



# ***Certified Inspector of Sediment and Erosion Control Training Modules Manual***

*(August 2017)*

**CISEC, Inc.**

P.O. Box 188

Parker, CO 80134

Phone: (720) 235-2783

Fax: (303) 841-6383

[contactus@cisecinc.org](mailto:contactus@cisecinc.org)

[www.cisecinc.org](http://www.cisecinc.org)





## ***Certified Inspector of Sediment and Erosion Control***

CISEC, Inc. nationwide certification program recognizes the abilities, skills, experience, and knowledge of inspectors who have demonstrated their proficiency in observing, inspecting, and reporting on the implementation and maintenance of Storm Water Pollution Prevention Plans on construction sites.

### **Mission Statement**

To provide an inspector certification program for individuals that:

- Demonstrate comprehensive knowledge in the principles and practices of sediment and erosion control and their applicability to development of discharge permit documents.
- Demonstrate the necessary skills to observe onsite and offsite conditions that impact the quality of storm water discharges from active construction sites.
- Demonstrate the ability to inspect installed best management practices and their ongoing maintenance to determine if the mitigation measures will minimize the discharge of sediment and other pollutants from active construction sites.
- Demonstrate the ability to communicate and report on their inspection of active construction sites as to whether compliance issues may exist with federal, state and/or local discharge permit regulations.

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*Website: [www.cisecinc.org](http://www.cisecinc.org)*



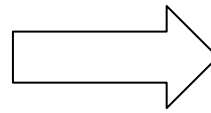




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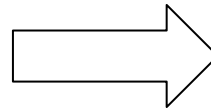
### **TRAINING MODULES**

**Registration and Application**



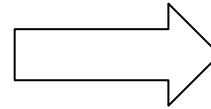
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**EPA Rules and Regulations**



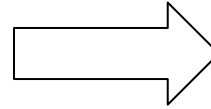
**Tab 2**

**Background of an Inspector**



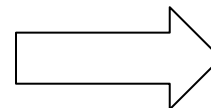
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**Conducting Construction Site Inspections**



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### **CISEC, Inc.**

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THESE FORMS CAN BE FILLED OUT USING YOUR COMPUTER

CISEC, Inc. P.O. Box 188 Parker, CO 80134 Ph: (720) 235-2783 Fax: 303-841-6383 E-mail: contactus@cisecinc.org

REGISTRATION FOR THE CISEC PROGRAM

Use a separate form for each applicant

Registration form fields: First Name, Middle Initial, Last Name, Company or Agency, Mailing Address, City, State/Province, Zip/Postal Code, Country, Office Phone, Fax Phone, Home or Cell Phone, Email Address

TRAINING MODULES REGISTRATION FEE (Prior approval is not required)\*\*

I am registering for the training modules \$375

Includes a hard copy of the manual at the beginning of the training modules. Click here to download a free electronic copy of the manual from www.cisecinc.org to prepare for the training modules and the certification examination

NON-REFUNDABLE CISEC CERTIFICATION EXAMINATION ADMINISTRATIVE FEE (Prior approval by CISEC, Inc. is required to sit for any examination)\*\*

Exam fee options: CISEC-IT Examination Fees (Part 1: \$60, Part 2: \$115), CISEC Full Examination Fees (Training modules OR: \$175, NOT REGISTERING: \$375)

Enter Total for Training Modules Registration and Examination Fees \$\_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Signature: \_\_\_\_\_

Please list any ADA requests: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Administrative fees must be paid in full before any evaluation of an applicant's qualification material will occur

Payment Information: Check No. \_\_\_\_\_ P.O. No. \_\_\_\_\_ VISA or MasterCard \_\_\_\_\_ American Express \_\_\_\_\_

Expiration Date \_\_\_\_\_ Security Code \_\_\_\_\_ Exact Name on the Credit Card \_\_\_\_\_ Billing Zip/Postal Code \_\_\_\_\_

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_ Authorized Signatory E-Mail Address \_\_\_\_\_

\*\*\* If enough enrollment in the training modules does not exist, CISEC, Inc. reserves the right to reschedule and/or cancel this CISEC Program

Please send payment forms and accompanying material to accounting@cisecinc.org or to CISEC, Inc., P.O. Box 188, Parker, CO 80134. Material can also be sent by fax (303-841-6383) or call 720-235-2783 for an address to deliver material by courier, Express Mail, etc.



# Application to Assess Eligibility for the CISEC Examination

Read the instructions and eligibility requirements before you complete this application.  
This is a fillable PDF form, or you can type or print clearly using dark ink.

## GENERAL INFORMATION

1	First Name		Last Name		
	Company or Agency		Mailing Address		
2	City		State/Province	Zip/Postal Code	Country
	Office Phone	Fax Phone	Home or Cell Phone	Email Address	
3	City		State/Province	Zip/Postal Code	Country
	Office Phone	Fax Phone	Home or Cell Phone	Email Address	

## BACKGROUND INFORMATION

<b>5 You must answer each question in this section before we can process your application:</b>			<b>YES</b>	<b>NO</b>
a) During the last 10 years, were you fired from any job for any reason, did you quit after being told that you would be fired, or did you leave by mutual agreement because of specific problems?				
b) Have you ever been convicted of any felony violation?				
c) Are you now under charges for any violation of law? <i>Do not include traffic violations.</i>				
d) Have you ever been denied a technical certification or license?				
e) Have you ever had a technical certification or license revoked or suspended?				

If you answered **YES** in any part of Section 5, please explain, using a separate sheet of paper. Include the item letter and date.

6. CISEC, Inc. **REQUIRES** that applicants keep current with sediment and erosion control, storm water pollution prevention or similar environmental courses and/or training. Please list one or more classes or training sessions in these topics that are related to construction site inspection, design, review, installation, and/or maintenance that have been completed within the last four years. Courses and/or training can be formal or informal. If you require more space, use a separate sheet of paper and include the item number. **This section is mandatory.** If you are unsure whether a course or training is applicable, please contact us at [examination@cisecinc.org](mailto:examination@cisecinc.org).

TRAINING ORGANIZATION/SPONSOR AND LOCATION	NAME OF COURSE/TRAINING SESSION (INCLUDE DESCRIPTION IF NEEDED)	TRAINING HOURS	MONTH AND YEAR

## RELATED CERTIFICATIONS

7. List any certifications related to sediment and erosion control inspection that you currently hold. If you need more space, use a separate sheet of paper and include the item letter (This section is optional).

CERTIFICATION	DATE OF LATEST CERTIFICATION	CERTIFICATION AGENCY	EXPIRATION DATE



# Application to Assess Eligibility for the CISEC Examination

Applicant Name: \_\_\_\_\_

## INSPECTION AND CONTRUCTION EXPERIENCE PROFILE INSTRUCTIONS

8. Applicants must demonstrate **AT LEAST TWO YEARS** of sediment and erosion control construction site inspection experience and/or storm water pollution prevention field experience. Examples include site inspections, SWPPP coordination with contractors, installation and/or maintenance of BMPs, construction site updates of SWPPPs, etc. If your work experience is deficient in meeting either criterion, but you have similar skills that should be considered, submit a written request to the Board of Directors at [administrator@cisecinc.org](mailto:administrator@cisecinc.org) for an assessment of your qualification.

### EMPLOYER INFORMATION

<b>A</b>	Company/Agency/State/City/County Name	Hours/Week Worked
	Mailing Address	Dates of Employment ( <u>this is a critical section</u> )
	City	State or Province
	Zip or Postal Code	Country
	Office Phone	Fax
	Company Web Page	
	What position(s) did you hold?	
	What was your working title(s) or role(s)?	
	Primary responsibilities relating to sediment and erosion control and/or storm water pollution prevention experience.	
<b>B</b>	Company/Agency/State/City/County Name	Hours/Week Worked
	Mailing Address	Dates of Employment ( <u>this is a critical section</u> )
	City	State or Province
	Zip or Postal Code	Country
	Office Phone	Fax
	Company Web Page	
	What position(s) did you hold?	
	What was your working title(s) or role(s)?	
	Primary responsibilities relating to sediment and erosion control and/or storm water pollution prevention experience.	
<b>C</b>	Company/Agency/State/City/County Name	Hours/Week Worked
	Mailing Address	Dates of Employment ( <u>this is a critical section</u> )
	City	State or Province
	Zip or Postal Code	Country
	Office Phone	Fax
	Company Web Page	
	What position(s) did you hold?	
	What was your working title(s) or role(s)?	
	Primary responsibilities relating to sediment and erosion control and/or storm water pollution prevention experience.	

Applicant Name: \_\_\_\_\_

**ADDITIONAL SEDIMENT AND EROSION CONTROL OR RELATED EXPERIENCES**

**D** Below, list any sediment and erosion control inspection and construction related experience that was not covered in the above section.

**APPLICATION FEE**

**9** Applicants who seek a review of their educational background and employment skills must complete and submit an administrative processing form and pay a non-refundable fee. Completion of these items must occur before CISEC, Inc. will begin their assessment of an applicant's qualifications. A PAYMENT FORM identifying all fees is attached to this application form

**IMPORTANT INFORMATION**

**10** CISEC, Inc. must receive all application material (including copies of Page 5 by three references) and the completed administrative form **AT LEAST 21 DAYS** prior to the examination date.

- Three completed reference forms must accompany this application. At least one reference must not be a co-worker.  
Please provide the names and emails of those submitting references

Name:

Name:

Name:

E-Mail:

E-Mail:

E-Mail:

- Unless advised otherwise by CISEC, Inc., reference forms submitted with the application being sent by mail must be in sealed and signed envelopes. Reviewers can also send their reference forms separately to CISEC, Inc. via mail, email, or fax.
- No applicant will be allowed to sit for an examination without written approval from CISEC, Inc.
- False statements on any part of this application may be grounds for denying or revoking a CISEC certification.

**SIGNATURE, CERTIFICATION, AND RELEASE OF INFORMATION**

**YOU MUST SIGN THIS APPLICATION.**

**READ THE FOLLOWING CAREFULLY BEFORE YOU SIGN.**

- I understand that any information I give may be verified by CISEC Inc.
- I consent to the release of information about my skills, abilities, professional ethics, and work records by current and former employers, schools, and references.
- I certify that I have read and will fully subscribe to the CISEC Code of Ethics (see Page 4).
- I certify that all information submitted in support of this application is correct and true to the best of my knowledge and understand all information regarding this application will remain confidential by CISEC, Inc.

**11** Signature

**12** Date

***CISEC, Inc. reserves the right to reject any application and/or reference form that it deems to contain fraudulent information***

**Registration, administrative, payment and three reference forms can be sent by:**

- E-mail ([accounting@cisecinc.org](mailto:accounting@cisecinc.org)) or fax (303-841-6383),
- Post Office mail at CISEC, Inc., P.O. Box 188, Parker, CO 80134 or
- Courier (send an e-mail to [accounting@cisecinc.org](mailto:accounting@cisecinc.org) or call 720-235-2783 for a physical address).

# **CODE OF ETHICS**

## **Certified Inspector of Sediment and Erosion Control**

### **Article I. General Principles**

1. The privilege of professional practice imposes obligations of morality and responsibility as well as professional knowledge.
2. Each Certified Inspector of Sediment and Erosion Control (hereafter called CISEC) agrees to be guided by the highest standards of ethics, personal honor, and professional conduct.

### **Article II. Relation of Professional to the Public**

1. A CISEC shall not give a professional opinion or make a recommendation without being as thoroughly informed as might reasonably be expected of a similarly situated professional.
2. A CISEC shall not knowingly permit the use of his or her reports or other documents for any unsound or illegitimate undertaking.
3. A CISEC shall not issue a false statement or false information at any time.
4. A CISEC shall not make any sensational, exaggerated, and/or unwarranted statements in any professional opinion or in the course of performing any professional services.
5. A CISEC may publish dignified business, professional, or announcement cards, but shall not advertise his or her work or accomplishments in a self-laudatory, exaggerated, or unduly conspicuous manner.

### **Article III. Relation of Professional to Employer and Client**

1. A CISEC shall not use, directly or indirectly, any employer or client's information in any way that would violate the confidence of the employer or client.
2. A CISEC shall protect, to the fullest extent possible, the interest of their employer or client insofar as such interest is consistent with the law and his or her professional obligations and ethics.
3. A CISEC who finds that his or her obligations to their employer or client conflict with his or her professional obligation or ethics should address such objectionable conditions or resign.
4. A CISEC who has performed an investigation for any employer or client shall not seek to profit economically from the information gained.
5. A CISEC shall not divulge any information given in confidence.
6. A CISEC shall engage, or advise his employer or client to engage, and cooperate with other industry specialists whenever the employer or client's interests would be best served by such service.

### **Article IV. Relation of Professionals to Each Other**

1. A CISEC shall not falsely or maliciously attempt to damage the reputation of another.
2. A CISEC shall refrain from plagiarism in oral and written communications.
3. A CISEC shall endeavor to cooperate with others in the profession and encourage the ethical dissemination of technical knowledge.

### **Article V. Duty to the Profession**

1. A CISEC shall uphold this Code of Ethics by example and encourage other CISECs to do the same.

### **Article VI. Conflicts of Interest**

1. A CISEC shall not inspect properties under contingent arrangements whereby any compensation or future referrals are dependent on reported findings.
2. A CISEC shall not receive compensation for an inspection from more than one party unless agreed to by the client(s).
3. A CISEC shall not accept compensation, directly or indirectly, for recommending contractors, services, or products to inspection clients or other parties having an interest in inspected properties.

# CISEC Application Reference Form

## Reference for Applicant: \_\_\_\_\_

The above applicant is seeking to become a Certified Inspector of Sediment and Erosion Control (CISEC) and we are seeking pertinent information that will help us evaluate his or her qualifications. Please complete the following form and send your reference directly to CISEC, Inc. via email ([examination@cisecinc.org](mailto:examination@cisecinc.org)) or fax (303-841-6383). You can also return it to the applicant in a sealed envelope that has your signature across the flap. Thank you.

## Location of CISEC Examination:

### REFERENCE QUESTIONS (fraudulent responses will result in the denial of an applicant's application)

1. I have known the applicant: \_\_\_ less than 2 years \_\_\_ 2-6 years \_\_\_ more than 6 years
2. What was your role in the relationship to the applicant?  
\_\_\_ Supervisor \_\_\_ Subordinate \_\_\_ Colleague \_\_\_ Classmate \_\_\_ Client \_\_\_ Academic Advisor
3. Are you familiar with the applicant's performance at any time during the past six years?  
\_\_\_ Yes \_\_\_ Yes, but less than six years \_\_\_ No
4. Please rate the applicant's inspection abilities (1 = Low, 5 = High, and UTC = Unable to Comment) and characteristics that you have observed based upon recent job performances:  
I have not observed any job performances of the applicant  
\_\_\_ Proficiency \_\_\_ Analyze and solve problems \_\_\_ Self-discipline \_\_\_ Communication Skills  
\_\_\_ Resourceful \_\_\_ Trustworthy \_\_\_ Good judgment \_\_\_ Written  
\_\_\_ Experience \_\_\_ Technical growth and development \_\_\_ Oral
5. What particular inspection strengths do you feel the applicant has that may be important?  
\_\_\_\_\_  
\_\_\_\_\_
6. Do you think the applicant would be a capable and professional sediment and erosion control inspector?  
\_\_\_ Yes \_\_\_ No Please explain  
\_\_\_\_\_  
\_\_\_\_\_
7. Please list any comments that will aid in evaluating this applicant regarding sediment and erosion control inspection experiences.  
\_\_\_\_\_  
\_\_\_\_\_
8. We expect a CISEC to adhere to the mission statement provided below. Based your review of the mission statement, do you recommend this applicant to become a CISEC? \_\_\_ Yes \_\_\_ No

### **Mission Statement**

- A CISEC will demonstrate comprehensive knowledge in the principles and practices of controlling sediment and erosion and other storm water pollutants and their applicability to discharge permit documents,
- A CISEC will demonstrate the necessary skills to observe onsite and offsite conditions that impact the quality of storm water discharges from active construction sites,
- A CISEC will demonstrate the ability to inspect installed best management practices and their ongoing maintenance to determine if the mitigation measures will minimize the discharge of sediment and other pollutants from active construction sites,
- A CISEC will demonstrate the ability to communicate and report on their inspection of active construction sites as to whether storm water management compliance issues associated with water quality may exist with federal, state and/or local discharge permit regulations.

### REFERENCE CONTACT INFORMATION

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Employer \_\_\_\_\_ Daytime Phone \_\_\_\_\_  
Occupation \_\_\_\_\_ Email \_\_\_\_\_  
License/Certified as \_\_\_\_\_

***This form has been completed by me and represents opinions and numerical ratings about the applicant to the best of my knowledge***

Signature \_\_\_\_\_ Date \_\_\_\_\_

***CISEC, Inc. reserves the right to reject any reference form that has not been completed by the person signing this page***



THIS FORM CAN BE FILLED OUT USING YOUR COMPUTER

CISEC, Inc. P.O. Box 188 Parker, CO 80134 Ph: 720) 235-2783 Fax: 303-841-6383 www.cisecinc.org

USA PROCTOR FORM

Form with fields: First Name, Middle Initial, Last Name, Company or Agency, Mailing Address, City, State/Province, Zip/Postal Code, Office Phone, Fax, Home or Cell Phone, Email Address

Once you have been accepted by CISEC, Inc. to sit for a Certification Examination, you will need to complete and submit this form after selecting one of the following options

- Option 1: I want to sit for the Certification Examination at the following In-Person CISEC Program being held at ... on ... It is my understanding that there are no additional fees for this option and a CISEC instructor will proctor the test.
Option 2: The following person meets CISEC, Inc.'s proctor criteria as found at www.cisecinc.org and has agreed to administer my (Circle one) CISEC Full CISEC-IT Part 1 CISEC-IT Part 2 Certification Examination. It is my understanding this option requires a \$55 administrative fee as well as CISEC, Inc. approving, and receiving a signed contract from, the proctor.

Proctor Name: \_\_\_\_\_ CISEC No. \_\_\_\_\_
Proctor Company or Agency: \_\_\_\_\_
Proctor Mailing Address: \_\_\_\_\_
Proctor City: \_\_\_\_\_
Proctor State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Proctor Main Phone: \_\_\_\_\_
Proctor Fax: \_\_\_\_\_ Proctor E-Mail: \_\_\_\_\_
Enter the Test Date (if known): \_\_\_\_\_ Enter Time of the Test (if known): \_\_\_\_\_

I have selected Option 2 and agree to pay the \$55 administrative fee
Payment Information: [ ] Check No. \_\_\_\_\_ [ ] P.O. No. \_\_\_\_\_
Fill out the following if you are paying by credit card
[ ] VISA or [ ] MasterCard \_\_\_\_\_ [ ] American Express \_\_\_\_\_
Expiration Date \_\_\_\_\_ Security Code \_\_\_\_\_ Exact Billing Name for Credit Card \_\_\_\_\_ Billing Zip/Postal Code \_\_\_\_\_
Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_ Authorized E-Mail \_\_\_\_\_

THIS FORM MUST BE SUBMITTED AT LEAST TWO WEEKS BEFORE ADMINISTRATION OF THE TEST

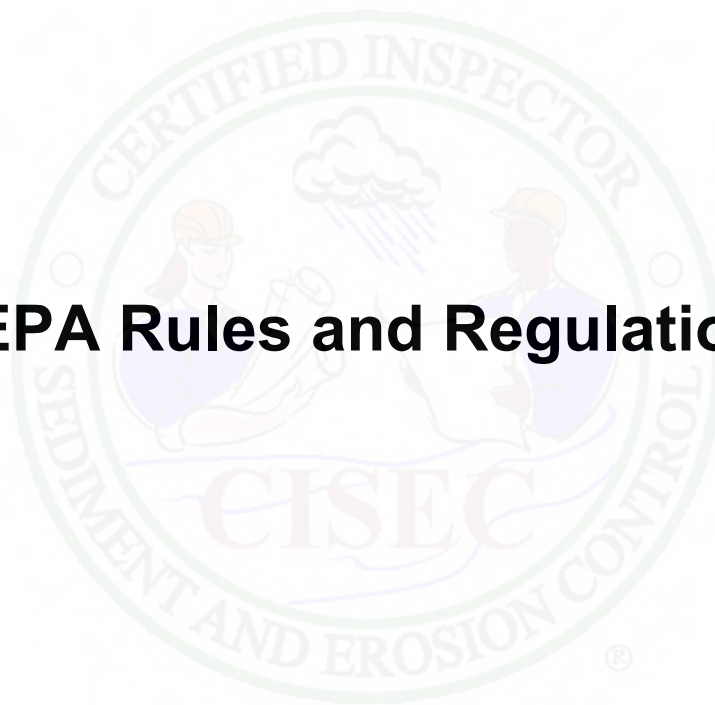
Signature: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Please send payment form and accompanying material to
CISEC, Inc. P.O. Box 188 Parker, CO 80134 OR Fax: 303-841-6383 E-Mail: Examination@cisec.org Call 720-235-2783



# EPA Rules and Regulations

## EPA Rules and Regulations



# EPA Rules and Regulations





# EPA Rules and Regulations

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# EPA Rules and Regulations



## **INSPECTION EXERCISES**



# EPA Rules and Regulations

## LAND DEVELOPMENT PROJECTS



Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.

1.

2.

3.

4.

# EPA Rules and Regulations

## BIG BOX PROJECTS



Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.

1.

2.

3.

4.

# EPA Rules and Regulations

## VERTICAL DEVELOPMENT PROJECTS



Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.

1.

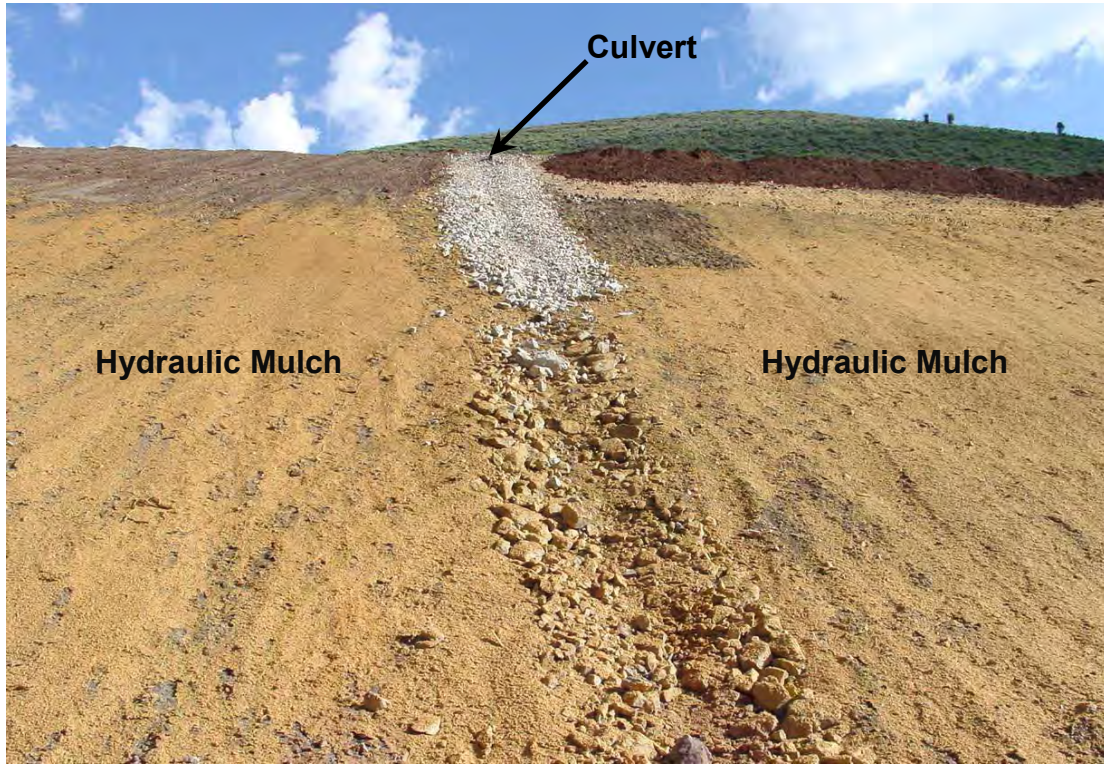
2.

3.

4.

# EPA Rules and Regulations

## LINEAR PROJECTS



Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.

1.

2.

3.

4.

# EPA Rules and Regulations

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# EPA Rules and Regulations

## GENERAL INFORMATION

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### REGULATORY HISTORY

Perhaps the one factor that alerted citizens of the United States about its environmental problems occurred with the Cuyahoga River in Cleveland, Ohio. For years, the Cuyahoga River discharged large amounts of unregulated waste material from upstream industrial facilities into Lake Erie. Periodically, the oil soaked material would catch on fire by sparks caused by trains traveling along the river bank.

In 1972, the Clean Water Act (CWA) was formulated to address environmental conditions in the United States with the intent to achieve the following:

- Fishable and “swimmable” waters by 1983
- Total elimination of pollutant discharges into navigable waters by 1985
- Establishment of the National Pollutant Discharge Elimination System
- Construction program regulations

### IMPORTANCE OF THE CLEAN WATER ACT

A nationwide program under Section 402 of the Clean Water Act (CWA) exists that regulates the discharge of pollutants from point sources to waters of the United States. Monitoring these discharges is the responsibility of the Environmental Protection Agency (EPA), which deems such releases as being illegal unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit.

EPA enforces the CWA by issuing compliance orders, bringing civil action, or notifying responsible parties and state authorities. In addition, the CWA specifies that any citizen can file a civil action on his/her own behalf against:

- Any person, the US, or other governmental agency that is alleged to be in violation of an effluent standard or limitation or an order issued by EPA or a state with respect to such a standard or limitation.
- The EPA where there is allegedly a failure this agency to perform any act or duty that it is required to complete.

The CWA also allows the Governor of a State to file a civil suit against the EPA Administrator where there is an alleged failure of the agency to enforce an effluent standard or limitation and a violation is occurring in another State that is:

- Causing an adverse effect on the public health or welfare in his/her State or
- A violation of any water quality requirement in his/her State.



# EPA Rules and Regulations

Penalties and fines associated with the CWA are as following:

## Potential Administrative Penalties

### **a) Class I Violation (negligent)**

- i. up to \$20,965 per violation with a maximum of \$52,414

### **b) Class II Violation (knowingly)**

- i. up to \$20,965 per day per violation with a maximum of \$262,066

**NOTE:** Administrative penalties are usually adjusted for inflation by January 15 of each year

## Potential Civil Judicial Penalties

### **a) Negligent Violations**

- i. Up to \$2,500 to \$50,000 (repeated offenders) per day of violation
- ii. Up to 1- to 2- (repeat offenders) years of incarceration

### **b) Knowingly Violations**

- i. Up to \$5,000 to \$100,000 (repeated offenders) per day of violation
- ii. Up to 3- to 6- (repeat offenders) years of incarceration

### **c) Knowingly Endangerment**

- i. Up to \$250,000 to \$50,000 (repeated offenders) for a person
- ii. Up to \$250,000 to \$1,000,000 (repeated offenders) for an organization
- iii. Up to 15- to 30- (repeat offenders) years of incarceration

### **d) False Statements**

- i. False statements, representation or certification in any application, report, plan or other document OR knowingly falsifies, tampers with or renders inaccurate any monitoring device
  - Up to \$10,000 to \$20,000 (repeat offenders) per violation
  - Up to 2- to 4- (repeat offenders) years of incarceration



# EPA Rules and Regulations

## EPA'S EXPEDITED SETTLEMENT OFFER WORKSHEET

### Expedited Settlement Offer Worksheet Deficiencies Form

*Consult instructions regarding eligibility criteria  
and procedures prior to use*

version 10.3.4



1	<b>LEGAL NAME AND MAILING ADDRESS OF OPERATOR</b>	<b>Telephone Number</b>	<b>NPDES Permit Number</b>
		Inspector Name:	
		Inspector Agency:	Other
		Entrance Interview Conducted:	
		Exit Interview Conducted:	
		Exit Interview given to:	
		Exit Interview time:	Date:
2	<b>LOCATION AND ADDRESS OF SITE</b>		

	<b>FACILITY DESCRIPTION / CONTACT NAMES</b>	
	<b>Name of Site Contact (ESO Worksheet recipient):</b>	
	<b>Name of Authorized Official (40 CFR 122.22):</b>	
	<b>Inspection Date:</b>	
	<b>Start Construction Date:</b>	
	<b>Estimated Completion Construction Date:</b>	
	<b>If Unpermitted, Number of Months Unpermitted:</b>	
	<b>Name of Receiving Water Body (Indicate whether 303(d) listed):</b>	
	<b>Acres Currently Disturbed   Acres to be Disturbed in Whole Common Plan:</b>	
	<b>Has Operator Requested Rainfall Erosivity or TMDL Waiver per 44 CFR 122.26(b)(15)?</b>	

	PERMIT COVERAGE	Findings	Citation Reference <sup>em</sup>	R C A*	No. of Deficien- cies	Dollar Amount	Total
3	Operator unpermitted for _____ months (# months unpermitted equals number of violations)		CWA 301		X	\$500.00	=
	<b>SWPPP REVIEW</b>						
4	SWPPP not prepared (If no SWPPP, leave elements 5 - 30 blank)		CGP 3.1 A			\$5,000.00	=
5	SWPPP prepared but prepared after construction start (# of months = # of violations)		CGP 3.1 A		X	\$75.00	=
6	SWPPP does not identify all potential sources of pollution to include: porta-pottys, fuel tanks, staging areas, waste containers, chemical storage areas, concrete cure, paints, solvents, etc...		CGP 3.1 B			\$250.00	=
7	SWPPP does not identify all operators for the project site and the areas of the site over which each operator has control		CGP 3.3 A			\$500.00	=
8	SWPPP does not have site description, as follows:						
	A Nature of activity in description		CGP 3.3 B.1			\$100.00	=
	B Intended sequence of major activities		CGP 3.3 B.2			\$100.00	=
	C Total disturbed acreage		CGP 3.3 B.3			\$100.00	=
	D General location map		CGP 3.3 B.4			\$100.00	=
	E Site map		CGP 3.3 C			\$500.00	=
	F Site map does not show drainage patterns, slopes, areas of disturbance, locations of major controls, structural practices shown, stabilization practices, offsite materials, waste, borrow or equipment storage areas, surface waters, discharge points, areas of final stabilization (count each omission under BF as 1 violation)		CGP 3.3 C.1-8		X	\$50.00	=
	G Location/description industrial activities, like concrete or asphalt batch plants		CGP 3.3 D			\$500.00	=
9	SWPPP does not:						
	A Describe all pollution control measures (e.g. BMPs)		CGP 3.4 A			\$750.00	=



# EPA Rules and Regulations

	B	Describe sequence for implementation		CGP 3.4.A			\$250.00	=	
	C	Detail operator(s) responsible for implementation		CGP 3.4.A			\$250.00	=	
10		SWPPP does not describe interim stabilization practices		CGP 3.4.B			\$250.00	=	
11		SWPPP does not describe permanent stabilization practices		CGP 3.4.B			\$250.00	=	
12		SWPPP does not describe a schedule to implement stabilization practices		CGP 3.4.B			\$250.00	=	
13		Following dates are not recorded: major grading activities; construction temporarily or permanently ceased; stabilization measures initiated (count each omission under 13 as 1 violation)		CGP 3.4.C.1-3		X	\$250.00	=	
14		SWPPP does not have description of structural practices to divert flows from exposed soils, retain flows, or limit runoff from exposed areas		CGP 3.4.D			\$500.00	=	
15		SWPPP does not have a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur AFTER construction operations have been completed		CGP 3.4.E			\$500.00	=	
16		SWPPP does not describe measures to prevent discharge of solid materials to waters of the US, except as authorized by 404 permit		CGP 3.4.F			\$500.00	=	
17		SWPPP does not describe measures to minimize off-site vehicle tracking and generation of dust		CGP 3.4.G			\$500.00	=	
18		SWPPP does not include description of construction or waste materials expected to be stored on site w/updates re: controls used to reduce pollutants from these materials		CGP 3.4.H			\$250.00	=	
19		SWPPP does not have description of pollutant sources from areas other than construction (asphalt or concrete plants) w/ updates re: controls to reduce pollutants from these materials		CGP 3.4.I			\$500.00	=	
20		SWPPP does not identify allowable sources of non-storm water discharges listed in subpart 1.3.B of the CGP		CGP 3.5			\$500.00	=	
21		SWPPP does not identify/ensure implementation of pollution prevention measures for non-storm water discharges		CGP 3.5			\$500.00	=	
22		Endangered Species Act documentation is not in SWPPP		CGP 3.7			\$500.00	=	
23		Historic Properties (Reserved)							
24		Copy of permit and/or NOI not in SWPPP (count each omission under 24 as 1 violation)		CGP 3.8		X	\$250.00	=	
25		SWPPP is not consistent with requirements specified in applicable sediment and erosion site plans or site permits, or storm water management plans or site permits approved by State, Tribal or local officials (e.g., MS4 requirements)		CGP 3.9			\$750.00	=	
26		SWPPP has not been updated to remain consistent with changes applicable to protecting surface waters in State, Tribal or local erosion plans		CGP 3.9			\$250.00	=	
27		Copies of inspection reports have not been retained as part of the SWPPP for 3 years from date permit coverage terminates		CGP 3.10.G			\$500.00	=	
28		SWPPP has not been updated/modified to reflect change at site effecting discharge, or where inspections identify SWPPP/BMPs as ineffective, updates to SWPPP regarding modifications to BMPs not made within 7 days of such inspection (count each omission under under 28 as 1 violation)		CGP 3.11.C		X	\$50.00	=	
29		Copy of SWPPP not retained on site		CGP 3.12.A			\$500.00	=	
	A	SWPPP not made available upon request		CGP 3.12.C			\$500.00	=	
30		SWPPP not signed/certified		CGP 3.12.D			\$500.00	=	

# EPA Rules and Regulations

INSPECTIONS									
31	Inspections not performed and documented either once every 7 days, or once every 14 days and within 24 hours after storm event greater than 0.5 inches or greater (not required if: temp stabilization; runoff unlikely due to winter conditions; construction during arid periods in arid areas) (Count each failure to inspect and document as one violation).		CGP 3.10.A, 3.10.B			X	\$250.00	=	
	No inspections conducted and documented (if True, then leave elements 32-39 blank)						True or False		
	Number of Inspections expected if performed every 7 days:	0							
	Number of Inspections expected if performed bi-weekly:	0							
	If known, number of days of rainfall of >0.5"								
32	Inspections not conducted by qualified personnel		CGP 3.10.D				\$50.00	=	
33	All areas disturbed by construction activity or used for storage of materials and which exposed to precipitation not inspected		CGP 3.10.E				\$50.00	=	
34	All pollution control measures not inspected to ensure proper operation		CGP 3.10.E				\$50.00	=	
35	Discharge locations are not observed and inspected		CGP 3.10.E				\$50.00	=	
36	For discharge locations that are not accessible, nearby locations are not inspected		CGP 3.10.E				\$50.00	=	
37	Entrance/exit not inspected for off-site tracking		CGP 3.10.E				\$50.00	=	
38	Site inspection report does not include: date, name and qualifications of inspector, weather information, location of sediment/pollutant discharge, BMP(s) requiring maintenance, BMP(s) that have failed, BMP(s) that are needed, corrective action required including changes/updates to SWPPP and schedule/dates (count each omission under 38 as 1 violation)		CGP 3.10.G			X	\$50.00	=	
39	Inspection reports not properly signed/certified (count each failure to sign/certify as 1 violation)		CGP 3.10.G			X	\$50.00	=	
<b>Subtotal Inspections Deficiencies</b>									<b>\$0</b>
AVAILABILITY OF RECORDS									
40	Sign/notice not posted		CGP 3.12.B				\$250.00	=	
	A Does not contain copy of complete NOI		CGP 3.12.B				\$50.00	=	
	B Location of SWPPP or contact person for scheduling viewing times where on-site location for SWPPP unavailable not noted on sign		CGP 3.12.B				\$50.00	=	
<b>Subtotal Records Deficiencies</b>									<b>\$0</b>
BEST MANAGEMENT PRACTICES									
41	No velocity dissipation devices located at discharge locations or outfall channels to ensure non-erosive flow to receiving water		CGP 3.13.F				\$500.00	=	
42	Control measures are not properly:								
	A Selected, installed and maintained		CGP 3.13.A				\$500.00	=	
	B Maintenance not performed prior to next anticipated storm event		CGP 3.6.B				\$250.00	=	
	(count each failure to select, install, maintain each BMP as one violation)								
43	When sediment escapes the site, it is not removed at a frequency necessary to minimize off-site impacts		CGP 3.13.B				\$500.00	=	
44	Litter, construction debris, and construction chemicals exposed to storm water are not prevented from becoming a pollutant source (e.g. screening outfalls, pickup daily, etc.)		CGP 3.13.C				\$500.00	=	



# EPA Rules and Regulations

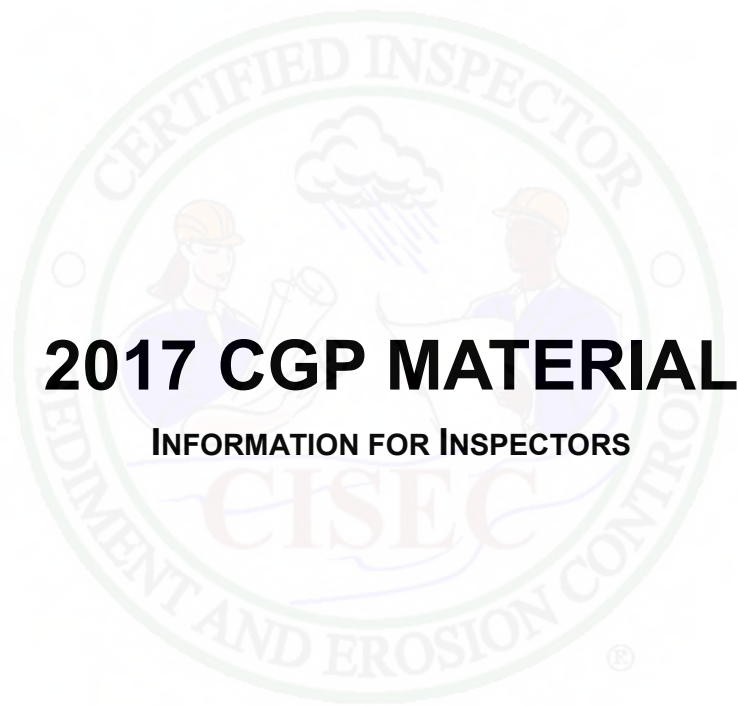
45	Stabilization measures are not initiated as soon as practicable on portions of the site where construction activities have temporarily or permanently ceased within 14 days after such cessation		CGP 3.13.D			\$500.00	=		
	*Exceptions:								
	(a) Snow or frozen ground conditions								
	(b) Activities will be resumed within 14 days								
	(c) Arid or Semi-arid areas (<20 inches per								
46	Common Drainage of 10+ acres does not have a sedimentation basin for the 2 year, 24 hour storm, or 3600 cubic ft. storage per acre drained		CGP 3.13.E.1			\$1,000.00	=		
	A Where sedimentation basin not attainable, smaller sediment basins, sediment traps, or erosion controls not implemented for downslope		CGP 3.13.E.2			\$1,000.00	=		
	B Sediment not removed from sediment basin or traps when design capacity reduced by 50% or more		CGP 3.6.C			\$500.00	=		
47	Common Drainage less than 10 acres does not have sediment traps, silt fences, vegetative buffer strips, or equivalent sediment controls for all down slope boundaries (not required if sedimentation sediment basin meeting criteria in 46 above)		CGP 3.13.E.3			\$500.00	=		
	A Sediment not removed from sediment trap when design capacity reduced by 50% or more		CGP 3.6.C		X	\$500.00	=		
<b>Subtotal BMP Deficiencies</b>							<b>\$0</b>		
<b>SMALL BUSINESS EVALUATION</b>									
48	Is the Owner/Operator a Small Business?								
	A <i>small business</i> is defined by EPA's Small Business Compliance Policy as: "a person, corporation, partnership, or other entity that employs 100 or fewer individuals (across all facilities and operations owned by the small business)." The number of employees should be considered as full-time equivalents on an annual basis, including contract employees (see 40 CFR 372.3). A full time employee unit is 2000 hours worked per year.								
<b>Total Expedited Settlement:</b>							<b>\$0</b>		
* Requires Corrective Action ** NPDES General Permit, 68 FR 39087, issued by EPA on July 1, 2003, <a href="http://cfpub.epa.gov/npdes/stormwater/cgp.cfm">http://cfpub.epa.gov/npdes/stormwater/cgp.cfm</a>									

## EPA's FINDINGS ON NON-COMPLIANCE ISSUES

- No Permit
- No SWPPP and/or Accompanying S&EC Drawings
- No Inspection Records
- No Amendments to the SWPPP and/or S&EC Drawings



# EPA Rules and Regulations



# EPA Rules and Regulations

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**National Pollutant Discharge Elimination System  
General Permit for Discharges from  
Construction Activities  
(as modified)**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "operators" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) general permit, are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of construction activities" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part 8.2).

