



BOISE STATE UNIVERSITY

Boise State University
Storm Water Management Program
NPDES Permit No.: IDS-027561



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Acronyms

The following acronym list is provided for those reading the Boise State University Storm Water Management Program.

ACHD	Ada County Highway District
BMP	Best Management Practice
CGP	Construction General Permit
CWA	Clean Water Act
EPA	Environmental Protection Agency
ERP	Enforcement Response Policy
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
IDEQ	Idaho Department of Environmental Quality
LID	Low Impact Development
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
POC	Pollutant(s) of Concern
SPCC	Spill Prevention, Control and Countermeasure
SBOE	State Board of Education
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan

1 Introduction

1.1 Scope and Purpose

Boise State University's Storm Water Management Program (SWMP) is a comprehensive program plan designed to reduce the discharge of pollutants from Boise State's Municipal Separate Storm Sewer System (MS4) to the Maximum Extent Practicable (MEP). The goals of the program are to restore and protect the quality of the Boise River and its tributaries through control measures, Best Management Practices (BMPs), stormwater drainage system design, and engineering methods to control and minimize the discharge of pollutants from the MS4.

1.2 Applicability

Boise State University holds authority with the other Boise metropolitan area jurisdictions to discharge stormwater and allowable non-stormwater from MS4 outfalls to the Boise River and its tributaries under the National Pollutant Discharge Elimination System (NPDES) Permit IDS-027561, in compliance with the Clean Water Act (CWA). The newly issued and revised Permit IDS-027561 became effective February 1, 2013, and includes next generation MS4 program requirements for incremental implementation and applies to Ada County Highway District (ACHD), Boise State University, City of Boise, Idaho Transportation Department #3, Garden City, and Drainage District #3. A copy of the NPDES Permit IDS-027561 is provided in Appendix A.

This program document outlines the SWMP activities to be developed and implemented by the new permit, including: inventory of MS4 facilities and outfalls Boise State owns and operates, the control measures and program activities implemented to reduce the discharge of pollutants to the Boise River and its tributaries, related regulatory controls, and Boise State's participation and cooperation with other jurisdictions under the permit to ensure compliance with the conditions of the permit. Boise State's roles and responsibilities under the MS4 permit have been established by the updated Intergovernmental Agreement and Operating Guidelines among the Permittees in Appendix B.

1.3 Program Administration

The SWMP for Boise State University shall undergo annual evaluation and update, and revised SWMP documentation shall be included in each Annual Report submitted to the Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality (IDEQ), and made available electronically via the Partners for Clean Water and Environmental Health, Safety and Sustainability websites. The first edition of the SWMP under the new permit was made available for public comment via online sources and was submitted in the first year Annual Report on January 30, 2014.

2 Physical Description of the Boise State University MS4

Boise State University is Idaho's metropolitan university located next to the south bank of the Boise River, near the center of downtown Boise. Boise State University's 215-acre main campus is bordered to the north by the Boise River, to the south by Beacon Avenue, to the east by Broadway Avenue, and to the west by Ann Morrison Park with the majority of parcels between Beacon, University and Boise Avenues. Boise State University also maintains and oversees operations at two off site locations. The Boas Tennis Complex (10.5 acres) on Highland Avenue and the Yanke Research Park (8 acres) on Parkcenter Boulevard, both of which have impervious surface and drain to either the Boise River or a surface water canal system. Boise State manages twelve active storm water outfalls which drain impervious surfaces such as parking lots and rooftops. Boise State has a number of onsite infiltration amenities for stormwater treatment on the premises rather than direct discharge to the storm drain system. Boise State University's main campus and off site areas are composed of buildings, maintained lawns, landscaped areas, concrete sidewalks, asphalt-paved driveways and parking areas, parking garages, certain streets owned by Boise State University, a sports stadium with roof areas and multiple artificial turf fields. A current map of the campus is included as Appendix C.

