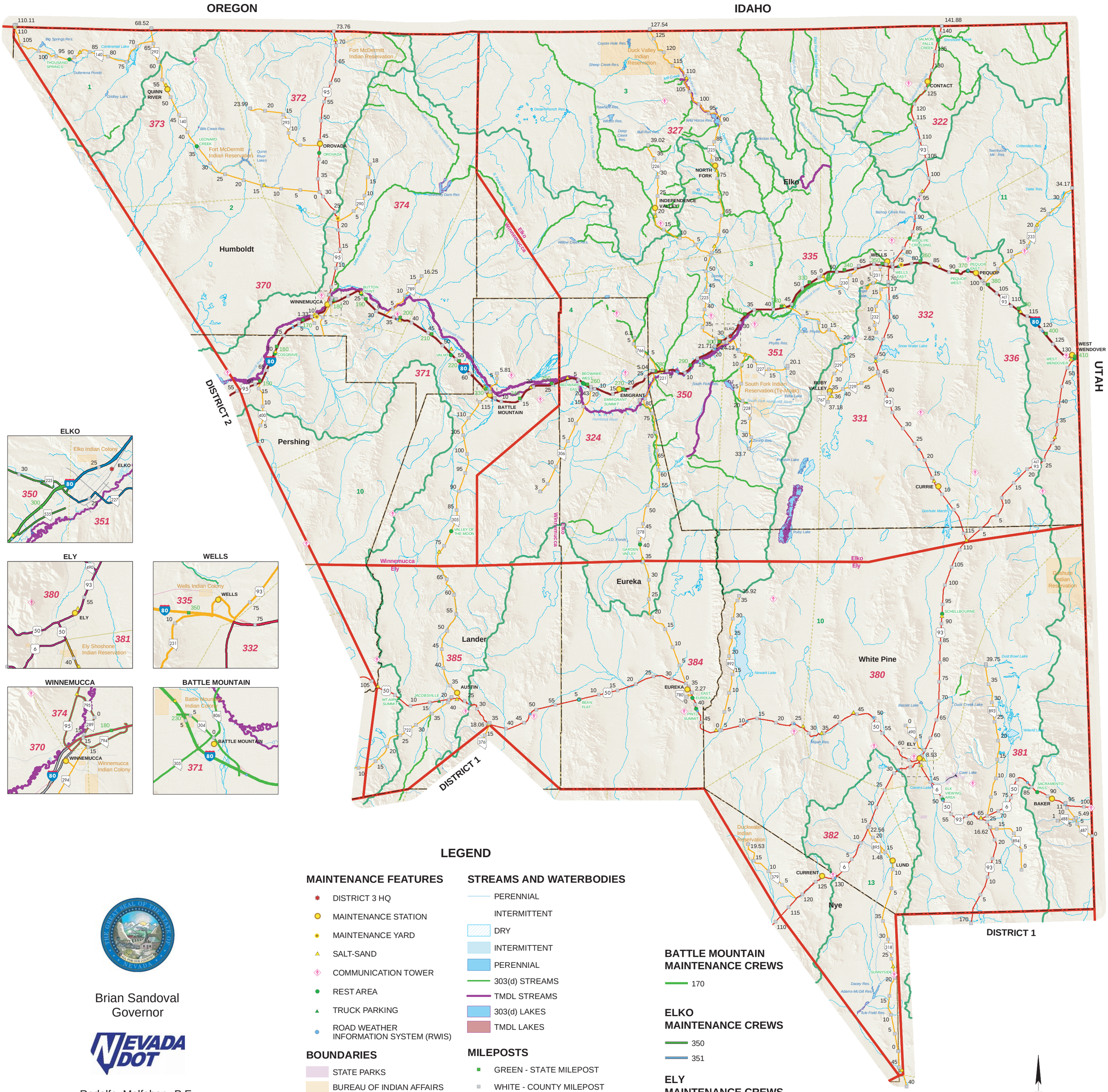
NEVADA DEPARTMENT OF TRANSPORTATION
LOCATION DIVISION
CARTOGRAPHY
(775) 888-7627

Brian Sandoval
Governor

Rodolfo Malfabon, P.E.
Director
1263 South Stewart Street
Carson City, NV 89712
(775) 888-7000

This map is for display purposes only.
Map compiled from best available data sources.
Mileages may differ from mileages on milepost panels.
Not all features may be portrayed due to scale.
Fourth Edition 2013

Nevada Department of Transportation
District III
MS4 Map



LEGEND

MAINTENANCE FEATURES
- DISTRICT 3 HQ
- MAINTENANCE STATION
- MAINTENANCE YARD
- SALT-SAND
- COMMUNICATION TOWER
- REST AREA
- TRUCK PARKING
- ROAD WEATHER INFORMATION SYSTEM (RWIS)

STREAMS AND WATERBODIES
- PERENNIAL
- INTERMITTENT
- DRY
- INTERMITTENT
- PERENNIAL
- 303(d) STREAMS
- TMDL STREAMS
- 303(d) LAKES
- TMDL LAKES

BOUNDARIES
- STATE PARKS
- BUREAU OF INDIAN AFFAIRS
- HYDROLOGIC REGION

MILEPOSTS
- GREEN - STATE MILEPOST
- WHITE - COUNTY MILEPOST

Map Scale = 1:550,000

1 in = 9 miles

0 10 20 40 60 80 Miles

0 15 30 60 90 120 Kilometers

BATTLE MOUNTAIN MAINTENANCE CREWS
- 170

ELKO MAINTENANCE CREWS
- 350
- 351

ELY MAINTENANCE CREWS
- 380
- 381

TONOPAH MAINTENANCE CREWS
- 335
- 332

TONOPAH MAINTENANCE CREWS
- 170
- 374

N

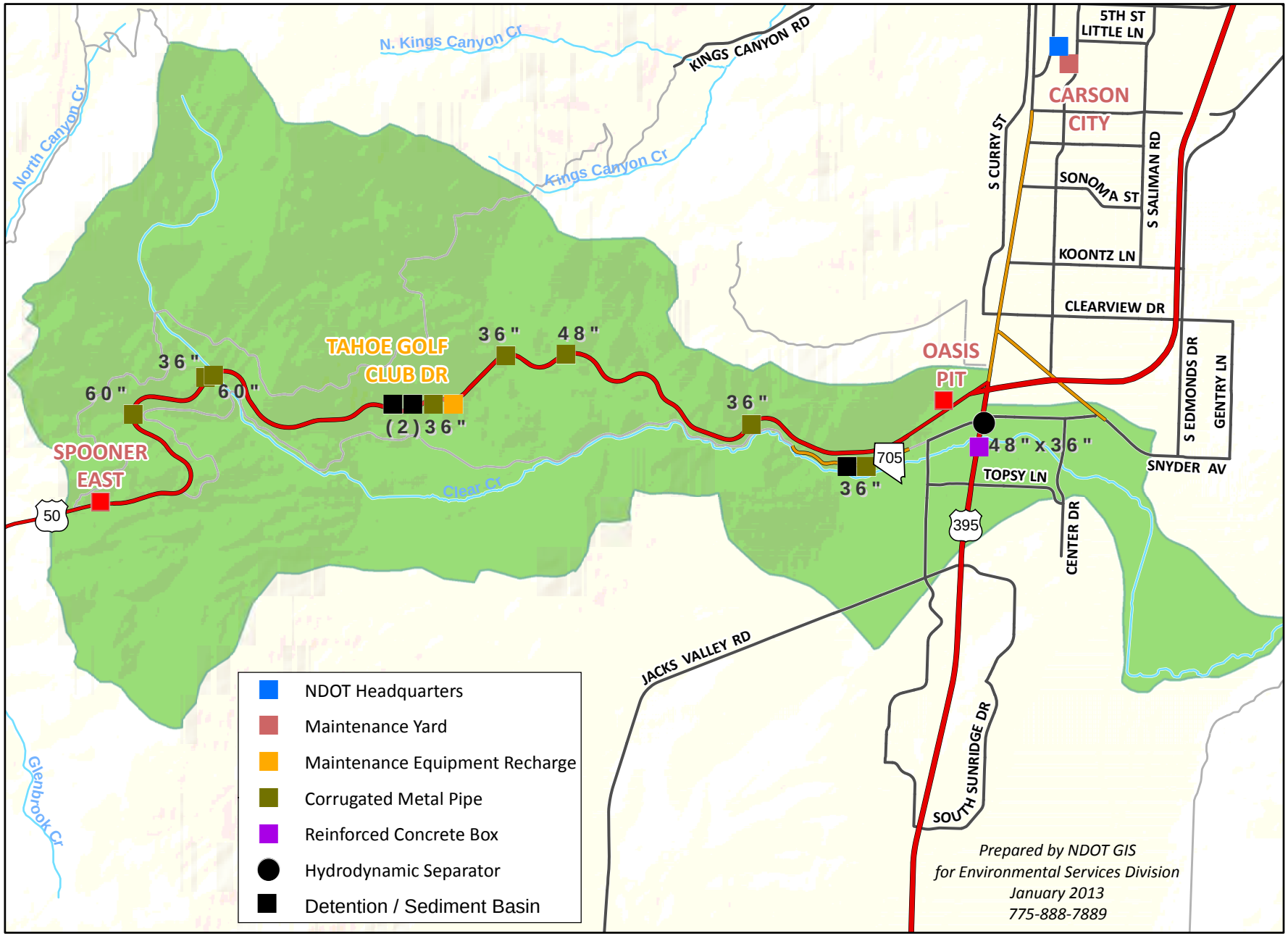
Brian Sandoval
Governor

Rodolfo Malfabon, P.E.
Director
1263 South Stewart Street
Carson City, NV 89712
(775) 888-7000

This map is for display purposes only.
Map compiled from best available data sources.
Mileages may differ from mileages on milepost panels.
Not all features may be portrayed due to scale.
Fourth Edition 2013

NEVADA DEPARTMENT OF TRANSPORTATION
LOCATION DIVISION
CARTOGRAPHY
(775) 888-7627

Nevada Department of Transportation
Clear Creek Watershed
MS4 Map



This map depicts outfalls (as defined in 40CFR § 122.26), Maintenance Facilities, and other water quality/hydraulic facilities of interest.