This permit becomes effective on **June 27, 2019**.

This permit and the authorization to discharge expire at 11:59pm, **February 16, 2022**.

Signed and issued this 14th day of May 2019  
Deborah Szaro,  
Acting Regional Administrator, EPA Region 1.

Signed and issued this 14th day of May 2019  
Charles W. Maguire,  
Director, Water Division, EPA Region 6.

Signed and issued this 14th day of May 2019  
Jeff Gratz,  
Deputy Director, Water Division, EPA Region 2.

Signed and issued this 14th day of May 2019  
Jeffery Robichaud,  
Director, Water Division, EPA Region 7.

Signed and issued this 14th day of May 2019  
Jose C. Font,  
Acting Director, Caribbean Environmental  
Protection Division, EPA Region 2.

Signed and issued this 14th day of May 2019  
Darcy O'Connor,  
Director, Water Division, EPA Region 8.

Signed and issued this 14th day of May 2019  
Catharine McManus,  
Deputy Director, Water Division, EPA Region 3.

Signed and issued this 14th day of May 2019  
Tomás Torres,  
Director, Water Division, EPA Region 9.

Signed and issued this 14th day of May 2019  
Jeaneanne M. Gettle,  
Director, Water Division, EPA Region 4.

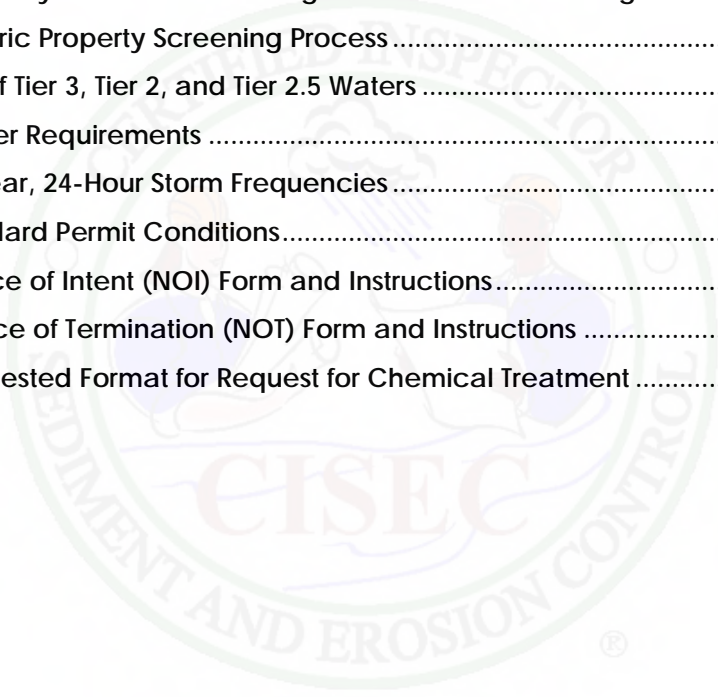
Signed and issued this 14th day of May 2019  
Daniel D. Opalski,  
Director, Water Division, EPA Region 10.

Signed and issued this 14th day of May 2019  
Joan M. Tanaka,  
Acting Director, Water Division, EPA Region 5.

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## **1 HOW TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP)**

To be covered under this permit, you must meet the eligibility conditions and follow the requirements for obtaining permit coverage in this Part.

### **1.1 ELIGIBILITY CONDITIONS**

**1.1.1** You are an “operator” of a construction site for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an “operator” is any party associated with a construction project that meets either of the following two criteria:

- a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- b. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Where there are multiple operators associated with the same project, all operators must obtain permit coverage.<sup>1</sup> Subcontractors generally are not considered operators for the purposes of this permit.

**1.1.2** Your site’s construction activities:

- a. Will disturb one or more acres of land, or will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land; or
- b. Have been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii);

**1.1.3** Your site is located in an area where EPA is the permitting authority (see Appendix B);

**1.1.4** Discharges from your site are not:

- a. Already covered by a different NPDES permit for the same discharge; or
- b. In the process of having coverage under a different NPDES permit for the same discharge denied, terminated, or revoked.<sup>2, 3</sup>

**1.1.5** You are able to demonstrate that you meet one of the criteria listed in Appendix D with respect to the protection of species that are federally listed as endangered or threatened under the Endangered Species Act (ESA) and federally designated critical habitat;

**1.1.6** You have completed the screening process in Appendix E relating to the protection of historic properties; and

<sup>1</sup> If the operator of a “construction support activity” (see Part 1.2.1c) is different than the operator of the main site, that operator must also obtain permit coverage. See Part 7.1 for clarification on the sharing of permit-related functions between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

<sup>2</sup> Parts 1.1.4a and 1.1.4b do not include sites currently covered under the 2012 CGP that are in the process of obtaining coverage under this permit, nor sites covered under this permit that are transferring coverage to a different operator.

<sup>3</sup> Notwithstanding a site being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4a or 1.1.4b, above, EPA may waive the applicable eligibility requirement after specific review if it determines that coverage under this permit is appropriate.

- 1.1.7** You have complied with all requirements in Part 9 imposed by the applicable state, Indian tribe, or territory in which your construction activities and/or discharge will occur.
- 1.1.8** For “new sources” (as defined in Appendix A) only:
- a. EPA has not, prior to authorization under this permit, determined that discharges from your site will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3, will result in discharges that will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.
  - b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water<sup>4</sup> will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.
- 1.1.9** If you plan to add “cationic treatment chemicals” (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) unless and until you notify your applicable EPA Regional Office (see Appendix L) in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards.

## **1.2 TYPES OF DISCHARGES AUTHORIZED<sup>5</sup>**

- 1.2.1** The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):
- a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR 122.26(b)(14) or 122.26(b)(15)(i);
  - b. Stormwater discharges designated by EPA as needing a permit under 40 CFR 122.26(a)(1)(v) or 122.26(b)(15)(ii);

<sup>4</sup> Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

<sup>5</sup> See “Discharge” as defined in Appendix A. Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, or during an inspection.

- c. Stormwater discharges from construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided that:
  - i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;
  - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction sites;
  - iii. The support activity does not continue to operate beyond the completion of the construction activity at the site it supports; and
  - iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas.
- d. Stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining.

**1.2.2** The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:

- a. Discharges from emergency fire-fighting activities;
- b. Fire hydrant flushings;
- c. Landscape irrigation;
- d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
- e. Water used to control dust;
- f. Potable water including uncontaminated water line flushings;
- g. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));
- h. Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
- i. Uncontaminated air conditioning or compressor condensate;
- j. Uncontaminated, non-turbid discharges of ground water or spring water;
- k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
- l. Construction dewatering water discharged in accordance with Part 2.4.

**1.2.3** Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a

discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

### 1.3 PROHIBITED DISCHARGES<sup>6</sup>

- 1.3.1 Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4;
- 1.3.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
- 1.3.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- 1.3.4 Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and
- 1.3.5 Toxic or hazardous substances from a spill or other release.

To prevent the above-listed prohibited non-stormwater discharges, operators must comply with the applicable pollution prevention requirements in Part 2.3.

### 1.4 SUBMITTING YOUR NOTICE OF INTENT (NOI)

All "operators" (as defined in Appendix A) associated with your construction site, who meet the Part 1.1 eligibility requirements, and who seek coverage under this permit, must submit to EPA a complete and accurate NOI in accordance with the deadlines in **Table 1** prior to commencing construction activities.

**Exception:** If you are conducting construction activities in response to a public emergency (e.g., *mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services*), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services, you may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1) establishing that you are eligible for coverage under this permit. You must also provide documentation in your Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency.

#### 1.4.1 Prerequisite for Submitting Your NOI

You must develop a SWPPP consistent with Part 7 before submitting your NOI for coverage under this permit.

#### 1.4.2 How to Submit Your NOI

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOI for coverage under the 2017 CGP, unless you received a waiver from your EPA Regional Office.

To access NeT, go to <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting>.

Waivers from electronic reporting may be granted based on one of the following conditions:

<sup>6</sup> EPA includes these prohibited non-stormwater discharges here as a reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

- a. If your operational headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or
- b. If you have limitations regarding available computer access or computer capability.

If the EPA Regional Office grants you approval to use a paper NOI, and you elect to use it, you must complete the form in Appendix J.

#### 1.4.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Table 1 provides the deadlines for submitting your NOI and the official start date of your permit coverage, which differ depending on when you commence construction activities.

**Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.**

Type of Operator	NOI Submittal Deadline <sup>7</sup>	Permit Authorization Date <sup>8</sup>
<b>Operator of a new site</b> (i.e., a site where construction activities commence on or after February 16, 2017)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
<b>Operator of an existing site</b> (i.e., a site with 2012 CGP coverage where construction activities commenced prior to February 16, 2017)	No later than <b>May 17, 2017</b> .	
<b>New operator of a permitted site</b> (i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site")	At least 14 calendar days before the date the transfer to the new operator will take place.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
<b>Operator of an "emergency-related project"</b> (i.e., a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services)	No later than 30 calendar days after commencing construction activities.	

#### 1.4.4 Modifying your NOI

<sup>7</sup> If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

<sup>8</sup> Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.



If after submitting your NOI you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT. Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office has granted you approval to submit a paper NOI modification, you may indicate any NOI changes on the same NOI form in Appendix J.

When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 8.3.

#### 1.4.5 Your Official End Date of Permit Coverage

Once covered under this permit, your coverage will last until the date that:

- a. You terminate permit coverage consistent with Part 8; or
- b. You receive permit coverage under a different NPDES permit or a reissued or replacement version of this permit after expiring on February 16, 2022; or
- c. You fail to submit an NOI for coverage under a revised or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired.

#### 1.5 REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.<sup>9</sup> At a minimum, the notice must include:

- a. The NPDES ID (*i.e.*, permit tracking number assigned to your NOI);
- b. A contact name and phone number for obtaining additional construction site information;
- c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [*include the appropriate CGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>*];" and
- d. The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: <https://www.epa.gov/enforcement/report-environmental-violations>."

## 2 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

You must comply with the following technology-based effluent limitations in this Part for all authorized discharges.<sup>10</sup>

<sup>9</sup> If the active part of the construction site is not visible from a public road, then place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

<sup>10</sup> For each of the effluent limits in Part 2, as applicable to your site, you must include in your SWPPP (1) a description of the specific control(s) to be implemented to meet the effluent limit; (2) any applicable design specifications; (3) routine maintenance specifications; and (4) the projected schedule for its (their)

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## 2.1 GENERAL STORMWATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS

You must design, install, and maintain stormwater controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in stormwater from construction activities. To meet this requirement, you must:

### 2.1.1 Account for the following factors in designing your stormwater controls:

- a. The expected amount, frequency, intensity, and duration of precipitation;
- b. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and
- c. The soil type and range of soil particle sizes expected to be present on the site.

### 2.1.2 Design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.<sup>11</sup>

### 2.1.3 Complete installation of stormwater controls by the time each phase of construction activities has begun.

- a. By the time construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (*e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection*) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities.<sup>12</sup>
- b. Following the installation of these initial controls, install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.

### 2.1.4 Ensure that all stormwater controls are maintained and remain in effective operating condition during permit coverage and are protected from activities that would reduce their effectiveness.

- a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer.<sup>13</sup>
- b. If at any time you find that a stormwater control needs routine maintenance, you must immediately initiate the needed maintenance work, and complete such work by the close of the next business day.

installation/implementation. See Part 7.2.6.

<sup>11</sup> Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practices and must be explained in your SWPPP. You must also comply with any additional design and installation requirements specified for the effluent limits in Parts 2.2 and 2.3.

<sup>12</sup> Note that the requirement to install stormwater controls prior to each phase of construction activities for the site does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutants during the installation of stormwater controls.

<sup>13</sup> Any departures from such maintenance recommendations made by the manufacturer must reflect good engineering practices and must be explained in your SWPPP.

- c. If at any time you find that a stormwater control needs repair or replacement, you must comply with the corrective action requirements in Part 5.

## 2.2 EROSION AND SEDIMENT CONTROL REQUIREMENTS

You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater from construction activities.

### 2.2.1 Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances.

- a. **Compliance Alternatives.** For any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:

- i. Provide and maintain a 50-foot undisturbed natural buffer; or
- ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
- iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

See Appendix G, Part G.2 for additional conditions applicable to each compliance alternative.

- b. **Exceptions.** See Appendix G, Part G.2 for exceptions to the compliance alternatives.

### 2.2.2 Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infeasible.

### 2.2.3 Install sediment controls along any perimeter areas of the site that will receive pollutant discharges.<sup>14</sup>

- a. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- b. **Exception.** For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible (*e.g., due to a limited or restricted right-of-way*), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

### 2.2.4 Minimize sediment track-out.

- a. Restrict vehicle use to properly designated exit points;
- b. Use appropriate stabilization techniques<sup>15</sup> at all points that exit onto paved roads.

<sup>14</sup> Examples of perimeter controls include filter berms, silt fences, vegetative strips, and temporary diversion dikes.

<sup>15</sup> Examples of appropriate stabilization techniques include the use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats.

- i. **Exception:** Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls<sup>16</sup> are implemented to minimize sediment track-out;
  - c. Implement additional track-out controls<sup>17</sup> as necessary to ensure that sediment removal occurs prior to vehicle exit; and
  - d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance, storm drain inlet, or water of the U.S.<sup>18</sup>
- 2.2.5 Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:**
- a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated;
  - b. Install a sediment barrier along all downgradient perimeter areas;<sup>19</sup>
  - c. For piles that will be unused for 14 or more days, provide cover<sup>20</sup> or appropriate temporary stabilization (consistent with Part 2.2.14);
  - d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.
- 2.2.6 Minimize dust.** On areas of exposed soil, minimize dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged in stormwater from the site.
- 2.2.7 Minimize steep slope disturbances.** Minimize the disturbance of “steep slopes” (as defined in Appendix A).

<sup>16</sup> Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (e.g., karst areas; steep slopes).

<sup>17</sup> Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

<sup>18</sup> Fine grains that remain visible (*i.e.*, staining) on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

<sup>19</sup> Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

<sup>20</sup> Examples of cover include tarps, blown straw and hydroseeding.

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**2.2.8 Preserve native topsoil, unless infeasible.**<sup>21</sup>

**2.2.9 Minimize soil compaction.**<sup>22</sup> In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:

- a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and
- b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

**2.2.10 Protect storm drain inlets.**

- a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater flow from your site to a water of the U.S., provided you have authority to access the storm drain inlet;<sup>23</sup> and
- b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

**2.2.11 Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.**<sup>24</sup>

**2.2.12 If you install a sediment basin or similar impoundment:**

- a. Situate the basin or impoundment outside of any water of the U.S. and any natural buffers established under Part 2.2.1;
- b. Design the basin or impoundment to avoid collecting water from wetlands;
- c. Design the basin or impoundment to provide storage for either:
  - i. The calculated volume of runoff from a 2-year, 24-hour storm (see Appendix H); or
  - ii. 3,600 cubic feet per acre drained.

<sup>21</sup> Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case, it may not be feasible to preserve topsoil.

<sup>22</sup> Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

<sup>23</sup> Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

<sup>24</sup> Examples of control measures that can be used to comply with this requirement include the use of erosion controls and/or velocity dissipation devices (e.g., check dams, sediment traps), within and along the length of a stormwater conveyance and at the outfall to slow down runoff.

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- d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;<sup>25</sup>
  - e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and
  - f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

**2.2.13 If using treatment chemicals (e.g., polymers, flocculants, coagulants):**

- a. **Use conventional erosion and sediment controls before and after the application of treatment chemicals.** Chemicals may only be applied where treated stormwater is directed to a sediment control (e.g., *sediment basin, perimeter control*) before discharge.
- b. **Select appropriate treatment chemicals.** Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated (i.e., *the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area*).
- c. **Minimize discharge risk from stored chemicals.** Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., *spill berms, decks, spill containment pallets*), or provide equivalent measures designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means (e.g., *storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill*).
- d. **Comply with state/local requirements.** Comply with applicable state and local requirements regarding the use of treatment chemicals.
- e. **Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier.** Use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document in your SWPPP specific departures from these specifications and how they reflect good engineering practice.
- f. **Ensure proper training.** Ensure that all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements.
- g. **Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals.** If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards.

<sup>25</sup> The circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include areas with extended cold weather, where using surface outlets may not be feasible during certain time periods (although they must be used during other periods). If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

**2.2.14 Stabilize exposed portions of the site.** Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with Parts 2.2.14a and 2.2.14b.

**a. Stabilization Deadlines:**<sup>26</sup>

Total Amount of Land Disturbance Occurring At Any One Time <sup>27</sup>	Deadline
<p><b>i. Five acres or less (≤5.0)</b></p> <p><b>Note: this includes sites disturbing more than five acres (&gt;5.0) total over the course of a project, but that limit disturbance at any one time (i.e., phase the disturbance) to five acres or less (≤5.0)</b></p>	<ul style="list-style-type: none"> <li>• Initiate the installation of stabilization measures immediately<sup>28</sup> in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;<sup>29</sup> and</li> <li>• Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.<sup>30</sup></li> </ul>

<sup>26</sup> EPA may determine, based on an inspection carried out under Part 4.8 and corrective actions required under Part 5.3, that the level of sediment discharge on the site makes it necessary to require a faster schedule for completing stabilization. For instance, if sediment discharges from an area of exposed soil that is required to be stabilized are compromising the performance of existing stormwater controls, EPA may require stabilization to correct this problem.

<sup>27</sup> Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The following examples would qualify as limiting disturbances at any one time to five (5) acres or less:

1. The total area of disturbance for a project is five (5) acres or less.
2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures that no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to “free up” land that can be disturbed without exceeding the five (5)-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

<sup>28</sup> The following are examples of activities that would constitute the immediate initiation of stabilization:

1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
2. Applying mulch or other non-vegetative product to the exposed area;
3. Seeding or planting the exposed area;
4. Starting any of the activities in # 1 – 3 on a portion of the entire area that will be stabilized; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

<sup>29</sup> The requirement to initiate stabilization immediately is triggered as soon as you know that construction work on a portion of the site is temporarily ceased and will not resume for 14 or more days, or as soon as you know that construction work is permanently ceased. In the context of this provision, “immediately” means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

<sup>30</sup> If vegetative stabilization measures are being implemented, stabilization is considered “installed” when all activities necessary to seed or plant the area are completed. If non-vegetative stabilization measures are being implemented, stabilization is considered “installed” when all such measures are implemented or applied.

ii. <b>More than five acres (&gt;5.0)</b>	<ul style="list-style-type: none"> <li>• Initiate the installation of stabilization measures immediately<sup>31</sup> in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;<sup>32</sup> and</li> <li>• Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.<sup>33</sup></li> </ul>
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iii. **Exceptions:**

**(a) Arid, semi-arid, and drought-stricken areas** (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:

- (i) Immediately initiate and, within 14 calendar days of a temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;
- (ii) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and
- (iii) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.

**(b) Operators that are affected by unforeseen circumstances<sup>34</sup> that delay the initiation and/or completion of vegetative stabilization:**

- (i) Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;
- (ii) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on your site; and
- (iii) Document in the SWPPP the circumstances that prevent you from meeting the deadlines in Part 2.2.14a and the schedule you will follow for initiating and completing stabilization.

**(c) Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes.** Complete stabilization as soon as

<sup>31</sup> See footnote 27

<sup>32</sup> See footnote 28

<sup>33</sup> See footnote 29

<sup>34</sup> Examples include problems with the supply of seed stock or with the availability of specialized equipment and unsuitability of soil conditions due to excessive precipitation and/or flooding.



practicable, but no later than seven (7) calendar days after stabilization has been initiated.

**b. Final Stabilization Criteria** (for any areas not covered by permanent structures):

- i. Establish uniform, perennial vegetation (*i.e., evenly distributed, without large bare areas*) that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and/or
- ii. Implement permanent non-vegetative stabilization measures<sup>35</sup> to provide effective cover.
- iii. **Exceptions:**
  - (a) **Arid, semi-arid, and drought-stricken areas** (as defined in Appendix A). Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.
  - (b) **Disturbed areas on agricultural land that are restored to their preconstruction agricultural use.** The Part 2.2.14b final stabilization criteria does not apply.
  - (c) **Areas that need to remain disturbed.** In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed (*e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials*).

## 2.3 POLLUTION PREVENTION REQUIREMENTS<sup>36</sup>

You must implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

### 2.3.1 For equipment and vehicle fueling and maintenance:

- a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;<sup>37</sup>

<sup>35</sup> Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

<sup>36</sup> Under this permit, you are not required to minimize exposure for any products or materials where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

<sup>37</sup> Examples of effective means include:

- Locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S.;
- Providing secondary containment (*e.g., spill berms, decks, spill containment pallets*) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

- b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;
- c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
- d. Use drip pans and absorbents under or around leaky vehicles;
- e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and
- f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

**2.3.2 For equipment and vehicle washing:**

- a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;<sup>38</sup>
- b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and
- c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

**2.3.3 For storage, handling, and disposal of building products, materials, and wastes:**

- a. *For building materials and building products*<sup>39</sup>, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these products to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

- b. *For pesticides, herbicides, insecticides, fertilizers, and landscape materials:*
  - i. In storage areas, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and
  - ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).
- c. *For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals:*

<sup>38</sup> Examples of effective means include locating activities away from waters of the U.S. and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

<sup>39</sup> Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

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- i. Store chemicals in water-tight containers, and provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these containers to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas (e.g., *having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill*), or provide secondary containment (e.g., *spill berms, decks, spill containment pallets*); and
  - ii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
- d. *For hazardous or toxic wastes:*<sup>40</sup>
- i. Separate hazardous or toxic waste from construction and domestic waste;
  - ii. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;
  - iii. Store all outside containers within appropriately-sized secondary containment (e.g., *spill berms, decks, spill containment pallets*) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., *storing chemicals in a covered area, having a spill kit available on site*);
  - iv. Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, tribal, and local requirements;
  - v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
  - vi. Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.
- e. *For construction and domestic wastes:*<sup>41</sup>
- i. Provide waste containers (e.g., *dumpster, trash receptacle*) of sufficient size and number to contain construction and domestic wastes;
  - ii. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (e.g., *a tarp, plastic sheeting, temporary roof*) to minimize exposure of wastes to precipitation,

<sup>40</sup> Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

<sup>41</sup> Examples of construction and domestic waste include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or building materials.

- or (2) a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment);
- iii. On business days, clean up and dispose of waste in designated waste containers; and
- iv. Clean up immediately if containers overflow.
- f. For sanitary waste, position portable toilets so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.

**2.3.4 For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:**

- a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;
- b. Handle washout or cleanout wastes as follows:
  - i. Do not dump liquid wastes in storm sewers or waters of the U.S.;
  - ii. Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3; and
  - iii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and
- c. Locate any washout or cleanout activities as far away as possible from waters of the U.S. and stormwater inlets or conveyances, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

**2.3.5 For the application of fertilizers:**

- a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6.b.ix;
- b. Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
- c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;
- d. Never apply to frozen ground;
- e. Never apply to stormwater conveyance channels; and
- f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

**2.3.6 Emergency Spill Notification Requirements**

Discharges of toxic or hazardous substances from a spill or other release are prohibited, consistent with Part 1.3.5. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a

description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

## **2.4 CONSTRUCTION DEWATERING REQUIREMENTS**

Comply with the following requirements to minimize the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, in accordance with Part 1.2.2.<sup>42</sup>

- 2.4.1 Treat dewatering discharges with controls to minimize discharges of pollutants;<sup>43</sup>
- 2.4.2 Do not discharge visible floating solids or foam;
- 2.4.3 Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials;
- 2.4.4 To the extent feasible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. You are prohibited from using waters of the U.S. as part of the treatment area;
- 2.4.5 At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11;
- 2.4.6 With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and
- 2.4.7 Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

## **3 WATER QUALITY-BASED EFFLUENT LIMITATIONS**

### **3.1 GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS**

Discharges must be controlled as necessary to meet applicable water quality standards. Discharges must also comply with any additional state or tribal requirements that are in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

<sup>42</sup> Uncontaminated, clear (non-turbid) dewatering water can be discharged without being routed to a control.

<sup>43</sup> Appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (e.g., *bag or sand filters*), and passive treatment systems that are designed to remove sediment. Appropriate controls to use downstream of dewatering controls to minimize erosion include vegetated buffers, check dams, riprap, and grouted riprap at outlets.

EPA may insist that you install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

If during your coverage under a previous permit, you were required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or established TMDL (for any parameter) or to otherwise control your discharge to meet water quality standards, you must continue to implement such controls as part of your coverage under this permit.

### 3.2 DISCHARGE LIMITATIONS FOR SITES DISCHARGING TO SENSITIVE WATERS<sup>44</sup>

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes, you must comply with the inspection frequency specified in 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14.a.iii.(c).<sup>45</sup>

If you discharge to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional controls are necessary for your discharge to be controlled as necessary to meet water quality standards, including for it to be consistent with the assumptions of any available wasteload allocation in any applicable TMDL, or if coverage under an individual permit is necessary.

In addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses, stormwater controls, or other measures are necessary to comply with the applicable

<sup>44</sup> Sensitive waters include waters that are impaired and Tier 2, Tier 2.5, and Tier 3 waters.

“Impaired waters” are those waters identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). Your construction site will be considered to discharge to an impaired water if the first water of the U.S. to which you discharge is an impaired water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available both within the electronic NOI form in NeT, and at <https://water.epa.gov/polwaste/npdes/stormwater/discharge.cfm>.

Tiers 2, 2.5 and 3 refer to waters either identified by the state as high quality waters or Outstanding National Resource Waters under 40 CFR 131.12(a)(2) and (3). For the purposes of this permit, you are considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3. For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

EPA may determine on a case-by-case basis that a site discharges to a sensitive water.

<sup>45</sup> If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

- a. Implement controls<sup>46</sup> to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and
- b. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

## **4 SITE INSPECTION REQUIREMENTS**

### **4.1 PERSON(S) RESPONSIBLE FOR INSPECTING SITE**

The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that the person who conducts inspections is a "qualified person."<sup>47</sup>

### **4.2 FREQUENCY OF INSPECTIONS.<sup>48</sup>**

At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency:

**4.2.1** At least once every seven (7) calendar days; *or*

**4.2.2** Once every 14 calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge.<sup>49</sup> To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

<sup>46</sup> Examples of controls to minimize exposure of PCBs to precipitation and stormwater include separating work areas from non-work areas and selecting appropriate personal protective equipment and tools, constructing a containment area so that all dust or debris generated by the work remains within the protected area, using tools that minimize dust and heat (<212°F). For additional information, refer to Part 2.3.3 of the CGP Fact Sheet.

<sup>47</sup> A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

<sup>48</sup> Inspections are only required during the site's normal working hours.

<sup>49</sup> "Within 24 hours of the occurrence of a storm event" means that you must conduct an inspection within 24 hours once a storm event has produced 0.25 inches within a 24-hour period, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.2.2 and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

#### 4.3 INCREASE IN INSPECTION FREQUENCY FOR SITES DISCHARGING TO SENSITIVE WATERS.

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2), instead of the inspection frequency specified in Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

#### 4.4 REDUCTIONS IN INSPECTION FREQUENCY

##### 4.4.1 Stabilized areas.

- a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.
- b. **Exception.** For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a. Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

4.4.2 **Arid, semi-arid, or drought-stricken areas** (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. You must document that you are using this reduced schedule and the beginning and ending dates of the seasonally dry period in your SWPPP. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

##### 4.4.3 Frozen conditions:

- a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:



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- i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;
  - ii. Land disturbances have been suspended; and
  - iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.
- b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:
- i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and
  - ii. Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

You must document the beginning and ending dates of this period in your SWPPP.

#### **4.5 AREAS THAT MUST BE INSPECTED**

During your site inspection, you must at a minimum inspect the following areas of your site:

- 4.5.1** All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14a;
- 4.5.2** All stormwater controls (including pollution prevention controls) installed at the site to comply with this permit;<sup>50</sup>
- 4.5.3** Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;
- 4.5.4** All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;
- 4.5.5** All points of discharge from the site; and
- 4.5.6** All locations where stabilization measures have been implemented.

You are not required to inspect areas that, at the time of the inspection, are considered unsafe to your inspection personnel.

#### **4.6 REQUIREMENTS FOR INSPECTIONS**

During your site inspection, you must at a minimum:

- 4.6.1** Check whether all stormwater controls (*i.e.*, *erosion and sediment controls and pollution prevention controls*) are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges;

<sup>50</sup> This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

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- 4.6.2 Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;
  - 4.6.3 Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3;
  - 4.6.4 Check for signs of visible erosion and sedimentation (*i.e.*, *sediment deposits*) that have occurred and are attributable to your discharge at points of discharge and, if applicable, the banks of any waters of the U.S. flowing within or immediately adjacent to the site;
  - 4.6.5 Identify any incidents of noncompliance observed;
  - 4.6.6 If a discharge is occurring during your inspection:
    - a. Identify all discharge points at the site; and
    - b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants.
  - 4.6.7 Based on the results of your inspection, complete any necessary maintenance under Part 2.1.4 and corrective action under Part 5.

#### 4.7 INSPECTION REPORT

- 4.7.1 You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:
  - a. The inspection date;
  - b. Names and titles of personnel making the inspection;
  - c. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions;
  - d. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.1b, and you conducted an inspection because of rainfall measuring 0.25 inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and
  - e. If you determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations to which this condition applies.
- 4.7.2 Each inspection report must be signed in accordance with Appendix I, Part I.11 of this permit.
- 4.7.3 You must keep a copy of all inspection reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- 4.7.4 You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

#### 4.8 INSPECTIONS BY EPA

You must allow EPA, or an authorized representative of EPA, to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls that are

not on site to comply with this permit, you must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.

- 4.8.1 Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;
- 4.8.2 Access and copy any records that must be kept under the conditions of this permit;
- 4.8.3 Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and
- 4.8.4 Sample or monitor for the purpose of ensuring compliance.

## **5 CORRECTIVE ACTIONS**

### **5.1 CONDITIONS TRIGGERING CORRECTIVE ACTION.**

You must take corrective action to address any of the following conditions identified at your site:

- 5.1.1 A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or
- 5.1.2 A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or
- 5.1.3 Your discharges are causing an exceedance of applicable water quality standards; or
- 5.1.4 A prohibited discharge has occurred (see Part 1.3).

### **5.2 CORRECTIVE ACTION DEADLINES**

For any corrective action triggering conditions in Part 5.1, you must:

- 5.2.1 Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events;
- 5.2.2 When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;
- 5.2.3 When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7-day timeframe and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within seven (7) calendar days of completing this work.

### **5.3 CORRECTIVE ACTION REQUIRED BY EPA**

You must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.

### **5.4 CORRECTIVE ACTION REPORT**

For each corrective action taken in accordance with this Part, you must complete a report in accordance with the following:

- 5.4.1** Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.
- 5.4.2** Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.
- 5.4.3** Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.
- 5.4.4** You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- 5.4.5** You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

## **6 STAFF TRAINING REQUIREMENTS**

Each operator, or group of multiple operators, must assemble a "stormwater team" to carry out compliance activities associated with the requirements in this permit.

- 6.1** Prior to the commencement of construction activities, you must ensure that the following personnel<sup>51</sup> on the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements:
  - a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);
  - b. Personnel responsible for the application and storage of treatment chemicals (if applicable);
  - c. Personnel who are responsible for conducting inspections as required in Part 4.1; and
  - d. Personnel who are responsible for taking corrective actions as required in Part 5.
- 6.2** You are responsible for ensuring that all activities on the site comply with the requirements of this permit. You are not required to provide or document formal training for subcontractors or other outside service providers, but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform.

<sup>51</sup> If the person requiring training is a new employee who starts after you commence construction activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit.

For emergency-related projects, the requirement to train personnel prior to commencement of construction activities does not apply, however, such personnel must have the required training prior to NOI submission.