2.1 ACHD MS4 in Boise State University

All MS4 structures, facilities, and outfalls draining public streets and roadways adjacent to the campus and various streets and alleys within the interior campus are owned and operated by ACHD. ACHD is responsible for management, maintenance, and monitoring of the MS4 that are strictly in their right of way before they pass into the sections of the MS4 owned by Boise State University. The SWMP control measures designed specifically to accomplish the task of reducing pollutant discharges in the sections of the MS4 owned and operated by Boise State to the MEP are discussed in Section 3 of this SWMP. Additionally, the Intergovernmental Agreement and Operating Guidelines documents provide the necessary authority to manage, maintain, and monitor respective jurisdictional areas of responsibility.

2.2 Boise State University MS4

Separate from the ACHD MS4, Boise State University owns and operates municipal stormwater facilities and outfalls to the lower Boise River and its tributaries. Boise State currently has a total of twelve storm water outfalls which drain 233.5 impervious acres of surfaces such as parking areas, sidewalks, and rooftops. In addition, Boise State has a number of onsite infiltration amenities for stormwater treatment on the premises rather than direct discharge to the storm drain system. The main campus and both offsite locations at Highland Street and Parkcenter Boulevard, with drainage to the Boise River or a tributary, are comprised of ten sub-basin drainage areas which drain impervious surface to twelve separate outfalls. There are multiple permanent stormwater controls which are checked on a regular basis, including: five vortex treatment of sediment and debris, twenty seven sand and grease separators, eight onsite infiltration systems, and 158 catch basins. Inspection frequency for all structures occurs on an annual basis and results of the inspections are included in the Annual Report. Structures are cleaned on an as-needed basis.

3 Storm Water Management Program Minimum Control Measures

This section describes the six minimum control measures that must be met by Boise State University's SWMP according to the NPDES permit Part II.B. The six minimum control measures are:

- ❖ Construction Site Runoff Control Program
- ❖ Storm Water Management for Areas of New Development and Redevelopment
- ❖ Industrial and Commercial Storm Water Discharge Management
- ❖ Storm Water Infrastructure and Street Management
- ❖ Illicit Discharge Management
- ❖ Education, Outreach, and Public Involvement

For each required control measure for which Boise State University holds responsibility, a description of existing or soon to be implemented activities that meet permit requirements are provided as well as schedules of implementation.

3.1 Construction Site Runoff Control Program

Boise State has implemented a program to reduce discharges of pollutants from all state owned construction activity occurring on the main campus or any of the satellite areas that are less than one acre. Projects which occur on state land and are greater than or equal to one acre are operated by the Division of Public Works and covered under the terms of the EPA issued *NPDES General Permit for Stormwater Discharge from Construction Activities in Idaho*, Permit #IDR12-0000 , which manages pollutants in discharges to meet Idaho water quality standards.

Boise State University's Erosion and Sediment Control Plan (ESCP) applies to all projects on state land less than 1 acre in size and contains the same elements of a SWPPP and enforcement authority is delegated by Boise State Policy number 9140. The *Catalog for Stormwater Best Management Practices*

for Cities and Counties produced by IDEQ serves as the required manual for construction storm water management controls. All ESCPs are reviewed for alignment with ESC protocols and approved through the Environmental Health, Safety and Sustainability office by an appropriately trained and educated Responsible Person / Plan Designer, documented by the training classes administered by the City of Boise. The Intergovernmental Agreement outlines the cost share agreement for activities related to Public Education and Outreach lead by the City of Boise and Boise State participates for all aspects related to education of stormwater policies, regulations and requirements.

3.2 Storm Water Management for Areas of New Development and Redevelopment

New development and redevelopment on land owned by the State of Idaho for Boise State University is required by state policy to be designed to manage stormwater runoff and shall include permanent controls to protect water quality and restrict discharges to surface waters of the MS4. In general, the rate of stormwater runoff from any proposed land development shall not exceed the runoff rate prior to the development regardless of the storm event evaluated.