Appendix B Permit

Permit NV0023329

National Pollutant Discharge Elimination System

Permit for Discharges from Nevada Department of Transportation

Municipal Separate Storm Sewer Systems

Authorization to Discharge under the National Pollutant Discharge Elimination System in compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq.), except as provided in Part I.C of this permit, and Chapter 445A of the Nevada Revised Statutes, the Nevada Department of Transportation is authorized to discharge municipal stormwater runoff to waters of the United States in accordance with the conditions and requirements set forth herein:

Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712

This permit shall become effective on July 7, 2010, and the authorization to discharge shall expire at midnight July 6, 2015.

Signed this 7th day of July, 2010.

Steve McGoff. P.E.
Staff Engineer III
Bureau of Water Pollution Control

Part I. Permit Coverage and Authorized Discharges under this Permit

I.A. Permit Area

I.A.1. This permit covers state and interstate highways and their right-of-ways within the jurisdictional boundary of the Nevada Department of Transportation ("NDOT" or "Permittee") served by, or otherwise contributing to discharges into receiving waters of the United States from municipal separate storm sewer systems ("MS4s") owned or operated by NDOT.

I.B. Authorized Discharges

I.B.1. This permit authorizes new or existing discharges composed entirely of stormwater (and allowable non-stormwater discharges) into NDOT's MS4 (excluding Indian Lands), as defined in 40 Code of Federal Regulations ("CFR") §122.26. NDOT is authorized to discharge in accordance with its approved Stormwater Management Program ("SWMP"), and other terms and conditions of this permit.

I.B.2. The following are authorized discharges:

I.B.2.a **Stormwater discharges.** This permit authorizes stormwater discharges to waters of the United States from NDOT's MS4 identified in Part I.B.2.b, except discharges excluded in Part I.C.

I.B.2.b **Non-stormwater discharges.** NDOT is authorized to discharge the following non-stormwater sources provided that the Nevada Division of Environmental Protection ("NDEP") has not determined these sources to be substantial contributors of pollutants to NDOT's MS4:

I.B.2.b.i Potable water line flushing during testing or fire hydrant testing;
I.B.2.b.ii Diverted stream flows not requiring a separate permit;
I.B.2.b.iii Springs or rising ground waters;
I.B.2.b.iv Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a storm sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.);
I.B.2.b.v Discharges from potable water sources not requiring a separate permit;
I.B.2.b.vi Residential foundation and/or footing drains;
I.B.2.b.vii Air conditioning condensate;
I.B.2.b.viii Irrigation water from lawns and landscaping;
I.B.2.b.ix Water from residential crawl space pumps;
I.B.2.b.x Flows from natural riparian habitats and wetlands not requiring a separate permit;

I.B.2.b.xi De-chlorinated swimming pool discharges;
I.B.2.b.xii Individual residential car washing;
I.B.2.b.xiii Water incidental to street sweeping (including associated side walks and medians) and that is not associated with construction activities;
I.B.2.b.xiv Discharges or flows from fire fighting activities; and
I.B.2.b.xv Dewatering activities not requiring a separate permit.

I.C. Non-Authorized Discharges

I.C.1. This permit does not authorize the following:

I.C.1.a Discharges of non-stormwater, whether or not mixed with stormwater, unless such non-stormwater discharges are:

I.C.1.a.i Currently covered under a separate National Pollution Discharge Elimination System ("NPDES") permit, or

I.C.1.a.ii Included in Part I.B. 2 of this permit, or

I.C.1.a.iii Determined not to be a substantial contributor of pollutants to waters of the U.S. by NDEP.

I.C.1.b Stormwater discharges currently covered under a separate NPDES permit.

I.C.1.c Discharges that do not comply with the Nevada's anti-degradation policy for water quality standards.

I.C.2. Stormwater discharges associated with industrial activity as defined in 40 CFR§122.26(b)(14)(i)-(ix) and (xi) are identified and permitted through a separate NPDES General Industrial Activity permit. These discharges are authorized under NDEP's General Permit NVR050000.

I.C.3. Stormwater discharges associated with construction activity as defined in 40 CFR§122.26(b)(14)(x) or 40 CFR§122.26(b)(15) are identified and permitted through a separate NPDES General Construction Activity permit. These discharges are authorized under NDEP's General Permit NVR100000.

I.C.4. If it is determined that NDOT's discharges cause or contribute to an instream exceedance of water quality standards, NDEP may require corrective action or an application for a separate individual permit or alternative.

I.C.5. NDOT shall comply with all applicable Federal, State, or local laws, regulations, or ordinances.

Part II. Discharges to Water Quality Impaired Waters

II.A. Impaired Waters Listing on 303(d) List

II.A.1. NDOT must evaluate whether stormwater discharges from any part of the MS4 contributes directly or indirectly to the listing of a waterbody on the most current 303(d) list (i.e. impaired waterbody). Information concerning the most current 303(d) list can be found on NDEP's website. If NDOT has discharges meeting this criterion, or if there is a Total Maximum Daily Load ("TMDL") on receiving waters, NDOT must comply with Part II.B. Part II does not apply if NDOT does not have discharges meeting this criterion.

II.B. Total Maximum Daily Load

II.B.1. NDOT must determine whether the MS4 discharges to a waterbody for which a TMDL has been developed and approved by NDEP. If there is a TMDL, NDOT must comply with Part II.B.2. If there is no TMDL, NDOT must comply with Part II.B.3.

II.B.2. If a TMDL is approved for any waterbody into which NDOT discharges, NDOT shall:

II.B.2.a Determine and report whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from NDOT's MS4;

II.B.2.b Determine and report whether the TMDL includes a pollutant wasteload allocation ("WLA") or other performance requirements specifically for stormwater discharge from NDOT's MS4;

II.B.2.c Determine and report whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge;

II.B.2.d Assess whether the WLAs are being met through implementation of existing stormwater control measures or if additional control measures are necessary;

II.B.2.e Document all control measures that are currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the Annual Report. A schedule of implementation for all planned controls shall be included in the revised SWMP as described in Part III of this permit.

II.B.2.f Estimate reductions of pollutants through established and accepted BMP performance studies (such as referenced in the Truckee Meadows Structural Controls Design Manual, Appendix A), calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and shall be reported in the Annual Report;

II.B.2.g The monitoring program required by Section IV.A of this permit shall be customized to determine whether the stormwater controls are adequate to meet the WLA to the Maximum Extent Practicable ("MEP"); and,

II.B.2.h If no WLA currently exists, but is developed during the term of this permit, then NDOT's BMPs outlined in the approved, updated SWMP are expected to be sufficient for the duration of the existing permit period; and

II.B.2.i The need for an iterative approach to control pollutants in stormwater discharges is recognized. If NDOT determines that additional or modified controls are necessary, the SWMP will be updated pursuant to Part III.U.2 of this permit and will describe the type and schedule for the control additions and/or revisions, and an analysis that demonstrates the overall effectiveness.

II.B.3. NDOT must determine whether the MS4 discharges to a water on the current State of Nevada 303(d) List of Impaired Waters. If a waterbody is listed, NDOT shall include a section in the Annual Report describing the conditions(s) for which the water(s) was listed, evaluating possible BMPs that might practicably be implemented, examining whether these BMPs would make a substantial improvement on water quality, and identifying any BMPs that are selected for implementation.

II.C. Discharges to Lake Tahoe and Tributaries to Lake Tahoe

II.C.1. The Lake Tahoe TMDL, scheduled to be adopted by EPA in 2011, identifies urban stormwater as the primary source of fine sediment particles and phosphorous that impairs the clarity of Lake Tahoe. The TMDL Implementation Plan identifies NDOT as a responsible party that will be required to implement controls to reduce fine sediment particle and nutrient loads consistent with specified TMDL WLAs for stormwater.

II.C.2. Within one year of NDEP's approval of the Lake Tahoe TMDL, NDOT shall enter into a Memorandum of Agreement ("MOA") with NDEP for the implementation of the Lake Tahoe TMDL. The MOA shall establish programmatic activities and responsibilities to which NDOT shall commit for implementation of the TMDL. Anticipated elements for inclusion in the MOA include, but are not limited to: a method for calculating and establishing baseline WLAs for stormwater; pollutant load reduction milestone schedule based on TMDL allocations; a Stormwater Load Reduction Plan that describes the strategies and actions that will be implemented to achieve TMDL pollutant reduction milestones; and participation in the Lake Clarity Crediting Program and Regional Stormwater Monitoring Program.

II.C.3. Part II.C of this permit may be reopened for modification by NDEP in order to

incorporate WLAs for stormwater or to amend provisions requiring consistency with changes to the Lake Tahoe TMDL or the MOA.

Part III. Stormwater Management Program

III.A. SWMP Revision

III.A.1. NDOT shall review its existing SWMP to determine whether its current programs need revising to meet the requirements of this permit. NDOT shall implement and enforce its revised SWMP to reduce the discharge of pollutants from NDOT's MS4 to the maximum extent practicable ("MEP") to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act ("CWA").

III.A.2. NDOT shall review, revise as necessary and submit an updated SWMP to NDEP for its review and approval within eighteen (18) months of the effective date of this permit and shall implement the revised SWMP no later than two (2) years after receiving NDEP's approval;

III.A.2.a Before the updated SWMP is submitted to NDEP for its review, it shall be made available for public comment at a meeting noticed in accordance with the Nevada open meeting law;

III.A.2.b The Permittees shall compile any comments received as part of the process in III.A.2, describe the actions taken concerning the public comments and include this information in the revised SWMP;

III.A.3. Within thirty (30) days after the revised SWMP has been approved by NDEP, NDOT shall make the revised SWMP available to the public on its Web page or at another public location (i.e. NDOT office(s)).

