

**MONTANA**  
**Water Quality & Storm Water Management Training Programs**  
**For Construction Activities**

**Program Delivery: Altitude Training Associates (ATA)**

<b>Course #</b>	<b>Title</b>	<b>Length</b>	<b>*Prerequisite</b>
BMP 101	Introduction to Storm Water Management	8 (hrs.)	No
BMP 102	BMP Field Academy	8 (hrs.)	Yes
BMP 201	SWPPP Administrator Certification Program	16 (hrs.)	Yes
BMP 201(R)	Re-Certification for SWPPP Administrators	8 (hrs.)	Yes
BMP 202	SWPPP Preparer	8 (hrs.)	Yes
BMP 301	Conducting Storm Water Compliance Inspections	16 (hrs.)	Yes
WQM 100	Construction Dewatering Operations	4 (hrs.)	No
WQM 110	Best Management Practices for Working In Waterways	4 (hrs.)	No
WQM 120	Maintenance Practices for Permanent BMPs.	8 (hrs.)	No

\*See Course Information for the description of the required prerequisite.

## **COURSE DESCRIPTION**

This one day course was developed as an introduction to storm water management during construction and meets the prerequisite requirements for the SWPPP Administrator Certification Program (BMP 201). This course is based in the Montana *General Permit for Storm Water Discharges Associated with Construction Activity* and covers:

- The Storm Water Program legal requirements including permitting and Storm Water Pollution Prevention Plans (SWPPP).
- Erosion and Sedimentation at construction sites.
- Types of Best Management Practices (BMPs) for specific applications to control erosion and sedimentation.
- Installing and maintaining construction site BMPs.

## **PREREQUISITE**

There is no prerequisite for this training program.

## **LEARNING OBJECTIVES**

*Upon completion of this class, you will be able to:*

- List the permit requirements under the storm water program.
- Describe the impacts to water quality caused by erosion and sedimentation.
- Describe the installation and maintenance requirements for BMPs used during construction.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates  
Tom Gore, Altitude Training Associates  
Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE**

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1 –</b> Introduction Regulatory Requirements	2 Hours	Participant and Course Introduction Learning Objectives Regulatory Program & Permit Requirements The Storm Water Pollution Prevention Plan (SWPPP)
<b>Module 2 –</b> The Erosion Process	.5 Hour	The Erosion Process & Objectives for Erosion Control
<b>Module 3 –</b> Best Management Practices for Erosion Control	1.5 Hours	Types of BMPs for <u>Erosion</u> Control including Planning, Scheduling, Phasing Administrative BMPs, Grading Techniques, and Vegetative Cover, Rolled Erosion Control Products
<b>LUNCH</b>	<b>One Hour</b>	
<b>Module 3 – continued</b> Best Management Practices for Erosion Control	.5 Hour	Vehicle Tracking Control, Diversions, Slope Drains Outlet Protection, Check Dams
<b>Module 4 – Introduction</b> Best Management Practices for Sediment Removal	One Hour	Types of BMPs for <u>Sediment</u> Removal Silt Fence and Erosion Bales Inlet Protection
<b>Module 4 – continued</b> Best Management Practices for Sediment Removal	One Hour	Sediment Traps and Sediment Basins
<b>Module 5 –</b> Materials Handling	.5 hour	BMPs for Materials Handling and Waste Management

## **COURSE DESCRIPTION**

The BMP Field Academy is a one day training course involving the actual installation of BMPs by the participants used to control erosion and sedimentation. The program is conducted at an established host location or an actual construction site. The students are divided into groups of 4-5 per group. The work conducted by the students as a group is the installation of the BMP in accordance with an installation specification. The 6-7 stations are designed to be installations involving hand work (no heavy equipment). The instructors provide guidance and the site field hands rotate between groups to provide assistance with the installations. Following each segment of the class (morning and afternoon), the students evaluate the BMP installations (a form is provided) they did not perform. After the installations and student evaluations, water is applied to the BMP, so its actual performance under simulated storm water conditions can be observed.

## **PREREQUISITE**

It is expected the participants have knowledge of erosion & sediment control BMPs especially installation criteria. Minimal discussion of the actual installation details will be provided during the class. The instructional element of the program will focus on methods and techniques to ensure a proper BMP installation.