The IDEQ *Catalog for Stormwater Best Management Practices for Cities and Counties* shall be the adopted manual for which construction projects on Boise State University property shall comply.

Along with the other Permittees, Boise State shall develop a strategy to incentivize the increased use of LID, and submit at least three pilot projects which meet the permit characteristics along with a strategy for pilot project evaluation.

Boise State will evaluate the feasibility of incorporating runoff reduction techniques into the repair of streets, roads or parking areas by using canopy interception, bioretention, soil amendments, evaporation, rainfall harvesting, engineering infiltration, rain gardens, infiltration trenches, extended filtration and/or evapotranspiration and/or a combination of the aforementioned practices. If any

practice is found to be feasible for a project with a start date after the effective date of this permit, all aspects of the project(s) will be reported in the 5th year Annual Report.

Developments with stormwater designs that require permanent controls are tracked and designated for inspection. Based on information gathered during the plan review process, permanent controls to be installed are included on an inventory of existing permanent stormwater controls within Boise State's jurisdictional control. Routine and final drainage system design inspections and reports are tracked and stored electronically on the network server. The summary of new structures incorporated in new projects is reported in the Annual Report.

To ensure that newly developed stormwater design systems and permanent controls are operated and maintained adequately, an Operation and Maintenance plan has been developed in conjunction with Boise State Landscape Services and Transportation and Parking Services. Inspection, cleaning, and sweeping frequency are based on best available technology and EPA related guidance. The table on the following page shows the department and associated responsibilities.

Responsible Department	Description	Implementation	
		Inspection	Maintenance
FO&M – Landscape Services	Drop Inlets	Monthly	Cleaned as needed, after storm events, and during annual inspection.
	Retention Basins	Annually	Cleaned as needed.
	Parking Lots and Grounds	Daily	Floatables picked up daily as needed. Trash containers emptied daily or as needed.
EH&S	Sand/grease Separators, AquaSwirls	Annually	Cleaned as needed. Use appropriate equipment to remove sand, grease, floatables, and sediment accumulations.
	Outfalls	Annually	Cleaned/repared as needed.
	Catch Basins	Annually	Inspected for sediment depth and cleaned when appropriate.
	Outdoor Liquid Storage	Annually	Secondary containment present and sufficient.
Transportation and Parking Services	Parking Structures	Three times per year	Swept by vacuum street sweeper.
	Parking Lots	Three times per year	Swept by vacuum street sweeper – Spring Break, Christmas break, beginning or end of Summer Session, or as needed.

3.3 Industrial and Commercial Storm Water Discharge Management

Boise State University has no industrial or commercial facilities which discharge into or within the operational jurisdiction of the University's MS4. Boise State University, along with the other Permittees, participates in a cost-share agreement which entails strategy development with ACHD and City of Boise to inventory and track those facility types and provide targeted education to reduce the discharge of pollutants.

3.4 Storm Water Infrastructure and Street Management

Boise State University manages its stormwater infrastructure and facilities to reduce the discharge of pollutants to the MEP. Management includes an inspection of permanent stormwater controls and structures, performing any maintenance or cleaning tasks, and implementing stormwater pollution prevention BMPs. This program does not apply to the MS4 structures and roadways in and around Boise State that are under ACHD jurisdiction. A current inventory map of Boise State owned roads and public parking lots is located in the Annual Report as Figure 1.

The Environmental Health, Safety and Sustainability office inspects all permanent stormwater structures located on Boise State owned streets, parks, and facilities once annually. If inspections reveal that maintenance is required for any structures, such as sweeping, replacing filter media, or catch basin cleaning, a work order is generated. Boise State University Landscape Services performs general maintenance, sweeping, and facility trash collection. An outside contractor provides pumping of the oil and water separators and catch basins. If BMPs need to be implemented to prevent the discharge of pollutants from a University facility, the Environmental Health, Safety and Sustainability office prescribes the correct BMP with guidance of the IDEQ *Catalog for Stormwater Best Management Practices for Cities and Counties*.