III.A.4. The revised SWMP shall include, at a minimum, information about the following programs:

III.A.4.a NDOT's Legal Authority;

III.A.4.b NDOT's Stormwater Education Program;

III.A.4.c NDOT's MS4 Maps and Outfalls;

III.A.4.d Discharges to Water Quality Impaired Waters and Sanitary Sewers;

III.A.4.e Construction Site Best Management Practices ("BMPs") Program;

III.A.4.f New Development and Redevelopment Planning Program;

III.A.4.g NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program;

III.A.4.h Industrial Facility Monitoring and Control;

III.A.4.i Stormwater Discharges from NDOT Maintenance Facilities;

III.A.4.j Public Street Maintenance Program; and

III.A.4.k Herbicide, Pesticide and Fertilizer Application Program.

III.A.5. NDOT shall fully implement all program elements outlined in the revised SWMP before the expiration date of this permit, unless other dates are specified;

III.A.6. NDOT shall provide a list of narrative and/or numerical measurable goals for each program listed in Part III.A.4. At a minimum, the revised SWMP shall include any measurable goals indentified in this permit. NDOT may also identify additional measurable goals, as appropriate, priorities, frequencies, amounts, time-frames, or steps toward development of a program;

III.A.7. NDOT shall provide the dates, including the month and year in which NDOT will achieve each measurable goal;

III.A.8. NDOT shall provide the rationale for how and why NDOT selected each of the program elements and any measurable goals associated with the program;

III.A.9. NDOT shall provide the title(s) of the person(s) responsible for implementing and coordinating each program element;

III.A.10. NDOT shall describe any proposed programs, if applicable, that it may implement during the life of this permit to require additional controls on a system wide basis, a watershed basis, a jurisdictional basis, or on individual outfalls;

III.A.11. NDOT may partner with other permitted MS4s to develop and implement all or part of NDOT's SWMP.

III.A.12. NDOT's SWMP shall clearly describe which Permittee is responsible for implementing each of the control measures; and

III.A.13. Pending submittal of the SWMP, NDOT shall continue to implement and maintain current BMPs detailed in NDOT's current SWMP.

III.B. Legal Authority

III.B.1. The revised SWMP shall describe NDOT's' legal authority that has been established by statute, regulation, or contract documents which authorizes or enables NDOT to:

III.B.1.a Prohibit illicit discharges to the MS4;

III.B.1.b Control discharges to NDOT's MS4 from spills, dumping or disposal of materials other than stormwater;

III.B.1.c Require compliance with conditions in regulation, ordinances, permits, contracts or orders; and

III.B.1.d Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the prohibition of illicit discharges to the MS4s.

III.B.2. NDOT shall provide written notice to NDEP of any formal proposal to modify the regulation or ordinances regulating stormwater discharges into the MS4. Before any regulation or ordinance is modified, NDEP shall at least thirty (30) days to review and comment on the proposed modification.

III.C. MS4 Maps and Outfalls

III.C.1. The revised SWMP shall include, at a minimum, maps of NDOT's MS4 for different sections of Nevada, including the location of any major outfall that discharges to waters of the United States. An outfall is defined in Part VI of this permit.

III.D. Discharges to the Clear Creek Watershed

III.D.1. NDOT shall include a separate Clear Creek Master Stormwater Management Program ("CCSWMP") in its revised SWMP. The CCSWMP shall be implemented and enforced to reduce the discharge of pollutants to the Clear Creek watershed to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The revised CCSWMP shall include the following information:

III.D.1.a A detailed description of BMPs that have been, or will be, implemented on NDOT construction projects located in the Clear Creek watershed;

III.D.1.b A detailed description of sediment controls for all down-slope boundaries (and for those side-slope boundaries deemed appropriate as dictated by individual site conditions) that have been, or will be, used by NDOT on NDOT construction areas located in the Clear Creek watershed;

III.D.1.c A detailed description of control techniques that have been or will be used

by NDOT to the MEP to ensure no illicit discharge of pollutants into Clear Creek;

III.D.1.d A detailed description of system design and engineering methods NDOT has used, or plans to use, to protect Clear Creek from illicit discharges of pollutants;

III.D.1.e A schedule of implementation for all future short-term and long-term activities describing program development, implementation and maintenance;

III.D.1.f An annual monitoring program to ensure the overall quality and health of Clear Creek;

III.D.1.g An inventory and tracking program for all industrial facilities or maintenance yards that have the potential to discharge pollutants into Clear Creek;

III.D.1.h NDOT's inspection program on its MS4 or construction sites to ensure that no illicit discharges of pollutants enter Clear Creek; and

III.D.1.i Other provisions as NDEP determines appropriate for the control of such pollutants.

III.D.2. NDOT may partner with other MS4s to develop and implement the CCSWMP.

III.E. Discharges into Sanitary Sewer Systems

III.E.1. For discharges into facilities treating domestic sewage, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, that are not owned or operated by NDOT, the following shall be provided by NDOT:

III.E.1.a Written and signed confirmation from each facility authorizing the discharge of pollutants into the facility's sanitary sewer system; and,

III.E.1.b All authorizations obtained by NDOT shall be included with the revised SWMP.

III.F. Stormwater Education Program

III.F.1. NDOT shall implement a stormwater education program that includes training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination. The goal of this program is to reduce or eliminate behaviors and practices that cause or contribute to adverse

stormwater quality impacts.

III.F.2. NDOT shall implement an Employee Stormwater Training Program and shall outline the program in the SWMP. The program shall provide for NDOT's employees identified in this permit to receive initial training within twelve (12) months of the effective date of this permit and refresher training at least once every three (3) years thereafter. NDOT shall also provide training to new staff within the first year of hire, and to existing staff when job responsibilities change to newly incorporate stormwater duties.

III.F.3. NDOT shall keep records of all employees who receive stormwater training.

III.F.4. NDOT shall provide stormwater awareness training to educate personnel at all levels of responsibility who are involved in activities that may impact stormwater quality and those staff who may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system.

III.F.5. NDOT shall provide specific stormwater training to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. For each topic, the number of trainings offered, the number of employees trained, and other appropriate measurable goals shall be presented in the Annual Report. The employee training program shall address:

III.F.5.a NDOT shall train all staff whose responsibilities may include responding to illicit discharges or illicit connections to the storm sewer system. Training shall include:

III.F.5.a.i The procedures for detection, investigation, (i.e. field screening procedures, sampling methods, field measurements) identification, clean-up, and reporting of illicit discharges and connections, and improper disposal/dumping; and

III.F.5.a.ii The procedures for outfall screening and investigation;

III.F.5.b NDOT shall train all staff directly involved in managing non-stormwater discharges. The training shall include:

III.F.5.b.i The types of discharges allowed under this permit and those that are prohibited;

III.F.5.b.ii The distinction between non-stormwater discharges and potential pollutant sources;

III.F.5.b.iii The pollutants of concern that may be in non-stormwater discharges;

and

III.F.5.b.iv The BMPs that shall be employed to minimize the discharge of pollutants;

III.F.5.c NDOT shall train all staff directly involved in performing construction site inspections. Training shall include:

III.F.5.c.i The requirements of this permit and the NDEP's General Permit NVR100000 for Construction Activities for structural and non-structural BMPs on construction sites, such as erosion and sediment control, waste control and Stormwater Pollution Prevention Plans ("SWPPPs");

III.F.5.c.ii The NDOT Contractors' requirements to obtain coverage under and comply with the NDEP's General Permit NVR100000 for Construction Activities and the requirements of that permit; and

III.F.5.c.iii NDOT's compliance, enforcement, and contractual processes to minimize stormwater discharges.

III.F.5.d NDOT shall train all staff directly involved in controlling stormwater runoff from new development or redevelopment, including those with responsibilities for preliminary design, design, and design review. Training shall include:

III.F.5.d.i Post-construction stormwater BMPs to prevent or minimize water quality impacts; and

III.F.5.d.ii Design standards, maintenance requirements and planning as related to stormwater;

III.F.5.e NDOT shall train all staff directly involved in storm sewer system maintenance, street repair, and road improvement. Training shall include:

III.F.5.e.i Potential sources of contaminants related to repair and maintenance activities; and

III.F.5.e.ii Proper maintenance, housekeeping, and repair BMPs to prevent discharges to the storm sewer system and waters of the U.S.

III.F.5.f NDOT shall train all staff who may be involved in waste disposal, spill prevention and response. Training shall include:

III.F.5.f.i Procedures to prevent, contain, and respond to spills; and

III.F.5.f.ii Proper handling, storage, transportation, and disposal of toxic and hazardous materials, including used oil and batteries, to prevent or minimize spills or discharges to the storm sewer system.

III.F.5.g NDOT shall train all staff directly involved in the application of pesticides, herbicides, and fertilizers. Training shall include:

III.F.5.g.i The potential for stormwater contamination resulting from misapplication or over-application of chemicals; and

III.F.5.g.ii Proper application procedures and BMPs;

III.F.5.h NDOT shall train all staff working at industrial sites (excluding material source sites). Training shall include:

III.F.5.h.i The requirements of BMPs, SWPPPs, and the conditions of this permit that relate to on-site activities; and

III.F.5.h.ii As applicable, used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

III.F.5.i NDOT shall provide information in the revised SWMP that discusses how NDOT will ensure that NDOT construction contractors have been adequately trained in BMP installation and maintenance, the ability to recognize activities that may impact stormwater quality, and the procedures in place to prevent or report an illicit discharge or illicit connection to the MS4.

III.F.5.j NDOT shall continue to implement a Public Education/Outreach Program to provide information to the general public about actions individuals can take to reduce transportation related pollutants and improve water quality. NDOT shall implement or participate in a stormwater education program that uses different types of media and targets a wide range of audiences. The program shall include a description of:

III.F.5.j.i The methods for disseminating information;

III.F.5.j.ii The target audiences and how they were selected; and

III.F.5.j.iii The target pollutants and sources and how they were selected.

III.F.5.k NDOT shall continue to implement educational and public information activities to distribute education materials on stormwater quality;

III.F.5.l NDOT shall implement a Public Involvement/Participation Program to

encourage public involvement and participation and to promote, publicize, and facilitate public reporting of illicit discharges and illegal dumping to or from NDOT's storm sewer system.