## **LEARNING OBJECTIVES**

*Upon completion of this class, you will be able to:*

- Install a BMP according to its' specification (installation detail) and SWPPP narrative.
- Evaluate an installed BMP based on its' specification.
- Evaluate a BMP's performance during and after a simulated storm event.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates  
Tom Gore, Altitude Training Associates  
Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE**

*All times are approximate.*

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1</b> Introduction/Orientation	0.5 Hours	Participant and Course Introduction Learning Objectives Safety Meeting Formation of Groups
<b>Module 2</b> BMP Installation stations	3 Hours	Groups report to their BMP Installation station. (*examples include perimeter control silt fence, straw wattles, erosion control blanket, and compacted earthen berm)
	0.5 Hours	Debriefing of BMP installations and their performance under simulated storm event.
<b>LUNCH</b>	<b>One Hour</b>	
<b>Module 3</b> BMP Installation stations	2 Hours	Groups report to their BMP Installation station. (*examples include velocity checks, straw wattles, drop and curb inlet protection)
	1 hour	Debriefing of BMP installations and their performance under simulated storm event. Course Conclusion.

*\*The stations will vary from class to class.*

## **COURSE DESCRIPTION – Two Day Certification Course**

This course is a certification program as recognized by the Montana Contractors Association (MCA) and Montana Department of Environmental Quality (DEQ) for SWPPP Administrators. The course is delivered by Altitude Training Associates (ATA) in conjunction with the Montana DEQ. Day one of this program is conducted in the classroom and covers:

- The Montana regulatory requirements.
- The Storm Water Pollution Prevention Plan (SWPPP).
- Duties of the SWPPP Administrator.
- How to select Best Management Practices (BMPs) for erosion and sediment control.

The class includes a field trip on the second day. The field trip visit will be to a local construction site to evaluate the BMPs implemented at the site. Students will evaluate the implementation of the SWPPP and evaluate implemented practices to control pollutant sources including erosion & sediment control BMPs.

## **PREREQUISITE**

An introductory training program on how to install and maintain best management practices to control erosion and sedimentation on construction sites is a prerequisite for this class. The BMP 101 – Introduction to Storm Water Management meets this requirement.

## **LEARNING OBJECTIVES**

*Upon completion of this class, students will be able to:*

- Describe the requirements for storm water management construction sites under the Montana Construction Storm Water Permit.
- Describe the contents of a SWPPP.
- Evaluate a prepared SWPPP.
- Select Best Management Practices (BMP's) for the control of Erosion and Sedimentation.
- Describe procedures for conducting routine inspections of BMP's.
- While on a construction site, evaluate the implemented BMPs for proper installation, maintenance and application.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates

Tom Gore, Altitude Training Associates

Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE DAY 1**

*Note: 10 minute breaks will be hourly. All times are approximate.*

<i><b>Module</b></i>	<i><b>Time</b></i>	<i><b>Topic</b></i>
<b>Module 1</b> Introduction Montana Regulatory Requirements	2 Hours	Participant and Course Introduction Learning Objectives Montana Regulatory Requirements
<b>Module 2</b> SWPPP	1 Hour	The SWPPP
<b>Module 2 con't</b> SWPPP	1 Hour	Review & Evaluation of a prepared SWPPP
<b>LUNCH</b>	<b>1 Hour</b>	
<b>Module 3</b> Selecting BMPs	3 Hours	Selecting Best Management Practices for Erosion and Sediment Control

**OUTLINE DAY 2** *(Students must dress accordingly for the field trip)*

<i><b>Module</b></i>	<i><b>Time</b></i>	<i><b>Topic</b></i>
<b>Module 1 con't</b> Review Day 1 Regulatory Requirements	1 Hour	Montana Regulatory Requirements Compliance Evaluation Inspections
<b>Module 4</b> Inspections	1 hour	Requirements for conducting storm water inspections.
Field Trip	2 Hours	Construction site visit to evaluate the site for permit compliance.
<b>LUNCH</b>	<b>1 Hour</b>	<b>LUNCH</b>
Review of findings from field trip.	2 Hrs.	A review of the field findings finding from the morning trip(s).
Certification Test Course conclusion	1 Hr.	Certification test will be administered. Final questions and wrap up.