- 6.3** At a minimum, members of the stormwater team must be trained to understand the following if related to the scope of their job duties (*e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections*):
- a. The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization;
  - b. The location of all stormwater controls on the site required by this permit and how they are to be maintained;
  - c. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
  - d. When and how to conduct inspections, record applicable findings, and take corrective actions.
- 6.4** Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

## **7 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

### **7.1 GENERAL REQUIREMENTS**

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.<sup>52, 53</sup> The SWPPP must be kept up-to-date throughout coverage under this permit.

If a SWPPP was prepared under a previous version of this permit, the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting an NOI for coverage under this permit.

### **7.2 SWPPP CONTENTS**

At a minimum, the SWPPP must include the information specified in this Part and as specified in other parts of this permit.

- 7.2.1 All Site Operators.** Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.
- 7.2.2 Stormwater Team.** Identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including which members are responsible for conducting inspections.

<sup>52</sup> The SWPPP does not establish the effluent limits and other permit terms and conditions that apply to your site's discharges; these limits, terms, and conditions are established in this permit.

Where there are multiple operators associated with the same site, they may develop a group SWPPP instead of multiple individual SWPPPs. Regardless of whether there is a group SWPPP or multiple individual SWPPPs, each operator is responsible for compliance with the permit's terms and conditions. In other words, if Operator A relies on Operator B to satisfy its permit obligations, Operator A does not have to duplicate those permit-related functions if Operator B is implementing them for both operators to be in compliance with the permit. However, Operator A remains responsible for permit compliance if Operator B fails to implement any measures necessary for Operator A to comply with the permit. In addition, all operators must ensure, either directly or through coordination with other operators, that their activities do not compromise any other operators' controls and/or any shared controls.

**7.2.3 Nature of Construction Activities.**<sup>54</sup> Include the following:

- a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;
- b. The size of the property (in acres or length in miles if a linear construction site);
- c. The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);
- d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c);
- e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;
- f. A description and projected schedule for the following:
  - i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (*i.e., excavating, cutting and filling*), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
  - ii. Temporary or permanent cessation of construction activities in each portion of the site;
  - iii. Temporary or final stabilization of exposed areas for each portion of the site; and
  - iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.
- g. A list and description of all pollutant-generating activities<sup>55</sup> on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (*e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels*) associated with that activity, which could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;
- h. Business days and hours for the project;
- i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency (*e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services*), information substantiating its occurrence (*e.g., state disaster declaration or similar state or local declaration*), and a description of the construction necessary to reestablish affected public services.

**7.2.4 Site Map.** Include a legible map, or series of maps, showing the following features of the site:

- a. Boundaries of the property;

<sup>54</sup> If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to “lock in” the operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

<sup>55</sup> Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations.

- b. Locations where construction activities will occur, including:
  - i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;
  - ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));
  - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
  - iv. Any water of the U.S. crossings;
  - v. Designated points where vehicles will exit onto paved roads;
  - vi. Locations of structures and other impervious surfaces upon completion of construction; and
  - vii. Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c).
- c. Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water;
- d. Areas of federally listed critical habitat within the site and/or at discharge locations;
- e. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);
- f. Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;
- g. Stormwater and authorized non-stormwater discharge locations, including:
  - i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets;<sup>56</sup> and
  - ii. Locations where stormwater or authorized non-stormwater will be discharged directly to waters of the U.S.
- h. Locations of all potential pollutant-generating activities identified in Part 7.2.3g;
- i. Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and
- j. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

**7.2.5 Non-Stormwater Discharges.** Identify all authorized non-stormwater discharges in Part 1.2.2 that will or may occur.

**7.2.6 Description of Stormwater Controls.**

- a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits, and Part 2.4 construction dewatering effluent limits, as applicable to your site, you must include the following:
  - i. A description of the specific control(s) to be implemented to meet the effluent limit;

<sup>56</sup> The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site.

- ii. Any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);<sup>57</sup>
  - iii. Routine stormwater control maintenance specifications; and
  - iv. The projected schedule for stormwater control installation/implementation.
- b. You must also include any of the following additional information as applicable.
- i. **Natural buffers and/or equivalent sediment controls** (see Part 2.2.1 and Appendix G). You must include the following:
    - (a) The compliance alternative to be implemented;
    - (b) If complying with alternative 2, the width of natural buffer retained;
    - (c) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;
    - (d) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;
    - (e) For “linear construction sites” where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and
    - (f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the U.S.
  - ii. **Perimeter controls for a “linear construction site”** (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities.
 

Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.
  - iii. **Sediment track-out controls** (see Parts 2.2.4b and 2.2.4c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.
  - iv. **Sediment basins** (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.
  - v. **Treatment chemicals** (see Part 2.2.13), you must include the following:
    - (a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;

<sup>57</sup> Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.



- (b) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;
  - (c) If the applicable EPA Regional Office authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards;
  - (d) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;
  - (e) Information from any applicable Safety Data Sheet (SDS);
  - (f) Schematic drawings of any chemically enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;
  - (g) A description of how chemicals will be stored consistent with Part 2.2.13c;
  - (h) References to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems; and
  - (i) A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.
- vi. **Stabilization measures** (see Part 2.2.14). You must include the following:
- (a) The specific vegetative and/or non-vegetative practices that will be used;
  - (b) The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii;
  - (c) If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule you will follow for initiating and completing vegetative stabilization; and
  - (d) If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.
- vii. **Spill prevention and response procedures** (see Part 1.3.5 and Part 2.3). You must include the following:
- (a) Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and
  - (b) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

You may also reference the existence of Spill Prevention Control and

Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.<sup>58</sup>

- viii. **Waste management procedures** (see Part 2.3.3). Describe the procedures you will follow for handling, storing and disposing of all wastes generated at your site consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.
- ix. **Application of fertilizers** (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.

**7.2.7 Procedures for Inspection, Maintenance, and Corrective Action.** Describe the procedures you will follow for maintaining your stormwater controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit. Also include:

- a. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;
- b. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.1b, the location of the rain gauge or the address of the weather station you will be using to obtain rainfall data;
- c. If you will be reducing your inspection frequency in accordance with Part 4.4.1b, the beginning and ending dates of the seasonally defined arid period for your area or the valid period of drought;
- d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and
- e. Any maintenance or inspection checklists or other forms that will be used.

**7.2.8 Staff Training.** Include documentation that the required personnel were, or will be, trained in accordance with Part 6.

**7.2.9 Compliance with Other Requirements.**

- a. **Threatened and Endangered Species Protection.** Include documentation required in Appendix D supporting your eligibility with regard to the protection of threatened and endangered species and designated critical habitat.
- b. **Historic Properties.** Include documentation required in Appendix E supporting your eligibility with regard to the protection of historic properties.
- c. **Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls.** If you are using any of the following stormwater controls at your site, document any contact you have had with the applicable state agency<sup>59</sup> or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing

<sup>58</sup> Even if you already have an SPCC or other spill prevention plan in existence, your plans will only be considered adequate if they meet all of the requirements of this Part, either as part of your existing plan or supplemented as part of the SWPPP.

<sup>59</sup> For state UIC program contacts, refer to the following EPA website: <https://www.epa.gov/uic>.

regulations at 40 CFR 144 -147. Such controls would generally be considered Class V UIC wells:

- i. Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
- ii. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and
- iii. Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

**7.2.10 SWPPP Certification.** You must sign and date your SWPPP in accordance with Appendix I, Part I.11.

**7.2.11 Post-Authorization Additions to the SWPPP.** Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:

- a. A copy of your NOI submitted to EPA along with any correspondence exchanged between you and EPA related to coverage under this permit;
- b. A copy of the acknowledgment letter you receive from NeT assigning your NPDES ID (*i.e.*, *permit tracking number*);
- c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).

### **7.3 ON-SITE AVAILABILITY OF YOUR SWPPP**

You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.<sup>60</sup>

If an on-site location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of your construction site.

### **7.4 SWPPP MODIFICATIONS**

<sup>60</sup> Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations.

- 7.4.1** You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:
- a. Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater controls, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5. You do not need to modify your SWPPP if the estimated dates in Part 7.2.3f change during the course of construction;
  - b. To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
  - c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;
  - d. Where EPA determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:
    - i. A copy of any correspondence describing such measures and requirements; and
    - ii. A description of the controls that will be used to meet such requirements.
  - e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and
  - f. If applicable, if a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.
- 7.4.2** You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.10 above) and a brief summary of all changes.
- 7.4.3** All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix I, Part I.11.b.
- 7.4.4** Upon determining that a modification to your SWPPP is required, if there are multiple operators covered under this permit, you must immediately notify any operators who may be impacted by the change to the SWPPP.

## **8 HOW TO TERMINATE COVERAGE**

Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that you have met the requirements for terminating in Part 8.

### **8.1 MINIMUM INFORMATION REQUIRED IN NOT**

- 8.1.1** NPDES ID (*i.e.*, *permit tracking number*) provided by EPA when you received coverage under this permit;
- 8.1.2** Basis for submission of the NOT (see Part 8.2);
- 8.1.3** Operator contact information;
- 8.1.4** Name of site and address (or a description of location if no street address is available); and

**8.1.5** NOT certification.

## **8.2 CONDITIONS FOR TERMINATING CGP COVERAGE**

You must terminate CGP coverage only if one or more of the following conditions has occurred:

- 8.2.1** You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.1c), and you have met the following requirements:
- a. For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which you had control during the construction activities, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14b;
  - b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;
  - c. You have removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable; and
  - d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; or
- 8.2.2** You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or
- 8.2.3** Coverage under an individual or alternative general NPDES permit has been obtained.

## **8.3 HOW TO SUBMIT YOUR NOT**

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOT for the 2017 CGP.

To access NeT, go to <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting>.

Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office grants you approval to use a paper NOT, and you elect to use it, you must complete the form in Appendix K.

## **8.4 DEADLINE FOR SUBMITTING THE NOT**

You must submit your NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

## **8.5 EFFECTIVE DATE OF TERMINATION OF COVERAGE**

Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA.



## Appendix A - Definitions and Acronyms

### 1. Definitions

“Action Area” – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for application of the threatened and endangered species protection eligibility requirements, the following areas are included in the definition of action area:

- The areas on the construction site where stormwater discharges originate and flow toward the point of discharge into the receiving waters (including areas where excavation, site development, or other ground disturbance activities occur) and the immediate vicinity. (Example: Where bald eagles nest in a tree that is on or bordering a construction site and could be disturbed by the construction activity or where grading causes stormwater to flow into a small wetland or other habitat that is on the site that contains listed species.)
- The areas where stormwater discharges flow from the construction site to the point of discharge into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or gully.)
- The areas where stormwater from construction activities discharges into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from construction activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)
- The areas upstream and/or downstream from the stormwater discharge into a stream segment that may be affected by these discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

“Agricultural Land” - cropland, grassland, rangeland, pasture, and other agricultural land, on which agricultural and forest-related products or livestock are produced and resource concerns may be addressed. Agricultural lands include cropped woodland, marshes, incidental areas included in the agricultural operation, and other types of agricultural land used for the production of livestock.

“Antidegradation Policy” or “Antidegradation Requirements” - the water quality standards regulation that requires states and tribes to establish a three-tiered antidegradation program:

1. Tier 1 maintains and protects existing uses and water quality conditions necessary to support such uses. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur. Where an existing use is established, it must be protected even if it is not listed in the water quality standards as a designated use. Tier 1 requirements are applicable to all surface waters.
2. Tier 2 maintains and protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Water quality can be lowered in such waters. However, state and tribal Tier 2 programs identify procedures that must be followed and questions that must be

answered before a reduction in water quality can be allowed. In no case may water quality be lowered to a level which would interfere with existing or designated uses.

3. Tier 3 maintains and protects water quality in outstanding national resource waters (ONRWs). Except for certain temporary changes, water quality cannot be lowered in such waters. ONRWs generally include the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those which are important, unique, or sensitive ecologically. Decisions regarding which water bodies qualify to be ONRWs are made by states and authorized Indian tribes.

"Arid Areas" – areas with an average annual rainfall of 0 to 10 inches.

"Bank" (e.g., stream bank or river bank) – the rising ground bordering the channel of a water of the U.S.

"Bluff" – a steep headland, promontory, riverbank, or cliff.

"Borrow Areas" – the areas where materials are dug for use as fill, either onsite or off-site.

"Business day" – for the purposes of this permit, a business day is a calendar day on which construction activities will take place.

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

"Cationic Treatment Chemical" – polymers, flocculants, or other chemicals that contain an overall positive charge. Among other things, they are used to reduce turbidity in stormwater discharges by chemically bonding to the overall negative charge of suspended silts and other soil materials and causing them to bind together and settle out. Common examples of cationic treatment chemicals are chitosan and cationic PAM.

"Commencement of Construction Activities" – the initial disturbance of soils (or 'breaking ground') associated with clearing, grading, or excavating activities or other construction-related activities (e.g., stockpiling of fill material; placement of raw materials at the site).

"Common Plan of Development or Sale" – A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

"Construction Activities" – earth-disturbing activities, such as the clearing, grading, and excavation of land, and other construction-related activities (e.g., stockpiling of fill material; placement of raw materials at the site) that could lead to the generation of pollutants. Some of the types of pollutants that are typically found at construction sites are:

- sediment;
- nutrients;
- heavy metals;
- pesticides and herbicides;
- oil and grease;
- bacteria and viruses;
- trash, debris, and solids;



- treatment polymers; and
- any other toxic chemicals.

“Construction and Development Effluent Limitations and New Source Performance Standards” (C&D Rule) – as published in 40 CFR § 450, the regulation requiring effluent limitations guidelines (ELGs) and new source performance standards (NSPS) for controlling the discharge of pollutants from construction sites.

“Construction Site” or “Site” – the land or water area where construction activities will occur and where stormwater controls will be installed and maintained. The construction site includes construction support activities, which may be located at a different part of the property from where the primary construction activity will take place, or on a different piece of property altogether.

“Construction Support Activity” – a construction-related activity that specifically supports the construction activity and involves earth disturbance or pollutant-generating activities of its own, and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas.

“Construction Waste” – discarded material (such as packaging materials; scrap construction materials; masonry products; timber, steel, pipe, and electrical cuttings; plastics; and styrofoam).

“Conveyance Channel” – a temporary or permanent waterway designed and installed to safely convey stormwater flow within and out of a construction site.

“Critical Habitat” – as defined in the Endangered Species Act at 16 U.S.C. 1531 for a threatened or endangered species, (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

“CWA” – the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

“Dewatering” – the act of draining rainwater and/or ground water from building foundations, vaults, and trenches.

“Discharge” – when used without qualification, means the “discharge of a pollutant.”

“Discharge of a Pollutant” – any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

“Discharge Point” – for the purposes of this permit, the location where collected and concentrated stormwater flows are discharged from the construction site.

“Discharge-Related Activity” – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction, and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged.

“Discharge to an Impaired Water” – for the purposes of this permit, a discharge to an impaired water occurs if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable water quality standard and (1) requires development of a total maximum daily load (TMDL) (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system.

“Domestic Waste” – for the purposes of this permit, typical household trash, garbage or rubbish items generated by construction activities.

“Drainageway” – an open linear depression, whether constructed or natural, that functions for the collection and drainage of surface water.

“Drought-Stricken Area” – for the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration’s U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) “Drought to persist or intensify”, (2) “Drought ongoing, some improvement”, (3) “Drought likely to improve, impacts ease”, or (4) “Drought development likely”. See [http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/sdo\\_summary.php](http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.php).

“Earth-Disturbing Activity” – actions taken to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, site preparation (e.g., excavating, cutting, and filling), soil compaction, and movement and stockpiling of top soils.

“Earth-Disturbing Activities Conducted Prior to Active Mining Activities” – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:

a. activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and

b. construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads.

Note: only earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining (see (b) above) are considered to be “construction” and therefore stormwater discharges from these activities are eligible for coverage under this permit. See Part 1.2.1.b. The activities described in (a) above are not considered to be “construction” and therefore stormwater discharges associated with this activity are not eligible for coverage under this permit.

“Effective Operating Condition” – for the purposes of this permit, a stormwater control is kept in effective operating condition if it has been implemented and maintained in such a manner that it is working as designed to minimize pollutant discharges.

“Effluent Limitations” – for the purposes of this permit, any of the Part 2 or Part 3 requirements.

“Effluent Limitations Guideline” (ELG) – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of the CWA to adopt or revise effluent limitations.

“Eligible” – for the purposes of this permit, refers to stormwater and allowable non-stormwater discharges that are authorized for coverage under this general permit.

"Emergency-Related Project" – a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

"Endangered Species" – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.

"Excursion" – a measured value that exceeds a specified limit.

"Existing Site" – a site where construction activities commenced prior to February 16, 2017.

"Exit Points" – any points of egress from the construction site to be used by vehicles and equipment during construction activities.

"Exposed Soils" – for the purposes of this permit, soils that as a result of earth-disturbing activities are left open to the elements.

"Federal Operator" – an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

"Final Stabilization" – on areas not covered by permanent structures, either (1) uniform, perennial vegetation (*e.g., evenly distributed, without large bare areas*) has been established, or for arid or semi-arid areas, will be established that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas, and/or (2) permanent non-vegetative stabilization measures (*e.g., riprap, gravel, gabions, and geotextiles*) have been implemented to provide effective cover for exposed portions of the site

"General Contractor" – for the purposes of this permit, the primary individual or company solely accountable to perform a contract. The general contractor typically supervises activities, coordinates the use of subcontractors, and is authorized to direct workers at a site to carry out activities required by the permit.

"Hazardous Substances" or "Hazardous or Toxic Waste" – for the purposes of this permit, any liquid, solid, or contained gas that contain properties that are dangerous or potentially harmful to human health or the environment. See also 40 CFR §261.2.

"Historic Property" – as defined in the National Historic Preservation Act regulations, means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

"Impaired Water" – a water identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

"Impervious Surface" – for the purpose of this permit, any land surface with a low or no capacity for soil infiltration including, but not limited to, pavement, sidewalks, parking areas and driveways, packed gravel or soil, or rooftops.

“Indian Country” or “Indian Country Lands” – defined at 40 CFR §122.2 as:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

“Infeasible” – for the purpose of this permit, infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

“Install” or “Installation” – when used in connection with stormwater controls, to connect or set in position stormwater controls to make them operational.

“Jar test” – a test designed to simulate full-scale coagulation/flocculation/sedimentation water treatment processes by taking into account the possible conditions.

“Landward” – positioned or located away from a waterbody, and towards the land.

“Large Construction Activity” – defined at 40 CFR § 122.26(b)(14)(x) and incorporated here by reference. Large construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five acres of land or will disturb less than five acres of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than five acres. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

“Linear Construction Site” – includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

“Minimize” – to reduce and/or eliminate to the extent achievable using stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

“Mining Activity” – for the purposes of this permit, includes mining-related construction activities defined at 40 CFR 122.26(b)(14)(x) and 122.26(b)(15)(i), and active mining activities defined at 40 CFR 122.26(b)(14)(iii). Both of these sub categories of activities include earth-disturbing activities, with the latter also including such activities as: extraction, removal or recovery, and beneficiation of mined material from the earth; removal of overburden and waste rock to expose mineable material; and site reclamation and closure activities.

“Mining Operations” – for the purposes of this permit, mining operations are grouped into two distinct categories, with distinct effluent limits and requirements applicable to each: 1) earth-disturbing activities conducted prior to active mining activities; and 2) active mining activities, which includes reclamation.

“Municipal Separate Storm Sewer System” or “MS4” – defined at 40 CFR §122.26(b)(8) as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and 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;

2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

“National Pollutant Discharge Elimination System” (NPDES) – defined at 40 CFR §122.2 as the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA. The term includes an ‘approved program.’

“Native Topsoil” – the uppermost layer of naturally occurring soil for a particular area, and is often rich in organic matter, biological activity, and nutrients.

“Natural Buffer” – for the purposes of this permit, an area of undisturbed natural cover surrounding waters of the U.S. within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities.

“Natural Vegetation” – vegetation that occurs spontaneously without regular management, maintenance, or species introductions or removals, and that generally has a strong component of native species.

“New Operator of a Permitted Site” – an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a “new site” or an “existing site”.

“New Site” – a site where construction activities commenced on or after February 16, 2017.

“New Source” – for the purposes of this permit, a construction project that commenced construction activities after February 1, 2010.

“New Source Performance Standards (NSPS)” – for the purposes of this permit, NSPS are technology-based standards that apply to construction sites that are new sources under 40 CFR 450.24.

“Non-Stormwater Discharges” – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

“Non-Turbid” – a discharge that does not cause or contribute to an exceedence of turbidity-related water quality standards.

“Notice of Intent” (NOI) – the form (electronic or paper) required for authorization of coverage under the Construction General Permit.

“Notice of Termination” (NOT) – the form (electronic or paper) required for terminating coverage under the Construction General Permit.

“NPDES eReporting Tool” (NeT) – EPA's online system for submitting electronic Construction General Permit forms.

“Operational” – for the purposes of this permit, stormwater controls are made “operational” when they have been installed and implemented, are functioning as designed, and are properly maintained.

“Operator” – for the purposes of this permit and in the context of stormwater discharges associated with construction activity, any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications (*e.g. in most cases this is the owner of the site*); or
2. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (*e.g., they are authorized to direct workers at a site to carry out activities required by the permit; in most cases this is the general contractor of the project*).

This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of “owner or operator” and “facility or activity” are applied to discharges of stormwater associated with construction activity. Subcontractors generally are not considered operators for the purposes of this permit.

“Ordinary High Water Mark” – the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris.

“Permitting Authority” – for the purposes of this permit, EPA, a Regional Administrator of EPA, or an authorized representative.

“Point(s) of Discharge” – see “Discharge Point.”

“Point Source” – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

“Pollutant” – defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

“Pollution Prevention Controls” – stormwater controls designed to reduce or eliminate the addition of pollutants to construction site discharges through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

“Polymers” – for the purposes of this permit, coagulants and flocculants used to control erosion on soil or to enhance the sediment removal capabilities of sediment traps or basins. Common construction site polymers include polyacrylamide (PAM), chitosan, alum, polyaluminum chloride, and gypsum.

“Prohibited Discharges” – discharges that are not allowed under this permit, including:

1. Wastewater from washout of concrete;
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

4. Soaps or solvents used in vehicle and equipment washing;
5. Toxic or hazardous substances from a spill or other release; and
6. Waste, garbage, floatable debris, construction debris, and sanitary waste.

“Provisionally Covered Under this Permit” – for the purposes of this permit, EPA provides temporary coverage under this permit for emergency-related projects prior to receipt of a complete and accurate NOI. Discharges from earth-disturbing activities associated with the emergency-related projects are subject to the terms and conditions of the permit during the period of temporary coverage.

“Qualified Person” – a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

“Receiving Water” – a “Water of the United States” as defined in 40 CFR § 122.2 into which the regulated stormwater discharges.

“Run-On” – sources of stormwater that drain from land located upslope or upstream from the regulated site in question.

“Semi-Arid Areas” – areas with an average annual rainfall of 10 to 20 inches.

“Shared Control” - for the purposes of this permit, a stormwater control, such as a sediment basin or pond, used by two or more operators that is installed and maintained for the purpose of minimizing and controlling pollutant discharges from a construction site with multiple operators associated with a common plan of development or sale. Any operators that are contributing stormwater from their construction activities to a shared control are considered to rely upon a shared control.

“Small Construction Activity” – defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

“Small Residential Lot” – for the purpose of this permit, a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

“Snowmelt” – the conversion of snow into overland stormwater and ground water flow as a result of warmer temperatures.

“Spill” – for the purpose of this permit, the release of a hazardous or toxic substance from its container or containment.

“Stabilization” – the use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas exposed through the construction process.

“Steep Slopes” – where a state, tribe, local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a “steep slope”, this permit’s definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 15 percent or greater in grade.

“Storm Sewer System” – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) designed or used for collecting or conveying stormwater.

“Stormwater” – stormwater runoff, snowmelt runoff, and surface runoff and drainage.

“Stormwater Control” - refers to any best management practice or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

“Stormwater Discharge Associated with Construction Activity” – as used in this permit, a discharge of pollutants in stormwater to waters of the United States from areas where earth-disturbing activities (e.g., clearing, grading, or excavation) occur, or where construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck chute washdown, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants), are located.

“Stormwater Inlet” – a structure placed below grade to conduct water used to collect stormwater runoff for conveyance purposes.

“Stormwater Team” – the group of individuals responsible for oversight of the development and modifications of the SWPPP, and oversight of compliance with the permit requirements. The individuals on the “Stormwater Team” must be identified in the SWPPP.

“Storm Event” – a precipitation event that results in a measurable amount of precipitation.

“Storm Sewer” – a system of pipes (separate from sanitary sewers) that carries stormwater runoff from buildings and land surfaces.

“Subcontractor” – for the purposes of this permit, an individual or company that takes a portion of a contract from the general contractor or from another subcontractor.

“SWPPP” (Stormwater Pollution Prevention Plan) – a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater controls to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.

“Temporary Stabilization” – a condition where exposed soils or disturbed areas are provided temporary vegetative and/or non-vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.

“Thawing Conditions” – for the purposes of this permit, thawing conditions are expected based on the historical likelihood of two or more days with daytime temperatures greater than 32°F. This date can be determined by looking at historical weather data. Note: the estimation of thawing conditions is for planning purposes only. During construction the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

“Threatened Species” – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

“Tier 2 Waters” – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), those waters that are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.



“Tier 2.5 Waters” – for antidegradation purposes, those waters designated by states or tribes as requiring a level of protection equal to and above that given to Tier 2 waters, but less than that given Tier 3 waters. Some states have special requirements for these waters.

“Tier 3 Waters” – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(3), Tier 3 waters are identified by states as having high quality waters constituting an Outstanding National Resource Water (ONRW), such as waters of National Parks and State Parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

“Total Maximum Daily Load” or “TMDL” – the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measure.

“Toxic Waste” – see “Hazardous Substances.”

“Treatment Chemicals” – polymers, flocculants, or other chemicals used to reduce turbidity in stormwater.

“Turbidity” – a condition of water quality characterized by the presence of suspended solids and/or organic material.

“Uncontaminated Discharge” – in the context of authorized non-stormwater discharges, a discharge that does not cause or contribute to an exceedance of applicable water quality standards.

“Upland” – the dry land area above and ‘landward’ of the ordinary high water mark.

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

“Water-Dependent Structures” – structures or facilities that are required to be located directly adjacent to a waterbody or wetland, such as a marina, pier, boat ramp, etc.

“Water Quality Standards” – defined in 40 CFR § 131.3, and are provisions of state or federal law which consist of a designated use or uses for the waters of the United States, water quality criteria for such waters based upon such uses, and an antidegradation policy to protect high-quality waters. Water quality standards protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

“Waters of the United States” – see definition at 40 CFR 122.2.

“Wetland” – those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. On-site evaluations are typically required to confirm the presence and boundaries of wetlands.

## 1. Acronyms

ACHP – Advisory Council on Historic Preservation

BMP – Best Management Practice

CBI – Confidential Business Information  
CGP – Construction General Permit  
CFR – Code of Federal Regulations  
CWA – Clean Water Act  
CZMA – Coastal Zone Management Act  
ECHO – EPA Enforcement and Compliance History Online  
ELG – Effluent Limitations Guideline  
EPA – United States Environmental Protection Agency  
ESA – Endangered Species Act  
FR – Federal Register  
MS4 – Municipal Separate Storm Sewer System  
MSGP – Multi-Sector General Permit  
NEPA – National Environmental Policy Act  
NeT – NPDES eReporting Tool  
NHPA – National Historic Preservation Act  
NMFS – United States National Marine Fisheries Service  
NPDES – National Pollutant Discharge Elimination System  
NOI – Notice of Intent  
NOT – Notice of Termination  
NPDES – National Pollutant Discharge Elimination System  
NRC – National Response Center  
NRCS – National Resources Conservation Service  
NSPS – New Source Performance Standards  
ONRW – Outstanding National Resource Water  
PAM – Polyacrylamide  
POTW – Publicly Owned Treatment Works  
RUSLE – Revised Universal Soil Loss Equation  
SDS – Safety Data Sheet  
SHPO – State Historic Preservation Office  
SPCC – Spill Prevention Control and Countermeasure  
SWPPP – Stormwater Pollution Prevention Plan  
THPO – Tribal Historic Preservation Office  
TMDL – Total Maximum Daily Load  
TSS – Total Suspended Solids  
UIC – Underground Injection Control

USDA – United States Department of Agriculture

USFWS – United States Fish and Wildlife Service

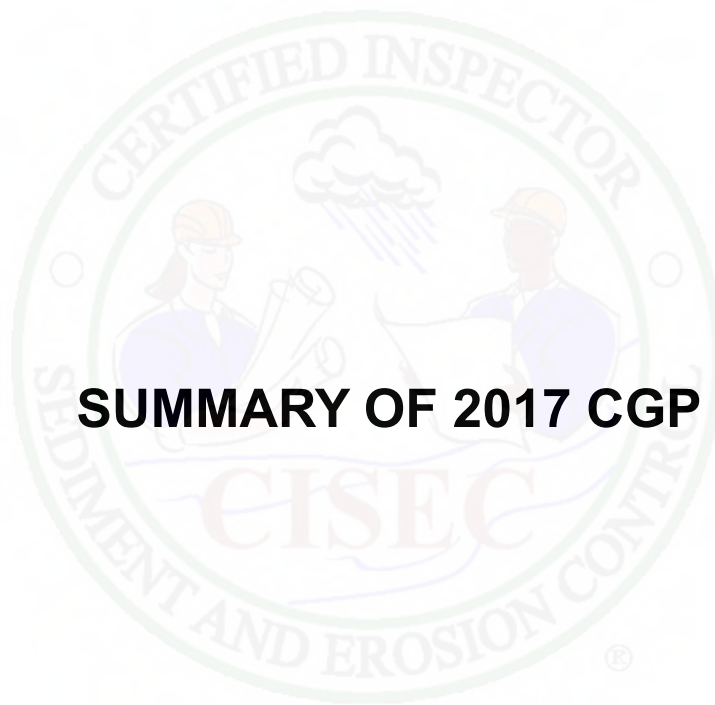
USGS – United States Geological Survey

WQS – Water Quality Standard





# EPA Rules and Regulations



## **SUMMARY OF 2017 CGP**



# EPA Rules and Regulations

The February 16, 2017 permit provides the latest National Pollutant Discharge Elimination Systems (NPDES) requirements. This permit, also known as the Construction General Permit (CGP), authorizes operators of small and large construction sites to discharge pollutants to waters of the United States in accordance with specific conditions and requirements.

Additional information about the 2017 CGP can be found at the following web site:  
<https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents>

## **CGP MATERIAL APPLICABLE TO INSPECTORS (SECTION 1)**

### **Eligibility Conditions (Section 1.1)**

- Definition of an operator
  - Role of an owner
  - Role of a contractor
- Land disturbance area criteria
- Endangered Species Act (ESA) and historic properties
- Cationic treatment chemicals requirements

### **Types of Discharges Authorized (Section 1.2)**

- Stormwater, snowmelt and surface runoff
- Non-Stormwater
  - List

Inspections  
will be  
necessary

### **Prohibited Discharges (Section 1.3)**

- Wastewater washouts
  - Concrete
  - Stucco, paint, form release oils, curing compounds and other materials
- Vehicle related
  - Hydrocarbons
  - Soaps, solvents or detergents used in washing
- Toxic or hazardous substances

Inspections  
will be  
necessary

### **Requirements to Post a Notice of Permit Coverage (Section 1.5)**

- Minimum material
  - NPDES Identification number
  - Contact names and phone number
  - Location of SWPPP
  - Instructions on reporting stormwater pollutant discharges

# EPA Rules and Regulations

## STORMWATER CONTROL REQUIREMENTS APPLICABLE TO INSPECTORS (SECTION 2)

### Phase Installation of Stormwater Controls (Section 2.1.3)

- At the beginning of any portion of the site
  - Downgradient sediment control measures
  - Initial site clearing, grading, excavation and other activities
- Add additional sediment control BMPs as necessary

### Maintenance and Effectiveness of Stormwater Controls (Section 2.1.4)

### Erosion and Sediment Control Requirements for all Sites (Section 2.2)

- Vegetative buffers and/or equivalent sediment control
- Direct stormwater discharges onto vegetative areas
- Install perimeter sediment controls
- Preserve topsoil
- Minimize
  - Sediment track-out
  - Dust
  - Steep slope disturbances
  - Soil compaction
- Manage
  - Stock and debris piles
  - Stormwater conveyance channels
  - Sediment basins
  - Treatment chemicals
- Protect storm drain inlets
  - Possible removal for flood conditions
    - √ No definition exist in the 2017 CGP
- Stabilize (i.e., erosion control) exposed portions of the site
  - Five acres or less ( $\leq 5.0$ ) initiate immediately upon permanent or 14 or more days of temporary cessations of earth-disturbing activities
    - √ Complete within 14 days after initiated
  - More than five acres ( $> 5.0$ ) initiate immediately upon permanent or 14 or more days of temporary cessations of earth-disturbing activities
    - √ Complete within 7 days after initiated
  - Exceptions exist

Inspections  
will be  
necessary

# EPA Rules and Regulations

- Final Stabilization Criteria
  - Uniform and perennial vegetation
    - √ 70% or more of cover as provided by vegetation native to local undisturbed areas
  - Implement permanent non-vegetation stabilization measures to provide effective cover

## Pollution Prevention Requirements (Section 2.3)

- Equipment and vehicle fueling and maintenance
  - Eliminate the discharge of spilled chemicals including Fuels and oils
  - Spill prevention reporting
- Equipment and vehicle washing
  - Minimize discharges
  - Storage criteria
- Storage, handling and disposal of building products, materials and wastes
  - Provide storage and clean up criteria:
    - √ Building materials
    - √ Pesticides, herbicides, insecticides, fertilizers, and landscape materials
    - √ Petroleum products
    - √ Hazardous or toxic wastes
    - √ Construction and domestic wastes
    - √ Sanitary wastes
- Wastewater from washout and clean out of stucco, paint, form release oils, curing compounds, etc.
  - Use of “leak-proof” systems
  - Discharge criteria
- Application of fertilizers
  - Guidelines
- Emergency spill notifications
  - Guidelines

## Construction Dewatering Requirements (Section 2.4)

- Guidelines

Inspections  
will be  
necessary



# EPA Rules and Regulations

## WATER QUALITY EFFLUENT LIMITATIONS (SECTION 3)

- General Effluent Limitations
    - Guidelines
  - Discharge limitations for impaired waters (TMDL)
    - Sediment or nutrient-impaired waters
    - Discharges to Tier 2, Tier 2.5, or Tier 3 waters
- } May require an accumulation of data records

## SITE INSPECTION REQUIREMENTS (SECTION 4)

### Qualification of an Inspector

- Knowledgeable in sediment and erosion control and pollution prevention
- Possesses skills to assess construction site conditions that could impact stormwater quality
- Has appropriate skills and training to assess the effectiveness of stormwater controls selected and installed to meet permit requirements

### Frequency of Inspections

- Inspections are only required during the site's normal working hours
  - At least once every 7 calendar days, OR
  - Once every 14 calendar days within 24 hours of a 0.25-inch (6.5-mm) or greater storm event OR when runoff from snowmelt is sufficient to cause a discharge
    - √ Record data from an on-site rain gage, or
    - √ Record data from a representative weather station
- Multiple day storm events
  - Record data on each day after 0.25-inches (6.5-mm) or more rainfall
  - Conduct inspections within 24 hours of the first day of the storm, AND within 24 hours after the end of the storm

### Increase in Inspection Frequency for Sites Discharging to Sensitive Waters

- Sediment or nutrient-impaired waste (including Tier 2, Tier 2.5 or Tier 3) waters
  - Once every 7 calendar days, AND
  - Within 24 hours of the end of a 0.25-inch (6.5-mm) or greater storm event OR when runoff from snowmelt is sufficient to cause a discharge
    - √ When multiple day storm events occur, record data on each day when storm events produce at least 0.25-inches (6.5-mm)

### Reduction in Inspection Frequency

- Stabilized areas
- Arid and semi-arid areas
- Frozen conditions

# EPA Rules and Regulations

## Areas that Need to be Inspected

- All areas that have been cleared, graded, or excavated
- All stormwater controls, installed and maintained at the site
- Material, waste, borrow, or equipment storage and maintenance areas
- Areas where stormwater typically flows within the site, including drainage ways
- All points of discharge from the site
- All locations where stabilization measures have been implemented

## Requirements for Inspections

- Check on stormwater controls (BMPs)
  - Have they been installed per plan or as necessary?
  - Are they operational and effective?
  - Are replacements, repairs, or maintenance necessary?
- Check for the potential of spills, leaks, or other accumulation of pollutants on the site
- Identify locations for new or modified stormwater controls
- At points of discharge and on banks of any surface waters flowing within the site, check for signs of visible erosion or sedimentation
- Identify noncompliance incidents
- If a discharge is occurring,
  - Identify all points of the property from which discharges is occurring
  - Observe and document discharge color, odor, solids (floating, settled or suspended), foam, oil sheen, etc.
- Based upon inspection report, operator is to complete maintenance or implement requirements of correct action

## Inspection Report

- Within 24 hours of a site inspection, complete an inspection report that includes
  - The inspection date
  - Names and titles of the inspector(s)
  - Summary of the findings
  - Rainfall data that is 0.25-inches (6.5-mm) or greater
  - Information about unsafe conditions that prevented an inspection
- Signature requirements
  - For corporations, a corporate officer or a duly authorized representative
  - For partnership or sole proprietorship, a general partner, proprietor, or a duly authorized representative
  - For municipality, state, federal or other public agency, a principal executive officer, ranking elected official, or a duly authorized representative
  - **It is recommended that a signature by the inspector occurs**



# EPA Rules and Regulations

- Record Keeping Requirements
  - Copies of all inspection reports to be kept at
    - √ The site, or
    - √ At an easily accessible location
  - Retain for at least 3-years from date that permit expires or terminates

## Inspections by EPA

- EPA or its authorized representative can
  - Enter any areas of the site
  - Access and copy any records
  - Inspect the construction site
  - Sample or monitor the site to ensure compliance

## **CORRECTIVE ACTIONS (SECTION 5)**

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### Conditions triggering corrective actions

- When a stormwater control needs repair or replacement
- When a stormwater control was never installed or installed incorrectly
  - Necessary to comply with permit requirements
- Discharges causing an exceedance of applicable water quality standards
- A prohibited discharge has occurred.