III.F.5.m NDOT shall implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters. NDOT shall develop procedures for receiving and investigating public complaints. NDOT shall post or advertise telephone numbers or other information to direct the public in reporting illicit discharges and illegal dumping. NDOT shall evaluate and where appropriate, NDOT shall post these numbers in places where illicit discharges and illegal dumping are found to be a recurring problem;

III.F.5.n NDOT shall record and report the number of reports received from the public and investigated in the Annual Report;

III.F.5.o NDOT shall continue to implement the Adopt-a-Highway program;

III.F.5.p NDOT shall report the number of volunteer groups participating in the Adopt-a-Highway program, number of miles cleaned, and the amount of trash collected in the Annual Report; and

III.F.5.q NDOT shall implement a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections, and districts within NDOT to ensure compliance with the terms of this permit. NDOT shall also have mechanisms to coordinate with other government agencies and MS4 communities when necessary to address issues of common concern related to implementation of this permit. The revised SWMP shall include the following BMPs:

III.F.5.q.i NDOT shall continue implementation of intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SWMP activities. NDOT shall describe these procedures in the SWMP; and

III.F.5.q.ii NDOT shall develop partnerships and cooperative outreach programs, where feasible, with other regulated MS4s and jurisdictions and shall describe these partnerships and programs in the SWMP.

III.G. Construction Site BMP Program

III.G.1. The revised SWMP shall include a description of NDOT's program to implement and maintain structural and non-structural BMPs to reduce pollutants to the MEP in stormwater runoff from construction sites to the MS4. The program shall include:

III.G.1.a A plan to control all construction in the rights-of-way. This includes both construction by NDOT, construction done under contract for NDOT, and construction done by local government agencies or other third parties on NDOT or non-NDOT projects. The plan shall include:

III.G.1.a.i Review of construction site plans;

III.G.1.a.ii Implementation and maintenance of structural and non-structural BMPs;

III.G.1.a.iii Site inspections and enforcement;

III.G.1.a.iv A description of non-structural and structural BMPs for construction sites;

III.G.1.a.v A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

III.G.1.a.vi A description of the BMPs that NDOT or its contractors selected, implemented, maintained and updated on NDOT's construction projects to minimize the discharge of pollutants to the MEP;

III.G.1.b The program shall be implemented year-round on all construction projects in all parts of Nevada that discharge to waters of the U.S. The SWMP shall be revised to address these requirements and have a program and a schedule for inspections; and

III.G.1.c The program shall be in compliance with requirements of the NDEP's General Permit NVR100000 for Construction Activities.

III.H. NDOT Contractors Performing Construction Activities

III.H.1. NDOT shall, at a minimum, require its contractors to comply with NDEP's General Permit NVR100000 for Construction Activities for regulated construction projects, including the contractor's requirement to file a Notice of Intent ("NOI") and obtain authorization under NDEP's General Permit NVR100000 for Construction Activities for each construction project or site that disturbs more than one (1) acre, or less than one (1) if it is part of a larger project. The contractor shall also file a Notice of Termination ("NOT") for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to NDOT for completion.

III.H.2. NDOT shall ensure that the contractor's NOI references the construction site

as an NDOT project and shall keep a copy of the NDEP authorization certificate in the SWPPP.

III.H.3. NDOT shall ensure that all applicable provisions of NDEP's General Permit NVR100000 for Construction Activities and this permit are implemented for NDOT projects and shall implement a system to enforce these provisions. NDOT is responsible for inspection oversight.

III.H.4. When contractors complete their work at a site and interim stabilization is in place, they may file an NOT to terminate their responsibility for site activities. In this instance, NDOT shall assume responsibility for the site until final stabilization has been achieved for the entire project. NDOT is responsible for removing all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization.

III.H.5. NDOT shall include a list of all construction projects in the Annual Report, including the name of the project and its associated NDEP construction stormwater permit number(s) (e.g. CSW-xxxx), that have achieved final stabilization and that NDOT considers to be complete.

III.H.6. NDOT shall provide in the Annual Report, a list and description of all violations and their resolution, including any enforcement actions taken against its contractors.

III.I. Discharges from New Development and Redevelopment

III.I.1. NDOT shall develop and implement comprehensive planning procedures and BMPs to prevent or minimize water quality impacts from areas of new highway development and redevelopment within the MS4 permitted areas. This applies to projects that result in land disturbance of greater than or equal to one (1) acre including projects less than one (1) acre that are part of a larger common plan of development or sale. The revised SWMP shall include a post-construction stormwater pollution control program including maintenance of post-construction stormwater pollution control BMPs. For the purposes of this permit, post-construction stormwater pollution control BMPs include, but are not limited to: stormwater retention/detention basins; constructed wetlands for water quality purposes; media filtration systems; oil/water separators; check dams, grassy swales or other similar BMPs. NDOT shall describe the program in the revised SWMP;

III.I.2. NDOT shall promote source reduction approaches such as Low Impact Development ("LID") techniques, where applicable, in its discussion of the program;

III.I.3. NDOT shall describe the BMPs that will protect water quality and reduce the discharge of pollutants to the MEP;

III.I.4. NDOT shall install controls for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. For other areas within the MS4 Compliance Areas, NDOT shall evaluate the need for permanent post-construction stormwater pollution control BMPs;

III.I.5. NDOT shall also install post-construction controls for all newly developed or redeveloped roadways within the MS4 compliance areas where appropriate. Runoff from these roadways and the storm sewer system shall be treated by a post-construction stormwater pollution control BMP(s) prior to the runoff leaving NDOT's MS4 and/or entering waters of the U.S.;

III.I.6. All stormwater shall be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down-slope properties; and

III.I.7. NDOT shall inventory, inspect, and maintain all post-construction stormwater pollution control BMPs. A program summary shall be included in the Annual Report.

III.J. Illicit Discharge Detection and Elimination Program

III.J.1. The revised SWMP shall include a description of NDOT's Illicit Discharge Detection and Elimination ("IDDE") Program, including a schedule, to detect and remove illicit discharges and improper disposal into the MS4. The proposed program shall include:

III.J.1.a A description of a program, including inspections, to implement and enforce statutes, regulations, ordinances, orders or similar means to prevent illicit discharges to the MS4. This program description shall address all types of illicit discharges; however, non-stormwater discharges or flows listed in Part I.B.2 of this permit shall only be addressed where such discharges are identified by NDOT as sources of pollutants to waters of the United States;

III.J.1.b A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

III.J.1.c A description of procedures to be followed to investigate portions of the MS4 that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;

III.J.1.d A description of procedures to prevent, contain, and respond to spills that may discharge into the MS4;

III.J.1.e A description of a program to facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from MS4s;

III.J.1.f A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

III.J.1.g An assessment of whether the procedures otherwise implemented in response to this paragraph are sufficient to identify instances of exfiltration from the sanitary sewer to the storm sewers, and if not a description of additional activities to be undertaken to control exfiltration.

III.K. Industrial Facility Monitoring and Control

III.K.1. The revised SWMP shall describe NDOT's program to monitor and control pollutants in stormwater discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial facilities that NDOT determines are contributing a substantial pollutant loading to the MS4. The program shall:

III.K.1.a Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges; and,

III.K.1.b Describe a monitoring program for stormwater discharges associated with the industrial facilities identified in this section, to be implemented during the term of the permit in accordance with the monitoring programs defined in Part IV.A of this permit.

III.L. Stormwater Discharges from NDOT Maintenance Facilities

III.L.1. The revised SWMP shall describe the measures NDOT uses to control discharges from NDOT Maintenance Facilities. The following measures shall apply to NDOT maintenance facilities statewide:

III.L.1.a NDOT shall continue to implement its maintenance facility program to reduce pollutants in discharges to the MEP;

III.L.1.b NDOT shall describe its statewide maintenance facility program in the revised SWMP. The program shall include policies and procedures to prevent or reduce stormwater impacts from any maintenance facility that may discharge to waters of the U.S. or to the storm sewer system;

III.L.1.c NDOT shall properly select, install, and maintain all BMPs in accordance with any relevant manufacturer specifications and good engineering

practices; and

III.L.1.d NDOT shall implement BMPs to reduce or eliminate the discharge of pollutants from maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas.

III.L.2. NDOT shall implement the following BMPs at its maintenance facilities:

III.L.2.a NDOT shall prevent litter, debris, and chemicals that could be exposed to stormwater from becoming a pollutant source in stormwater discharges; and

III.L.2.b NDOT shall implement good housekeeping and material management BMPs for operating and maintaining all NDOT maintenance facilities and each of the following maintenance facility areas:

III.L.2.c NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.c.i Confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to designated areas;

III.L.2.c.ii Use drip pans under vehicles and equipment;

III.L.2.c.iii Store vehicles and equipment indoors whenever practicable;

III.L.2.c.iv Install berms or dikes around the areas;

III.L.2.c.v Use absorbents to clean spilled materials;

III.L.2.c.vi Roof or cover storage areas whenever practicable; and

III.L.2.c.vii Clean pavement surfaces to remove oil and grease. Use dry cleanup methods, or, if water is used, capture and properly dispose of the cleaning water.

III.L.2.d NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment maintenance. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.d.i Perform maintenance activities indoors whenever practicable;

III.L.2.d.ii Use drip pans under vehicles and equipment;

III.L.2.d.iii Keep an organized inventory of materials used in the shop;

III.L.2.d.iv Drain all parts of fluid prior to disposal;

III.L.2.d.v Use dry cleanup methods. Prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; and

III.L.2.d.vi Treat, recycle, or properly dispose of collected stormwater runoff and minimize run-on/runoff of stormwater to and from maintenance areas.