To manage and report on the inspection and maintenance program for Boise State stormwater infrastructure, an inventory of Boise State facilities and the stormwater structures are kept in a

spreadsheet and incorporated into facility maps. Inspections and maintenance activities are scheduled and tracked in the database to ensure an appropriate inspection frequency. All actions regarding stormwater management of Boise State's MS4 and facilities can be compiled and are summarized in the Annual Report. The current inventory of structures are: five Aqua-Swirls with vortex-type treatment of sediment and debris, twenty seven oil and water separators, eight onsite infiltration systems, and 158 catch basins.

Additional control measures intended to minimize or eliminate the discharge of pollutant from University facilities and operations include:

- Parking lot and pathway deicing – Boise State Landscape Services uses liquid magnesium chloride and pelletized ice melt during periods of ice and snow conditions and apply it in a manner which preserves safety and limits environmental impact. Solid deicing materials are stored inside and liquid deicer is stored in plastic dispensing system in a locked pervious yard.
- Pesticide, herbicide and fertilizer applications – Boise State Landscape Services is responsible for applications of pesticide, herbicide, and fertilizer on Boise State properties. All Landscape Services personnel are licensed and certified with the Idaho State Department of Agriculture. Pesticides are kept in secure indoor storage areas.
- Street and Parking lot repair – Street and parking lot repairs undertaken as a standalone project are overseen by Boise State project managers. All disturbances less than one acre are subject to completion of an ESCP and applicable BMPs. All Plans, whether for ESC or SWPPP are reviewed and approved by the Environmental Health, Safety and Sustainability office.
- Litter control – Boise State Landscape Services performs daily trash pickup on the main campus and satellite locations. Boise State is a committee member of the Boise RiverSweep which is an

annual Boise River clean up event. In addition to daily pickup, trash is collected after major events occurring on the campus.

- Manage sand stockpiles – Boise State Landscape Services maintains a stockpile of sand only for use in traction control on sidewalks and parking lots. The stockpile is located in a single location and is comprised solely of sand (no salt added) and is contained in a three sided pen in a large pervious and locked yard. Any runoff would not reach any portion of the MS4 or a receiving waterbody.

3.5 Illicit Discharge Management

An illicit discharge is any discharge that is not composed entirely of storm water, except discharges authorized under an alternate NPDES permit and discharges resulting from firefighting activities. Illicit discharges are prohibited in Boise State’s MS4 and any illicit discharges or activities with the potential for illicit discharge are addressed accordingly and prohibited. A Treasure Valley stormwater pollution prevention hotline exists to serve the entire watershed and illicit discharge complaints are routed to the appropriate agency holding the jurisdictional responsibility for the location of the incident. The stormwater phone matrix is periodically reviewed and updated for most current contacts at each agency in the watershed area. A log is compiled by ACHD and submitted in the Annual Report following the previous reporting period. A map will be developed among the Permittees to identify the location, type and relative quantity or severity of the non-stormwater discharge to the MS4.

Boise State University received coverage under a separate NPDES Groundwater Remediation Discharge Permit (Permit # IDG911006) from EPA with an effective date of September 15, 2014 for discharges containing covered pollutants. All conditions of that permit will be reported according to those requirements and are not subject to reporting under conditions of the NPDES MS4 Phase 1 permit.

In addition to routine stormwater inspections, annual dry weather outfall screening serves to identify potentially problematic outfalls. In addition to visual observation inspections, field and lab samples will be taken in accordance with approved sampling protocol.

Boise State University also maintains a Spill Prevention, Control and Countermeasure Plan to identify all oil containing tanks or sources and maintains provisions to ensure accidental releases do not reach a navigable waterway.