### Corrective Action Deadlines

- Immediately institute reasonable steps to address the conditions
- When no replacement or significant repair is necessary
  - Complete by the close of the next business day
- When a new or replacement or significant repair is necessary
  - Complete within seven (7) calendar days
    - √ If not feasible, document reason and complete repairs ASAP
- Permittee must complete necessary updates to the SWPPP within 7 calendar days of completing corrective action work

### Corrective Action Required by EPA

- Compliance with EPA corrective action requirements must occur

# EPA Rules and Regulations

## Corrective Action Report

- Within 24 hours of discovering the need for corrective action, document the following
  - Nature of condition
    - √ Date and time of the condition was identified
- Within 24 hours of completing the corrective action
  - √ Action taken to address the condition
  - √ Note whether SWPPP modifications are required
- Signature requirements
  - For corporations, a corporate officer or a duly authorized representative
  - For partnership or sole proprietorship, a general partner, proprietor, or a duly authorized representative
  - For municipality, state, federal or other public agency, a principal executive officer, ranking elected official, or a duly authorized representative
- Record keeping requirements
  - Copies of all inspection reports to be kept at
    - √ The site, or
    - √ At an easily accessible location
  - Retain for 3-years after permit expiration or termination

## **OTHER PERTINENT 2017 CGP SECTIONS**

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### Staff Training Requirements (Section 6)

### Stormwater Pollution Prevention Plan Requirements (Section 7)

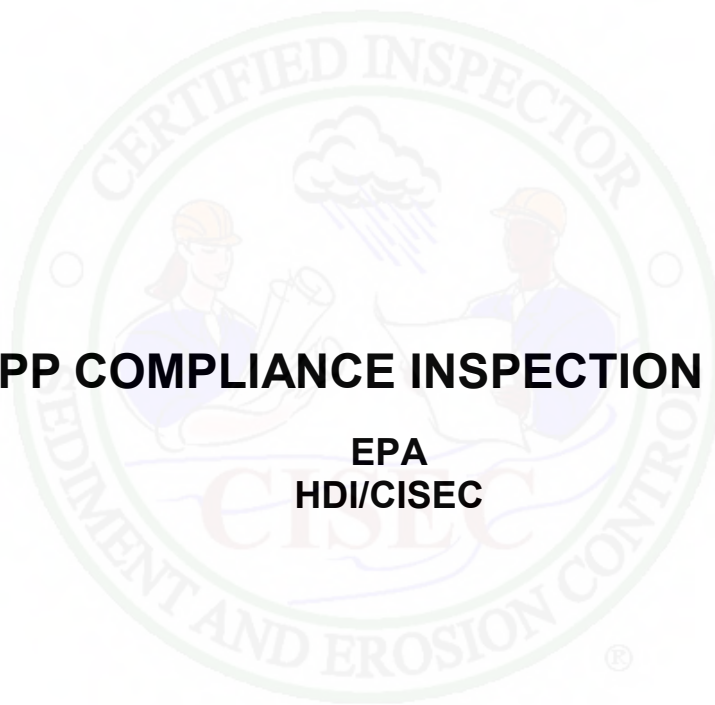
- Sections that impact inspector tasks to complete
  - 7.2.3: Nature of construction activities
  - 7.2.4: Site map
  - 7.2.5: Non-stormwater discharges
  - 7.2.6 Description of stormwater control measures
  - 7.2.7 Procedures for inspection, maintenance, corrective action
  - 7.4: Required SWPPP modifications



# EPA Rules and Regulations

## **SWPPP COMPLIANCE INSPECTION FORMS**

**EPA  
HDI/CISEC**



# EPA Rules and Regulations

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# 2017 Construction General Permit Inspection Report Template – Field Version

## Purpose

This Inspection Report Template (or “template”) is to assist you in preparing inspection reports for EPA’s 2017 Construction General Permit (CGP). If you are covered under the 2017 CGP, you can use this template to create an inspection report form that is customized to the specific circumstances of your site and that complies with the minimum reporting requirements of Part 4.7 of the permit. Note that the use of this form is optional; you may use your own inspection report form provided it includes the minimum information required in Part 4.7 of the CGP.

If you are covered under a state CGP, this template may be helpful in developing a form that can be used for that permit; however, it will need to be modified to meet the specific requirements of that permit. If your permitting authority requires you to use a specific inspection report form, you should not use this form.

## Notes:

While EPA has made every effort to ensure the accuracy of all instructions contained in the Inspection Report Template, it is the permit, not the template, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the Inspection Report Template and any corresponding provision of the 2017 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Inspection Report Template at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at [cgp@epa.gov](mailto:cgp@epa.gov).

## Overview of Inspection Requirements (see CGP Part 4)

Construction operators covered under the 2017 CGP are subject to the following inspection requirements:

### Person(s) Responsible for Inspecting the Site (see Part 4.1)

The person(s) inspecting your site must be a “qualified person” who may be either on your staff or a third party you hire to conduct such inspections.

- A “qualified person” is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

### Inspection Frequency (see Part 4.2)

You are required to conduct inspections either:

- Once every 7 calendar days; or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater or the occurrence of runoff from snowmelt sufficient to cause a discharge.

Your inspection frequency is increased if the site discharges to a sensitive water. See Part 4.3. Your inspection frequency may be decreased to account for stabilized areas, or for arid, semi-arid, or drought-stricken conditions, or for frozen conditions. See Part 4.4.

### Areas That Need to Be Inspected (see Part 4.5)

During each inspection, you must inspect the following areas of your site:

- Cleared, graded, or excavated areas of the site;
- Stormwater controls (e.g., perimeter controls, sediment basins, inlets, exit points etc.) and pollution prevention practices (e.g., pollution prevention practices for vehicle fueling/maintenance and washing, construction product storage, handling, and disposal, etc.) at the site;
- Material, waste, or borrow areas covered by the permit, and equipment storage and maintenance areas;
- Areas where stormwater flows within the site;
- Stormwater discharge points; and
- Areas where stabilization has been implemented.

### What to Check For During Your Inspection (see Part 4.6)

During your site inspection, you are required to check:

- Whether stormwater controls or pollution prevention practices are properly installed, require maintenance or corrective action, or whether new or modified controls are required;
- For the presence of conditions that could lead to spills, leaks, or other pollutant accumulations and discharges;
- For locations where new or modified stormwater controls are necessary to meet requirements of the permit;

- Whether there are visible signs of erosion and sediment accumulation at points of discharge and to the channels and streambanks that are in the immediate vicinity of the discharge;
- If a stormwater discharge is occurring at the time of the inspection, whether there are obvious, visual signs of pollutant discharges; and
- If any permit violations have occurred on the site.

#### Inspection Reports (see Part 4.7)

Within 24 hours of completing each inspection, you are required to complete an inspection report that includes:

- Date of inspection;
- Names and titles of person(s) conducting the inspection;
- Summary of inspection findings;
- Rain gauge or weather station readings if your inspection is triggered by the 0.25-inch storm threshold; and
- If you determine that a portion of your site is unsafe to access for the inspection, documentation of what conditions prevented the inspection and where these conditions occurred on the site

### Instructions for Using This Template

This Field Version of the Inspection Report Template is intended to be used in the field and filled out by hand. If you will be filling out the Inspection Report Template electronically (i.e., you will be typing in your findings), please use the Electronic Version of the Inspection Report Template available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. The Electronic Version includes text fields with instructions for what to enter.

Keep in mind that this document is a template and not an “off-the-shelf” inspection report that is ready to use without some modification. You must first customize this form to include the specifics of your project in order for it to be useable for your inspection reports. Once you have entered all of your site-specific information into these fields, you may print out this form for use in the field to complete inspection reports.

The following tips for using this template will help you ensure that the minimum permit requirements are met:

- **Review the inspection requirements.** Before you start developing your inspection report form, read the CGP’s Part 4 inspection requirements. This will ensure that you have a working understanding of the permit’s underlying inspection requirements.
- **Complete all required text fields.** Fill out all text fields. Only by filling out all fields will the template be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the template form for your inspection, you may leave those rows blank. Or, if you need more space to document your findings, you may add an additional sheet.)
- **Use your site map to document inspection findings.** In several places in the template, you are directed to specify the location of certain features of your site, including where stormwater controls are installed and where you will be stabilizing exposed soil. You are also asked to fill in location information for unsafe conditions and the locations of any discharges occurring during your inspections. Where you are asked for location information, EPA encourages you to reference the point on your SWPPP site map that corresponds to the requested location on the inspection form. Using the site map as a tool in this way will help you conduct efficient inspections, will assist you in evaluating problems found, and will ensure proper documentation.
- **Sign and certify each inspection report.** The operator or a duly authorized representative (see Appendix I, Part I.11.2) must sign and certify each inspection report for it to be considered complete. Where a contractor or subcontractor carries out your inspections, it is recommended that you also have the inspector sign and certify the form, in addition to the signature and certification required of the permitted operator. The template includes a signature block for both parties.
- **Include the inspection form with your SWPPP.** Once your form is complete, make sure to include a copy of the inspection form in your SWPPP in accordance with Part 7.2.7.e of the CGP.
- **Retain copies of all inspection reports with your records.** You must also retain in your records copies of all inspection reports in accordance with the requirements in Part 4.7.3 of the 2017 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

### Section-by-Section Instructions

You will find specific instructions corresponding to each section of the report form on the reverse side of each page. These instructions provide you with more details in terms of what EPA expects to be documented in these reports.



**General Information**

(see reverse for instructions)

Name of Project		NPDES ID No.	Inspection Date
Weather conditions during inspection		Inspection start time	Inspection end time
Inspector Name, Title & Contact Information			
Present Phase of Construction			
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)			
<b>Inspection Frequency</b> (Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply) <b>Standard Frequency:</b> <input type="checkbox"/> Every 7 days <input type="checkbox"/> Every 14 days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge			
<b>Increased Frequency:</b> <input type="checkbox"/> Every 7 days and within 24 hours of a 0.25" rain (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3)			
<b>Reduced Frequency:</b> <input type="checkbox"/> Twice during first month, no more than 14 calendar days apart; then once per month after first month; (for stabilized areas) <input type="checkbox"/> Twice during first month, no more than 14 calendar days apart; then once more within 24 hours of a 0.25" rain (for stabilized areas on "linear construction sites") <input type="checkbox"/> Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought) <input type="checkbox"/> Once per month (for frozen conditions where earth-disturbing activities are being conducted)			
<b>Was this inspection triggered by a 0.25" storm event?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>If yes, how did you determined whether a 0.25" storm event has occurred?</b> <input type="checkbox"/> Rain gauge on site <input type="checkbox"/> Weather station representative of site. Specify weather station source:			
<b>Total rainfall amount that triggered the inspection</b> (in inches):			
<b>Was this inspection triggered by the occurrence of runoff from snowmelt sufficient to cause a discharge?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Unsafe Conditions for Inspection</b> <b>Did you determine that any portion of your site was unsafe for inspection per CGP Part 4.5? If "yes", complete the following:</b>			
<ul style="list-style-type: none"> <li>- Describe the conditions that prevented you from conducting the inspection in this location:</li>   <li>- Location(s) where conditions were found:</li> </ul>			

## Instructions for Filling Out “General Information” Section

### **Name of Project**

Enter the name for the project.

### **NPDES ID No.**

Enter the NPDES ID number that was assigned to your NOI for permit coverage.

### **Inspection Date**

Enter the date you conducted the inspection.

### **Weather Conditions During Inspection**

Enter the weather conditions occurring during the inspection, e.g., sunny, overcast, light rain, heavy rain, snowing, icy, windy.

### **Inspection start and end times**

Enter the time you started and ended the inspection.

### **Inspector Name, Title & Contact Information**

Provide the name of the person(s) (either a member of your company's staff or a contractor or subcontractor) that conducted this inspection. Provide the inspector's name, title, and contact information as directed in the form.

### **Present Phase of Construction**

If this project is being completed in more than one phase, indicate which phase it is currently in.

### **Inspection Location**

If your project has multiple locations where you conduct separate inspections, specify the location where this inspection is being conducted. If only one inspection is conducted for your entire project, enter “Entire Site.” If necessary, complete additional inspection report forms for each separate inspection location.

### **Inspection Frequency**

Check the box that describes the inspection frequency that applies to you. Note that you may be subject to different inspection frequencies in different areas of your site. If your project does not discharge to a “sensitive water” (i.e., a water impaired for sediment or nutrients, or listed as Tier 2, 2.5, or 3 by your state or tribe) and you are not affected by any of the circumstances described in CGP Part 4.4, then you can choose your frequency based on CGP Part 4.2 – either every 7 calendar days, or every 14 calendar days and within 24 hours of a 0.25-inch storm event. For any portion of your site that discharges to a sensitive water, your inspection frequency for that area is fixed under CGP Part 4.3 at every 7 calendar days and within 24 hours of a 0.25-inch storm event. If portions of your site are stabilized, are located in arid, semi-arid, or drought-stricken areas, or are subject to frozen conditions, consult CGP Part 4.4 for the applicable inspection frequency. Check all the inspection frequencies that apply to your project.

### **Was This Inspection Triggered by a 0.25 Inch Storm Event or the occurrence of runoff from snowmelt sufficient to cause a discharge?**

If you were required to conduct this inspection because of a 0.25-inch (or greater) rain event, indicate whether you relied on an on-site rain gauge or a nearby weather station (and where the weather station is located). Also, specify the total amount of rainfall for this specific storm event. If you were required to conduct this inspection because of the occurrence of runoff from snowmelt, then check the appropriate box.

### **Unsafe Conditions for Inspection**

Inspections are not required where a portion of the site or the entire site is subject to unsafe conditions. See CGP Part 4.5. These conditions should not regularly occur, and should not be consistently present on a site. Generally, unsafe conditions are those that render the site (or a portion of it) inaccessible or that would pose a significant probability of injury to applicable personnel. Examples could include severe storm or flood conditions, high winds, and downed electrical wires.

If your site, or a portion of it, is affected by unsafe conditions during the time of your inspection, provide a description of the conditions that prevented you from conducting the inspection and what parts of the site were affected. If the entire site was considered unsafe, specify the location as “Entire site”

**Condition and Effectiveness of Erosion and Sediment (E&S) Controls (CGP Part 2.2)**

(see reverse for instructions)

Type/Location of E&S Control [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**\* Note:** The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. See Part 5 of the permit for more information.

## Instructions for Filling Out the “Erosion and Sediment Control” Table

### Type and Location of E&S Controls

Provide a list of all erosion and sediment (E&S) controls that your SWPPP indicates will be installed and implemented at your site. This list must include at a minimum all E&S controls required by CGP Part 2.2. Include also any natural buffers established under CGP Part 2.2.1. Buffer requirements apply if your project’s earth-disturbing activities will occur within 50 feet of a water of the U.S. You may group your E&S controls on your form if you have several of the same type of controls (e.g., you may group “Inlet Protection Measures”, “Perimeter Controls”, and “Stockpile Controls” together on one line), but if there are any problems with a specific control, you must separately identify the location of the control, whether maintenance or corrective action is necessary, and in the notes section you must describe the specifics about the problem you observed.

### Maintenance Needed?

Answer “yes” if the E&S control requires maintenance due to normal wear and tear in order for the control to continue operating effectively. At a minimum, maintenance is required in the following specific instances: (1) for perimeter controls, whenever sediment has accumulated to half or more the above-ground height of the control (CGP Part 2.2.3.a); (2) where sediment has been tracked-out onto the surface of off-site streets or other paved areas (CGP Part 2.2.4); (3) for inlet protection measures, when sediment accumulates, the filter becomes clogged, and/or performance is compromised (CGP Part 2.2.10); and (4) for sediment basins, as necessary to maintain at least half of the design capacity of the basin (CGP Part 2.2.12.f). Note: In many cases, “yes” answers are expected and indicate a project with an active operation and maintenance program. You should also answer “yes” if work to fix the problem is still ongoing from the previous inspection.

### Corrective Action Needed?

Answer “yes” if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required E&S control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a required E&S control was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the E&S control has led to an exceedance of an applicable water quality standard; (4) one of the prohibited discharges in Part 1.3 is occurring or has occurred; or (5) EPA requires corrective action for an E&S control as a result of a permit violation found during an inspection carried out under Part 4.8. If you answer “yes”, you must take corrective action and complete a corrective action report, found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. Note: You should answer “yes” if work to fix the problem from a previous inspection is still ongoing.

### Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition’s discovery.

### Notes

For each E&S control and the area immediately surrounding it, note whether the control is properly installed and whether it appears to be working to minimize sediment discharge. Describe any problem conditions you observed such as the following, and why you think they occurred as well as actions (e.g., maintenance or corrective action) you will take or have taken to fix the problem:

1. Failure to install or to properly install a required E&S control
2. Damage or destruction to an E&S control caused by vehicles, equipment, or personnel, a storm event, or other event
3. Mud or sediment deposits found downslope from E&S controls
4. Sediment tracked out onto paved areas by vehicles leaving construction site
5. Noticeable erosion at discharge outlets or at adjacent streambanks or channels
6. Erosion of the site’s sloped areas (e.g., formation of rills or gullies)
7. E&S control is no longer working due to lack of maintenance

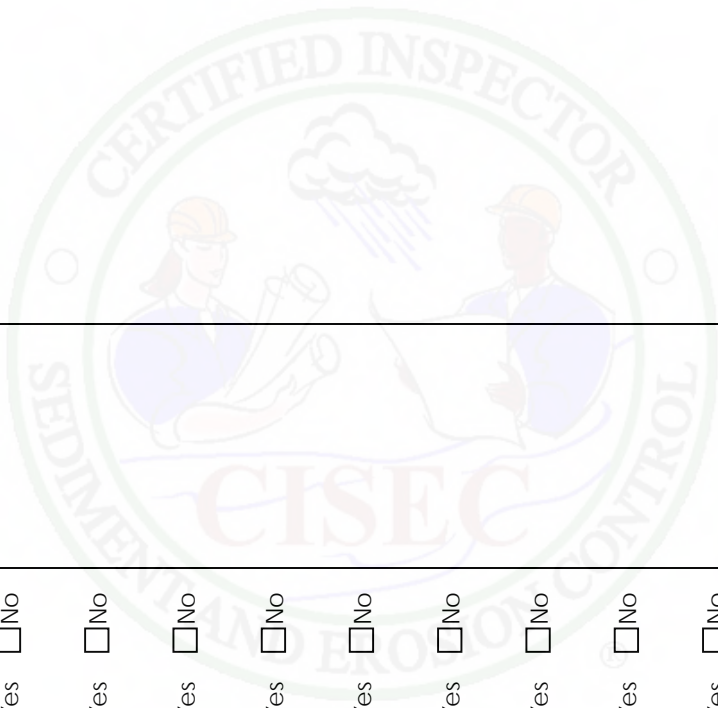
For buffer areas, make note of whether they are marked off as required, whether there are signs of construction disturbance within the buffer, which is prohibited under the CGP, and whether there are visible signs of erosion resulting from discharges through the area.

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.

**Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3)**

(see reverse for instructions)

Type/Location of P2 Practices [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		



\* **Note:** The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. See Part 5 of the permit for more information.

## Instructions for Filling Out the "Pollution Prevention (P2) Practice" Table

### Type and Location of P2 Controls

Provide a list of all pollution prevention (P2) practices that are implemented at your site. This list must include all P2 practices required by Part 2.3, and those that are described in your SWPPP.

### Maintenance Needed?

Answer "yes" if the P2 practice requires maintenance due to normal wear and tear in order for the control to continue operating effectively. Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program.

### Corrective Action Needed?

Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required P2 practice needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a required P2 practice was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the P2 practice has led to an exceedance of an applicable water quality standard; (4) one of the "prohibited discharges" listed in CGP Part 1.3 is occurring or has occurred, or (5) EPA requires corrective action for a P2 practice as a result of a permit violation found during an inspection carried out under Part 4.8. If you answer "yes", you must take corrective action and complete a corrective action report (see <https://www.epa.gov/hpdes/stormwater-discharges-construction-activities#resources>). Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

### Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

### Notes

For each P2 control and the area immediately surrounding it, note whether the control is properly installed, whether it appears to be working to minimize or eliminate pollutant discharges, and whether maintenance or corrective action is required. Describe problem conditions you observed such as the following, and why you think they occurred, as well as actions you will take or have taken to fix the problem:

1. Failure to install or to properly install a required P2 control
2. Damage or destruction to a P2 control caused by vehicles, equipment, or personnel, or a storm event
3. Evidence of a spill, leak, or other type of pollutant discharge, or failure to have properly cleaned up a previous spill, leak, or other type of pollutant discharge
4. Spill response supplies are absent, insufficient, or not where they are supposed to be located
5. Improper storage, handling, or disposal of chemicals, building materials or products, fuels, or wastes
6. P2 practice is no longer working due to lack of maintenance

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.

**Stabilization of Exposed Soil (CGP Part 2.2.14)**

(see reverse for instructions)

Stabilization Area [Add an additional sheet if necessary]	Stabilization Method	Have You Initiated Stabilization?	Notes
1.		<input type="checkbox"/> YES If yes, provide date:	
2.		<input type="checkbox"/> YES If yes, provide date:	
3.		<input type="checkbox"/> YES If yes, provide date:	
4.		<input type="checkbox"/> YES If yes, provide date:	
5.		<input type="checkbox"/> YES If yes, provide date:	

**Description of Discharges (CGP Part 4.6.6)**

(see reverse for instructions)

Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes", provide the following information for each point of discharge:	
Discharge Location [Add an additional sheet if necessary]	Observations
1.	Describe the discharge:  At points of discharge and the channels and banks of waters of the U.S. in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge:  At points of discharge and the channels and banks of waters of the U.S. in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

## Instructions for Filling Out the “Stabilization of Exposed Soil” Table

### Stabilization Area

List all areas where soil stabilization is required to begin because construction work in that area has permanently stopped or temporarily stopped (i.e., work will stop for 14 or more days), and all areas where stabilization has been implemented.

### Stabilization Method

For each area, specify the method of stabilization (e.g., hydroseed, sod, planted vegetation, erosion control blanket, mulch, rock).

### Have You Initiated Stabilization

For each area, indicate whether stabilization has been initiated.

### Notes

For each area where stabilization has been initiated, describe the progress that has been made, and what additional actions are necessary to complete stabilization. Note the effectiveness of stabilization in preventing erosion. If stabilization has been initiated but not completed, make a note of the date it is to be completed. If stabilization has been completed, make a note of the date it was completed. If stabilization has not yet been initiated, make a note of the date it is to be initiated, and the date it is to be completed.

## Instructions for Filling Out the “Description of Discharges” Table

You are only required to complete this section if a discharge is occurring at the time of the inspection.

### Was a Stormwater Discharge Occurring From Any Part of Your Site At The Time of the Inspection?

During your inspection, examine all points of discharge from your site, and determine whether a discharge is occurring. If there is a discharge, answer “yes” and complete the questions below regarding the specific discharge. If there is not a discharge, answer “no” and skip to the next page.

### Discharge Location (repeat as necessary if there are multiple points of discharge)

Location of discharge. Specify the location on your site where the discharge is occurring. The location may be an outlet from a stormwater control or constructed stormwater channel, a discharge into a storm sewer inlet, or a specific point on the site. Be as specific as possible; it is recommended that you refer to a precise point on your site map.

Describe the discharge. Include a specific description of any noteworthy characteristics of the discharge such as color; odor; floating, settled, or suspended solids; foam; oil sheen; and other obvious pollution indicators.

Are there visible signs of erosion or sediment accumulation? At each point of discharge and the channel and streambank in the immediate vicinity, visually assess whether there are any obvious signs of erosion and/or sediment accumulation that can be attributed to your discharge. If you answer “yes”, include a description in the space provided of the erosion and sediment deposition that you have found, specify where on the site or in the water of the U.S. it is found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue.



**Contractor or Subcontractor Signature and Certification**

(see reverse for instructions)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**Signature of Contractor or Subcontractor:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_

**Operator Signature and Certification**

(see reverse for instructions)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**Signature of Operator or "Duly Authorized Representative":** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_

## Instructions for Signature/Certification

Each inspection report must be signed and certified to be considered complete.

### Contractor or Subcontractor Signature and Certification

Where you rely on a contractor or subcontractor to carry out the inspection and complete the inspection report, you should require the inspector to sign and certify each report. Note that this does not relieve you, the permitted operator, of the requirement to sign and certify the inspection report as well.

### Operator Signature and Certification

At a minimum, the inspection report must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- For a corporation: A responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- For a partnership or sole proprietorship: A general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.





# SWPPP COMPLIANCE INSPECTION REPORT

Site Name/Permit No. \_\_\_\_\_ Report Date: \_\_\_\_\_

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

<b>Permittee Requirement Summary</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>Comments</b>
1. A sign or other notice is posted conspicuously in close proximity to the project site.				
√ Visible from a public road nearest to the active part of the construction site.				
√ Identifies the NPDES Permit tracking number.				
√ Identifies a current contact name and telephone number for obtaining permit information.				
√ If not on the site, identifies location of SWPPP.				
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.				
√ Identifies current stormwater team member names.				
√ Identifies current construction site operator names.				
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.				
3. Inspection records exist on the site, or at an easily accessible location, or electronically.				
√ Frequency and timing of inspections is occurring as specified in the SWPPP.				
√ Water quality records exist.				
√ Documentation exists on inspection of tasks completed for previous corrective action items.				
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.				
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.				
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.				
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.				
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>				<b>To be done within seven calendar days.</b>



# Background of an Inspector

## Background of an Inspector



# Background of an Inspector





# Background of an Inspector

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# Background of an Inspector

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# Background of an Inspector

## TYPE OF CONSTRUCTION ACTIVITIES

### Large Land Development

- Phased Construction
- Site “Carving”
- Hillsides and steep slopes
- Utilities
- Preparation for additional construction activities



### Vertical

- Multi-family and single family residence construction projects
- Small sites
- Multiple subcontractors
- Small time contractors and subs



### Big Box

- Commercial buildings
- Mass Grading
- Complete Site Development at one time
- High profile (highly visible)



### Linear

- Roadway and pipelines
- Long narrow site
- Mass chaos
- Limited site access control (traffic passing through)
- Active portion of the site is constantly changing (moving)



# Background of an Inspector

## ASSESSING YOUR BACKGROUND

*Circle the correct answer*

1. Sediment is a major pollutant of our national rivers and streams and excessive amounts have a direct impact on aquatic life.	<b>True or False</b>
2. Sediment control BMPs (e.g., silt fence barriers) remove all suspended particles found in runoff waters.	<b>True or False</b>
3. Inspectors should always tell contractors what type of BMPs to install on a project when noncompliance problems are found.	<b>True or False</b>
4. Good sediment control results in good erosion control.	<b>True or False</b>
5. Storm drain inlet protection practices remove all sediment in runoff waters and allow clean water to flow into the drainage system.	<b>True or False</b>
6. Saltation is a form of wind erosion.	<b>True or False</b>
7. The most effective method for sediment control involves containing sediment laden runoff waters for sufficient time to allow heavier suspended particles to settle.	<b>True or False</b>
8. It is not cost effective to implement erosion control methods while construction activities are occurring.	<b>True or False</b>
9. Inspectors do not need to know much about hydrology.	<b>True or False</b>
10. The motto of an inspector is to observe, inspect, and report, but never to mandate.	<b>True or False</b>



# Background of an Inspector

## DEFINITIONS

The ultimate goal on construction sites is to reduce the amount of pollution leaving a construction site to the maximum extent practicable.

### Types of Erosion

*The action of water, wind, or other methods that results in the dislodging of soil particles.*

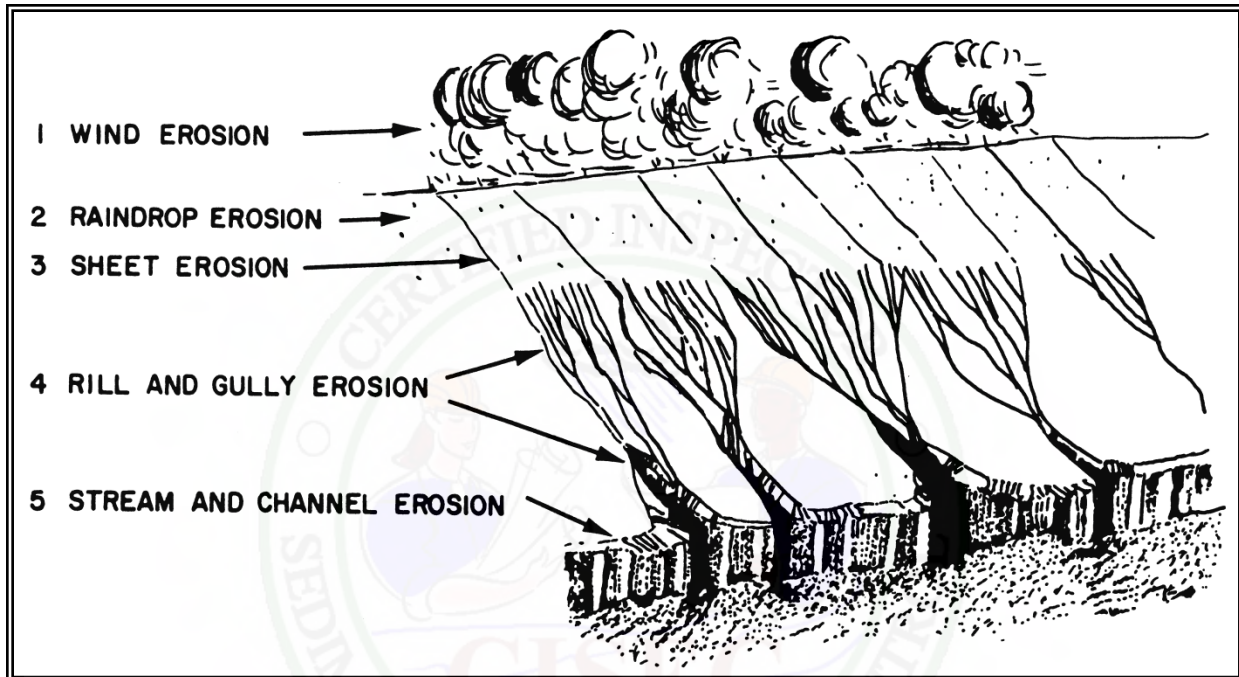


Figure 1 Illustration of types of erosion (from SCS, 1978)

### Wind Erosion

The movement of soil particles physically dislodged by wind or after disturbance by other particles.

1. Surface creep is the rolling and sliding movement of particles across a surface.
  - a) Represent about 5% to 25% of the total soil loss by wind.
2. Saltation is the hopping and bouncing movement of particles.
  - a) Particles are lifted into the atmosphere but return to the ground and dislodge other particles.
  - b) Represent about 50% to 80% of the total soil loss by wind.
3. Suspension occurs when very small particles smaller than are carried great distances by the wind.
  - a) These particles can remain suspended for long durations and can travel great distances.
  - b) Represent less than 10% of total soil loss by wind.

# Background of an Inspector

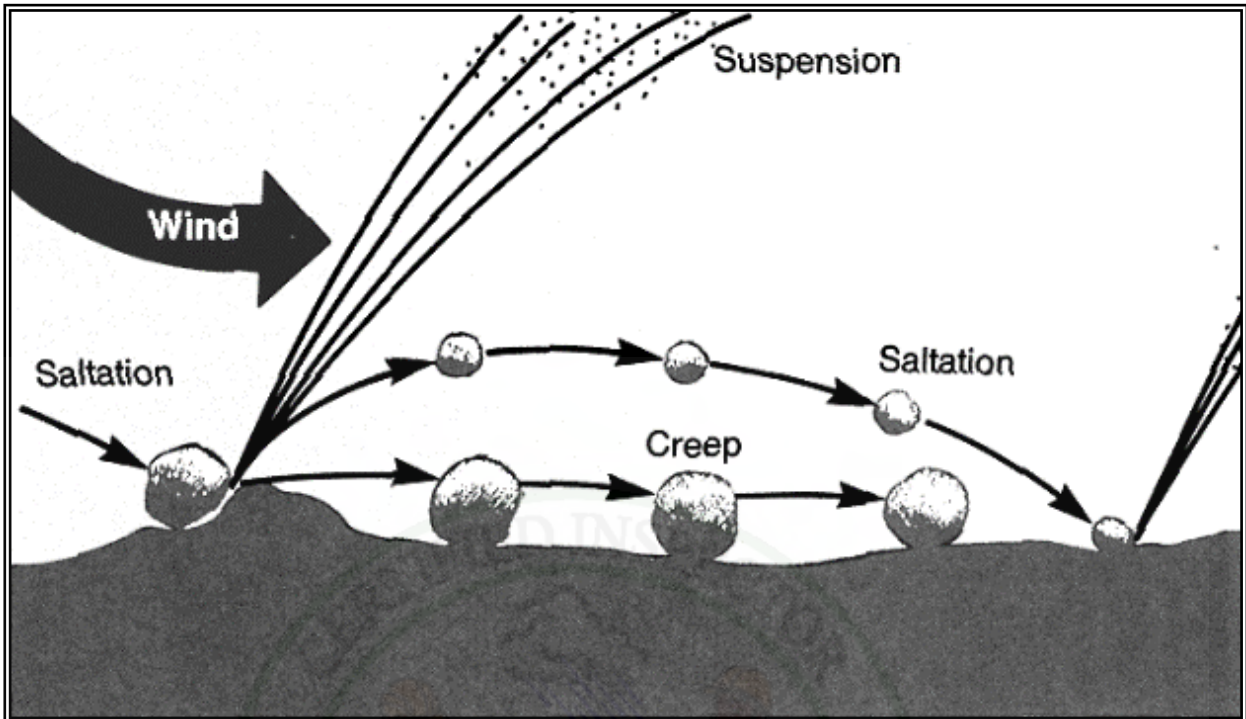


Figure 2 Mechanisms of erosion and sediment transport by wind (from SCS, 1989).