III.L.2.e NDOT shall describe and implement BMPs that prevent or minimize contamination of stormwater runoff from all areas used for material storage. NDOT shall implement the following BMPs, or alternatives that will provide equivalent protection:

III.L.2.e.i Maintain all material storage vessels that are kept outdoors (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.);

III.L.2.e.ii Move storage indoors whenever practical;

III.L.2.e.iii Install berms/dikes around the areas;

III.L.2.e.iv Minimize run-on of stormwater to the areas;

III.L.2.e.v Use dry cleanup methods; and

III.L.2.e.vi Treat, recycle, or properly dispose of collected stormwater runoff. ***Note:*** *The discharge of vehicle and equipment washwater, including tank washing operations, is not authorized by this permit and shall be covered under a separate NPDES permit; discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements; or otherwise appropriately managed or recycled on-site. NDOT shall not discharge any washwater from washing vehicles, tanks, containers, and/or equipment under this permit.*

III.L.2.f NDOT shall implement practices and procedures to prevent, contain, and respond to spills from maintenance facilities using the following practices:

III.L.2.f.i NDOT shall implement management practices and procedures for handling toxic and hazardous materials by NDOT staff at NDOT maintenance facilities to prevent spills;

III.L.2.f.ii NDOT shall implement practices and procedures for handling spills of toxic materials by NDOT staff at NDOT maintenance facilities to prevent or minimize discharges to the storm sewer system or receiving waters;

III.L.2.f.iii NDOT shall immediately respond to spills by NDOT staff at NDOT maintenance facilities to prevent toxic materials or pollutants from entering the storm sewer system and receiving waters;

III.L.2.f.iv NDOT shall continue to track and record spills and other releases by NDOT staff at NDOT maintenance facilities, including information on the number, type, and amount of materials released, the location and extent of the spill, the circumstances of the release (e.g. spilled to storm sewer), and the name of the parties involved; and

III.L.2.f.v NDOT shall maintain records of spills to the storm sewer system or receiving waters and include the records in the Annual Report.

III.M. Comprehensive Maintenance Facility Inspection

III.M.1. NDOT shall conduct a Comprehensive Maintenance Facility Inspection at least once each year. NDOT shall also conduct routine visual inspections to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.

III.M.2. NDOT shall complete an inspection report for all maintenance facility inspections. At a minimum the report shall include:

III.M.2.a The inspection date;

III.M.2.b The name(s), title(s) and qualifications of the person(s) making the inspection. The list of qualified personnel shall either be on or attached to the report or alternatively, if the SWPPP documents the qualifications of the inspectors by name, that portion of the SWPPP may be referenced;

III.M.2.c Weather information and a description of any discharges occurring at the time of the inspection;

III.M.2.d The location(s) of discharges of sediment or other pollutants from the site, if any;

III.M.2.e The location(s) of BMPs that need to be maintained, that failed to operate as designed, or proved inadequate for a particular location;

III.M.2.f The location(s) where additional BMPs are needed that did not exist at the time of inspection;

III.M.2.g The corrective action(s) required, including any changes to the SWPPP and implementation dates;

III.M.2.h The identification of all sources of non-stormwater discharges, if any, and the associated BMPs;

III.M.2.i Where applicable, the identification of material storage areas, and evidence of or potential for pollutant discharges from these areas;

III.M.3. Inspection reports shall identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the activities are in compliance with the SWPPP and this permit; and

III.M.4. The report shall be signed and certified in accordance with Part V.G of this permit and copies included in the SWPPP and the Annual Report.

III.N. Scope of Inspections

III.N.1. NDOT shall inspect all areas of the site exposed to precipitation, as well as areas where spills and leaks have occurred. Inspectors shall look for evidence of, or the potential for, pollutants entering the drainage system;

III.N.2. Inspections of the maintenance yard shall include all the following areas/activities:

III.N.2.a Storage areas for vehicles and equipment awaiting maintenance;

III.N.2.b Fueling areas (including mobile fueling);

III.N.2.c Indoor and outdoor vehicle/equipment maintenance areas;

III.N.2.d Material storage areas;

III.N.2.e Material source stockpile(s) to determine if piles are protected from run-on, run-off, if materials are contributing to off-site discharges;

III.N.2.f Vehicle/equipment cleaning areas and loading/unloading areas; and

III.N.2.g Onsite waste storage or disposal;

III.N.3. NDOT shall inspect and document all BMPs identified in the SWPPP along with areas inspected and the conditions found;

III.N.4. NDOT shall inspect discharge locations to determine whether BMPs are

effective in preventing significant impacts to waters of the U.S., where accessible;

III.N.5. Where discharge locations are inaccessible, NDOT shall inspect nearby downstream locations to the extent that the inspections are practicable; and

III.N.6. NDOT shall inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.

III.N.7. Based on the results of the inspection, NDOT shall modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. NDOT shall complete revisions to the SWPPP and modify or add BMPs as necessary within thirty (30) calendar days following the inspection. NDOT shall implement tracking and follow-up procedures to ensure that appropriate action is taken in response to issues noted during inspections.

III.N.8. If sediment or other materials escape the site, NDOT shall remove the off-site accumulations of sediment or other materials at a frequency sufficient to minimize off-site impacts. The removal shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. NDOT shall use all reasonable efforts to obtain access, and in such instances, removal and stabilization shall take place within seven (7) days of obtaining access.

III.N.9. Inspections shall be performed by qualified personnel as defined in Part VI of this permit; and

III.N.10. NDOT shall retain a record of each inspection and of any actions taken as part of the SWPPP for at least five (5) years from the expiration date of this permit;

III.N.11. For existing BMPs that need to be modified or, if additional BMPs are necessary for any reason, implementation shall be completed within thirty (30) days, and before the next storm event;

III.N.12. All BMPs including erosion and sediment control BMPs identified in the SWPPP shall be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance shall be performed within seven (7) days of discovery and before the next anticipated storm event to maintain the continued effectiveness of stormwater BMPs. If implementation before the next storm event is impracticable, the reason(s) for delay must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible;

III.N.13. Facilities as requiring monitoring shall follow the requirements therein; and

III.N.14. NDOT shall develop or update its list of industrial facilities and maintenance yards subject to stormwater permitting requirements within their control. The list shall be included in the Annual Report.

III.O. Public Street Maintenance Program in Urbanized Areas

III.O.1. The revised SWMP shall discuss how NDOT intends to operate and maintain public streets and roads in urbanized areas that are under NDOT's jurisdiction in a manner so as to reduce the discharge of pollutants to the MEP (including those related to road repair, street sweeping, snow removal, sanding activities and herbicide application), in accordance with their present program. The program shall include the following information and measurable goals:

III.O.1.a Snow and ice management practices on streets, roads, and highways in urbanized areas shall be implemented in a manner consistent with NDOT's policies and guidelines. These guidelines shall include prescriptions for sand application rate, maximum salt concentrations, calibration of sand spreaders, and sweeping of sanded streets;

III.O.1.b Salt and sand storage practices shall be implemented as necessary to minimize, to the extent practicable, run-on, run-off and salt migration off-site;

III.O.1.c Leaf litter and debris on all streets in urbanized areas shall be swept a minimum of two times per year, once in the spring and once in the fall;

III.O.1.d Sweeping of sanded streets in urbanized areas shall be performed as soon as weather, logistics and site conditions permit after snow storms, but no later than four (4) days after the last snowfall;

III.O.1.e Sweeper wastes shall be disposed of properly. Recycling of sweeper wastes shall be considered. The amount of sweeper waste accumulated, recycled and/or disposed of shall be documented and included in the Annual Report.

III.O.1.f If magnesium chloride is used for snow management, application practices shall be used to minimize any negative effects to waters of the U.S. to the MEP. Results of any studies on magnesium chloride shall be considered when relevant.

III.O.1.g A narrative summary of the program will be included in the Annual Report.

III.P. Measures to Control Discharges from Roadways

III.P.1. NDOT shall continue to implement its programs of roadway and storm sewer system repair, maintenance and cleaning, vegetation management, and winter storm policies to reduce the release of pollutants to, and discharges of pollutants from, the storm sewer system. The revised SWMP shall include policies and procedures to prevent or reduce stormwater impacts to waters of the U.S. or the MS4 system while conducting operation and maintenance activities. The revised SWMP shall address the following programs:

III.P.1.a **Highway Maintenance Activities**

III.P.1.a.i Develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters;

III.P.1.a.ii Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures);

III.P.1.a.iii Establish schedules for implementing appropriate controls; and

III.P.1.a.iv NDOT shall develop a system to identify, track, and prioritize timely stabilization and repairs to road segments where slopes are 3:1 or greater and actively eroding and sediment is leaving NDOT's right-of-way or discharging to a water of the U.S. This system shall be described in the revised SWMP, and each Annual Report thereafter shall summarize erosion abatement projects conducted during the year. NDOT shall identify road segments with slopes that are prone to erosion and discharge of sediment and stabilize these slopes to the MEP.

III.P.1.b **Snow and Ice Control**

III.P.1.b.i Where abrasives and/or de-icing agents are used on highways, the following shall be recorded:

III.P.1.b.i.1 Location of the source of abrasives materials;

III.P.1.b.i.2 Types and chemistry of de-icing agents;

III.P.1.b.i.3 Deicing salt shall be analyzed for: total phosphorus, total nitrogen, iron, and percent sodium chloride (NaCl);

III.P.1.b.i.4 Alternative deicers shall be analyzed for total nitrogen and total phosphorus;

III.P.1.b.i.5 Type and chemistry of abrasives with the gradation and percent organic matter. Gradation and percent organic matter shall be

determined from composite samples. The composite samples shall be taken from one stockpile that represents all deliveries from the originating source. Composite samples shall be taken from every new delivery from a new originating source;

III.P.1.b.i.6 Abrasives shall be analyzed for volatile solids, iron, total nitrogen, total phosphorus, and total reactive phosphorus; and

III.P.1.b.i.7 Volume of abrasives and deicing agents used on individual highway segments shall be documented in the Annual Report.

III.P.1.c **Storm Water Drainage System Facilities Maintenance**

III.P.1.c.i NDOT shall remove all debris and sediment from those inlets that pose a significant threat to water quality on an annual basis prior to the winter season each year. All debris and sediment removed from drain inlets shall be managed in accordance with all applicable laws and regulations. The amount of material removed shall be documented and included in the Annual Report; and

III.P.1.c.ii Drain inlets which contain significant materials must be considered for an IDDE investigation and considered for an enhanced BMP program focused on reducing the sources of the material found in the inlet.