3.6 Education, Outreach, and Public Involvement

Boise State University works with fellow Permittees to implement the requirements of the NPDES regarding education, outreach and public involvement. The Intergovernmental Agreement designates the City of Boise as the lead agency responsible for the Public Education program. To assist with program support, Boise State commits funding for its share of the annual costs associated with program administration, which is determined during the annual budget meeting held every January.

Working together under the name Partners for Clean Waters, the Permittees have developed a website to provide the general public and business partners' information regarding stormwater management, educational and volunteer opportunities, and to review the actions and activities completed annually by the Permittees at www.partnersforcleanwater.org. Boise State University also maintains a webpage dedicated to stormwater and environmental health documents, forms and resources located at <http://operations.boisestate.edu/ehs/environmental-health/>. All applicable State and local public notice requirements are met by posting on multiple online sources.

Boise State University participates in various education and outreach activities to improve awareness and increase positive impacts within the community on the local watershed. The public involvement events focus around public health promotion, river cleanup, and educational conferences for which the Storm Water coordinator actively participates.

4 Discharges to Water Quality Impaired Receiving Waters

In the IDEQ 2010 Integrated report, sections of the Boise River were found impaired by one or more of the following Pollutants of Concern (POC) for the purposes of this permit: total phosphorus, sediment, temperature, and E. coli. Boise State University prohibits all non stormwater discharges to the MS4 and each of the six minimum control measures described in Section 3 of this SWMP are designed to prohibit or reduce the discharge of any listed POC. The following table shows each control measure and the POC and applicable controls associated with each measure.

Control Measure	POC and their Controls
Construction Site Runoff Control Program	Sediment; Construction site inspections, ESCP and SWPPP review, Permit violation referrals, Enforcement Response Policy
Storm Water Management for Areas of New Development and Redevelopment	Total phosphorus, sediment, temperature, E. coli; ESCP and SWPPP review, On-site retention systems, <i>Catalog for Stormwater Best Management Practices</i> incorporated into projects, assess feasibility of LID techniques on repair of public streets, roads or parking lots
Industrial and Commercial Storm Water Discharge Management	Total phosphorus, sediment, E. coli; All non-stormwater discharges prohibited, updated prioritized inventory to control high-priority areas
Storm Water Infrastructure and Street Management	Total phosphorus, sediment, E. coli; Maintenance of updated structures inventory, routine cleaning, and quarterly frequency for sweeping of streets and parking areas
Illicit Discharge Management	Total phosphorus, sediment, temperature, E. coli; Dry weather screening, outfall sampling, SPCC Plan, Pollution Prevention Hotline participation
Education, Outreach, and Public Involvement	Total phosphorus, sediment, temperature, E. coli; Cost share agreement and participation in quarterly meetings to assess program goals associated with Distribution of Eddy Approved Fact sheets, Responsible Person/Plan Designer training sessions, Business Partners target audience

To evaluate the effectiveness of Boise State's SWMP in reducing the discharge of POC to the MEP, water quality monitoring data for sections of the Boise River impacted by Boise State University discharges from its outfalls will be periodically reviewed to detect any reductions or increases in levels of POC compared to 2010 data. Sources of monitoring data include the ACHD, IDEQ, and HDR surface water quality and outfall monitoring programs. Boise State will provide all relevant sampling data to ACHD to inform the pollutant loading reduction effectiveness.

5 Monitoring, Recordkeeping and Reporting Requirements

The Intergovernmental Agreement in Appendix B designates the ACHD as the lead agency responsible for the implementation of the MS4 monitoring program. To assist with program implementation, Boise State commits funding for its share of the annual cost of the monitoring program, which is determined during the annual budget meeting held every January.

The Environmental Health, Safety and Sustainability office at Boise State University retains records of all data and information used in the development and implementation of the SWMP. All records are stored electronically on the University's server and in hard copy format for a period not less than five years. All records are accessible to the IDEQ and EPA upon request to the Environmental Health, Safety and Sustainability office during normal business hours.