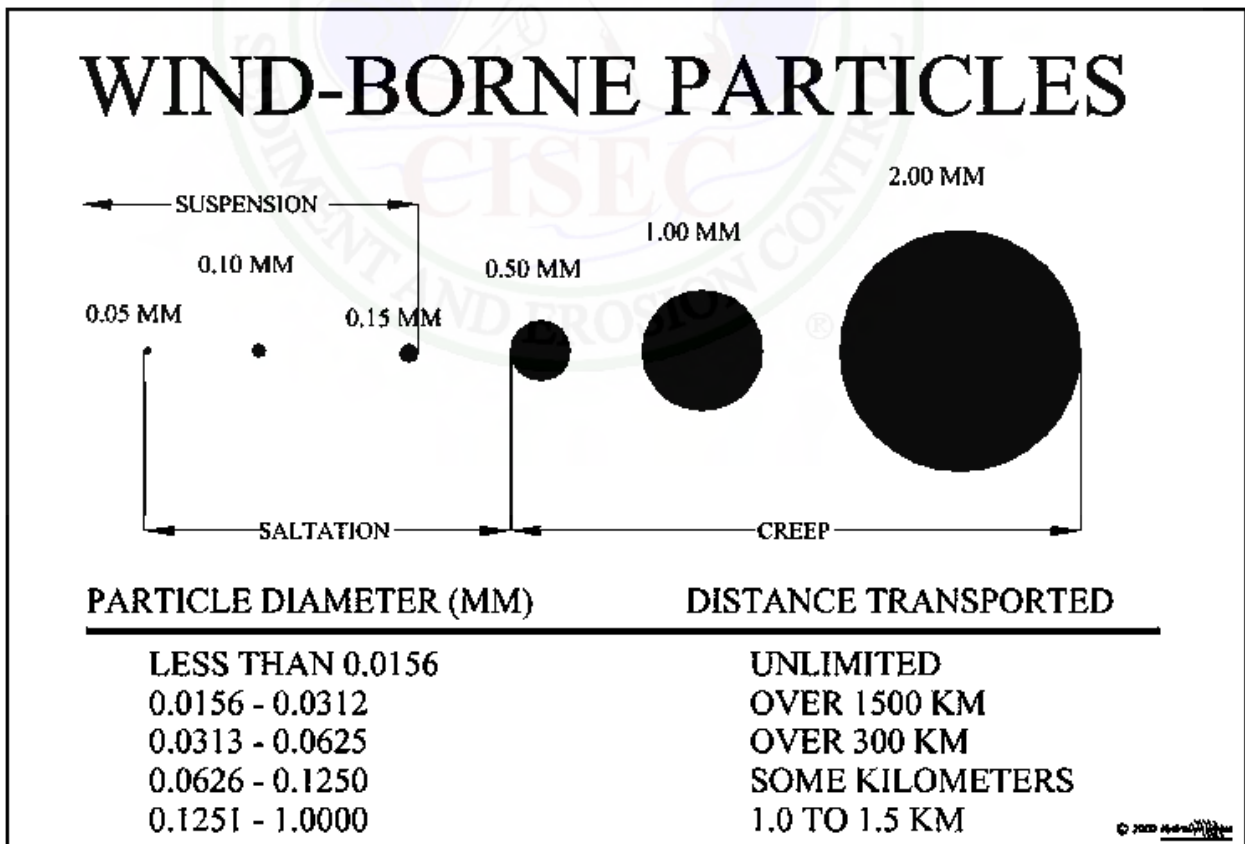


Figure 3 Relative size distribution of wind borne particles (from Fifield, 2004).

# Background of an Inspector

## Raindrop or Splash Erosion

Dislodging of soil particles due to the impact of raindrops.



Figure 4 Illustration of splash erosion (from National Geographic Creative)



Figure 5 Illustration of how sheet flows result in erosion

## Sheet Erosion:

Stripping of soil that occurs due to sheet flows of runoff.

## Rill Erosion:

Small rivets that can be up to 3-inches (76 mm) deep that form due to the concentration of sheet flow waters.



Figure 6 Illustration on the formation of rills (from Wikimedia Commons, the free media repository)

# Background of an Inspector

## Gully Erosion:

Large and deep channels that occur when concentrated flows of water scouring along flow routes cause sharp-sided entrenched channels.



Figure 7 Illustration of a gully on a construction site



Figure 8 Illustration of streambank and channel erosion

## Streambank and Channel Erosion:

The removal of soil and other embankment materials due to concentrated channel flows.

## Other Forms of Erosion

Shoreline





# Background of an Inspector

Landslides



Debris flows



Geological




# Background of an Inspector

## Factors That Impact Water Erosion

1. Climatic events
2. Soil erodibility

Table 1 Possible Hierarchy of Soil Erodibility (from RUSLE2)

Soil Type	Erodibility Classification	
Silt	Most Erodible ( $K \approx 0.57$ )	
Silt Loam		
Loam		
Sandy Loam		
Silty Clay Loam		
Clay Loam		
Loamy Sand		
Silty Clay		
Sandy Clay Loam		
Sand		
Sandy Clay		
Clay		Least Erodible ( $K \approx 0.10$ )

3. Length of flow
4. Slope of the land
5. Erosion control BMPs
6. Sediment control BMPs

## **Sediment**

*Eroded material suspended in water or in air*

- Sediment loading can be 10 to 20 times greater from bare ground construction sites than soil particles lost from lands where vegetation exists.
- Sediment loading causes reservoirs, streams, and harbors to clog with soil material.
- Sediment loading causes loss of recreational areas and wildlife habitat.
- Sediment loading reduces the beneficial uses of water from humans and can harm plants, animals, and fish that live in the water.
- Sediment loading from construction areas may increase the amount of nutrients in water.

## **Sedimentation**

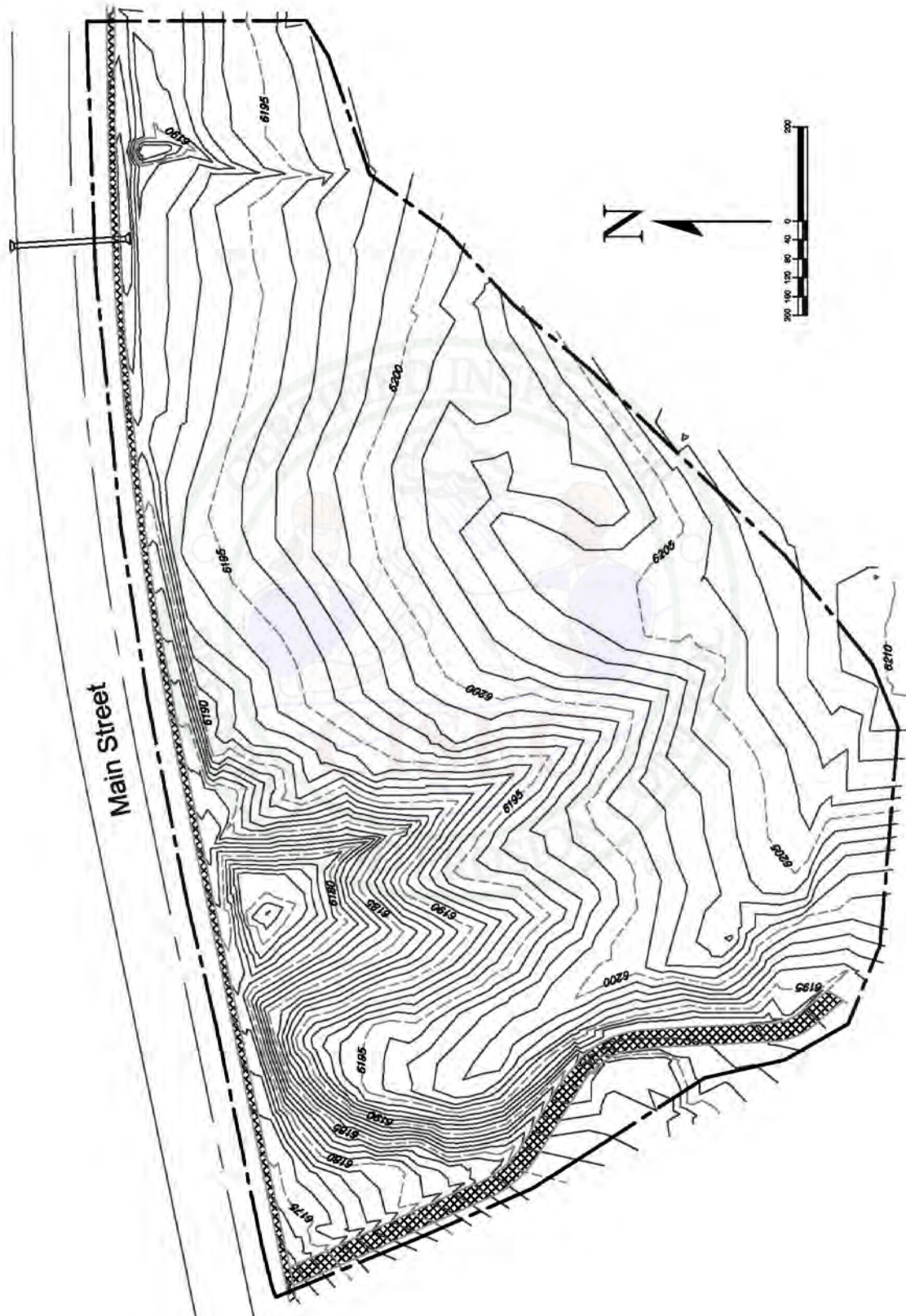
*The deposition of eroded material*

- Dependent upon particle size.
- Dependent upon flow velocity.
- Basis for how sediment containment systems function.



# Background of an Inspector

## TOPOGRAPHIC ASSESSMENTS



# Background of an Inspector

## HYDROLOGY

The study of the waters of the earth: their occurrence, circulation, and distribution; their chemical and physical properties; and their reaction with the environment, including their relation to living things.

### Components

#### Precipitation

1. Rain
  - a) Intensity often characterized regionally
    - i. Pounding – usually high intensity, short duration
    - ii. Light drizzle – usually long duration, low intensity
2. Snow
3. Hail
4. Sleet

#### Runoff and Rate of Flow

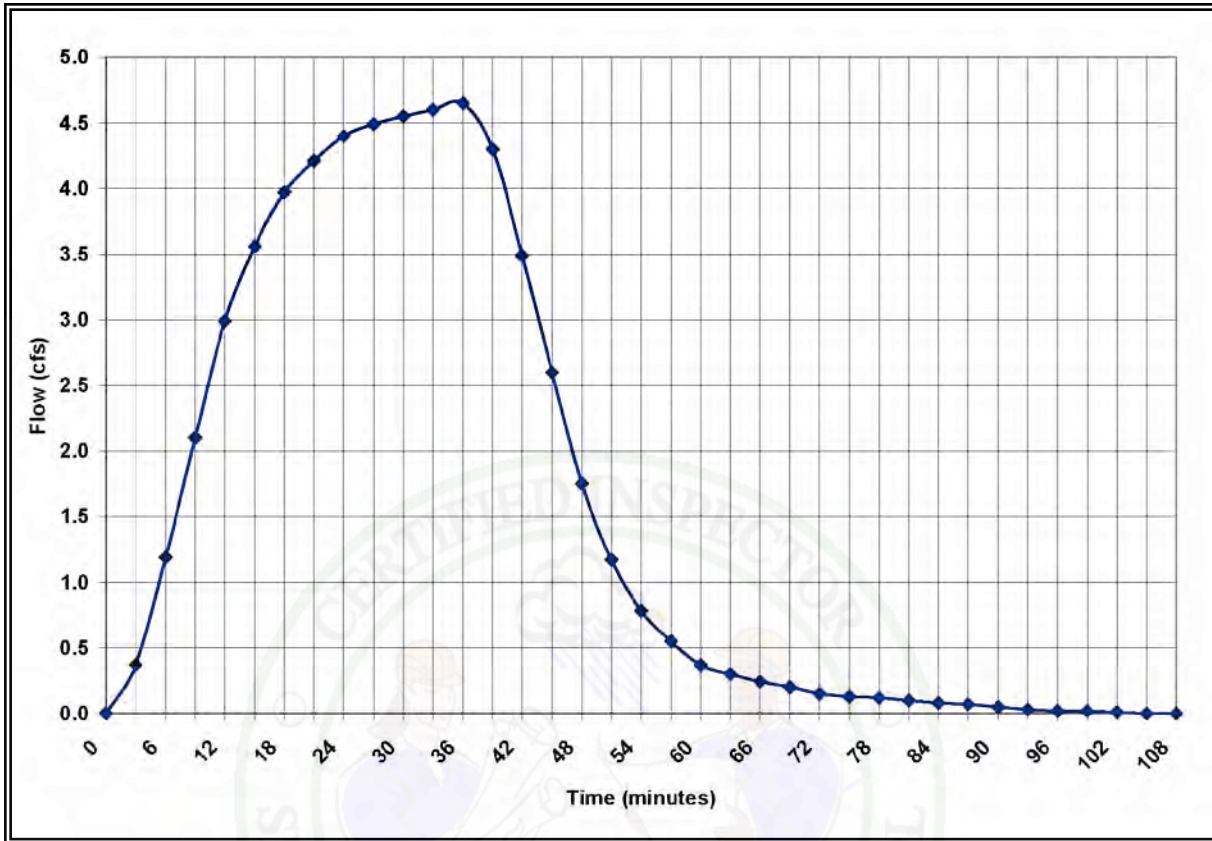
1. Soil types and roughness
2. Storm intensity and duration
3. Contributing area
4. Steepness of the terrain
5. Length of slope
6. Vegetative cover

#### Represented by a Hydrograph

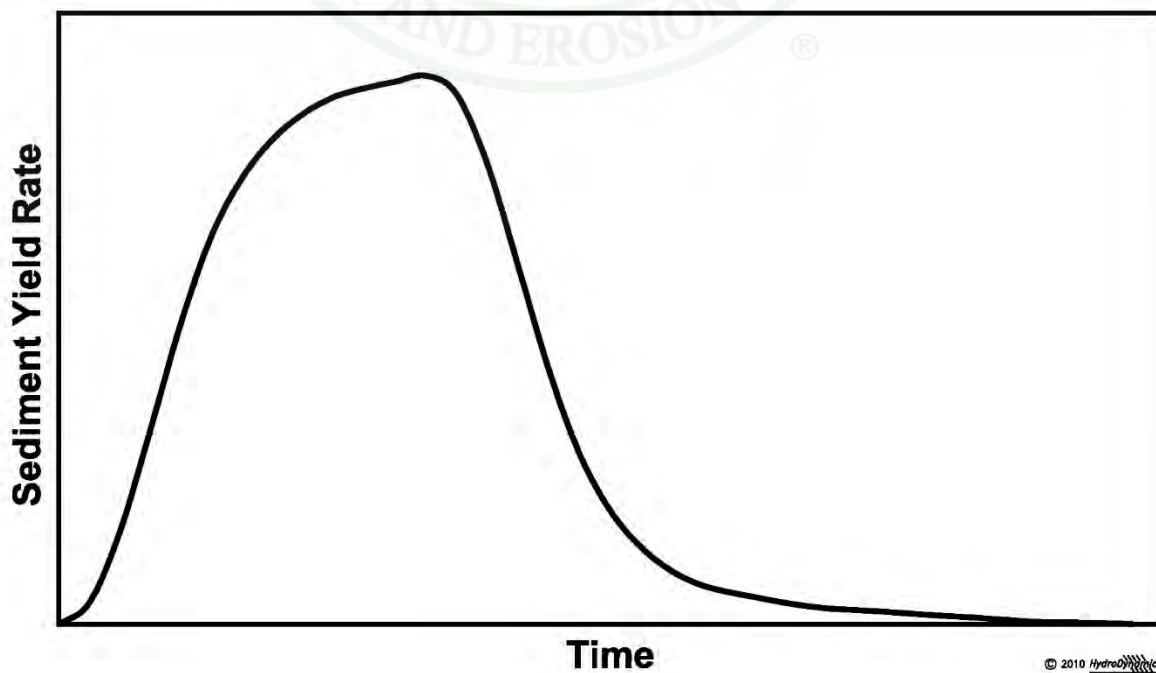


# Background of an Inspector

## Hydrograph

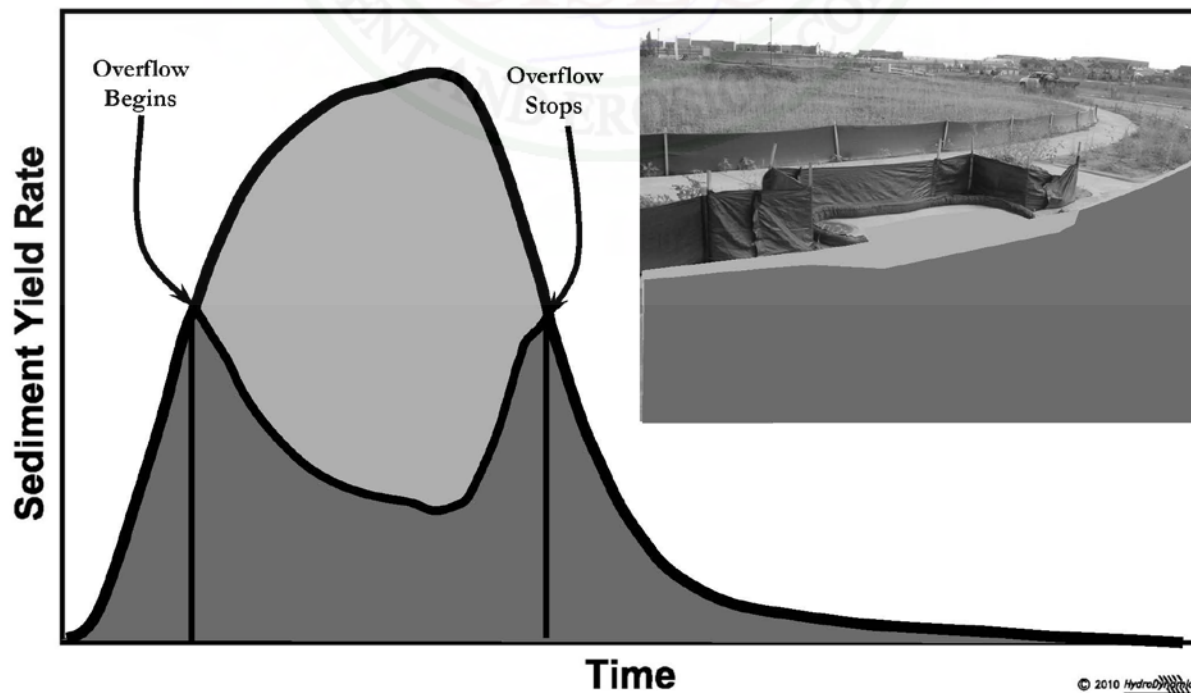
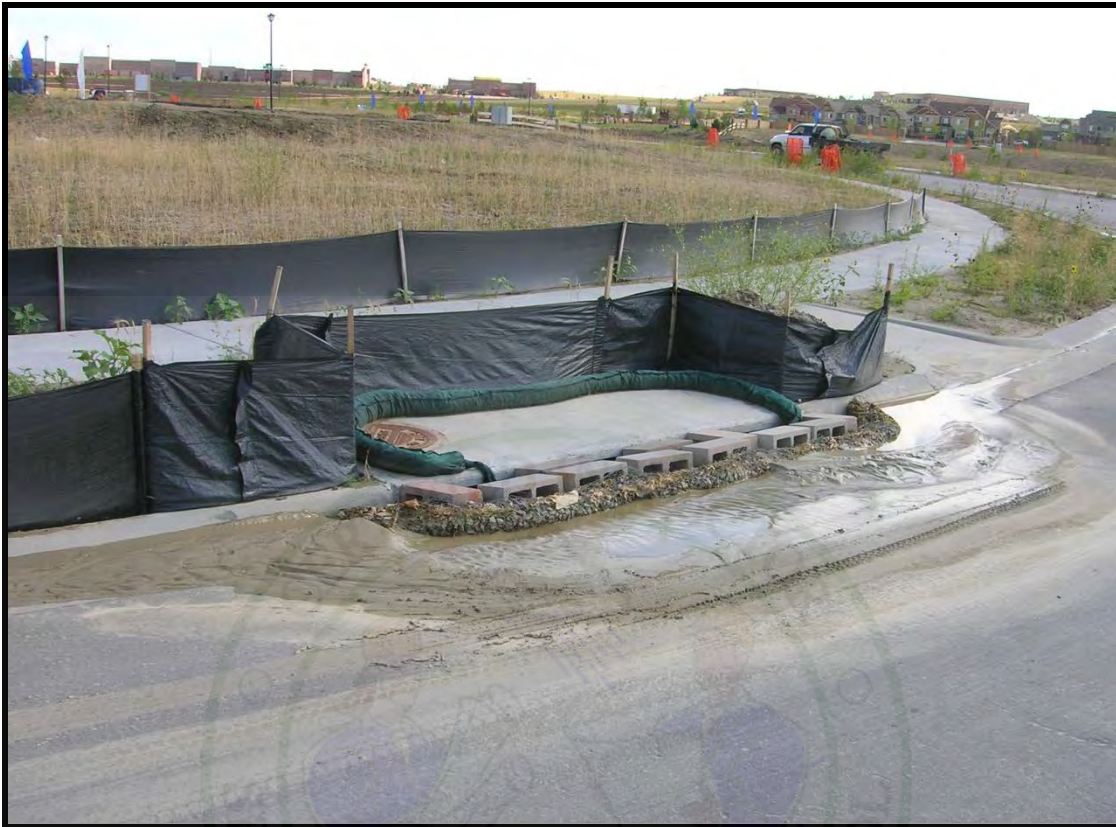


## Sedigraph



# Background of an Inspector

## Assessing Sedimentation in Front of a Curb Inlet



# Background of an Inspector

## FLOCCULANTS

Flocculants consist of anionic, nonionic and cationic polymers that can cause individual particles within a suspension to form aggregates. The process is known as flocculation.

When flocculants are added to sediment laden runoff waters, increased sedimentation occurs. Rapid flocculation settling rates is essential to capture of treated particulates by a downstream system.

### Types of Flocculants

Flocculants used on construction sites are usually classified as containing anionic (i.e., negative) or cationic (i.e., positive) polymers.

- Cationic flocculants attract negatively charged soil particles and may be detrimental to aquatic life.
- Anionic (negative) flocculants may not be as detrimental to aquatic life as are cationic flocculants. .

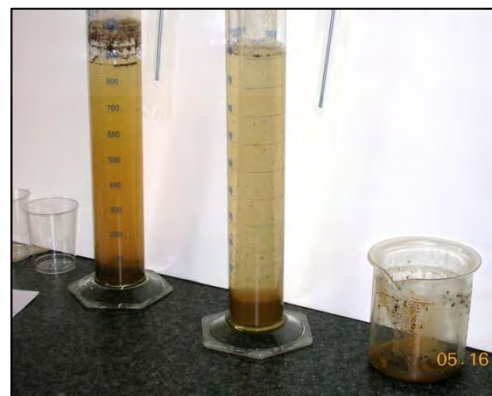
### EPA Requirement on use of Cationic Flocculants

Ineligible for use under this permit until

- Notifications to the applicable EPA Regional Office occurs,
- EPA office authorizes coverage and
- Appropriate controls and implementation procedures ensure no violation of water quality standards

### Inspector's Responsibility for Flocculants

- Observe and report
- Compile monitoring reports



# Background of an Inspector

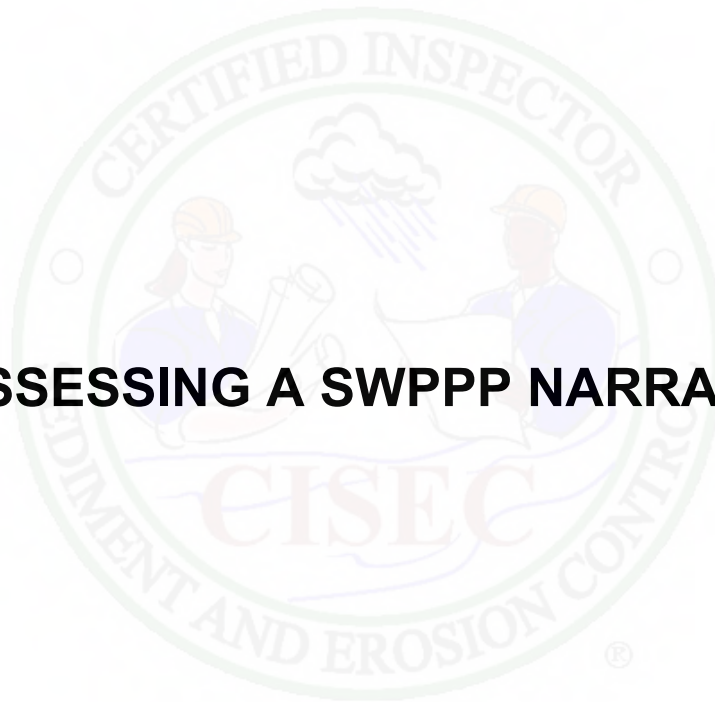
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# Background of an Inspector

## ASSESSING A SWPPP NARRATIVE



# Background of an Inspector

## Stormwater Team

Operator: Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Contact Information: I. M. Aperson  
Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Person Responsible for Plan: Mr. Loman Onthetotempol

## Nature of Construction Activity

This project consists of developing land for a subdivision and commercial area.

Construction activities on the site will consist of removing existing vegetation, grading of the land, installing utilities, paving, and development of the land for a subdivision and commercial area.

This project will disturb approximately 37.1 acres out of a total of 42.1 acres.

## Sequence for Major Activities

Construction tasks to be completed will include the following sequential activities.

- Removal of existing vegetation,
- Clearing and grubbing of the land,
- Grading,
- Installing utilities,
- Development and paving of roads and
- Construction of a commercial area and subdivision.

## Site Map

S&EC maps have been included with this SWPPP

## Site Planning Documentation

Soils on the project have the following characteristics:

Symbol	Type of Soil Material	Percent of Site	Rainfall Erodibility	Comments
A5b5	Sandy Loam	100%	3	Low to moderate water erosion and wind hazards and moderate to high runoff potential.

Predominate soils of the site are moderately deep and well drained. Historic vegetation for this area is pasture grass.



# Background of an Inspector

## **Construction Site Pollutants**

It will be the responsibility of the heavy equipment contractor to take appropriate actions to ensure pollution of storm water does not occur. Fueling areas will be at least 100 feet from drainage channels and/or storm sewer systems.

The heavy equipment contractor will be responsible for protecting the soil from contamination due to any hydrocarbon or other hazardous spills associated with his contractual obligations.

Operator will be responsible for preventing soil contamination where building materials, fertilizers, chemicals, waste piles or other potential hazardous materials may exist.

No dedicated concrete or asphalt batch plants exist on this site.

## **Non-Storm Water Components of Discharge**

There is no non-storm water components of discharge associated with this project.

## **Descriptions of Stormwater Control Measures**

Reduction of sediment in runoff waters will occur in the following manner.

1. Before over lot grading activities begin, the following BMPs will be installed:
  - a) A storm sewer pipe to convey offsite flows away for the project site.
  - b) Silt fence barriers as illustrated on the drawings.
  - c) Vehicle tracking pads at major entrances into the site.
2. During initial over lot grading activities, installation of one or more of the following BMPs will occur:
  - a) As soon as feasible, complete a rough installation of the detention ponds (with outlet structures) and convert them into sediment containment systems (SCSs).
  - b) Install additional silt fence barriers as necessary to minimize discharge of sediment into waterways.
  - c) Apply erosion control materials.
3. During major over lot grading activities, one or more of the following tasks will occur:
  - a) Install diversion structures to ensure the discharge of runoff into an SCS.
  - b) Maintain all sediment and erosion control BMPs.
  - c) Install utilities.
  - d) Install barriers at inlet.
  - e) Apply erosion control materials.
4. After grading activities are completed, the following tasks will occur:
  - a) Paving of roads
  - b) Construction of homes.
  - c) Installation of landscaping material.
  - d) Maintenance of SCSs until 80% full buildout of development.
  - e) Maintenance of sediment and erosion control methods.



# Background of an Inspector

## Sediment and Erosion Control Methods

Sediment control measures will include one or more following techniques with installation of additional methods occurring as deemed necessary by the designer.

- Silt fence and/or diversion barriers
- Barriers in front of “sump” inlets
- Vehicle tracking pads
- Sediment containment systems

Offsite tacking of soil will be minimized by at least weekly removal of accumulated sediment in access streets. More frequent sediment removal will occur when significant buildup is evident.

Erosion control measures will include one or more of the following methods:

- Construction of homes
- Installing landscaping materials
- Placement of pavement
- Applying erosion control materials

Final stabilization of the site will occur by placement of pavement, planting temporary and/or perennial grass seed on disturbed lands and installing landscape material on the lots and in common areas.

## **Inspection and Maintenance**

Sediment and erosion control measures should be inspected after any significant precipitation event that results in runoff. As a minimum, inspection of all sediment and erosion control facilities will take place at least once every 14 days while construction activities occur.

Inspections will occur until final stabilization of the site is realized, which is defined as vegetative cover of at least 70% of native vegetation, 100% completion of the commercial area and 100% completion of the homes sites.

Inspection of sediment and erosion control measures will include at least the following.

- Removal of accumulated material collected by SCSs or barriers once a 50% reduction of the storage capacity for the structures becomes evident,
- Repairing damage to sediment control structures,
- Adding or eliminating sediment and/or erosion control measures as deemed necessary,
- Immediate repair and/or replacement of BMPs when failure occurs or the mitigation measures are ineffective.

Records of each inspection will reside with the contractor, developer, or their representative.

## **Training**

Documentation is on file for each operator

## **Endangered Species**

There are no known endangered species on this project site.

## **Historic Properties**

There are no known historic properties on this project site



# Background of an Inspector

## **ASSESSING SEDIMENT AND EROSION CONTROL DRAWINGS**





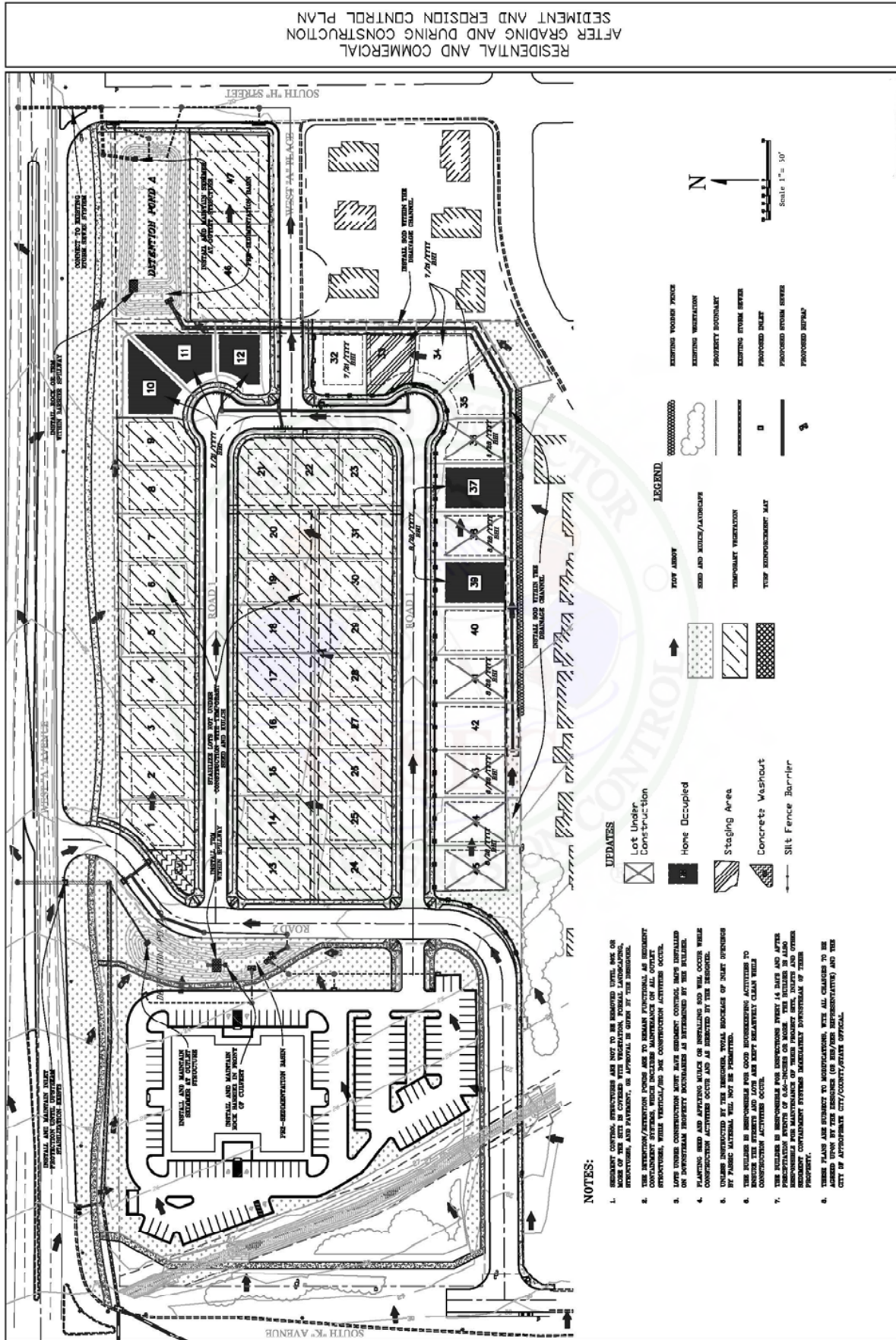
# **Background of an Inspector**

## **Pre-Grading and During Construction Notes**

1. INSTALLATION OF THE OFFSITE STORM SEWER PIPE WITH A CONNECTION TO WEST "A" AVENUE SYSTEM MUST BE COMPLETED BEFORE BEGINNING ANY GRADING ACTIVITIES.
2. PRIOR TO OVERLOT GRADING ACTIVITIES, INSTALL AND MAINTAIN SEDIMENT CONTROL BARRIERS, AS ILLUSTRATED.
3. AT THE BEGINNING OF OVERLOT GRADING, ROUGH GRADE PROPOSED DETENTION AND RETENTION PONDS AND COVERT THEM INTO A SEDIMENT BASINS WITH OUTLET STRUCTURES.
4. UPON COMPLETION OF INLETS ALONG WEST "A" AVENUE, INSTALL AND MAINTAIN INLET PROTECTION UNTIL APPROXIMATELY 80% OF THE SITE HAS BEEN BUILT OUT.
5. GENERAL MAINTENANCE OF SEDIMENT CONTROL STRUCTURES WILL INCLUDE ENSURING THAT ROCKS ARE NOT CLOGGED WITH SEDIMENT, MAINTAINING THE INTEGRITY OF ROCK BARRIERS, REPAIRING DAMAGED BARRIERS, REPLACEMENT OF SEDIMENT FILLED ROCK, REMOVAL OF SEDIMENT FROM INLET INSERTS, AND REMOVING SEDIMENT WHEN HALF THE STRUCTURE VOLUME IS LOST (E.G. BEHIND SILT FENCE BARRIERS).
6. SEDIMENT TRACKED ONTO OFFSITE STREETS WILL BE REMOVED WEEKLY OR AS NEEDED.
7. SOIL STOCKPILES AREA WILL BE LOCATED BY THE CONTRACTOR AND PROTECTED WITH SEDIMENT AND EROSION CONTROL BMPS AS DIRECTED BY THE DESIGNER OR ENGINEER.
8. INSPECTION OF ALL BMPS IS TO OCCUR AT LEAST ONCE EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS THAT ARE 0.50-INCHES OR MORE. ALL NECESSARY MAINTENANCE AND REPAIRS SHALL BE COMPLETED WITHIN SEVEN DAYS, UNLESS OTHERWISE AGREED.
9. EROSION CONTROL MEASURES (SEE THE AFTER GRADING AND DURING CONSTRUCTION DRAWINGS) WILL BE INSTALLED, INSPECTED, AND MAINTAINED WHILE CONSTRUCTION AND DEVELOPMENT ACTIVITIES OCCUR.
10. THESE PLANS ARE SUBJECT TO CHANGE, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNERS (OR HIS/HER REPRESENTATIVE) AND THE APPROPRIATE CITY/COUNTY/STATE OFFICIAL.