III.Q. Storm Sewer System and Highway Maintenance

III.Q.1. NDOT shall implement the following BMPs for operating and maintaining roadways and drainage ways to minimize discharges to and from the storm sewer system in all the MS4 Permitted areas:

III.Q.1.a **Inventory Post-Construction Stormwater Pollution Control BMPs**

III.Q.1.a.i NDOT shall develop and maintain an inventory of its post-construction stormwater pollution control BMPs;

III.Q.1.a.ii The inventory shall categorize the post-construction stormwater pollution control BMPs by type and location; and

III.Q.1.a.iii NDOT shall include the inventory of stormwater retention/detention basins, constructed wetlands for water quality purposes, media filtration systems, oil/water separators, and other major post-construction stormwater pollution control BMPs statewide as part of the revised SWMP.

III.Q.1.b **Inspect Storm Sewer System**

III.Q.1.b.i The revised SWMP shall outline a program, including measurable goals, to inspect and record conditions of its storm sewer system including roadways used for stormwater conveyance, catch basins, storm drain inlets, open channels, washes, culverts, and retention/detention basins to identify potential sources of pollutants and determine maintenance needs; and

III.Q.1.b.ii NDOT shall maintain records of inspections and conditions found and shall present the number of inspections in each Annual Report.

III.Q.1.c **Develop Maintenance Schedules and Priorities**

III.Q.1.c.i NDOT shall identify routine maintenance schedules and maintenance priorities for its storm sewer system, including roadways to minimize pollutant discharges from the storm sewer system; and

III.Q.1.c.ii NDOT shall evaluate priorities and update the maintenance schedule annually.

III.Q.1.d **Perform Repair, Maintenance, and Cleaning**

III.Q.1.d.i NDOT shall continue to repair, maintain, and clean its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants to the MEP (including floatable debris) from the storm sewer system; and

III.Q.1.d.ii During repair, maintenance or cleaning activities, NDOT shall ensure that all storm drain inlets are assessed for evidence of illicit discharges or illegal dumping, such as significant loads of a specific pollutant(s) or material(s). Upon discovery, NDOT shall initiate an investigation to target likely sources and implement a BMP program to reduce the sources of the pollutant or material to the MEP.

III.Q.1.e **Implement BMPs for Repair, Maintenance, and Cleaning**

III.Q.1.e.i NDOT shall implement appropriate BMPs to reduce the potential for releases of pollutants to the storm sewer system or to waters of the U.S. when performing repair, maintenance, or cleaning of its storm sewer system, including roadways;

III.Q.1.e.ii NDOT shall implement BMPs to minimize the discharge of pollutants from unpaved roads, shoulders, and parking lots, such as permanent stabilization / erosion control BMPs and paving unpaved roads, and parking lots;

III.Q.1.e.iii NDOT shall properly dispose of waste removed from its storm sewer system and NDOT facilities, including dredge spoil, accumulated

sediments, and floatable or other debris. The amount removed and disposed of shall be documented and included in the Annual Report.

III.Q.1.f **Roadside Management Program**

III.Q.1.f.i NDOT shall continue to implement the BMPs described in its *Construction Site BMP Field Manual.*

III.R. Herbicide, Pesticide and Fertilizer Program

III.R.1. NDOT shall develop a program to reduce the discharge of pollutants related to the application of herbicides, pesticides and fertilizers to the MEP. This program shall include:

III.R.1.a **Implement Pesticide and Fertilizer Application Procedures**

III.R.1.a.i NDOT shall continue to implement practices and procedures for NDOT staff and commercial applicators to only use Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA")-approved pesticides/herbicides and fertilizers at NDOT facilities and roadside right-of-ways. NDOT shall design these practices to avoid chemical application when feasible and to minimize the amount of chemicals applied;

III.R.1.a.ii As part of the revised SWMP, NDOT shall develop BMPs to address the timing of applications in relation to expected precipitation events, proximity to water bodies, and other practices to minimize the runoff of pollutants. Applications of herbicides shall be performed during dry-weather periods to the extent possible, using methods to limit overspray;

III.R.1.a.iii If NDOT must apply pesticides in any area that is within, or directly adjacent to a water of the U.S., only pesticides approved for aquatic use shall be used;

III.R.1.a.iv NDOT shall review application practices annually and update procedures as needed to minimize runoff of pollutants;

III.R.1.a.v NDOT shall continue to require certification/licensing of staff and commercial applicators that apply pesticides at NDOT facilities, public areas, and right-of ways; and

III.R.1.a.vi A narrative summary of the program will be included in the Annual Report.

III.R.1.b **Vegetation Control**

III.R.1.b.i NDOT shall develop a Vegetative Control Program to reflect the following elements:

III.R.1.b.i.1 Enhancement of the use of appropriate native and adapted vegetation throughout all NDOT's rights-of way for the purpose of preventing erosion and removing pollutants in stormwater and non-stormwater runoff;

III.R.1.b.i.2 Application of herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals;

III.R.1.b.i.3 If application of nutrients is required, the application shall be at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water; and

III.R.1.b.i.4 In places where NDOT has already developed vegetation control management plans, NDOT shall continue to implement these plans and integrate them into their overall statewide plan. In instances where elements of these plans are to be changed or dropped, NDOT shall discuss any changes in the Annual Report.

III.S. NDOT Maintenance Yards Management Program

III.S.1. NDOT shall prepare SWPPPs for all its maintenance facilities. Because these facilities are considered municipal activities rather than industrial activities, these SWPPPs shall have BMP programs that reduce pollutants to the MEP;

III.S.2. Generic SWPPP elements can be used for activities that are performed at more than one maintenance facility; however, each site must be evaluated separately and provided with appropriate site specific BMPs.

III.S.3. NDEP staff has the authority to require the submittal of a SWPPP at any time, to require changes to a SWPPP, and to require the implementation of the provisions of a SWPPP. SWPPPs shall include the following elements:

III.S.3.a NDOT shall develop and implement runoff control plans for the following NDOT-owned and/or operated facilities that do not have independent NPDES Stormwater permits:

III.S.3.a.i Vehicle maintenance facilities (maintenance includes equipment rehabilitation, mechanical repairs, painting, fueling and lubrication);

III.S.3.a.ii Asphalt and concrete batch plants which are not already individually permitted;

III.S.3.a.iii Solid-waste transfer stations;

III.S.3.a.iv Exposed stockpiles of materials, including stockpiles of road deicing salt, salt and sand, sand, roto-mill material; and

III.S.3.a.v Sites used for snow dumps, and/or for temporary storage of sweeper tailings or other waste piles.

III.S.3.b NDOT shall provide a complete list of these facilities (including the address of the facility, type of operation, size of the facility, and receiving water drainage basin) as part of the revised SWMP. This list shall indicate which sites are considered "major" and which are considered "minor", and set out the reasons for the designations.

III.S.3.c Runoff control plans for "major" facilities shall contain the following:

III.S.3.c.i Activity description;

III.S.3.c.ii Facility site map; and

III.S.3.c.iii A description of potential pollutant sources, including an evaluation of that potential.

III.S.3.d Stormwater Management Controls

III.S.3.d.i The description of stormwater management controls shall address the following minimum components, including a schedule for implementing such controls:

III.S.3.d.i.1 Runoff control plan administrator;

III.S.3.d.i.2 Preventive maintenance;

III.S.3.d.i.3 Good housekeeping;

III.S.3.d.i.4 Spill prevention and response procedures;

III.S.3.d.i.5 BMPs for pollutant sources;

III.S.3.d.i.6 Evaluation for non-stormwater discharges;

III.S.3.d.i.7 Employee training;

III.S.3.d.i.8 Inspection procedures; and

III.S.3.d.i.9 A summary of compliance with the SWPPPs shall be submitted by each plan administrator to the NDOT's Carson City Office by September 1 of each year. Summaries of the separate SWPPPs shall be included in the Annual Report.

III.S.3.d.ii "Minor" facilities shall be grouped together by type, and one runoff control plan shall be developed for each group. Grouped runoff control plans shall contain:

III.S.3.d.iii A map showing the location of each facility in the group on a map of the city or state;

III.S.3.d.iv For each facility in the group include the address, type of operation, size of the facility, and receiving water drainage basin;

III.S.3.d.v A description of potential pollutant sources, including an evaluation of that potential;

III.S.3.d.vi A description of the standard operating procedures or stormwater management controls shall address the following components if appropriate:

III.S.3.d.vi.1 Preventive maintenance measures;

III.S.3.d.vi.2 Good housekeeping;

III.S.3.d.vi.3 Spill prevention and response procedures;

III.S.3.d.vi.4 BMPs;

III.S.3.d.vi.5 Evaluation for non-stormwater discharges; and

III.S.3.d.vi.6 Inspection Procedures.

III.S.3.e Copies of the "major" facility runoff control plans shall be kept on the facility site and on file with NDOT's main office. They shall be submitted to NDEP upon request.

III.S.3.f Copies of the "minor" facility group runoff control plans shall be kept on file with the Regional District Office. They shall be submitted to NDEP upon request;

III.S.3.g Both major and minor facilities shall be inspected by the Permittee at least one (1) time each year, after the SWPPP has been completed;

III.S.3.h NDOT shall implement the provisions of the runoff control plans required under this part as a condition of this MS4 permit. NDEP reserves the right

to review those plans, and to require additional measures to prevent and control pollution as needed;

III.S.3.i SWPPPs may be amended at any time and any amendments shall be described in the Annual Report; and

III.S.3.j The SWPPPs shall be completed and implemented according to the following schedule: 10 percent of the facilities within twelve (12) months of the effective date of this permit, another 40 percent within twenty-four (24) months of the effective date of this permit, and the remaining 50 percent within thirty-six (36) months of the effective date of this permit. A list of these facilities shall be submitted to NDEP at these times.

III.T. Sharing Responsibility

III.T.1. NDOT may either share responsibility or assign responsibility with one or more regulated MS4s, and may implement BMPs individually, as a group, or through consultants. The SWMP shall include a description of the BMP and how responsibility is being shared or assigned.

III.U. Annual Review and Updating the SWMP

III.U.1. NDOT must complete an annual review of the SWMP in conjunction with preparation of the Annual Report required under Part IV.C of this permit.