## **COURSE DESCRIPTION –One Day Re-Certification Course**

The initial SWPPP Administrator certification program is valid for 3 years. Those attendees completing the two day SWPPP Administrator training program receive the certification. Before the 3 year anniversary, a recertification program or the original SWPPP Administrator program must be attended. This course is the recertification program as recognized by the Montana Contractors Association (MCA) and Montana Department of Environmental Quality (DEQ) for renewal of the SWPPP Administrator certification. The course is delivered by Altitude Training Associates (ATA). This one day program is conducted in the classroom and is delivered using PowerPoint slides and in class activities. Topics include:

- Review of the Montana regulatory requirements for storm water management during construction. Clarification of key sections in the permit.
- Use of the Storm Water Pollution Prevention Plan (SWPPP) to manage pollutant sources on a construction site.
- Evaluating criteria and conditions for the proper selection of Best Management Practices (BMP) for pollution prevention.
- Identifying and describing common storm water management problems requiring corrective actions.

## **PREREQUISITE**

You must be within the 3 year time period for which your SWPPP Administrator certification is valid. You must attend the 2 day SWPPP Administrator class in the event you have exceeded the 3 year time period.

## **LEARNING OBJECTIVES**

*Upon completion of this class, students will be able to:*

1. **Apply** the requirements of the Montana Construction General Permit to an active construction site.
2. **Describe** procedures to develop and use the SWPPP to manage pollutant sources at different phases of the construction project.
3. **Evaluate** criteria and conditions for the selection of BMPs for pollution prevention.
4. From examples, **identify and describe** corrective actions for common storm water management problems.

**INSTRUCTORS**

Scott Olson, Altitude Training Associates  
 Tom Gore, Altitude Training Associates  
 Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE**

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time (hrs.)</b>	<b>Topic</b>	<b>Learning Objective</b>
<b>Module 1</b> Introduction Montana Regulatory Requirements	2	Participant and Course Introduction Learning Objectives Montana Regulatory Requirements	<b>Apply</b> the requirements of the Montana Construction General Permit to an active construction site.
<b>Module 2</b> SWPPP	1	The Storm Water Pollution Prevention Plan (SWPPP)	<b>Describe</b> procedures to develop and use the SWPPP to manage pollutant sources at different phases of the project.
<b>Module 3</b> Selecting BMP(s)	2	Selection of BMPs for pollution prevention.	<b>Evaluate</b> pollutant sources for proper BMP selection during different phases of construction.
<b>Module 4</b> Corrective Actions	2	Corrective actions for storm water management problems	From examples, <b>identify and describe</b> corrective actions for common storm water management problems.

## **COURSE DESCRIPTION**

This SWPPP Preparer Training Program is a one day training program designed for those people preparing the initial SWPPP for a construction site. The development of a Storm Water Pollution Prevention Plan (SWPPP) requires a carefully planned approach to ensure the practices match with scheduled construction activities. This class will cover how to develop a plan that is complete and adequate so the on-site personnel can properly implement it. In addition, this course provides the valuable opportunity to hear directly from the Montana DEQ, Water Protection Bureau. The DEQ will offer insights into the regulatory program with a focus on the SWPPP requirements as well as the facility site inspection. In this session, you will learn the key items evaluated by inspectors during the SWPPP review portion of the inspection. This program provides information and techniques to allow participants to prepare a compliant and effective SWPPP.

## **PREREQUISITE**

Successful completion of a training program or equivalent experience on how to install and maintain Best Management Practices (BMP) used to control erosion and sedimentation during construction activities. BMP 101 meets this requirement. It is recommended students also complete the BMP 201 SWPPP Administrator Certification Program.

## **LEARNING OBJECTIVES**

*Upon completion of this session, students should be able to:*

- Describe the Montana construction storm water permit requirements relating to the SWPPP.
- Format a SWPPP.
- Evaluate site conditions and activities for the appropriate design of Best Management Practices (BMP) to manage pollutants during construction activities.
- Describe BMP(s) used for materials management during construction activities.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates  
Tom Gore, Altitude Training Associates  
Chris Romankiewicz, Montana Department of Environmental Quality