Each year Boise State compiles an Annual Report for the NPDES required reporting period of October 1 through September 30 of the previous year. The Annual Report is submitted to ACHD, the agency responsible for coordinating the preparation and submittal of all Permittees' Annual Reports to the IDEQ and EPA by January 30th of each term.

Boise State's Annual Report shall follow the guidelines established in the NPDES Permit Part IV.C.3.c. The tracking of plan reviews, inspections, enforcement actions, and stormwater infrastructure

maintenance provide data and statistics that are included in the report. The Annual Report is used in assessing Boise state's compliance with permit conditions and implementation schedule.

6 Legal Authority

Each Permittee shall operate pursuant to legal authority established by statute, ordinance, or series of contracts. The prior Annual Reports used a state trespassing statute and water quality rules, cooperation with the campus police, and the Idaho Department of Environmental Quality for justification of sound legal authority to implement the Storm Water Management Plan.

Boise State University does not maintain the equivalent of a city code to regulate storm water discharges. However, the University does operate and maintain a storm water system which collects runoff from areas involved in a wide variety of uses including student housing, academic uses, research activities, science laboratories and recreational facilities.

The University has the authority to implement its storm water management programs and to control, regulate and enforce discharges to the storm water system through the statutory framework of the Idaho Code (I.C.). In particular, I.C. §33-105 grants to the Idaho State Board of Education (SBOE), Boise State University's governing authority, the power to "make rules for its own government and the government of its executive departments of office." Further, the SBOE, by its policies (Section I, subsection A(2) and Subsection E) grants to the President of Boise State University the power and responsibility to organize, manage, direct and supervise the institution pursuant to the framework of the Board's Governing Policies and Procedures. Under this grant of authority to the President, the University has enacted a broad range of policies, including regulations for the operation, management and maintenance of the storm water system, as well as the power to control illicit discharges, spills and dumping. The current Environmental Health & Safety policy 9140 and State of Idaho contracts express this broad authority with reference to the University's obligations under the NPDES permit. In addition, through a contract between Boise State University and the City of Boise Police Department,

administrators at the University are able to call City Police for assistance in enforcement. Boise State University has authority through the Intergovernmental Agreement in Appendix B to control pollutant discharges into and from its MS4 to meet requirements of the NPDES permit Part II.G. Below is a summary of the unique legal authorities which satisfy the five legal authority criteria specifically listed in the permit:

- ❖ Criteria 1: Must have authority to prohibit discharge of pollutants to the MS4 by illicit connections and discharges.

Satisfying legal authority: I.C. §33-105 and Boise State Policy #9140

- ❖ Criteria 2: Must have authority to control the discharge to the MS4 of spills, dumping, or disposal of materials other than stormwater.

Satisfying legal authority: Boise State Policy #9140

- ❖ Criteria 3: Must control through interagency agreements the contribution of pollutants from one portion of the MS4 to another portion of the MS4.

Satisfying legal authority: Intergovernmental Agreement for Roles and Responsibilities under the NPDES MS4 Permit IDS-027561 and Operating Guidelines which are attached in Appendix B.

- ❖ Criteria 4: Must have authority to require compliance with conditions.

Satisfying legal authority: Boise State Policy #9140

- ❖ Criteria 5: Must have authority to carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with Permit conditions including the prohibition on illicit discharges to the MS4.

Satisfying legal authority: I.C. §33-105 and Boise State Policy #9140

Appendix A: Authorization to Discharge
Municipal Stormwater to the Boise River
under the National Pollutant Discharge
Elimination System (NPDES) Permit No.:
IDS-027561

Available online at: <http://operations.boisestate.edu/EHS/environmental-health/>

Appendix B: Updated Intergovernmental Agreement among NPDES Permittees and Operating Guidelines

Available online at: <http://operations.boisestate.edu/EHS/environmental-health/>

Appendix C: Boise State University MS4 Map

Appendix D: Boise State University Policy #9140 – Environmental Health and Safety

Available online at: <http://operations.boisestate.edu/EHS/environmental-health/>