III.U.2. NDOT may change the SWMP during the life of the permit in accordance with the following procedures:

III.U.2.a Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to NDEP.

III.U.2.b Requests for changes replacing an ineffective, unfeasible, or inappropriate BMP specifically identified in the SWMP with an alternate BMP may be submitted to NDEP for approval at any time. If request is denied, NDEP will send NDOT a written response giving a reason for the decision. NDOT's modification requests must include the following:

III.U.2.b.i An analysis of why the BMP is ineffective, infeasible (including cost prohibitive), or otherwise should be revised or replaced, and

III.U.2.b.ii An analysis of why the replacement BMP is expected to be more effective, feasible, or appropriate than the BMP to be replaced.

III.V. Updating NDOT's Manuals

III.V.1. NDOT shall annually review its *2006 Planning and Design Guide Manual* and its *2006 Construction Site BMP Manual* and update as needed. Erosion and sediment control BMP detail drawings shall also be updated as needed. NDOT shall describe all updates to these manuals in the Annual Report.

III.W. Characterization Data

III.W.1. The revised SWMP shall evaluate whether existing data collection programs should be modified to improve characterization of stormwater discharges, effects of different BMPs on water quality, or ambient water quality. This information shall be submitted for approval as part of the annual monitoring plan required in Part IV.A of this permit.

Part IV. Monitoring, Recordkeeping, and Reporting

IV.A. Stormwater Monitoring

IV.A.1. NDOT shall submit a stormwater monitoring plan to NDEP for the following year on or before October 1 each year. In developing the plan, NDOT shall evaluate and update as necessary how monitoring may assist in making decisions about program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. Pending submittal of the annual monitoring plan, NDOT shall continue to implement the existing monitoring plan.

IV.A.2. When NDOT conducts monitoring at NDOT's permitted MS4, NDOT is required to comply with the following:

IV.A.2.a Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. This requirement does not prevent NDOT from analyzing or reporting samples that are representative of a limited situation (e.g. concentration at peak flow);

IV.A.2.b Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the CWA, unless other procedures are approved by NDEP.

IV.A.3. Records of monitoring information shall include:

IV.A.3.a The date, exact place, and time of sampling or measurements;

IV.A.3.b The names(s) of the individual(s) who performed the sampling or measurements;

IV.A.3.c The date(s) analyses were performed;

IV.A.3.d The names of the individuals who performed the analyses;

IV.A.3.e The analytical techniques or methods used; and,

IV.A.3.f The results of such analyses.

IV.A.4. Analyses shall be performed by a State of Nevada-certified laboratory. Laboratory reports shall be provided if requested by NDEP.

IV.A.5. If NDOT performs stormwater monitoring more frequently than required by the stormwater monitoring plan the results of such monitoring shall be reported. The monitoring results and analyses shall be submitted as part of the Annual Report.

IV.B. Record Keeping

IV.B.1. NDOT 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 permit, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the termination date of this permit. This period may be extended at the direction of NDEP at any time.

IV.B.2. NDOT shall submit the records to NDEP upon request. NDOT shall retain a copy of the SWMP required by this permit (including a copy of the permit language) at a location accessible to NDEP. NDOT shall make the records, including a copy of the SWMP, available to the public if requested to do so in writing.

IV.B.3. For public requests of records, NDOT may impose a reasonable fee for personnel time and copying expenses.

IV.C. Annual Reports

IV.C.1. NDOT shall continue to submit Annual Reports to NDEP by October 1 of each year of the permit term. Each Annual Report shall cover the period beginning July 1st of the previous year through June 30th of the current year.

IV.C.2. Each year, NDOT shall review its SWMP and report to NDEP on the status of the program, whether NDOT has identified any modifications, and the plans for implementing those modifications.

IV.C.3. At a minimum the Annual Report shall include:

IV.C.3.a Status of NDOT's compliance with permit conditions;

IV.C.3.b An assessment of the appropriateness of the identified BMPs, and revisions to previous assessments, if appropriate;

IV.C.3.c Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP;

IV.C.3.d Status of the achievement of measurable goals;

IV.C.3.e Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP, a description of any identified improvements to or degradation in water quality attributable to the program, and a description of any identified effects on attainment of water quality standards attributable to the program;

IV.C.3.f A summary of the stormwater activities NDOT plans to undertake during the next reporting cycle (including an implementation schedule and a fiscal analysis);

IV.C.3.g Changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;

IV.C.3.h Notice that NDOT is relying on another government entity to satisfy some of the permit obligations, as applicable; and

IV.C.3.i Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal stormwater quality management program. The assessment shall also identify known impacts of stormwater controls on ground water.

IV.C.3.j A summary of inspections performed and enforcement activity taken during the report cycle.

IV.C.3.k A summary of public education and outreach activity performed during the report cycle.

IV.C.3.l Annual expenditures for the reporting period, with a breakdown for the major elements of the SWMP, and the budget for the year following each annual report.

IV.C.3.m An original signed copy of all reports and plans required herein shall be submitted to the NDEP at the following address:

Stormwater Coordinator
Bureau of Water Pollution Control
Nevada Division of Environmental Protection
901 S. Stewart St., Suite 4001
Carson City, NV 89701

IV.D. Annual Fee

IV.D.1. NDOT shall remit an annual review and services fee by July 1 of every year in accordance with Nevada Administrative Code ("NAC") 445A.232 until this permit is terminated.

IV.E. Continued Permit Coverage

IV.E.1. NDOT shall submit written correspondence to NDEP requesting continued permit coverage under the new NDOT MS4 Permit and signed in accordance with the signatory requirements of Part V.G of this permit, no later than 180 days before this permit expires.

IV.F. Changes by NDEP

IV.F.1. Formal changes requested by NDEP must be made in writing, set forth the time schedule for NDOT to develop the changes, and offer NDOT the opportunity to propose alternative program changes to meet the objective of the requested modification. If NDOT does not agree to the requested changes, changes required by NDEP will be made in accordance with 40CFR§124.5, 40CFR§122.62, or as appropriate 40CFR§122.63.

IV.F.2. NDEP may request formal changes to the SWMP as needed to:

IV.F.2.a Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

IV.F.2.b Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements; and,

IV.F.2.c Include such other conditions deemed necessary by NDEP to comply with the requirements of the CWA.

IV.G. Responsibility for Stormwater Management Program Implementation

IV.G.1. NDOT must implement the SWMP on all new areas added to NDOT's portion of the MS4 (or for which NDOT become responsible for implementation of stormwater quality controls) no later than one (1) year from addition of the new areas; and

IV.G.2. Information on all new annexed areas and any resulting updates required to the SWMP must be included in the Annual Report.

Part V. Standard Permit Conditions

V.A. Duty to Comply

V.A.1. NDOT must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of CWA and is grounds for an enforcement action; permit termination; revocation and re-issuance; modification; or for denial of a permit renewal application.

V.B. Continuation of the Expired Permit

V.B.1. If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. NDOT will automatically remain covered by the continued permit until the earlier of:

V.B.1.a Re-issuance or replacement of this permit; or

V.B.1.b Issuance of another individual permit for NDOT discharges.

V.C. Need to Halt or Reduce Activity Not a Defense

V.C.1. It shall not be a defense for NDOT in an enforcement action that it would have been necessary to halt or reduce the permitted activity under NDOT's control in order to maintain compliance with the conditions of this permit.

V.D. Duty to Mitigate

V.D.1. NDOT must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

V.E. Duty to Provide Information

V.E.1. NDOT must furnish to NDEP any information that is requested by NDEP and needed to determine compliance with this permit or other information.

V.F. Other Information

V.F.1. If NDOT becomes aware that it has failed to submit any relevant facts in its revised SWMP, Annual Report or in any other report to NDEP, NDOT must promptly submit such facts or information to NDEP.

V.G. Signatory Requirements

V.G.1. All applications, reports, certifications, or information submitted to NDEP, or that this permit requires be maintained by NDOT shall be signed and certified as follows:

V.G.1.a ***Applications.*** All applications shall be signed by a duly authorized representative of NDOT.

V.G.1.b ***Reports and Other Information.*** All reports required by the permit and other information requested by NDEP or the authorized representative of NDEP shall be signed by a person described above from NDOT or by a duly authorized representative of that person. A person is a duly authorized representative only if:

V.G.1.b.i ***Signed Authorization.*** The person described above submits the authorization in writing to NDEP.

V.G.1.b.ii ***Authorization with Specified Responsibility.*** 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 manager, operator, superintendent, or position of equivalent responsibility for environmental matter for the regulated entity.

V.G.1.c ***Changes to Authorization.*** If an authorization is no longer accurate because a different person has the responsibility for the overall operation of the MS4, a new authorization satisfying the requirement above must be submitted to NDEP prior to or together with any reports, information, or applications to be signed by an authorized representative.

V.H. Property Rights

V.H.1. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

V.I. Proper Operation and Maintenance

V.I.1. NDOT 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 NDOT to achieve compliance with the conditions of this permit.

V.J. Inspection and Entry

V.J.1. NDOT shall allow NDEP or an authorized representative (including an authorized contractor acting as a representative of the Administrator) upon the presentation of credentials and other documents as may be required by law, to do any of the following:

V.J.1.a Enter NDOT's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

V.J.1.b Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

V.J.1.c Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) practices, or operations regulated or required under this permit; and

V.J.1.d Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

V.K. Permit Actions

V.K.1. This permit may be modified, revoked and reissued, or terminated for cause. NDOT's filing of a request for a permit modification, revocation and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

V.L. Permit Transfers

V.L.1. This permit is not transferable to any person. NDEP may require modification or revocation and re-issuance of the permit to incorporate such other requirements as may be necessary under the CWA.

V.M. Anticipated Noncompliance

V.M.1. NDOT shall give advance notice to NDEP of any planned changes in the permitted MS4 or activity which may result in noncompliance with this permit.

V.N. State Environmental Laws

V.N.1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve NDOT from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.

V.N.2. No condition of this permit releases NDOT from any responsibility or requirements under other environmental statutes or regulations.

V.O. Severability

V.O.1. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit under any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

V.P. Procedures for Modification or Revocation

V.P.1. Permit modification or revocation will be conducted according to 40CFR§122.62, 122.63, 122.64 and 124.5.