# Background of an Inspector





# **Background of an Inspector**

## **After-Grading and During Construction Notes**

1. SEDIMENT CONTROL STRUCTURES ARE NOT TO BE REMOVED UNTIL 80% OR MORE OF THE SITE IS COVERED WITH VEGETATION, FORMAL LANDSCAPING, STRUCTURES, AND PAVEMENT, OR APPROVAL IS GIVEN BY THE DESIGNER.
2. THE DETENTION/RETENTION PONDS ARE TO REMAIN FUNCTIONAL AS SEDIMENT CONTAINMENT SYSTEMS, WHICH INCLUDES MAINTENANCE ON ALL OUTLET STRUCTURES, WHILE VERTICAL/BIG BOX CONSTRUCTION ACTIVITIES OCCUR.
3. LOTS UNDER CONSTRUCTION MUST HAVE SEDIMENT CONTROL BMPs INSTALLED ON DOWNSTREAM PROPERTY BOUNDARIES AS DETERMINED BY THE BUILDER.
4. PLANTING SEED AND APPLYING MULCH OR INSTALLING SOD WILL OCCUR WHILE CONSTRUCTION ACTIVITIES OCCUR AND AS DIRECTED BY THE DESIGNER.
5. UNLESS INSTRUCTED BY THE DESIGNER, TOTAL BLOCKAGE OF INLET OPENINGS BY FABRIC MATERIAL WILL NOT BE PERMITTED.
6. THE BUILDER IS RESPONSIBLE FOR GOOD HOUSEKEEPING ACTIVITIES TO ENSURE THE STREETS AND LOTS ARE KEPT RELATIVELY CLEAN WHILE CONSTRUCTION ACTIVITIES OCCUR.
7. THE BUILDER IS RESPONSIBLE FOR INSPECTIONS EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS OF 0.50-INCHES OR MORE. THE BUILDER IS ALSO RESPONSIBLE FOR MAINTENANCE OF THEIR PROJECT SITE, INLETS AND OTHER SEDIMENT CONTAINMENT SYSTEMS IMMEDIATELY DOWNSTREAM OF THEIR PROPERTY.
8. THESE PLANS ARE SUBJECT TO MODIFICATIONS, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNER (OR HIS/HER REPRESENTATIVE) AND THE CITY OF APPROPRIATE CITY/COUNTY/STATE OFFICIAL.



# Background of an Inspector

### RESIDENTIAL AND COMMERCIAL TYPICAL DETAILS

#### INSPECTION REQUIREMENTS FOR ALL INSTALLED BMPS

- AT LEAST ONCE EVERY 14 DAYS, INSPECT AND REPAIR ANY DAMAGE FOUND.
- WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 0.6 INCHES OR MORE.

#### MAINTENANCE NOTES FOR THE BMPS SHOWN

**ROCK BARRIER:**

- REPAIR ACCUMULATED SEDIMENT FROM BEHIND THE ROCK BARRIER WHEN IT IS WITHIN 6 IN. OF THE TOP OF THE ROCK.
- REMOVE ROCK BARRIER, PORTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**SILT FENCE BARRIER:**

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP.
- REMOVE SILT FENCE FABRIC AND PORTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**VEHICLE TRACKING PAD:**

- REFURGE ROCK OR TRACKING PAD IF IT BECOMES CLOGGED WITH SEDIMENT.
- REMOVE SEDIMENT ON ADJACENT STREETS, IF TRACKING IS OCCURRING.

**HEAVY DUTY ROLLED EROSION CONTROL PRODUCT:**

- REPAIR DAMAGED BLANKET MATERIAL.
- REPAIR HILLS AND VALLEYS IF FORMING BEHIND BLANKET.

**CONCRETE WASHOUT:**

- REPAIR CRACKS IN CONCRETE.
- REMOVE ACCUMULATED MATERIAL WEEKLY ON AS NEEDED.

**SECTION A-A**  
(INT)

**CONCRETE WASHOUT**

**NOTES:**

- WASHOUT AREA TO BE IDENTIFIED BY SIGNAGE.
- SEDIMENT BARRIER CAN BE CONSTRUCTED FROM STEEL PILES OR CAPTION MATERIAL (MINIMUM 2'-FT. HIGH).
- EXCAVATE ADDITIONAL MINIMUM 1 FOOT FOR STORAGE.
- WASHOUT TO BE CLEANED OUT WEEKLY OR AS NEEDED. REMOVED MATERIAL TO BE IMPROVED OR PROPERLY AS DIRECTED BY THE REGULATORY AGENCY.

**SILT FENCE BARRIER INSTALLATION**

**INSTALLING A DISTURBED SLOPE REED**

**ROCK BARRIER OUTLET STRUCTURE FOR CULVERTS**

**SOIL TRACKING PREVENTION DEVICE**

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# Background of an Inspector

## INSPECTION REQUIREMENTS FOR ALL INSTALLED BMPS

1. AT LEAST ONCE EVERY 14 DAYS, INSPECT AND REPAIR ANY DAMAGE FOUND.
2. WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 0.50-INCHES OR MORE.

## MAINTENANCE NOTES FOR THE BMPS SHOWN

### ROCK BARRIER:

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE ROCK BARRIER WHEN IT IS WITHIN 6-IN. OF THE TOP OF THE ROCK.
- REMOVE ROCK BARRIER, POSTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

### SILT FENCE BARRIER:

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP.
- REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

### VEHICLE-TRACKING PAD:

- REPLACE ROCK IN TRACKING PAD IF IT BECOMES CLOGGED WITH SEDIMENT.
- REMOVE SEDIMENT ON ADJACENT STREETS, IF TRACKING IS OCCURRING.

### HILLSIDE ROLLED EROSION CONTROL PRODUCT:

- REPAIR DAMAGED BLANKET MATERIAL.
- REPAIR RILLS AND GULLIES IF FORMING BENEATH BLANKET.

### CONCRETE WASHOUT:

- REPAIR DAMAGED STRAW BALES.
- REMOVE ACCUMULATED MATERIAL WEEKLY OR AS NEEDED.

# Background of an Inspector

## IMPORTANT INSPECTOR BACKGROUND REQUIREMENTS

### About SWPPPS and S&EC Drawings

1. Understand EPA's requirements
2. Legends – Know what the symbols mean
3. Topography – Get a feel for the “lay of the land”
  - a) Understand that this is a very dynamic process that ranges from historic, interim, and post construction conditions.
4. Pre-construction drawings
  - a) Identify what is happening when
5. During construction drawings
  - a) Understand what is needed and why this phase requires both sediment control AND erosion control
6. After construction drawings
  - a) Predominately erosion control
7. Post construction conditions

### Some Items to Consider About BMPs

1. Don't always consider local site needs when selecting BMPs
2. Know limitations
3. Unlimited types and numbers
4. Drainage areas
5. Soil type and sediment size
6. Availability
7. Ability to maintain
8. Room to install
9. Cost
10. Interference – BMP must be compatible with objectives of development
11. Type of expected storms and the resulting flows
12. Duration of the project
13. Season of construction
14. Environmentally Sensitive Areas
15. Maintenance – A BMP that is not maintained often causes more damage than if it had never been installed
16. Target Pollutants



# Background of an Inspector

## About BMPs and their Locations

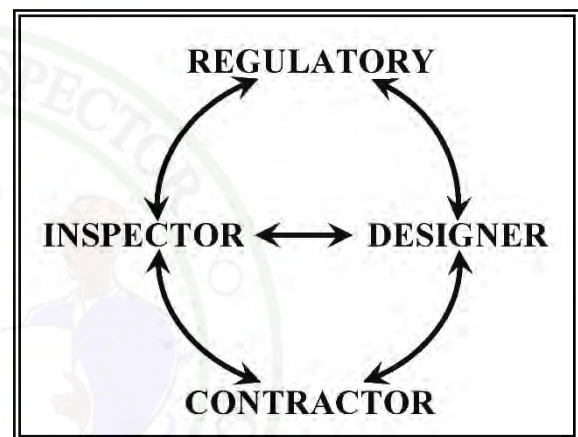
1. Do locations make sense?
2. Inspectors need to assess, BUT not mandate changes.
  - a) Only “suggest” changes

## About the Purpose of BMPs

1. Is this application what was the designer trying to accomplish with this BMP?
2. Inspectors should be doing only inspections and making suggestions as to what is happening with the BMPs and whether they are functioning in a correct manner.

## About Communication

- Listen – one of the keys to affective communication is listening. Two ears and one mouth – twice as much listening as talking – good rule of thumb
- Observe – your primary responsibility is to observe – not dictate, not boss, not fine, not fix, not design – but observe
- Write – you have to be able to communicate what you observed so that others can understand and follow. Lengthy discussions and descriptions are not always helpful.
- Verbalize – be careful what you say. All verbal communication should be followed up with written documentations or summaries of what was said. Be clear, concise, and direct in your communications.
- Document – documentation also includes pictures, sketches, notes on plans, and comments



## About Inspector Limitations

1. Observe and report findings
2. Do not redesign the SWPPP
3. Do not tell the contractor what to do to solve a problem
  - a) The inspector is not responsible if BMPs are not working properly
  - b) The inspector is not responsible to fix BMPs
4. Snapshot – should look for evidence of what has occurred since the last inspection – but this is difficult because construction sites are constantly changing
5. Understand EPA regulations

# CISEC CODE OF ETHICS

## Article I. General Principles

1. The privilege of professional practice imposes obligations of morality and responsibility as well as professional knowledge.
2. Each Certified Inspector of Sediment and Erosion Control (hereafter called CISEC) agrees to be guided by the highest standards of ethics, personal honor, and professional conduct.

## Article II. Relation of Professional to the Public

1. A CISEC shall not give a professional opinion or make a recommendation without being as thoroughly informed as might reasonably be expected of a similarly situated professional.
2. A CISEC shall not knowingly permit the use of his or her reports or other documents for any unsound or illegitimate undertaking.
3. A CISEC shall not issue a false statement or false information at any time.
4. A CISEC shall not make any sensational, exaggerated, and/or unwarranted statements in any professional opinion or in the course of performing any professional services.
5. A CISEC may publish dignified business, professional, or announcement cards, but shall not advertise his or her work or accomplishments in a self-laudatory, exaggerated, or unduly conspicuous manner.

## Article III. Relation of Professional to Employer and Client

1. A CISEC shall not use, directly or indirectly, any employer or client's information in any way that would violate the confidence of the employer or client.
2. A CISEC shall protect, to the fullest extent possible, the interest of their employer or client insofar as such interest is consistent with the law and his or her professional obligations and ethics.
3. A CISEC who finds that his or her obligations to their employer or client conflict with his or her professional obligation or ethics should address such objectionable conditions or resign.
4. A CISEC who has performed an investigation for any employer or client shall not seek to profit economically from the information gained.
5. A CISEC shall not divulge any information given in confidence.
6. A CISEC shall engage, or advise his employer or client to engage, and cooperate with other industry specialists whenever the employer or client's interests would be best served by such service.

## Article IV. Relation of Professionals to Each Other

1. A CISEC shall not falsely or maliciously attempt to damage the reputation of another.
2. A CISEC shall refrain from plagiarism in oral and written communications.
3. A CISEC shall endeavor to cooperate with others in the profession and encourage the ethical dissemination of technical knowledge.

## Article V. Duty to the Profession

1. A CISEC shall uphold this Code of Ethics by example and encourage other CISECs to do the same.

## Article VI. Conflicts of Interest

1. A CISEC shall not inspect properties under contingent arrangements whereby any compensation or future referrals are dependent on reported findings.
2. A CISEC shall not receive compensation for an inspection from more than one party unless agreed to by the client(s).
3. A CISEC shall not accept compensation, directly or indirectly, for recommending contractors, services, or products to inspection clients or other parties having an interest in inspected properties.



# Background of an Inspector

## Discussion About Ethics

- Which one of the following best defines “Ethics?”
  1. A system of moral principles.
  2. The branch of philosophy dealing with right and wrong of certain actions and with the good and bad of such actions.
  3. The philosophical study of the qualities perceived in works of art.
  4. All of the above.
  5. Both 1 and 2
- A compromise of ethics is often thought of as an extreme situation.
- Inspections can place inspectors in potential situations that may violate their ethics.
- You may experience the following:
  - √ Using your “friendship” to not document a finding or to “give him another chance.”
  - √ “Can’t we just settle this between the two of us?”
  - √ Requested to look the other way and let it go this time.
- As an inspector, you may be:
  - √ Pressured or intimidated by someone in a position of authority.
  - √ Challenged about a finding if it is insignificant to harming the environment.
  - √ Pressured to find violations for the purpose of generating revenue.
- A compromise of ethics will:
  - √ Undermine the credibility of an inspector,
  - √ Eventually destroy relationships of trust and respect,
  - √ Could mean trouble if your site is subject to an enforcement inspection, and
  - √ Could lead to legal or criminal action, loss of CISEC status, and employment loss.

## Which of the following do you think is NOT part of the CISEC Code of Ethics?

1. A CISEC shall not issue a false statement or false information at any time.
2. A CISEC shall not write an inspection report that is detrimental to his/her employer or client.
3. A CISEC shall not divulge any information given in confidence.
4. A CISEC shall not falsely or maliciously attempt to damage the reputation of another.



# Background of an Inspector

Which of the following is an acceptable gift according to the CISEC Code of Ethics?

1. \$50 cash for falsifying an inspection report.
2. A gift certificate from a client in gratitude for help on a completed project.
3. Free baseball tickets from your client for not reporting non-compliance problems.
4. A bonus from your employer for not documenting deficiencies.
5. None of the above.

The CGP states that inspectors who knowingly falsify information in their report can be fined and possibly imprisoned. TRUE or FALSE

## **MOTTO OF A CISEC**

*Observe, inspect, and report on what you found  
Avoid mandating your requirements  
(unless you are qualified)*





# Inspecting Best Management Practices

## Inspecting Best Management Practices



# Inspecting Best Management Practices

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# Inspecting Best Management Practices

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# Inspecting Best Management Practices

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# Inspecting Best Management Practices

## Pop Quiz

Identify which of the following BMPs is Erosion Control (EC), Sediment Control (SC), Wind Erosion Control (WEC), or None (N). There may be more than one answer for each of the BMPs.

BMP	Treatment	BMP	Treatment
Fiber Roll Barrier		Silt Fence Barrier	
Hillside ECB		Hydraulic or Straw Mulch	
Soil Binder		Earthen Diversion Berm	
Rock Check Dam		Rock Barrier in front of a 2% grade street inlet opening	
Established vegetation		Turbidity Barrier	
Inlet Insert		Vehicle Tracking Pad	
Sediment Pond		Slope Drain	
Channel TRM		Planted seed (with no mulch) that has not yet germinated	

## Writing Inspection Reports

What would you put in your inspection report?

1.

2.

3.



# Inspecting Best Management Practices

**Goal: Be descriptive but not prescriptive**

## Be descriptive about your observations

- Possible Statement No. 1:
  - √ ***“Erosion is occurring”***
    - Is this an enough description and is something missing?



## Avoid being prescriptive about a solution

- Possible Statement No. 2:
  - √ ***“Replace soil, plant seed, and re-apply mulch”***
    - Are there other choices?

## Look at the entire situation

- Possible Statement No. 3:
  - √ ***“Need to assess establishment of embankment vegetation”***
    - Don't just report on the obvious

## **Basic Guidelines**

1. *Be clear and concise*
2. *Write legibly*
3. *Use proper English*
4. *Share your results with the superintendent or contractor*
5. *Write reports as if an attorney will use them in court (it might happen).*



# Inspecting Best Management Practices

## Sediment Control BMPs



# Inspecting Best Management Practices



## Silt Fence Barrier

### When should it be installed?

- Before construction activities begin.
- While construction activities are occurring.
- Has wind destroyed the fence?
- Check for proper joints between sections of silt fence.

### When should it not be installed?

- Where concentrated flows are expected unless properly supported.
- After construction activities are completed.

### What needs to be inspected?

- Are stakes on the downstream side?
- Is the fabric embedded in the ground?
- Does runoff flow under the fabric?
- Is the fabric attached to posts?
- Has runoff "flattened" the structure?
- Will runoff flow around the fence?
- Is the fabric torn or UV degraded?

### What maintenance activities can be expected?

- Repair and replacement of material.
- Removal of sediment.
- Removal of fence material.

### General Information

- Silt fence barriers do not filter small-suspended particles from runoff waters.
- Using wire backing for support may cause disposal problems.
- Compacting trench fill material is very critical.





# Inspecting Best Management Practices

## Inspecting Barriers

### General Guidelines

➤ *Will flows go underneath?*



➤ *Will flows go around the edges?*



➤ *Will flows go between the structures?*



# Inspecting Best Management Practices

- *Is the installation correct?*



- *Will the BMP be practical and effective?*



- *Are there limitations?*



# Inspecting Best Management Practices

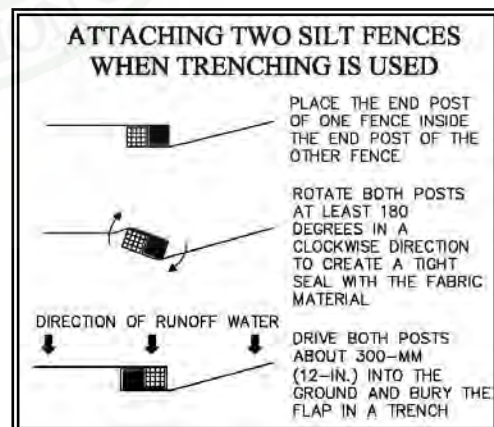
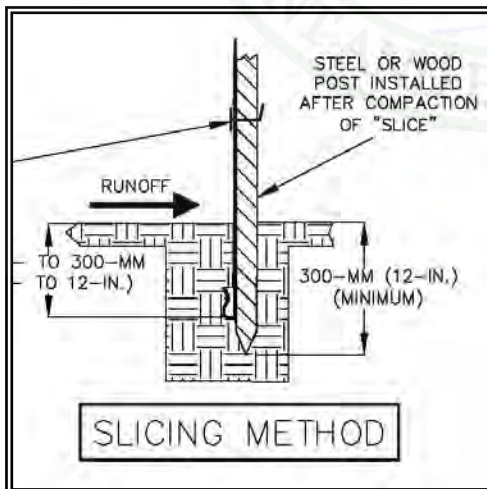
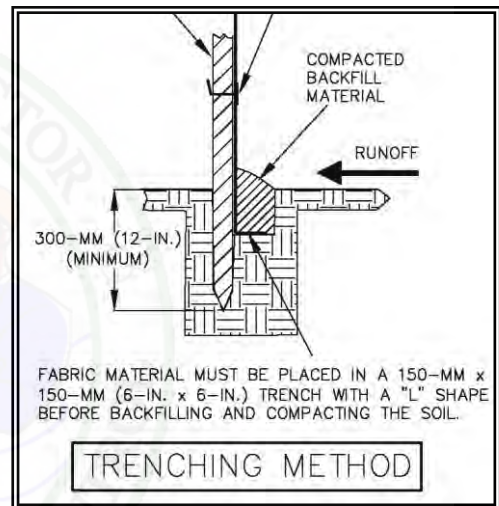
## Silt Fence

- Widely used on construction sites
- Does not remove sediment by “filtration” through fabric material
  - ✓ However, they do cause ponding to allow for deposition of sediments
- Should not be used where concentrated flows occur unless properly supported



### Inspecting Silt Fence Barriers

- **General**
  - ✓ Are posts on the downstream side?
  - ✓ Will containment of runoff occur?
  - ✓ Does UV degradation of material exist?
  - ✓ Is the material attached to a stake?
- **Trenching**
  - ✓ Is fabric embedded in the ground per the specifications?
  - ✓ Does compaction of backfill material exist?
- **Slicing**
  - ✓ Has “slicing” of material into the soil occurred?
  - ✓ Has compaction of the soil occurred?



# Inspecting Best Management Practices



Detail Report: Record the location, inspection time, and corrective action items. Requiring new stormwater control methods and/or locations that are significantly different from what appears in the current and updated SWPPP may require approval by someone deemed qualified by training to complete such tasks.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<u>Location No. 1</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 3</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		

# Inspecting Best Management Practices



## **Bale Barrier**

### **When should it be installed?**

- Before construction activities begin.
- While construction activities are occurring.

### **When should it not be installed?**

- After construction activities are completed.

### **What needs to be inspected?**

- Are the bales in a trench?
- Are wood stakes used?
- Will runoff flow over the bales?
- Does runoff flow between bales?
- Will runoff flow around the bales?
- Does runoff flow under the bales?
- Does upstream backfill material exist?

- Is the twine or wire above the ground?

### **What maintenance activities can be expected?**

- Repair and replace bales.
- Repair of eroded ground.
- Remove bales.
- Remove deposited sediment.

### **General Information**

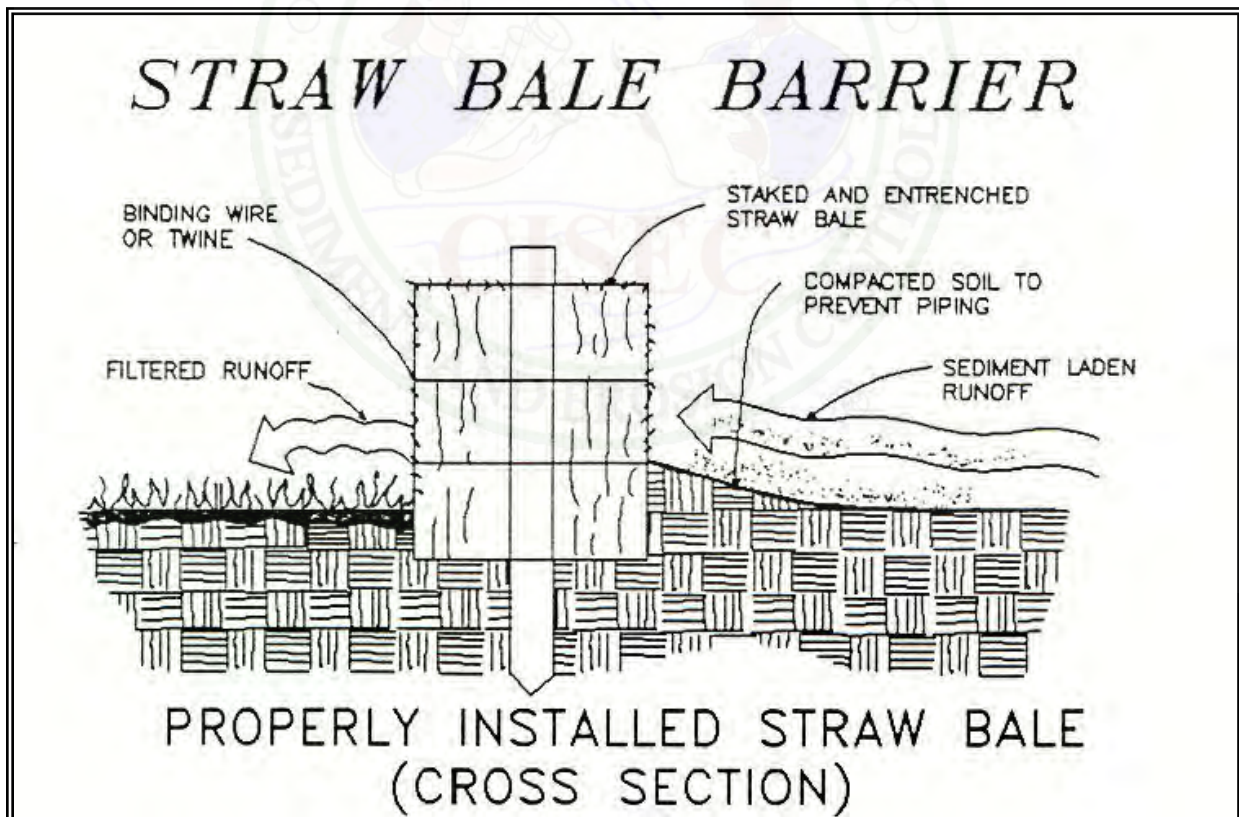
- Bale barriers are nearly 100% ineffective in reducing sediment in runoff waters when not installed correctly.
- Bale barriers experience more failures than successes.
- Bale barriers do not filter runoff waters.
- Bale barriers are expensive to install and maintain.



# Inspecting Best Management Practices

## Bales

- *Are the bales in a trench?*
- *Are wood stakes used?*
- *Does runoff flow over the bales (correct installation)?*
- *Does runoff flow between bales (incorrect)?*
- *Does runoff flow under the bales (incorrect)?*
- *Does runoff flow around the bales (incorrect)?*
- *Does upstream backfill material exist?*
- *Is the twine or wire above the ground?*



# Inspecting Best Management Practices



## Fiber Logs/Rolls for Individual Lots

### When should it be installed?

- Before construction activities begin.
- While construction activities are occurring.

### When should it not be installed?

- Where concentrated flows are expected.
- After stabilization is completed.

### What needs to be inspected?

- Does it meet specifications?
- Is the barrier staked properly?
- Is the barrier placed within a depression and backfilled?
- Does runoff flow under the barrier?
- Is the barrier “pinned” on the upstream side?
- Has traffic “flattened” the structure?
- Will runoff flow around the barrier?

### What maintenance activities can be expected?

- Repair and replacement of the fiber log/roll.
- Removal of sediment.

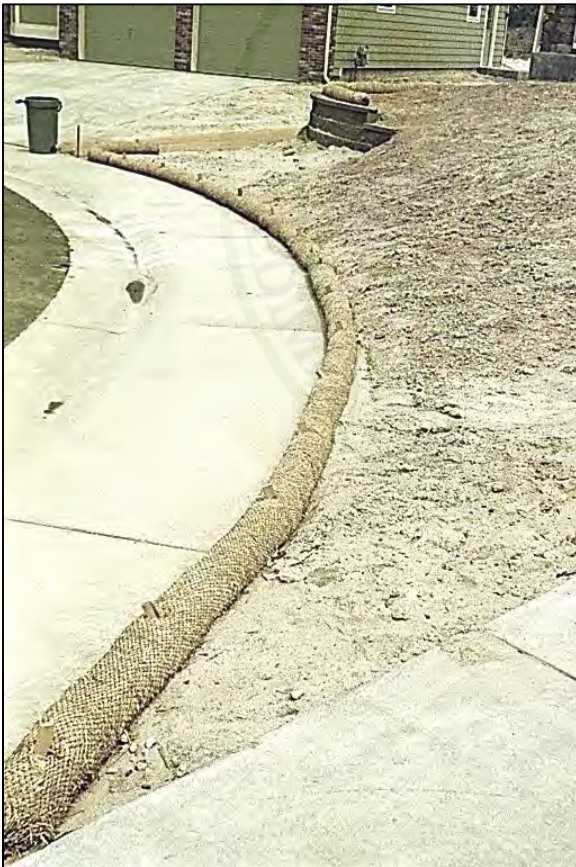
### General Information

- Fiber logs/rolls should not to be used where concentrated flows of runoff are anticipated such as in drainage ditches, around inlets, or above/below where culverts discharge.
- Fiber logs/rolls can create a very small sediment containment system to allow for deposition of suspended particles.
- Fiber logs/rolls do not filter small-suspended (e.g., clay) particles from runoff waters.
- High rate of failure due to incorrect installation and maintenance.

# Inspecting Best Management Practices

## Fiber Logs/Rolls

- *Is the barrier within a depression and backfilled?*
- *Is the correct size installed?*
  - √ Check the specifications.
- *Are stakes holding the barrier in place?*
- *Will the barrier contain runoff?*
- *Will the barrier divert runoff and cause downstream problems?*
- *Is runoff flowing under the barrier?*
- *Has the structure been impacted by traffic or not properly re-installed after removal for vehicular access?*





# Inspecting Best Management Practices

## Compost Material

- *Has the correct material been used?*
  - √ Check specifications
- *Is the location appropriate?*
  - √ Example: not located upstream of a sensitive area unless approved
- *Will runoff flow around the barrier?*
- *Will the barrier contain runoff?*

## Berm

- *Does an adequate base and height exist?*
  - √ Base width = 2 x height
  - √ For slopes up to 3H:1V, height should be 1- to 2-feet (300 to 600 mm)
- *Are the ends upslope to contain runoff?*
- *Has damage to the berm occurred after runoff?*
- *Is the berm becoming vegetated?*
  - √ May not be successful in arid and semi-arid climates due to limitations of consistent moisture
- *Is an overflow location needed?*

## Sock

- *Has the sock been filled to correct specifications?*
- *Will runoff flow under the barrier?*
- *Is the barrier secured per the specifications?*



# Inspecting Best Management Practices

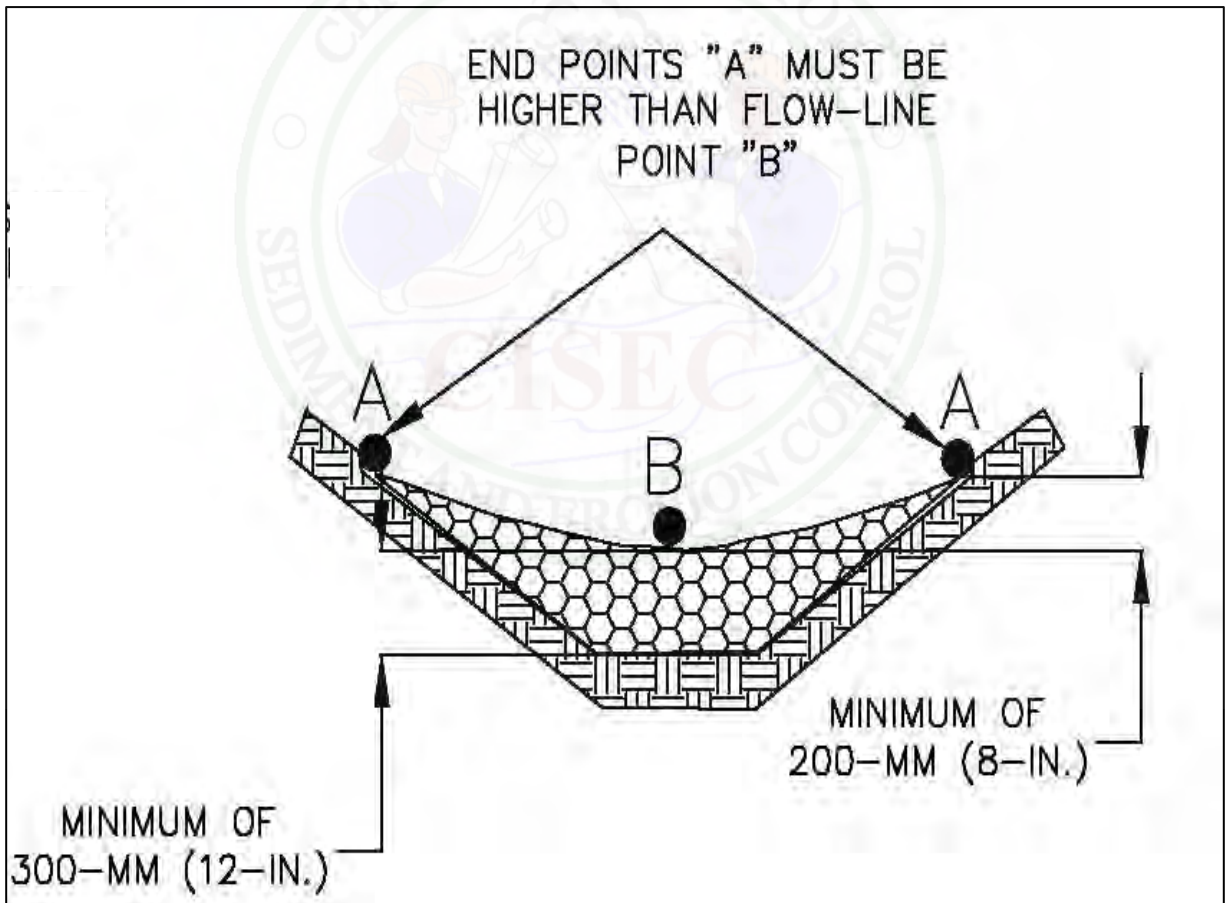
## Check Structures

### Main purpose

- Slow down runoff
- Capture suspended particles
- Allow for erosion control
- Can be a variety of materials.

### Minimum Requirements for Effectiveness

- Critical: Low point to allow for overflow conditions
- End points higher than overflow point
- Must convey flows without failure



# Inspecting Best Management Practices



## Rock Check Structure

### When should it be installed?

- While construction activities are occurring.

### When should it not be installed?

- After construction activities are completed.

### What needs to be inspected?

- Are the correct rock diameters used?
- Is there a low point for flows?
- Will runoff flow over the rocks?
- Will runoff flow around the rocks?
- Is the spacing correct (sediment control barrier vs. erosion control barrier)?
- Is “piping” occurring?

### What maintenance activities can be expected?

- Repair and replacement of rock.
- Removal of sediment.
- Repair of eroded ground.
- Removal of rock.

### General Information

- Proper rock selection is very important.
- Flows must discharge through a low point within the rocks and not around the structure.
- If not properly spaced, erosion will occur between the structures.

# Inspecting Best Management Practices

## Rock

- *Must have a low point in the flow line for runoff*
- *Edges must be higher than flow line*
- *Rock must be properly sized*
  - √ Check the specifications
- *Does a mixture exist?*
  - √ Check specifications, this is a designer's responsibility



## Silt Fence

- *Not designed for concentrated flows without proper reinforcement (e.g., wire backing and T-Posts)*
- *If not supported correctly, will likely require extensive maintenance*
- *Without proper installation, failure is usually the norm*



# Inspecting Best Management Practices



## **Bale Barrier Check Structure**

### **When should it be installed?**

- While construction activities are occurring.

### **When should it not be installed?**

- After construction activities are completed.

### **What needs to be inspected?**

- Are the bales in a trench?
- Are wood stakes used?
- Is the spacing correct for erosion control?
- Will runoff flow over the bales?
- Does runoff flow between bales?
- Will runoff flow around the bales?
- Does runoff flow under the bales?
- Does upstream backfill material exist?
- Is the twine or wire above the ground?

### **What maintenance activities can be expected?**

- Repair and replacement of bales.
- Repair of eroded ground
- Removal of the bales.
- Removal of sediment.

### **General Information**

- Bale check structures are nearly 100% ineffective in reducing sediment in runoff waters.
- Bale check structures experience more failures than success and often cause extensive downstream and side slope erosion
- Bale check structures do not filter runoff waters.
- Bale check structures are expensive to install and maintain.



# Inspecting Best Management Practices

## Bales

- *Can be one of the more expensive BMPs on construction sites*
  - √ Labor costs are high for installation and repair
- *Requires proper installation*
  - √ Same inspection requirements as a bale barrier
- *Must have a low point in the flow line for runoff*
- *Edges must be higher than flow line*
- *Replacement of bales must occur if existing ones are damaged*
- *Requires continuous maintenance*



# Inspecting Best Management Practices



## Geosynthetic Check Structure

### When should it be installed?

- Before construction activities begin.
- While construction activities are occurring.

### When should it not be installed?

- After construction activities are completed.

### What needs to be inspected?

- Is the structure installed per manufacturer specifications?
- Is it properly stapled or staked?
- Will runoff flow over the structure?
- Will runoff flow around the structure?
- Does runoff flow between overlapped structures?
- Does runoff flow under the structure?

### What maintenance activities can be expected?

- Repair and replacement of structures.
- Removal of sediment.
- Repair of eroded ground.
- Removal of structures.

### Additional Information

- Variety of products including rigid and flexible materials.