## TOPICAL OUTLINE

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1 –</b> Introduction Regulatory Requirements	1.5 Hours	Participant and Course Introduction Learning Objectives Regulatory Program & Permit Requirements
<b>Module 2 –</b> Best Management Practices for Erosion & Sediment Control on Construction Sites	2 Hours	Required Elements of the SWPPP Creating Compliant Elements of a SWPPP.
<b>LUNCH</b>	<b>One Hour</b>	
<b>Module 3 -</b> Storm Water Pollution Plans (SWPPP)	1.5 Hours	Developing a SWPPP based on site conditions
Course conclusion and wrap up	1/2 Hour	Final Questions & Discussion and Course Conclusions

## **COURSE DESCRIPTION**

This 2 day training course has been designed by *Altitude Training Associates* in conjunction with the Montana Department of Environmental Quality for inspectors working for regulatory agencies. The target audience is inspectors reviewing SWPPPs and conducting on site evaluations of Best Management Practices (BMPs) used to control pollutant sources during construction. Specific features of this course will address topics to prepare inspectors for consistent and objective inspection procedures. The course includes a field to constructions sites to evaluate the site for findings of noncompliance.

## **PREREQUISITE**

Students must be versed in the selection, installation and maintenance of Best management Practices (BMPs). This can be achieved through a combination of experience and training. The BMP 101 & BMP 201 or equivalent is required.

## **LEARNING OBJECTIVES**

*Upon completion of this course, students will be able to:*

- List the construction storm water Permit Conditions.
- Describe Procedures for Conducting On-Site Inspections for Permit Compliance and Completing the Subsequent Report.
- Examine Appropriate Applications, Installations and Maintenance of Construction Site BMP Features.
- Generate a Report to Document Findings from a construction site.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates  
Tom Gore, Altitude Training Associates  
Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE**

*Note: 10 minute breaks will be hourly. All times are approximate.*

**DAY 1**

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1 –</b> Introduction Regulatory Requirements	2 Hours	Participant and Course Introduction Learning Objectives Permit Requirements
<b>Module 2 –</b> DEQ Storm Water Regulatory Program	2 Hours	The DEQ Regulatory Program The State Inspection Process
<b>LUNCH</b>	<b>One Hour</b>	
<b>Module 3 -</b> The SWPPP	2 Hours	Evaluating a SWPPP against the storm water program requirements
<b>Module 4 -</b> Evaluating BMP(s)	2 Hours	The Site Walk Around - Evaluating and Describing Observed BMPs

**DAY 2**

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1 –</b> Field Visit	4 Hours	Site visit to a construction site Evaluating and Describing Observed BMPs.
<b>LUNCH</b>	<b>One Hour</b>	
<b>Module 2 -</b> Field Trip De-Briefing Documenting the Field Trip Findings into a Report Format	3 Hours	Discuss the field trip findings. Preparing the report based on the site visit.

## **COURSE DESCRIPTION**

This ½-day training course has been developed by Altitude Training Associates in conjunction with the Montana Department of Environmental Quality (DEQ) as guidance for personnel involved in construction dewatering operations. These dewatering operations include the methods and practices implemented to remove groundwater accumulations from excavations and managing discharges so they will not have a negative impact on water quality. The focus of the course is on how to engage in these activities, and complete the required record-keeping, in a manner that is compliant with the Montana DEQ – MPDES *General Permit for Construction Dewatering Activities* permitting conditions.

## **PREREQUISITE**

There is no prerequisite for this training program.

## **LEARNING OBJECTIVES**

*Upon completion of this course, participants should be able to:*

- Describe what activities require a *MPDES General Permit For Construction Dewatering Activities*
- Describe what the Permitting Conditions are
- Describe the procedures for filing for Permit coverage
- Compare and contrast the differences between a permitted discharge and a non-permitted land application
- Detail the fundamentals of an adequate plan for conducting dewatering
- List a variety of compliant dewatering and treatment methods
- Implement inspection procedures for monitoring dewatering operation effectiveness and compliance
- Describe the procedures for taking samples of discharges, and procuring test results
- Complete the Discharge Monitoring Report (DMR) form

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates

Tom Gore, Altitude Training Associates

Chris Romankiewicz, Montana Department of Environmental Quality

**TOPICAL OUTLINE**

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1</b> Introduction Regulatory Requirements	1½ Hours	Participant and Course Introduction Learning Objectives Regulatory Program and Permit Requirements
<b>Module 2</b> Dewatering Methods for Land Applications	½ Hour	Procedures for Avoiding Off-site Discharges During Dewatering
<b>Module 3</b> Dewatering Methods for Off-site Discharges	¾ Hour	Best Management Practices for Permit Compliance - Review of Various Pumping and Treatment Methods
<b>Module 4</b> Dewatering Management Plans Operations Monitoring Sampling and Report Preparation	¾ Hour	Developing a Plan to Direct Operations and Procedures. Inspecting the Dewatering Operation and Activities. Taking Samples and Filling out the <i>Discharge Monitoring Report</i> for Submittal