V.Q. Availability of Reports

V.Q.1. Except for data determined to be confidential under Nevada Revised Statutes ("NRS") 445A.665, all reports and plans submitted in accordance with the terms of this permit shall be available for public inspection at NDEP's office. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

V.R. Furnishing False Information and Tampering with Monitoring Devices

V.R.1. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document submitted or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, pursuant to NRS 445A.300 to 445A.730, inclusive.

V.S. Penalty for Violation of Permit Conditions

V.S.1. NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.710.

V.T. Permit Modification, Suspension or Revocation

V.T.1. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

V.T.1.a Violation of any terms or conditions of this permit;

V.T.1.b Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

V.T.1.c A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

V.T.1.d To impose specific requirements for BMPs or annual reporting requirements in accordance with 40CFR§122.62 or §122.63.

V.T.2. NDOT may request that NDEP reopen and modify this permit.

Part VI. Definitions

VI.A. All definitions contained in Section 502 of the CWA and 40CFR§122 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the even of a conflict, the definition found in the Statute or Regulation takes precedence.

VI.B. ***Best Management Practices (BMPs)*** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

VI.C. ***Control Measure*** as used in this Permit, refers to any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

VI.D. ***CWA or The Act*** means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

VI.E. ***Discharge***, when used without a qualifier, refers to "discharge of a pollutant" as defined at 40CFR§122.2.

VI.F. ***Illicit Connection*** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

VI.G. ***Illicit Discharge*** is defined at 40CFR§122.26(b)(2) and refers to any discharge to

a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

VI.H. ***MEP*** is an acronym for "Maximum Extent Practicable," the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in stormwater discharges that was established by CWA§402(p).

VI.I. ***MS4*** is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Las Vegas Valley MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Las Vegas Valley MS4 includes MS4s operated by the City of Las Vegas, the City of North Las Vegas, the City of Henderson, the Clark County Regional Flood Control District, and Clark County).

VI.J. ***Municipal Separate Storm Sewer*** is defined at 40CFR§122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40CFR§122.2.

VI.K. ***Outfall*** is defined at 40CFR§122.26 as: Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer ("MS4") outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage. However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a water body is considered an outfall under this permit.

VI.L. ***Permitting Authority*** means the Nevada Division of Environmental Protection.

VI.M. ***Qualified Person*** means a person knowledgeable in the principles and practice of erosion and sediment controls and who possesses the skills to assess conditions at the site that could impact stormwater quality and the effectiveness of the BMPs selected to control the quality of the stormwater discharges.

VI.N. ***Small Municipal Separate Storm Sewer System*** is defined at 40CFR§122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States, but is not defined as "large"' or "medium" MS4. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

VI.O. ***Stormwater*** is defined at 40CFR§122.26(b)(13) and means stormwater runoff, snowmelt runoff, and surface runoff and drainage.

VI.P. ***Stormwater Management Program (SWMP)*** refers to a comprehensive program to manage the quality of stormwater discharged from the MS4.

ACRONYMS

BMP	Best Management Practice
CFR	Code of Federal Regulations
CWA	Clean Water Act
LA	Load Allocation
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NPDES	National Pollutant Discharge Elimination System
NRS	Nevada Revised Statute
Permittee	Nevada Department of Transportation
SARA	Superfund Amendments and Reauthorization Act
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USC	United States Code
WLA	Wasteload Allocation

Appendix C Authorizations

L. H. ODGION
Administrator

Administration:
(702) 687-4670
Fax 687-5856

Air Quality
Mining Regulation and Reclamation
Water Quality Planning
Water Pollution Control

STATE OF NEVADA
BOB MILLER
Governor

PETER G. MORROS
Director

Fax (702) 885-0888
TDD 687-4678

Waste Management
Corrective Actions
Federal Facilities

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
Capitol Complex
333 W. Nye Lane
Carson City, Nevada 89710

June 30, 1994

Mr. Harry Wright
Environmental Services Division
Nevada Dept. of Transportation
INTERDEPARTMENTAL

Subject: Stormwater Permit Coverage Not Required For Maintenance Yards

Dear Mr. Wright:

This letter is being sent at your request to confirm our conversation this afternoon. Regulations adopted by the U.S. EPA give 11 industrial categories to which the stormwater permitting requirement applies (40 CFR § 122.26(b)(14)(i) - (xi)). The maintenance yards operated by the Department of Transportation do not fall under any of these. The closest one is category viii, transportation facilities. However, for roadway travel, that category is restricted to facilities primarily involved in the transportation of goods or passengers, or the U.S. Postal Service. Since the primary function of the NDOT maintenance facilities is to maintain the roadways, they are not included. Please give me a call at 687-4670 extension 3149 if you have any questions or would like to discuss this further.

Sincerely,

Robert J Saunders

Robert J. Saunders
Environmental Engineer
Bureau of Water Pollution Control

INCLINE VILLAGE PUBLIC WORKS

April 23, 2009

Steve M. Cooke, P.E.
Nevada Department of Transportation
Environmental Services Chief
1263 S. Stewart Street
Carson City NV 89701

RE: **Discharge to IVGID Sewer from the NDOT Incline Maintenance Yard Decant Facility**

Dear Mr. Cooke,

The Nevada Department of Transportation (NDOT) has constructed a decant facility at the NDOT Maintenance Yard on Mt Rose Highway. The purpose of the decant facility is to dewater materials collected from maintenance activities such cleaning out drainage structures, performing vacuum excavation, etc. and then disposing of the decant water to the Incline Village General Improvement District (IVGID) sewer. The decant facility has been built for the mutual benefit of NDOT, IVGID and Washoe County whom all perform similar maintenance operations and must meet the stringent discharge requirements in the Lake Tahoe Basin.

This letters serves as approval for the NDOT Decant Facility to discharge the decant water to the IVGID sewer located at the NDOT Maintenance Yard. Plans for construction of the facility had previously been prepared by NDOT and have been reviewed and accepted by IVGID. Thank you for providing this joint use facility to serve all of the agencies needs in Incline Village and Crystal Bay.

Sincerely,

Joseph J. Pomroy
Director of Public Works

c. T Buxton
Reading

PUBLIC WORKS DEPARTMENT · 1220 SWEETWATER ROAD · INCLINE VILLAGE, NV 89451
PH: (775) 832-1203 FX: (775) 832-1260 · WWW.IVGID.ORG

STOREY COUNTY PUBLIC WORKS

Richard Bacus
Public Works Director

P.O. Box 435 • Virginia City, Nevada 89440

September 7, 2004

Daryl N. James
Nevada Department of Transportation
Environmental Services Division
1263 South Stewart Street
Carson City, Nevada 89712

RE: Storm Water Discharge into the Virginia City Wastewater Treatment Facility.

Dear Mr. James:

Storey County Public Works acknowledges that the Nevada Division of Environmental protection has issued a statewide National Pollutant Discharge Elimination System Permit to NDOT, for Discharges from NDOT Municipal Separate Storm Sewer System (MS4) (Permit No. NV0023329). To comply with Section 3.3 of the Statewide Permit NDOT is required to identify discharges from NDOT's MS4s into facilities treating domestic sewage not owned by NDOT. If any exist, NDOT is to secure written authorization from the respective utility company receiving the discharge. The following is an excerpt from your permit.

Permit No. NV0023329 Section 3.3
3.3 Discharges to Sanitary Sewer System
[3.3.1 For discharges into facilities treating domestic sewage, used in storage, treatment, recycling, and reclamation, of municipal or domestic sewage, that are not owned or operated by NDOT, the following shall be provided.
[3.3.1.1 Written and signed confirmation from each facility authorizing the discharge of pollutants into the facility system; and,
[3.3.1.2 A report of all authorizations is submitted to NDEP, no later than one (1) year after the effective date of this permit.

This letter expresses the written and signed confirmation from the Storey County Public Works to authorize the discharge of storm water runoff from NDOT's drop inlets along SR 341 into the Virginia City Wastewater Treatment Facility.

Storey County Public Works
Richard Bacus, Director

Storey County Commission
Greg Hess, Commissioner

ROAD DEPARTMENT • WATER SYSTEM • SEWER SYSTEM • SWIMMING POOL
MINER'S PARK • BUILDINGS & GROUNDS • WASTE DISPOSAL

Appendix D Inspection Checklist

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

Weekly NDOT Construction Site Discharge Inspection Checklist

Contract Number:	**Contractor:**	
Date:	**Inspector/Crew No. (Company):**	
Inspection Criteria*	**YES**	**NO**
1. Is there evidence of sediment or chemical runoff from NDOT R/W into an adjacent water body or municipal separate storm sewer system (MS4) (MS4 - means a conveyance or system of conveyances including roads with drainage systems, drop inlets, curbs, gutters, ditches, man-made channels, or storm drains)? Specifically:		
(a) Is there a discharge of sediment, debris, trash, etc.?		
(b) Is there vehicle track-out?		
(c) Is there a discharge of paint, oil, or industrial chemicals from the site?		
(d) Do discharge points exhibit significant erosion?		
2. Are the structural Best Management Practices (BMP's) improperly installed in non-conformance with the Construction Site BMP Manual (BMP Manual) details, and/or not functional and/or not maintained (I.e. straw wattles, silt fence, storm drain inlet protection, gravel bags, check dams, etc.)?		
3. Are there any BMP's listed in the BMP Manual's Minimum Requirement Table not installed or implemented?		
4. Are there general water pollution control concerns in non-conformance with the BMP Manual?		
General Comments and/or Locations of Deficiencies noted above:		

* Please refer to the Construction Site BMP Field Manual for the inspection frequency guidelines. ***If frozen conditions exist and earthwork disturbances have been suspended, field inspections are not required. Use the General Comment section of this form to identify the time frame the project meets these conditions.***

Contractor's Representative _____ Date _____

Inspector _____ Resident Engineer _____

NDOT
040-054
Rev 07/07

Distribution: White, Construction; Green, Resident Engineer; Canary, District; Pink, Inspector; Goldenrod, Contractor (after signed and dated by contractor and inspector)