# Inspecting Best Management Practices

## Geosynthetic

- *A variety of products exist*
  - √ Rigid
  - √ Flexible
- *Check manufacturer's specifications to make sure barriers are installed correctly*
- *Low point must exist for runoff to flow over*
- *Check structure is working correctly when runoff ponds behind the structure and creates a "plateau"*
  - √ Reduces velocity of runoff, allowing the deposition of sediment to occur
- *Check if spacing of barriers is required*
  - √ Based on if barriers are designed as sediment control or erosion control (more information appears later in this document)





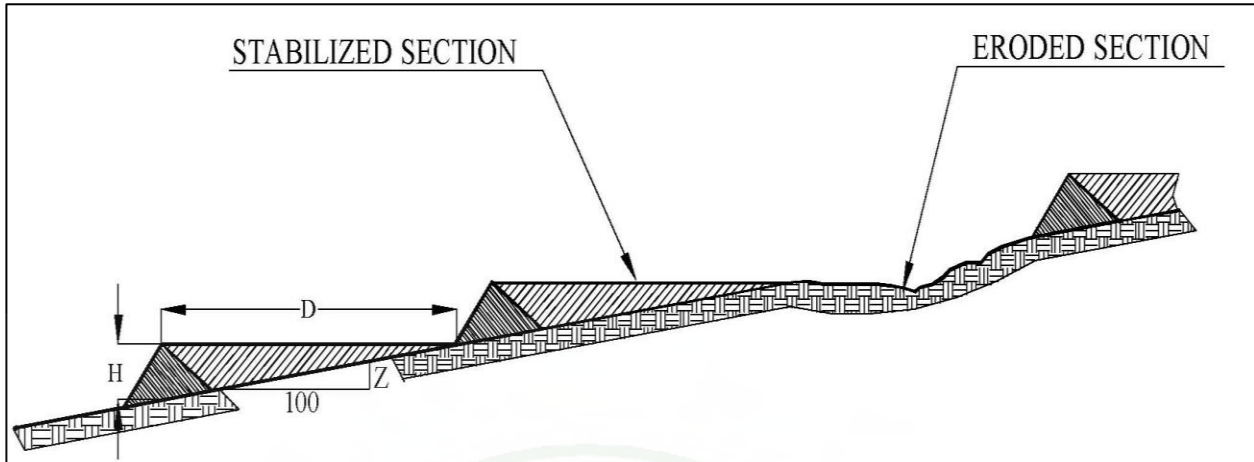
# Inspecting Best Management Practices

## **Fiber Log/Roll**

- *Should have a diameter of at least a 12-inches (300 mm)*
- *Was the roll installed per manufacture's specifications?*
  - √ Same inspection requirements as a Fiber Log/Roll Barrier
- *Provides minimal reduction in flow velocities*
- *Provides minimal capturing of sediment*
- *Have a high chance for failure*
- *Low point must exist for runoff to flow over*
- *High chance for failure if joint between two rolls is at low point*
- *May need to be replaced by a more effective BMP*
  - √ As determined by a designer



# Inspecting Best Management Practices



## Spacing of Check Structures

- Spacing is **critical** between check structures for **erosion protection**
- Top of the downstream structure must be in line with the bottom of the upstream structure to minimize erosion
  
- Spacing is **not critical** between check structures for **sediment control**
  - √ Height is critical for effective containment volume
  
- Removal of accumulated deposited material must occur regularly for structures installed as sediment control
- Possible use of various erosion control BMPs or repair of eroded channel



# Inspecting Best Management Practices

## Inspection No. 1 Worksheets



# Inspecting Best Management Practices



Detail Report: Record the location, inspection time, and corrective action items. Requiring new stormwater control methods and/or locations that are significantly different from what appears in the current and updated SWPPP may require approval by someone deemed qualified by training to complete such tasks.		Date Corrected (with initials)
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# Inspecting Best Management Practices



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# Inspecting Best Management Practices



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# Inspecting Best Management Practices

## Writing Reports (Review)

### Avoid general statements:

- √ Erosion is evident!
  - True, but what are suggestions for the situation?
- √ Need to stop runoff from the bare soil!
  - Impossible to prevent for all storm events
- √ Replace the silt fence barrier with a fiber log!
  - Do not specify specific replacements
- √ Plant seed and apply straw mulch!
  - (What if this is not the best solution?)

### Be clear and concise

### Write legibly

### Use proper English

### Share your results with the superintendent or contractor

### Write reports as if an attorney will use them in court (it might happen)



# Inspecting Best Management Practices



## **Curb Inlet “Sump” Barrier**

### **When should it be installed?**

- While construction activities are occurring.
- Only where sump conditions exist.

### **When should it not be installed?**

- After construction activities are completed.
- Where sump conditions do not exist.

### **What needs to be inspected?**

- Is correct material being used (e.g., at least 1.0-in. (25 mm) diameter rock)?
- Does runoff flow through the barrier?
- Can runoff flow over the barrier?
- Will runoff be diverted downstream?
- Should the barrier be replaced?
- Does gap exist for overflow conditions?
- Is ponding occurring?
- Have vehicles destroyed the structure?

### **What maintenance activities can be expected?**

- Repair and replacement of structure.
- Removal of sediment.
- Removal of structure.

### **General Information**

- Barriers are to be installed in “sump” conditions only.
- Barriers in front of inlets provide little filtering effect and capture little sediment from runoff waters.
- Warning signs should be used to alert drivers of the structures.
- Barriers in front of inlets may cause destruction of the pavement due to excess seepage of runoff or freezing conditions.
- If placed on a grade, the structure will divert runoff downstream and may cause flooding.



# Inspecting Best Management Practices

## BMPs for Inlets

### Curb Opening Barriers

- *Do “sump” conditions exist?*
  - √ Downstream flooding and sedimentation may occur if “sump” conditions do not exist
- *Does a gap exist between the barriers and curb in front of the opening for overflows?*
- *Will runoff enter the inlet from behind the structure?*
- *Will the barrier divert runoff around an inlet?*
  - √ Remember, inlets are designed to capture runoff
- *Is ponding of runoff occurring in front of the barrier?*
- *When can the barriers be removed?*
- *When are contributing lands stabilized?*



### Inspecting Barriers in Front of Curb Inlets

- *Is there debris on top of barrier?*
  - √ Indicates overflow conditions have occurred
- *Is there uniform sedimentation in front of the barrier?*
  - √ Lack of uniformity indicates failure of the barrier is occurring
- *Is there sediment entering from behind the inlet?*
- *Need to check upstream for source of sediment and downstream for sedimentation*



# Inspecting Best Management Practices



## **Curb and Gutter Containment System**

### **When should it be installed?**

- While construction activities are occurring.
- Where street grades exist.

### **When should it not be installed?**

- After construction activities are completed.
- As the only method for controlling sediment from construction sites.

### **What needs to be inspected?**

- Are the bags about 2/3 full?
- Was the correct material used to fill the bag per specification?
- Is bag tight to the curb with no gaps?
- Is runoff bypassing the bag?

- Is deposited sediment removed?
- Is the spacing correct?
- Have vehicles destroyed the bags?

### **What maintenance activities can be expected?**

- Repair and replacement of bags.
- Removal of sediment.
- Removal of bags.

### **General Information**

- Vehicles will destroy the bags.
- Warning signs should be used.
- Deposited sediment must be removed after every runoff event.
- Runoff waters should not be allowed to remain behind the bags.

# Inspecting Best Management Practices

## ***Curb and Gutter Systems***

- *Use when an inlet is on a grade*
- *Install upstream of the curb opening*
- *Check that correct material was used inside the bag*
- *Subject to vehicular damage*
  - √ *May need signage*
- *Small effectiveness to remove sediment from runoff waters*



# Inspecting Best Management Practices



## Area Drain Rock Barrier

### When should it be installed?

- While construction activities are occurring.
- Only where sump conditions exist.

### When should it not be installed?

- After construction activities are completed.
- Where sump conditions do not exist.

### What needs to be inspected?

- Is at least 1.0-in. (25 mm) diameter rock used?
- Does runoff flow through the rock?
- Has wire mesh been used?
- Does the rock need "raking"?
- Can runoff flow over the rock?
- Will runoff be diverted downstream?
- Should the rock be replaced?
- Is ponding occurring?

### What maintenance activities can be expected?

- Repair and replacement of rock and materials.
- Removal of sediment.
- Removal of rock and materials.

### General Information

- Rock barriers around area drains will allow runoff to drain.
- Only wire mesh should be used instead of materials such as chicken wire.
- Rock barriers are to be installed in "sump" conditions only. Rock barriers in front of inlets on a grade will divert runoff to downstream locations.
- Rock barriers in front of inlets provide little filtering and capture little sediment from runoff waters for large frequency storm events.

# Inspecting Best Management Practices



## **Area Drain Bale Barrier**

### **When should it be installed?**

- While construction activities are occurring.
- Only where sump conditions exist.

### **When should it not be installed?**

- After construction activities are completed.
- Where sump conditions do not exist.

### **What needs to be inspected?**

- Are the bales in a trench?
- Are wood stakes used?
- Will runoff flow over the bales?
- Does runoff flow between bales?
- Will runoff be diverted downstream?
- Does runoff flow under the bales?
- Does upstream backfill material exist?
- Is the twine or wire above the ground?
- Is ponding occurring?

### **What maintenance activities can be expected?**

- Repair and replacement of bales.
- Removal of the bales.
- Removal of sediment.

### **General Information**

- Bale barriers are nearly 100% ineffective in reducing sediment in runoff waters, when not properly installed.
- Bale barriers experience more failures than successes.
- Bale barriers do not filter runoff waters.
- Bale barriers are expensive to install and maintain.
- Bale barriers are to be installed in “sump” conditions only.

# Inspecting Best Management Practices



## Area Drain Frame and Filter Barrier

### When should it be installed?

- While construction activities occur.
- Only where sump conditions exist.

### When should it not be installed?

- After construction activities are completed.
- Where sump conditions do not exist.

### What needs to be inspected?

- Is the unit placed over the grate?
- Do “sump” conditions exist?
- Is there enough soil or gravel to seal the cover at the base?
- Is the fabric material torn?
- Does accumulated sediment cover 2/3 of the filter barrier height?
- Is the frame supporting the fabric?
- Is ponding occurring?

- Does it appear that runoff is flowing under the fabric material?
- Does runoff drain through the fabric material?

### What maintenance activities can be expected?

- Repair and replacement of gravel in the pocket that creates a seal with the ground.
- Removal of sediment around the unit.
- Replacement of fabric material and/or frame.

### General Information

- These barriers are to be installed in “sump” conditions only.
- It is critical that a good seal exist between the ground and fabric material.

# Inspecting Best Management Practices

## Area Inlet Barriers

### Rock

- *Allows water to drain*
- *Do “sump” conditions exist?*
- *Must have an internal support*
- *Rock diameter is important*
  - √ Does 1½- to 2-inch (40 to 50 mm) diameter rock exist?
  - √ Does “raking” of the rock need to occur?
- *Is ponding occurring?*
- *Is sedimentation occurring?*
  - √ Does sediment need to be removed?



### Silt Fence

- *High likelihood of failure*
  - √ Not meant for concentrated flows unless adequately supported
- *High maintenance*



# Inspecting Best Management Practices

## Bale

- Do “sump” conditions exist?
- Are the bales installed correctly?
- Is ponding occurring?
- Is sedimentation occurring?
- Is maintenance necessary?



## Rigid Frame

- Provides a rigid frame over the inlet
- Provides a geotextile barrier with a seal at the base
  - √ Usually small rock around the base
- Must be installed in a “sump” location





# Inspecting Best Management Practices



## Inlet Insert

### When should it be installed?

- While construction activities are occurring
- Within inlets that are on a grade or in a sump

### When should it not be installed?

- At a location to serve as the only sediment containment system.

### What needs to be inspected?

- Is the fabric material torn?
- Will runoff flow into the structure?
- Is the containment bag over ½ full?
- Does sediment and debris need to be removed?

### What maintenance activities can be expected?

- Repair and replacement of fabric material.
- Removal of sediment.
- If freezing conditions occur, removal of sediment as part of the winterizing procedure.

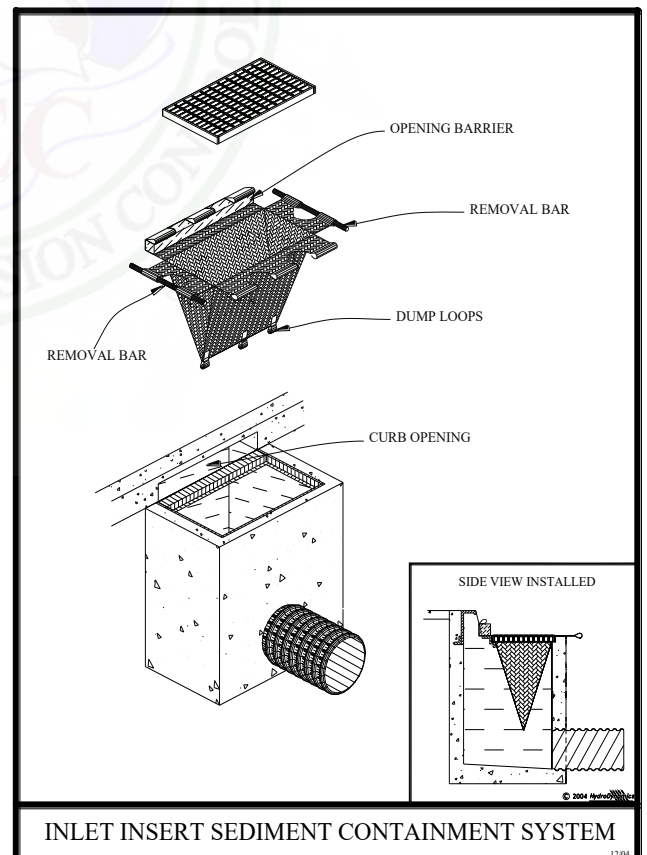
### General Information

- Be sure to empty the units before winter freezing conditions occur.
- Do not rely on these units to be the only sediment control device on a construction site.

# Inspecting Best Management Practices

## Inlet Inserts

- *Is the installation correct per manufacture's specifications?*
- *Is material being damaged?*
- *Is contained material significantly reducing the containment volume?*
- *Has "winterizing" occurred by emptying the bag?*



# Inspecting Best Management Practices



## Stockpile Management

### When should it be installed?

- While construction activities are occurring.
- When storage of excess soil (including topsoil) must occur.

### When should it not be installed?

- Adjacent to water courses, drainage ways, bodies of water, sensitive areas or inlets.
- After construction activities.

### What needs to be inspected?

- Is the stockpile in an appropriate location?
- Is the stockpile below regulated maximum height?
  - √ Under burden vs. topsoil
- Will runoff intercept the stockpile?
- Do downstream BMPs exist and are they functional?

- *Do erosion control measures need to be applied?*
- *Is wind erosion occurring and do BMPs need to be installed?*
- *Does access exist for maintenance/installation of BMPs?*
- How long has the stockpile been stored?

### What maintenance activities can be expected?

- Repair and replacement and/or installation of BMPs.
- Removal of accumulated sediment upstream of BMPs.
- Removal of stockpile.

### Items of Importance

- Topsoil stockpiles greater than 4-ft. (1.2 m) will deprive micro-organisms of oxygen and moisture. It can impact bacteria, mycorrhizal fungus, algae, etc.



# Inspecting Best Management Practices

## Stockpile Management

- *Storage should not be longer than 12-months.*
- *Minimize compaction of the soil.*
- *Protect from offsite flows and wind.*
- *Access must exist for the addition and removal of material and BMPs.*
- *BMPs must be in place to capture sediment laden runoff from the stockpile and local area.*
- *Local regulations should dictate maximum stockpile height.*



## Protecting the Quality of Topsoil

- *Avoid over saturated conditions.*
- *Be relatively free of debris, trash, stumps, large rocks or noxious waste.*
- *Be free of toxic and hazardous substances.*
- *Height should not be more than 4-ft. (1.2 m) and have a short storage time:*
  - √ *Minimizes micro-organisms being deprived of oxygen and moisture.*
  - √ *Minimizes impacts to bacteria, mycorrhizal fungus, algae and other living organisms.*
  - √ *Critical to establishment of vegetation.*



# Inspecting Best Management Practices



## **Turbidity Barrier**

### **When should it be installed?**

- Before construction activities begin.
- While construction activities are occurring.

### **When should it not be installed?**

- Where water currents move the curtain and dislodge collected sediments.
- After construction activities.

### **What needs to be inspected?**

- Does the curtain move?
- Does the curtain capture sediment?
- Does the barrier float?
- Was it installed per specifications?

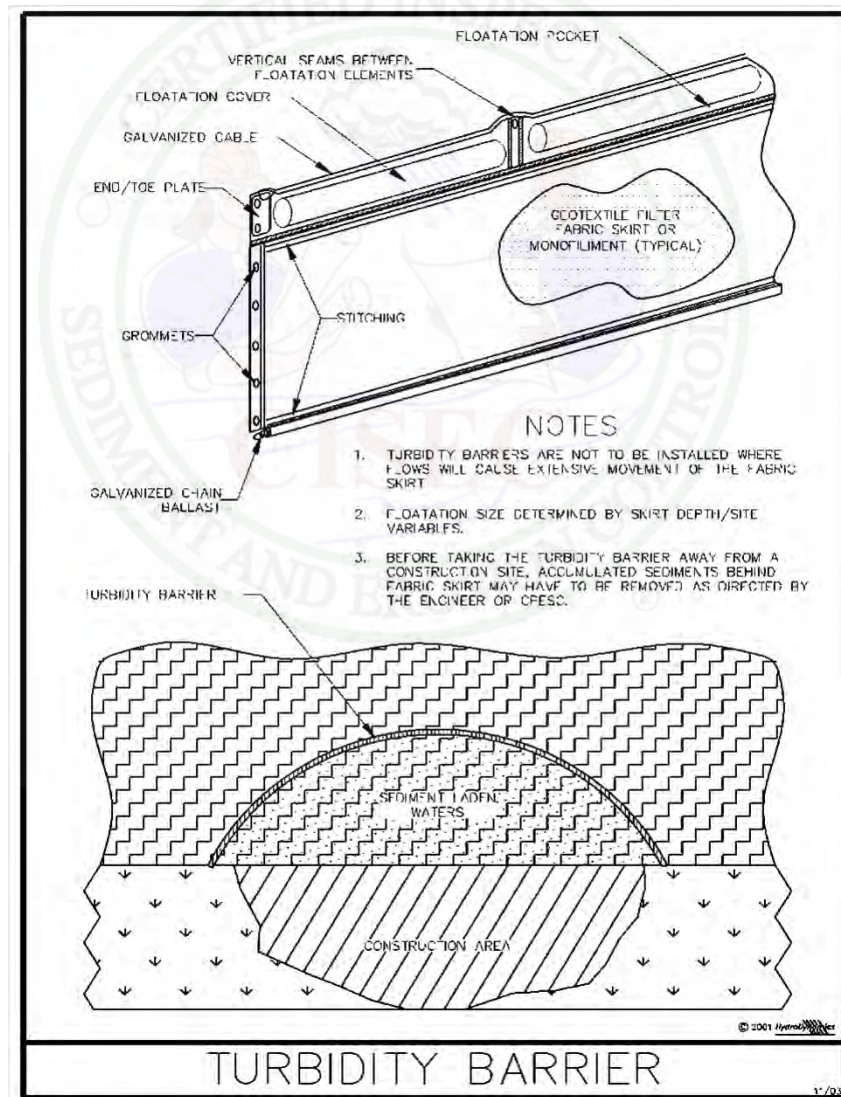
### **What maintenance activities can be expected?**

- Repair and replacement of material.
- Removal of sediment from curtain.
- Removal of curtain material.

### **Items of Importance**

- Do not install turbidity barriers where the flow of water will remove accumulated sediment and/or significantly move the curtain (e.g., in areas where tidal flows exist).
- When used in a live stream, turbidity barriers must be installed parallel, not perpendicular, to the flow.
- Removal of captured sediment behind the curtain may need to occur prior to removing the barrier.

# Inspecting Best Management Practices



# Inspecting Best Management Practices

## Inspection No. 2 Worksheets



# Inspecting Best Management Practices



Detail Report: Record the location, inspection time, and corrective action items. Requiring new stormwater control methods and/or locations that are significantly different from what appears in the current and updated SWPPP may require approval by someone deemed qualified by training to complete such tasks.		Date Corrected (with initials)
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# Inspecting Best Management Practices



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# Inspecting Best Management Practices



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# Inspecting Best Management Practices

## ***Sediment Containment Systems (SCSs)***

### **Sediment Basin/Pond**

- ***Detention Structures***
  - √ Large contributing areas
  - √ Medium size silts and larger particles
- ***Important Parameters***
  - √ Elliptical or rectangular shape
  - √ Long inflow-to-outflow distance
    - Containment pond be least 30-in. (750 mm) deep
  - √ Adequate detention time
    - Upstream clay soils: 48- to 72-hours
    - Upstream sandy soils: 24- to 48-hours
  - √ Controlled discharge outlet structure
    - Surface removal of water (EPA recommendation) or
    - Perforated riser pipe or perforated orifice plate
  - √ Designed flood flow (e.g., 2-year) discharge outlet structure



### **Sediment Trap**

- ***Retention Structures***
  - √ Any shape
    - Retain all runoff waters
    - Convey designed flood flows
- ***Detention Structures***
  - √ Nearly the same parameters as for a sediment basin/pond
    - Medium size sands and larger particles
    - Long inflow-to-outflow distances
    - At least 24-hour detention time
    - Controlled discharge outlet structure
    - Designed flood flow discharge outlet structure



# Inspecting Best Management Practices

## Temporary Sediment Trap

- *Smaller units*
  - √ Sands and larger suspended particles
  - √ Maximize inflow-to-outflow distances
  - √ Remove water from top of pond
  - √ Accommodate overflows



## Filter Bag

- *Captures large suspended particles*
  - √ May require approval by designer or regulatory personnel



- *Limitations*
  - √ Pumping rate into the bag can exceed seepage out of bag



# Inspecting Best Management Practices

## Outlet Structures

### Rock Barriers

- *Can replace troublesome outlet structure openings*
- *Can be part of a drainage system*
- *Need to minimize clogging of rock material*
  - √ Does 1½ - to 2-in. (40 to 50 mm) rock exist?
  - √ Does raking of the rock need to occur?
  - √ Does the rock barrier have enough height?



### Perforated Riser Pipe

- *Is the correct size pipe used?*
  - √ Do perforations exist?
- *Is 1- to 2-inch (25 to 50 mm) rock placed around the pipe?*
  - √ Smaller rocks will clog
- *Is the height of the rock barrier adequate?*
  - √ Rock should be up to the same height of the top perforation.
- *Avoid wrapping perforated pipe with fabric material*
  - √ Material usually clogs



### Perforated Orifice Plate

- *Holes can easily be clogged by debris*
- *Rock barriers may increase effectiveness*



# Inspecting Best Management Practices



## Skimmer Outlet Structure

### When should it be installed?

- Immediately after sediment containment systems are constructed.
- Before construction activities begin.
- While construction activities are occurring.

### When should it not be installed?

- No limitations.

### What needs to be inspected?

- Overall appearance of the skimmer?
- Is the trash screen clogged?
- Are there any cracks or broken pieces?
- Is the skimmer draining properly?
- Is the skimmer able to rise and fall with the water column?
- Is the skimmer right side up?

### What maintenance activities can be expected?

- Removal of trash from orifice.
- Repair of unit due to vandalism.

### General Information

- Unless advised otherwise, resident time of contained waters within a sediment containment system should be at least 48 hours.

# Inspecting Best Management Practices

## Skimmer

- *Removes water from the upper 3-in. (75 mm) of contained waters.*
  - √ More effective than rock barriers, perforated riser pipes or perforated orifice plates.
- *Must be installed correctly.*
- *Will the structure rise as runoff enters the pond?*
  - √ Is the vent pipe on top?
  - √ Is trash blocking the opening?
- *Recommended by the EPA.*



## Inspecting Sediment Containment Systems

- *Does enough storage volume exist for inflow waters?*
  - √ May need confirmation by the contractor, surveyor or designer.
  - √ Do accumulated sediments need to be removed?
- *Are the embankments stabilized?*
  - √ May not be necessary for temporary systems.
- *Is the outlet structure functioning in a correct manner?*
  - √ Most critical part of an SCS
  - √ Functional controlled discharge structure
    - Skimmer is preferred
  - √ Maximum distance between inflow and outflow structures
  - √ Is there a method to safely discharge flood flow waters?



# Inspecting Best Management Practices

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# Inspecting Best Management Practices

## Inspection No. 3 Worksheet



# Inspecting Best Management Practices



Detail Report: Record the location, inspection time, and corrective action items. Requiring new stormwater control methods and/or locations that are significantly different from what appears in the current and updated SWPPP may require approval by someone deemed qualified by training to complete such tasks.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<u>Location No. 1</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 3</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		



# Inspecting Best Management Practices



## Vehicle Tracking Pad

### When should it be installed?

- While construction activities are occurring.
- Before major over lot grading activities begin.

### When should it not be installed?

- When only impervious surfaces exist.
- After all construction activities cease.

### What needs to be inspected?

- Are the correct rock diameters used?
- Is there a depression for runoff?
- Is rock being carried out into a street?
- Is sediment being tracked onto the street?
- Does rock need to be replaced?

### What maintenance activities can be expected?

- Replacement of rock.
- Removal of sediment on adjacent streets.
- Removal of structure.

### General Information

- When small diameter rock is used, it will be tracked onto streets and could create liability problems with vehicles. Large diameter rock can get stuck between the tires.
- The purpose of a filter cloth is to ensure minimal movement of rock into the earthen material.

# Inspecting Best Management Practices

## Stabilized Construction Entrances

### Rock Vehicle Tracking Pad

- Pad of rock material on top of filter cloth at site entrance/exit
- Causes removal of mud from construction equipment
- Can be expensive to install and maintain
- Must use sufficiently large diameter rock
  - √ 2- to 4-in. (50- to 100-mm)
  - √ Avoid 6-inch or larger rocks since they can get lodge between the dual tires of trucks
- Are bare spots within the rock pad becoming evident?



### Grates or Ridges

- Does enough length exist?
- Are the grooves clean?
- Does treatment for one-wheel rotation exist?
- Does a rock pad exist and is it functional?



### Tire Washing

- Labor intensive
- Need to recycle the wastewater
- Is wastewater discharging from the site?
- Continual cleanup is necessary
  - √ Is sediment being tracked away from the washing facility?

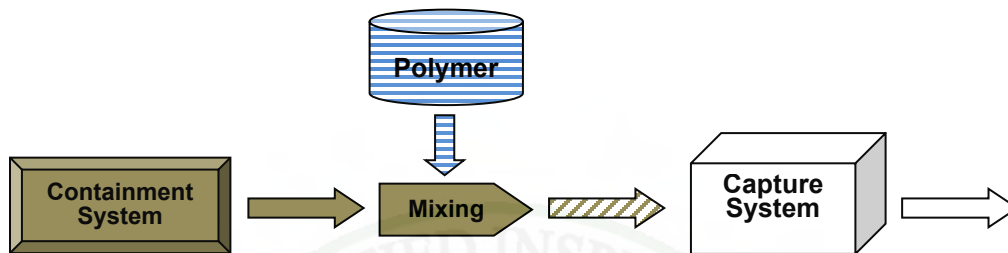


# Inspecting Best Management Practices

## Using Flocculants

Only the use of flocculants will removal of small suspended particels (e.g., clays) occur from runoff waters when captured by a sediment basin/trap. However, the methods require proper design, installation and inspections.

### Liquid Treatment System



➤ *Is water being removed near the pond surface?*

➤ *Is injection of polymer occurring?*

➤ *Are the hoses leaking?*



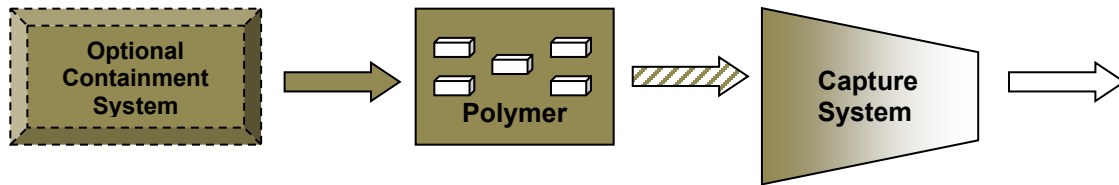
➤ *Are problems with the filters evident?*

➤ *Do discharges have an odor or appear to contain large amounts of sediment?*



# Inspecting Best Management Practices

## Solid Treatment System



## Solid Treatment System Inspection

- Are inflows in contact with the polymer blocks?



- Is “bridging” of the blocks occurring?
  - √ Blocks are coated with sediments



# Inspecting Best Management Practices

- *Is deposition occurring in the capture chamber?*

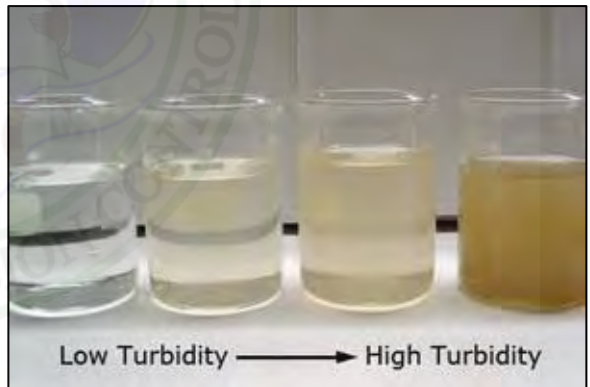


- *Do discharges have an odor or appear to contain large amounts of sediment?*



## Inspector's Responsibilities

- *Is the treatment method functional?*
- *Has sediment rendered the polymer source ineffective?*
- *Is deposition of sediment evident?*
- *Compile records and reports*
  - ✓ Information on inflow and outflow waters
  - ✓ Qualifications of personnel collecting samples
  - ✓ Turbidity of inflow and outflow waters
  - ✓ Water quality parameters



- *Has contact been maintained with the designer and regulatory agencies?*
- *Understand the designer's plan for implementation*

# Inspecting Best Management Practices

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# Inspecting Best Management Practices



## **Erosion Control BMPs**



# Inspecting Best Management Practices

## Earthen Dike/Berm

- Used to direct runoff (e.g., toward an SCS)
- Inspection requirements
  - √ Will runoff remain within the diversion channel?
  - √ Are the embankments stabilized?
  - √ Is the discharge area stabilized?



## Slope Drain

### When should it be installed?

- While construction activities are occurring
- After construction activities are finished

### When should it not be installed?

- When contributory basins are large

### What needs to be inspected?

- Are there areas where the earthen berm has been breached?
- Will runoff flow into the drainpipe?
- Is runoff flowing around the slope drainpipe?
- Is the proper diameter pipe installed?
- Is runoff discharging into an embankment?
- Is the pipe secured to the hillside?
- Is there protection (e.g., riprap) at the end of the drainpipe?

### What maintenance activities can be expected?

- Repair or replacement of slope drain
- Replacement of riprap
- Repair breached sections of earthen berm
- Removal of pipe



# Inspecting Best Management Practices

## Importance of Vegetation

### Staging Removal

- *Staging the removal of vegetation will minimize erosion and can reduce the need for sediment control measures*
- *Areas not under construction require delineation*



### Vegetative Buffer Strip

- *Traps sediment in runoff waters*
- *Limited use:*
  - √ *May need sediment control barriers upstream of buffer strip*
  - √ *Need to minimize disturbance areas*
  - √ *Need to delineate disturbance area*
- *Requires maintaining existing vegetation*



### What needs to be inspected?

- *Ensure vegetated areas are properly marked and protected*
- *Is the buffer strip width per specification?*
- *Are construction activities encroaching onto protected areas?*
- *Should sediment be removed from the existing vegetation area?*



### What maintenance activities can be expected?

- *Maintain fencing and barriers as needed*
- *Inspect existing vegetation for signs of stress. If needed, apply seed or transplant vegetation to maintain natural vegetative covering where possible*
- *Removal of deposited soil material may be necessary*

# Inspecting Best Management Practices

## **Sod**

### **What needs to be inspected for installing sod?**

- *Has a proper soil bed been prepared?*
- *Is the sod “live” and viable?*
- *If on a hillside, has the sod been “pegged” in place?*
- *Has the sod been installed in a correct manner?*
- *Is the sod becoming established?*



### **What maintenance activities can be expected?**

- *Replacement of sections where, if in drainage channels, “rolling” of sod occurs after experiencing flows*
- *Replacement of sections due to lack of establishment, perhaps due to lack of moisture*



## **Establishing Vegetation from Seed**

### **Topsoil Material**

- *During excavation is topsoil being saved.*
  - √ *Often contains historic seed and nutrients*
  - √ *May include weed seed*
- *Apply topsoil before planting seed*



### **Preparing a Seedbed**

- *Scarify and prepare the soil for planting*
- *On hillsides (if possible), track up and down*
- *Avoid tracking along the contour*
- *Avoid creating depressions perpendicular to the contours*
  - √ *Increases erosion*



# Inspecting Best Management Practices

## Methods for Planting Seed

- *Drill seed into the ground*
- *Dry broadcast seed on the ground*
  - √ Application rate of seed can be up to two times the drill rate for arid/semi-arid climates
- *Hydraulically applying seed on the ground*
  - √ Application rate of seed can be up to 4 or 6 times the drill rate for arid/semi-arid climates



## What needs to be inspected

- *Is the correct seed mixture being used?*
- *Has the drill been calibrated?*
- *Is the correct application rate of seed occurring depending upon the planting methods?*
- *Has “raking” of the soil occurred after broadcasting of seed?*
- *Is there a need for a “two step” process for planting seed and applying mulch by hydraulic methods?*
- *Have you collected the seed tags to ensure correct seed is used?*
- *Will soil amendments be required and, if so, when will they be applied?*



## What maintenance activities can be expected

- *Repair coverage and re-apply seed material as needed*
- *If plant seeds fail to germinate, or established plants die, area may have to be re-planted*



# Inspecting Best Management Practices

## Soil Amendments

### Types

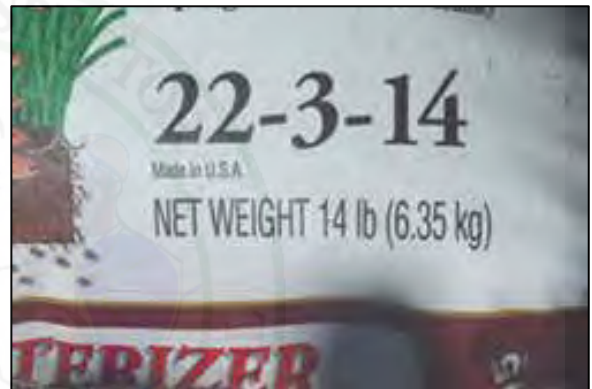
- *Organic*
  - √ Manure, topsoil, compost
- *Inorganic*
  - √ Chemicals

### Nutrients

- *Major*
  - √ Nitrogen
  - √ Phosphorus
  - √ Potassium
- *Secondary*
  - √ Calcium
  - √ Sulfur
  - √ Magnesium
- *Soil testing is advisable*

### What needs to be inspected?

- *What was the nutrient composition?*
  - √ Percentages as found on bag
  - √ Check specifications
- *What is the method of application?*
- *What is the amount applied per unit area?*
- *What was the date of application?*



# Inspecting Best Management Practices

## Mulches

- *Reduces soil erosion by wind and raindrop impact*
- *Provides temporary cover of newly planted seed until establishment of vegetation*
- *May add organic matter to the soil*
- *Decreases the velocity of runoff over exposed soil areas*
- *Can assist in increasing runoff infiltration*



## Straw or Hay

- *Standard application rate is about 2.0 tons/acre (4.5 tonnes/ha)*
- *Minimum fiber lengths of 6.0- to 8.0-inches (150 to 200 mm)*
- *Seek 80% to 100% ground coverage*
- *Hold in place by crimping or applying a tackifier*
- *A tackifier “glues” the fibers together*
- *Strong winds can remove sections of “tackified” dry mulches*



# Module on Best Management Practices



## **Inspecting Straw Mulch**

- *Are the fibers at least 6-in. (150 mm) in length?*
- *Is there at least 80% coverage of the soil?*
- *Is the material held in place by crimping or applying a tackifier?*
- *Removal of mulch by wind requires replacement*
- *Is mulch being applied immediately after planting of seed?*



# Module on Best Management Practices

## Hydraulic

- Cover the ground and do not have to be crimped as with dry mulches
- A mixture of shredded wood, paper, or corn stalk fiber and often include a stabilizing emulsion, tackifier, or polymer
- Without a "tackifier" to help bind the material, hydraulic mulches are susceptible to removal by precipitation and runoff



## Inspecting hydraulic applications

- Is the amount of material applied per specifications?
  - √ Did you count the number of bags?
- Is the specified mulch being used?
- Is the cover uniform?
  - √ Do "shadows" exist
  - √ Does nearly 100% coverage exist?
- Can mulch be applied during wet soil conditions?
- In Arid and Semi-Arid Climates
  - √ Apply seed prior to the application of mulch
  - √ Ensures good contact of seed with the soil



# Module on Best Management Practices



## ECB for Disturbed Hillsides

### When should it be installed?

- While construction activities are occurring.
- After construction activities are finished.

### When should it not be installed?

- Over very rough ground having extensive amounts of rock, rills, or gullies.
- On slopes where weeds or existing vegetation is established.

### What needs to be inspected?

- Does the ECB have any damage?
- Did planting of seed occur before installing the ECB?
- Is runoff flowing under the blanket and causing erosion?
- Is the material secured to the slope with enough staples?

- Was the ECB installed correctly?
- Was the top of material secured in a trench or by some other method?
- Is the material properly overlapped?

### What maintenance activities can be expected?

- Repair and replacement of material.
- Repair of eroded ground.

### General Information

- ECBs are composed of natural material including straw, straw-coconut, coconut (or coir), wood excelsior, and so forth.
- Material must be placed in an uphill trench or adequately stapled at the top of a slope.
- Additional information on ECBs can be found at [www.ectc.org](http://www.ectc.org).

# Module on Best Management Practices

## RECPs, ECBs, and TRMs

- *RECP = Rolled Erosion Control Products*
- *ECB = Erosion Control Blanket*
- *TRM = Turf Reinforcement Mat*
- *Organic and inorganic material*
- *Net and net less material*



### Inspecting hillside ECB installations

- *Is material anchored?*
- *Do enough staples exist down the hill to ensure maximum soil contact?*
- *Is “tenting” occurring?*
- *How good is the vegetation establishment?*



# Module on Best Management Practices



## TRM for a Drainage Channel

### When should it be installed?

- While construction activities are occurring.
- After construction activities are finished.