## **COURSE DESCRIPTION**

Construction activities performed in waterways may impact water quality and therefore Best Management Practices (BMP's) are necessary to minimize these impacts. This ½-day training course will provide information about the installation, maintenance and inspection of BMP's that may be used to prevent or control erosion and sedimentation during construction activities in waterways. This course addresses work in and adjacent to waterways. It is designed to provide local inspectors, SWPPP preparers and administrators, consultants, state inspectors, and contractors with a common basis of how to achieve effective construction management for these projects.

## **PREREQUISITE**

There is no prerequisite for this training program.

## **LEARNING OBJECTIVES**

*Upon completion of the program, participants will be able to:*

- Evaluate waterway characteristics.
- Evaluate design considerations for BMP's used in waterways.
- Select BMP's for construction activities performed in waterways.
- Describe the installation and maintenance requirements for erosion and sediment control BMP's used in waterways.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates

Tom Gore, Altitude Training Associates

Chris Romankiewicz, Montana Department of Environmental Quality

## TOPICAL OUTLINE

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time (hrs.)</b>	<b>Topic</b>
<b>Module 1</b> Introduction to Course Regulatory Review and Permit Requirements	1.5 Hours	Participant and Course Introduction Learning Objectives Regulatory Program & Permit Requirements
<b>Module 2</b> Planning (SWPPP) Considerations for BMP's	1 Hour	The Storm Water Pollution Prevention Plan (SWPPP)
<b>Module 3</b> Best management Practices for Working In Waterways	1.5 Hours	Selecting & Installing BMP's to control Erosion & Sedimentation while Working in Waterways

## **COURSE DESCRIPTION**

This one day class is designed for personnel responsible for ensuring the proper functioning of storm water structures, features, and Best Management Practices (BMPs) as they relate to City requirements and the Municipal Separate Storm Sewer System (MS4) permit. Specific focus is given to the inspection and maintenance of permanent BMPs. The course covers MS4 permit requirements for maintenance activities of permanent storm water controls, construction site erosion control BMPs, and materials/waste handling practices. The class also covers fixed facility storm water management practices such as spill plans and chemical storage. In brief, the class provides the training necessary to effectively maintain storm water BMPs

## **PREREQUISITE**

There is no prerequisite for this training program.

## **LEARNING OBJECTIVES**

*Upon completion of this class, participants will be able to:*

- Describe the requirements of the regulatory program for storm water management for both construction activities and municipal programs.
- List the storm water permit conditions that effect BMP owners and operators.
- Describe the types of permanent controls used for storm water pollution control and typical construction and maintenance requirements.
- Describe the proper installation techniques for construction site erosion control BMPs and required maintenance activities with a focus on post construction, pre-permit inactivation.
- Describe how to conduct an inspection of storm water BMPs features, both temporary and permanent.

## **INSTRUCTORS**

Scott Olson, Altitude Training Associates  
Tom Gore, Altitude Training Associates  
Chris Romankiewicz, Montana Department of Environmental Quality

Maintenance Practices for Permanent Best Management Practices (WQM 120)  
 Course Information

---

**TOPICAL OUTLINE**

*Note: 10 minute breaks will be hourly. All times are approximate.*

<b>Module</b>	<b>Time</b>	<b>Topic</b>
<b>Module 1</b>  Introduction to Course The MS4 Permit – Municipal Responsibilities	2.5 Hours	Participant and Course Introduction Learning Objectives Regulatory Program & Permit Requirements
<b>Module 2</b>  Permanent Storm Water Quality Features	1.5 Hours	Permanent Stormwater Management Features Types, Design and Function  Ponds - Detention & Retention Basins Porous Pavement Porous Landscape Design Infiltration Features
<b>LUNCH</b>	1 Hour	
<b>Module 3</b>  Permanent Storm Water Quality Features	3.5 Hours	Permanent Stormwater Management Features; Inspection and Maintenance