### When should it not be installed?

- Over impervious surfaces.
- On very rough ground.

### What needs to be inspected?

- Does the TRM display any damage?
- Was the channel bed smooth before the TRM was installed?
- Have check structures (staple, trench, or other) been installed?
- Is runoff flowing under the blanket and causing erosion?

- Are enough numbers of staples used within the material and along the flowline?
- Is the correct material used?
- Was seed planted before installing the TRM?

### What maintenance activities can be expected?

- Repair and replacement of material.
- Repair of eroded ground.

### General Information

- TRMs are composed of 100% polypropylene or nylon straw-coconut or coconut matter reinforced with strands of polypropylene threads and held in place with netting sewn on both sides of the material.
- Additional information on TRMs can be found at [www.ectc.org](http://www.ectc.org).

# Module on Best Management Practices

## Inspecting channel TRM installations

- *Has seed been planted?*
- *Is the material anchored at the top?*
- *Is proper overlap evident?*



- *Are the edges secured?*



- *Is there good contact with the channel bed?*
- *Do enough numbers of staples exist?*
- *Does runoff discharge onto the material?*



*Do adequate check structures or slots exist?*



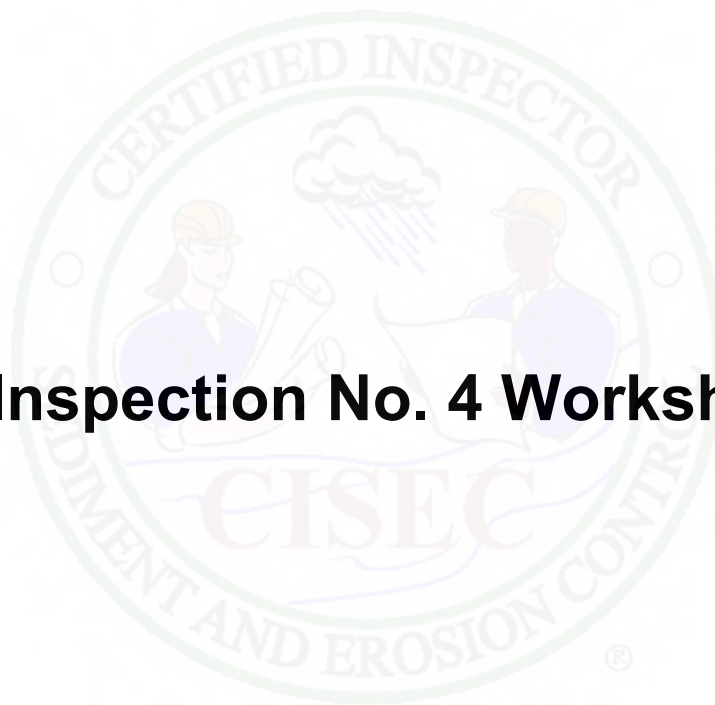
# Module on Best Management Practices

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# Module on Best Management Practices

## Inspection No. 4 Worksheet



# Module on Best Management Practices



Detail Report: Record the location, inspection time, and corrective action items. Requiring new stormwater control methods and/or locations that are significantly different from what appears in the current and updated SWPPP may require approval by someone deemed qualified by training to complete such tasks.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
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<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 3</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		





# Module on Best Management Practices

## Compost

### Inspection Items

- *Is the material used per specifications?*
- *Does adequate coverage per specifications exist?*
- *Are repairs necessary and runoff events?*
- *Is establishment of vegetation in the material occurring?*



## Rock/Riprap

### Inspection Items

- *Is sediment accumulating in the rock?*
- *Is the rock becoming undercut and/or collapsing?*
- *Has it been installed correctly, per specifications?*
- *Is the rock placement correct and secure?*
- *Is failure of rock evident?*
- *Are animals' burrows compromising the integrity?*
- *Is replacement and/or cleanout required?*



# Module on Best Management Practices

## Gabions

### Inspection Items

- *Have they been installed correctly?*
  - √ Requires proper design
- *Must be secured to each other and hillside*
- *Has fabric been installed behind the gabions?*
  - √ Minimizes sediment from discharging through the structure
- *Is bulging of structure occurring or spaces appearing?*



## Cellular Confinement Systems

### Inspection Items

- *Has it been installed correctly?*
- *Is the product secured as required by the specifications?*
- *Has the correct material been used in the cells?*
- *Is vegetation becoming established?*
- *Is erosion undercutting or causing the material to collapse?*
- *Is the product providing erosion protection?*
- *Are cells failing?*



# Module on Best Management Practices

## Wind Erosion

### Physical Barriers

- Need openings for wind to “flow” through
- Every foot in elevation results in about 8- to 10-foot (2.4 to 3.0 m) deposition zone on the leeward side
- High maintenance
- Problems with deposition impacting downwind properties
- Susceptible to damage
- Solid barriers (e.g., silt fence) are not designed to be wind barriers
  - √ Destroyed by the wind



### Soil Roughening

- Can temporarily reduce wind erosion by up to 80%
  - √ 6-inches (150 mm) in height
- Avoid smooth ground
  - √ Enhances saltation
- High maintenance
  - √ Ridges fill in with wind borne soil particles



# Module on Best Management Practices

## Liquid Applications

### Water

- High maintenance
- Rapid evaporation
- Continual reapplication required
- Is application adequate?
  - √ Is dust still evident after application?



### Chemical

- Soil binders
- Magnesium Chloride
  - √ Creates a crust
  - √ Destroyed by vehicular traffic
- High maintenance
- Does material have to be reapplied?
- Is application adequate?
  - √ Is dust still evident after application?
- Check specifications for longevity?



### Stabilization

- Maintain non-erodible material
- Keep existing vegetation
  - √ Root system minimizes erosion
- Soil binder, establish vegetation or applying hydraulic mulch



# Module on Best Management Practices

## Dewatering and Sump Pumping

- *Inspect discharge location*
  - √ Is sedimentation occurring?
  - √ Is erosion occurring?
- *Sump-pumped water can contain large amounts of sediment*



- *Consider use of other sediment control barriers (e.g., dirt bags, sediment traps or basins)*

- *If ground water is discharged into a storm sewer system or offsite*
  - √ Must be clear of sediment
  - √ Requires regulatory approval



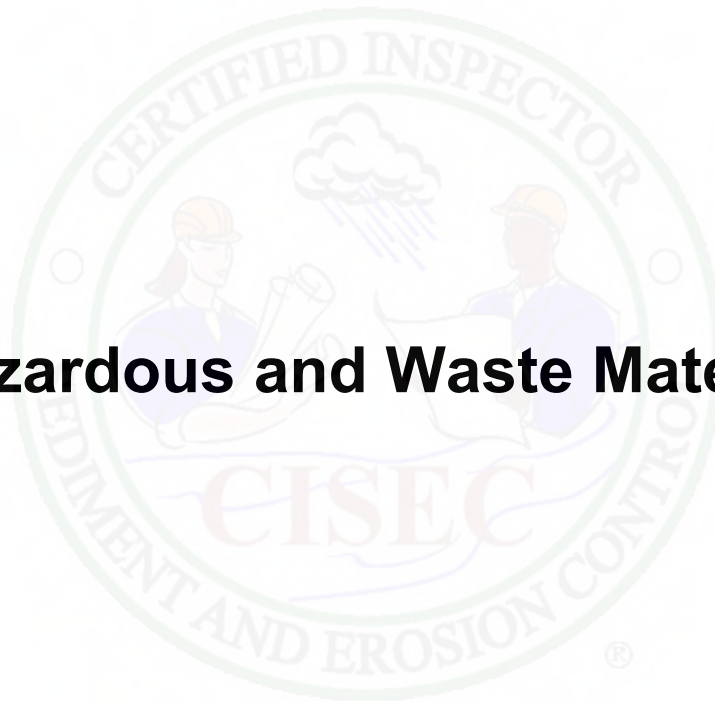
# Module on Best Management Practices

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# Module on Best Management Practices

## Hazardous and Waste Materials



# Module on Best Management Practices

## Concrete Washouts

- *EPA Requirement*
  - √ Direct all wash water into a leak-proof container or leak-proof pit
- *Temporary concrete containment facilities*
  - √ Are signs posted?
  - √ Is the washout material contained within the structure?
  - √ Has material filled volume greater than 50%?
  - √ Does material have to be removed and disposed of properly?
  - √ Is there a vehicle-tracking pad at the facility?
  - √ Does it meet specifications?
  - √ Local regulations may require lining
- *Alternatives*
  - √ Portable containment systems
  - √ Small containment volume
  - √ Limitations





# Module on Best Management Practices

While inspectors usually associate BMPs with sediment and erosion control methods, they also need to be ready to assess methods that prevent spillage on potentially hazardous waste sites. Usually, the general contractor or builder provides BMP controls/measures for these areas.

## ***Inspecting Hazardous and Waste Materials***

Several items must be considered when inspecting hazardous and waste materials. These items include, but are not limited to:

### **Containment**

- *Are facilities away from water bodies?*
- *Do facilities have enough spill containment areas?*
- *Are facilities on located impervious surfaces?*
- *Does enough containment volume exist?*



### **Storage and Labeling**

- *Do locations exist for storing of materials?*
- *Does labelled of drums and pressurized tanks exist?*



# Module on Best Management Practices

## Spill Prevention

- Are methods in place to prevent or clean up spills?
- Do procedures exist for addressing and reporting spills?



## Maintenance

- Do locations exist for refueling and maintenance of large equipment?
- Do locations exist for cleaning of paint related equipment?
  - √ EPA requires all wash water be directed into leak-proof containers or leak-proof pits



# Module on Best Management Practices

## Disposal

### ➤ *Are portable toilets:*

- √ Away from storm sewer systems?
- √ Away from water bodies?
- √ Away from drainage ways?
- √ Away from wetlands?
- √ Away from paved road?
- √ Staked in position?
- √ Are additional secondary containment facilities needed?



### ➤ *Does proper disposal of waste material exist*

- √ Are there metal bins with covers?
- √ Does regular trash removal exist?
- √ Does regular removal of concrete waste material occur?



# Module on Best Management Practices

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# Conducting Construction Site Inspections

## Conducting Construction Site Inspections



# Conducting Construction Site Inspections

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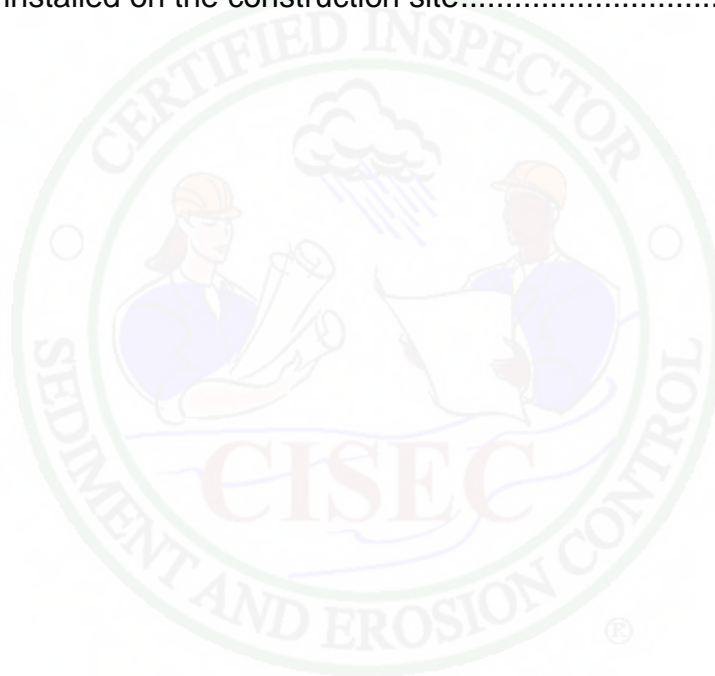
# Conducting Construction Site Inspections

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# Conducting Construction Site Inspections

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# Conducting Construction Site Inspections

## ULTIMATE GOAL

Work with the contractor and permittee to minimize pollutants (EPA does not require zero discharges of sediment) leaving a job site to the maximum extent practical.

## INSPECTION REQUIREMENTS

Control of sediment and erosion on construction sites requires the use of BMPs, as discussed in the previous chapters. However, if they are to be effective, BMPs must be inspected frequently and regularly. When, and how frequently? What should be inspected? What guidelines should be followed? What should be reported? To whom should reports be submitted?

Answers to these and other questions require input from those who continually evaluate and observe methods used on construction sites to control sediment. In addition, construction projects in areas where rainfall is frequent will have different inspection criteria to follow as compared to those where rainfall is sparse.

## DESIGNERS, INSPECTORS, AND CONTRACTORS

If contractors are going to maintain effective sediment and erosion control plans, they must understand what is required to complete inspections. Likewise, inspectors must know what is required for BMPs to operate in an effective manner. Finally, both contractors and inspectors must continually educate and work with designers to ensure effective plans are implemented.

Construction sites are dynamic. Site conditions and staging are continually changing. Consequently, it is recommended periodic updates (e.g., weekly or biweekly) to sediment and erosion control plans be completed. An essential element in these updates is an understanding of what is required for inspections.

## ROLE & RESPONSIBILITIES OF AN INSPECTOR

It is important to note that within the CGP, the EPA does not require zero discharge of sediment from construction sites. However, the ultimate goal of an inspector is to work with the contractor to reduce the amount of pollution leaving a construction site to the maximum extent practicable.

## PURPOSE OF INSPECTIONS

The purpose of an inspection is to ensure regulated facilities have:

- An NPDES permit to discharge storm water runoff from the construction site,
- An updated Storm Water Pollution Prevention Plan (SWPPP) with accompanying sediment and erosion control drawings and
- Ensure that the regulated entity is following the specifications in the permit and in their SWPPP.

This means that an inspector must complete inspections and report his/her findings in a manner that provides:

- An independent review of BMPS and their effectiveness,
- An observation of what is happening on site, and
- An opportunity to determine if the regulated facility is meeting the ultimate goal.



# Conducting Construction Site Inspections

## **INSPECTOR RESPONSIBILITIES BEFORE CONSTRUCTION ACTIVITIES**

An inspector's responsibilities begin before the first site inspection. The inspector should know the project and the construction site. Even before attending a pre-construction meeting (if one is held), the following items should occur:

### **REVIEW THE SWPPP AND ACCOMPANYING S&EC DRAWINGS**

Before attending any meetings, inspectors should complete the following:

#### **Identify concerns and issues**

Determine if the SWPPP is complete and whether some additional items may need to be addressed. Some general guidelines include the following:

1. Understand SWPPP requirements as set forth by EPA
2. Legends – Know what the symbols mean
3. Topography – Get a feel for the “lay of the land”
4. Pre-construction – Understand what is to occur before construction activities begin for minimizing the discharge of sediment when excavation activities happen. Usually BMP installation should occur before other construction activities begin.
5. During Construction – Understand what is to occur during construction activities to minimize the discharge of sediment from the site.
6. After construction – Understand the type of erosion control practices that are to be implemented.
7. Identify BMPs and locations – Does the location seem to make sense?
8. Identify the purpose of BMPs – Does this application accomplish what is required by the CGP?

### **ATTEND PRE-CONSTRUCTION MEETINGS**

If a pre-construction meeting is held, attend it with the contractor and designer to ensure coordination of issues and concerns are addressed. During this session, the inspector should complete the following:

#### **Review the NOI permit for completeness**

Identify where posting of NOI and contact names and telephone numbers will occur.

#### **Identify (any) concerns found during the SWPPP and/or S&EC review**

Work with the designer to determine if the SWPPP meets permit requirements.

#### **Announce the frequency of inspections**

This provides the operator with information needed to ensure compliance occurs.

#### **Review the chain-of-command**

Open the lines of communication between the contractor and the regulatory agencies.

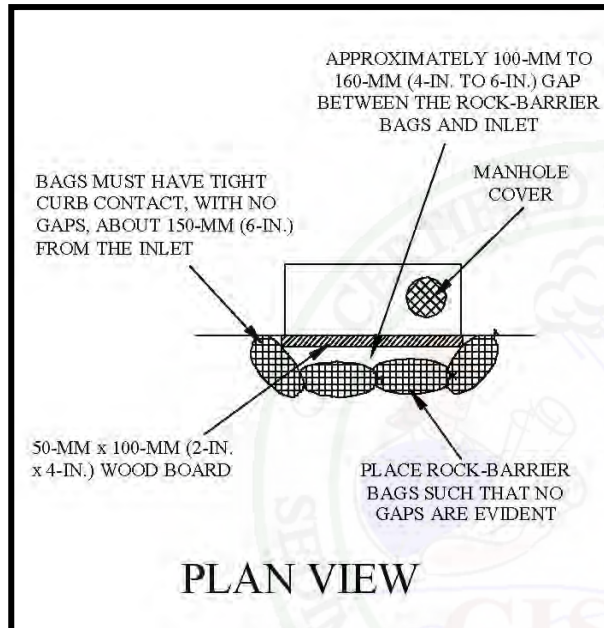


# Conducting Construction Site Inspections

## INSPECTOR RESPONSIBILITIES DURING CONSTRUCTION ACTIVITIES

### Review the SWPPP to see if it is current.

1. Have BMPs have been installed as illustrated?
2. Have updates have occurred?
3. Do sediment and erosion control drawings match what is found on the construction site or are modifications required?



**Figure 1** Detail from the S&EC drawing



**Figure 2** BMP installed on the construction site

### Review site conditions to see if BMPs are functional.

1. Evidence of, or the potential for, sediment leaving from disturbed areas and material storage areas.
2. Installed sediment and erosion control measures to ensure they are operating correctly.
3. Locations where vehicles enter or exit the site.
4. Discharge points to assess whether erosion control measures are effective in preventing impacts to receiving waters.
5. Observe if BMPs are being maintained.
6. Assess whether new BMPs are needed.
7. Assess whether BMPs can be removed.
8. Collect samples, if appropriate.

# Conducting Construction Site Inspections

9. Document your findings.
  - a) Communicate findings to contractor, MS4 personnel, other interested parties.
  - b) Do not be confrontational with the contractor.
10. Ensure that BMPs will be effective during rainfall events
  - a) May require an inspection during rainfall events.
11. Do not redesign the SWPPP narrative or accompanying S&EC drawings.
12. Do not mandate conditions for the contractor to complete.
  - a) Inspectors are to observe and report---but not direct the activities.
13. Do not make recommendations about BMPs.
  - a) Liability issue.
    - i. Protect yourself and your employer.
  - b) Inspectors are not responsible when BMPs are not functioning correctly.
  - c) Inspectors are not responsible for maintaining BMPs
14. Be aware of what is necessary to inspect for winter shut down conditions.
  - a) Mitigation measures need to be effective for snowmelt.
15. Be prepared to recommend temporary suspension of construction activities.

## **INSPECTION REPORTS**

What should appear in an inspection report? States and local regulatory agencies may have requirements in addition to those required by the EPA. In all cases, inspection reports are to be kept for three years after submittal of a Notice of Termination. The following tables provide a general summary of EPA's requirements and can be used to identify their state and local requirements.



# Conducting Construction Site Inspections

## Inspection Report Guidelines for Construction Sites

Inspection Report	EPA (2017) Requirements: Components and scope of the inspection. <ul style="list-style-type: none"><li>• Name(s) and qualifications of personnel conducting the inspection.</li><li>• Dates of the inspection.</li><li>• Location and time of Inspection.</li><li>• Noting whether discharges are occurring.</li><li>• Observations relating to the implementation of the SWPPP.</li><li>• Corrective Action.</li><li>• Incidents of non-compliance. If no incidents of non-compliance were found, the report must contain a certification that the facility is in compliance with the plan and the NPDES permit.</li><li>• The report must be retained as part of the plan for up to <u>three</u> years after the site has been stabilized and a Notice of Termination has been filed.</li></ul>
	State Requirements:
	Local Requirements:



# Conducting Construction Site Inspections

## MAINTENANCE OF BMPS

Operators should complete the followings for effective BMPs:

1. Install BMPs in a correct manner.
2. Inspect BMPs frequently.
3. Maintain BMPs.

If sediment and erosion control measures are to remain effective, they must be installed correctly, inspected in a timely manner, *and* maintained. Repairing barriers, removing accumulated sediment from containment systems, and evaluating whether vegetation is established are a few of the many items that need to be considered.

According to EPA (2017) maintenance completed on sediment and erosion control measures must be recorded on inspection forms. EPA (2017) requires that completed inspection reports be kept at the construction site and available for review by regulatory (federal, state, and local) agencies. Finally, all inspection forms are to be retained by the applicant of a NPDES permit for three years after filing of a NOT.

The following tables provide suggested minimal inspection and maintenance requirements of sediment and erosion control measures found on construction sites. Space has been provided for the reader to add additional requirements that may be necessary due to local regulations, specific site conditions, personnel preferences, and so forth.

### Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Sediment Containment Systems	Constructed to specifications?	List what action is required.
	Functional outlet structure?	Repair or replace.
	Accumulated sediment?	Remove, place upstream, and stabilize.
	Long flow-path length?	Install baffles.
Bale Barriers	Installed in a trench?	If not, reinstall.
	Backfilled?	If not, backfill the bales.
	Staked?	At least two per bale are needed.
	Destroyed?	Replace.
	Accumulated sediment?	Remove, place upstream, and stabilize.



# Conducting Construction Site Inspections

## Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Silt-Fence Barriers	Proper placement of stakes?	If not, reinstall.
	Material in a trench?	If not, reinstall.
	Accumulated sediment?	Remove, place upstream, and stabilize.
	Used in a drainage ditch	Remove the structure
	Used around inlets	Remove the structures
Other Barriers	Improper installation?	Install another method.
Bale Check Structures	Installed in a trench?	If not, reinstall.
	Side slopes steeper than 7H:1V?	Look for other measures.
	End bales above flow line bales?	If not, reinstall to force runoff over the flow line bales.
Rock Check Structures	Correct rock diameter?	If wrong diameter, replace.
	Water flowing around the end?	Extend rock.
Other Check Structures		
Inlet Protection	Cover over structure?	Create an opening.
	Bale barrier on concrete?	Replace with rock.
Diversion Dikes	Erosion of the structure?	Complete repairs and stabilize.
	Improper location?	Remove and relocate.



# Conducting Construction Site Inspections

## Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Slope Drains	Runoff not flowing into the structure?	Repair the containment system. Check to see if runoff is being diverted to the structure.
	Runoff flowing into and past the pipes?	Install a larger-diameter pipe. Contact the designer to determine whether the design storm event was exceeded. Add more drains.
	“Tunneling” of the containment Dike is evident?	Repair the embankment with sandbags.
Controlling Wind-Borne Particles	Is the ground smooth?	Develop furrows perpendicular to the prevailing wind direction.
	Do barriers exist?	Install barriers perpendicular to the prevailing wind direction.
Vegetation Establishment	Has the specified mixture been used?	If not, reseed.
	Inadequate growth?	Evaluate time of year; plant again.
	Spotty growth?	Soil conditions, excess moisture, or need to apply more seed.
	Intrusion of noxious weeds?	Implement weed control.
Dry Mulch	Coverage 80% to 100%?	If not, reapply.
	Movement of material?	Need to anchor to the ground by crimping or tackifier.
Hydraulic Mulch and Other Products	Adequate coverage?	If not, reapply.





# Conducting Construction Site Inspections

## Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Hydraulic Mulch and Other Products (con't)	Deterioration?	If not evident, do nothing. If evident and vegetation is not evident, repair and reapply. If evident but vegetation is occurring, wait and complete another inspection at a later date.
	Is vegetation becoming established?	If no, evaluate whether climatic conditions have been adequate for establishment. If no, reapply. If yes, do nothing.
RECP for Slope Protection	Improper installation at top?	Put in trench or extend onto flat area.
	Inadequate number of staples?	Add more staples.
	Sides not in trench or stapled?	Install staples or place in a trench.
	Has seeding been completed?	If not, remove product and plant seed.
ECB and TRM for Channel Protection	Proper material used?	Work with the designers to ensure proper selection has occurred
	Improper installation at top?	Repair or use riprap check.
	Lack of staple checks?	Install staple or riprap checks.
Additional Techniques		
Wind Erosion Control	Use of cover crops?	Timing of planting, type of grass.
	Use of hydraulic mulch?	Increase application rate.

# Conducting Construction Site Inspections

## DOCUMENTATION

An inspection report is one form of documentation. The purpose of an inspection is to create “a snapshot in time,” capturing what is happening on a construction site at the time the inspection occurred. Many different techniques and tools can be used to help create the snapshot. Appropriate methods of creating the snapshot might include:

### PHOTOGRAPHS AND VIDEOS

When documenting by photographs or videos, the following basic guidelines are suggested.

**Make sure the lighting allows the viewer to see what is being photographed, use a proper scale.**

1. Include items in the photograph that define size and space,

**Define extent of subject matter.**

1. Try to record the subject matter in context.
2. Use different angles to document three dimensional aspects of the subject matter
3. Take large scale photographs that show how the subject matter ties in to the surroundings
4. Take close up photographs to show the detail of the subject matter
5. Use multiple shots to create a panorama if it is not possible to include all the information in one picture

**You can never take too many photographs.**

1. A picture is worth a thousand words.
2. Be aware if projects are not allowed to have photographs taken (e.g., military projects).

### FIELD NOTES AND SKETCHES

Some inspections are difficult to capture with pictures or videos. Taking field notes and drawing sketches are other appropriate methods of documenting what is happening on a construction site.

Using a set of plans with notes is a great way to record your findings on a construction site. It is best if these notes are made in the field while you are making the observations.

### INTERVIEWS

Because a site is changing constantly, it is not possible for an inspector to see and record everything that happens. If there is evidence of problems and you are not sure what has happened or how it happened, it is good to ask questions.

It is appropriate for an inspector to interview workers, neighbors or other potential witnesses to help them better understand what is happening. Any such interviews should be included in the inspection reports.



# Conducting Construction Site Inspections

## **COMMUNICATION**

For any construction site inspection to be effective, the inspector must communicate what he or she has observed with someone else. Communication comes in many forms and styles. The style that an inspector uses is personal and needs to be one that he or she is comfortable with. The form used is more standard.

Some of the basic communications skills that can be used on almost any construction site include:

### **Making observations**

As an inspector, your primary role is to observe – not dictate, not boss, not fine, not fix, not design – but simply observe. Learn to observe carefully. Learn to look for clues and evidences that help you understand what it is that you are actually observing. Sharp eyes and a clear mind are two of the best observation tools that you have. Use them.

### **Verbalize**

While it is important to clearly and concisely state what you have observed, you must be careful what you say. Remember it is not your role to dictate or fix problems. Don't be afraid to ask questions. If you do not understand why something is being done a certain way, ask. Don't hesitate to question workers and others on the site.

### **Write**

This will be the primary method of communication on most construction sites. All verbal communications should be followed up with written correspondence to solidify and document these communications. As with verbalization, written communications should be clear and concise. They should also be direct. If your handwriting is difficult to read, have reports and correspondence typed.

### **Listen**

this method of communication is often abused and overlooked, but it is one of the keys to affective communication. A good rule of thumb in listening is, there are two ears for every mouth. You should listen twice as much as you talk.

### **Documentation**

On most construction sites, the inspector is required to communicate with at least two entities; the contractor and the regulating agency. In most cases, the inspector will be working for one of these entities.

It is important that both the contractor and the regulator have the same information with what is happening on the construction site. An inspector is expected to be neutral and simply document his/her observations, regardless of the situation.

Copies of the inspection report should be kept on file at the construction site and with the regulating agency. Written documentation should be kept for at least three years from the time that the Notice of Termination is filed.



# Conducting Construction Site Inspections

## **WORKING WITH CONTRACTORS**

For any project to be successful, it requires cooperation and working together. The relationship between a contractor and an inspector can greatly affect the outcome of a project. An inspector can make a contractor's life miserable and a contractor can make an inspector's life miserable.

Realize that you are both on the same team. You don't necessarily have to like one another, but you need to respect each other. The contractor has a big job with many responsibilities.

## **SUGGESTIONS FOR BUILDING GOOD WORKING RELATIONSHIPS**

### **Build a Trusting Relationship**

When you say something, follow through with what is stated. The contractor may not like it, but he/she will learn to respect you with such honesty.

### **Realize that you are on the same team**

The goal is to successfully complete a project. In order for it to be a success it needs to be completed on time and in budget. Understand this! Work with the contractor to help him stay on task, while still addressing the pollution prevention needs of the project.

### **Respect a contractor's opinion**

If you see something that you don't understand or that you are concerned with, talk to the contractor. Get their input and give them a chance to explain what is occurring before jumping to conclusions. Let them be a part of solving problems.

### **Don't be a bully**

It is not your place as an inspector to "run" the project. Sometimes you might be tempted to exercise a little muscle and let the contractor know you mean business. You might have the authority, but don't abuse it.

Maintain a professional relationship and give the contractor time to react to situations. For example, if pollutants are being discharged, bring it to the contractor's attention and work together to solve the problem.

### **Don't assume you know the contractor's job**

Things are not always what they appear to be. Quite often there are situations and circumstances that you are not aware of as the inspector. This is where asking questions can help you understand what is really happening.

You may see silt fence that is being placed up and down a slope, thinking it is not being installed properly. Upon asking what is happening, you might find out that the contractor has decided to use silt fence to delineate a boundary.

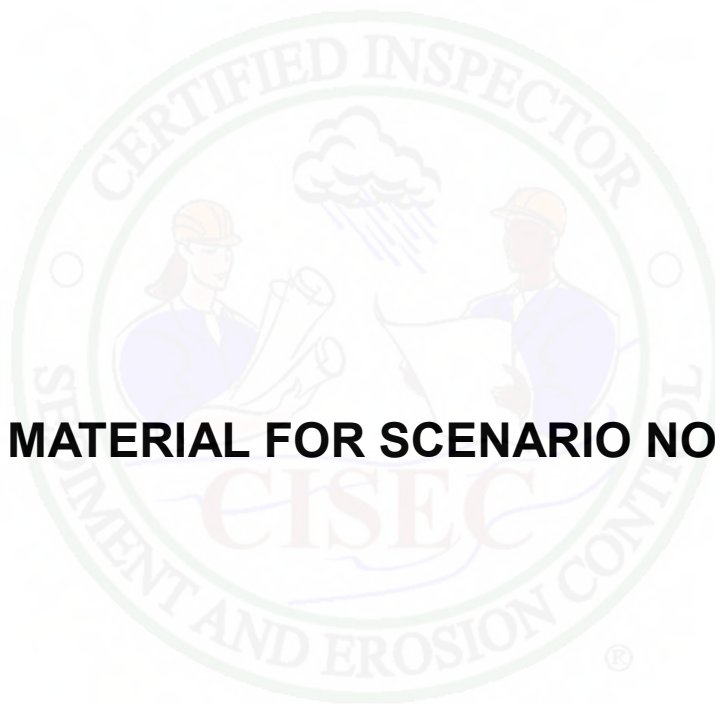
### **Work together**

Working as a unit will ensure the project will remain in compliance rather than create unnecessary fines and legal actions.



# Conducting Construction Site Inspections

**MATERIAL FOR SCENARIO NO. 1**



# SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Report Date: \_\_\_\_\_

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

Operator Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.				
√ Visible from a public road nearest to the active part of the construction site.				
√ Identifies the NPDES Permit tracking number.				
√ Identifies a current contact name and telephone number for obtaining permit information.				
√ If not on the site, identifies location of SWPPP.				
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.				
√ Identifies current stormwater team member names.				
√ Identifies current construction site operator names.				
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.				
3. Inspection records exist on the site, or at an easily accessible location, or electronically.				
√ Frequency and timing of inspections is occurring as specified in the SWPPP.				
√ Water quality records exist.				
√ Documentation exists on inspection of tasks completed for previous corrective action items.				
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.				
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.				
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.				
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.				
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>				<b>To be done within seven calendar days.</b>



# Conducting Construction Site Inspections

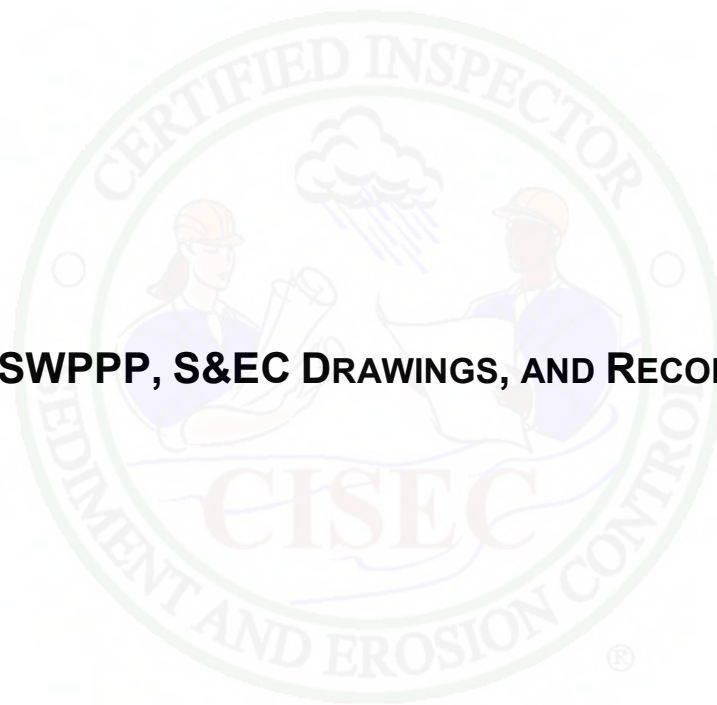
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# Conducting Construction Site Inspections

**SWPPP, S&EC DRAWINGS, AND RECORDS**



# Conducting Construction Site Inspections

## Stormwater Team

Operator: Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Contact Information: I. M. Aperson  
Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Person Responsible for Plan: Mr. Loman Onthetotempol

## Nature of Construction Activity

This project consists of developing land for a subdivision and commercial area.

Construction activities on the site will consist of removing existing vegetation, grading of the land, installing utilities, paving, and development of the land for a subdivision and commercial area.

This project will disturb approximately 37.1 acres out of a total of 42.1 acres.

## Sequence for Major Activities

Construction tasks to be completed will include the following sequential activities.

- Removal of existing vegetation,
- Clearing and grubbing of the land,
- Grading,
- Installing utilities,
- Development and paving of roads and
- Construction of a commercial area and subdivision.

## Site Map

S&EC maps have been included with this SWPPP

## Site Planning Documentation

Soils on the project have the following characteristics:

Symbol	Type of Soil Material	Percent of Site	Rainfall Erodibility	Comments
A5b5	Sandy Loam	100%	3	Low to moderate water erosion and wind hazards and moderate to high runoff potential.

Predominate soils of the site are moderately deep and well drained. Historic vegetation for this area is pasture grass.



# Conducting Construction Site Inspections

## **Construction Site Pollutants**

It will be the responsibility of the heavy equipment contractor to take appropriate actions to ensure pollution of storm water does not occur. Fueling areas will be at least 100 feet from drainage channels and/or storm sewer systems.

The heavy equipment contractor will be responsible for protecting the soil from contamination due to any hydrocarbon or other hazardous spills associated with his contractual obligations.

Operator will be responsible for preventing soil contamination where building materials, fertilizers, chemicals, waste piles or other potential hazardous materials may exist.

No dedicated concrete or asphalt batch plants exist on this site.

## **Non-Storm Water Components of Discharge**

There is no non-storm water components of discharge associated with this project.

## **Descriptions of Stormwater Control Measures**

Reduction of sediment in runoff waters will occur in the following manner.

1. Before over lot grading activities begin, the following BMPs will be installed:
  - a) A storm sewer pipe to convey offsite flows away for the project site.
  - b) Silt fence barriers as illustrated on the drawings.
  - c) Vehicle tracking pads at major entrances into the site.
2. During initial over lot grading activities, installation of one or more of the following BMPs will occur:
  - a) As soon as feasible, complete a rough installation of the detention ponds (with outlet structures) and convert them into sediment containment systems (SCSs).
  - b) Install additional silt fence barriers as necessary to minimize discharge of sediment into waterways.
  - c) Apply erosion control materials.
3. During major over lot grading activities, one or more of the following tasks will occur:
  - a) Install diversion structures to ensure the discharge of runoff into an SCS.
  - b) Maintain all sediment and erosion control BMPs.
  - c) Install utilities.
  - d) Install barriers at inlet.
  - e) Apply erosion control materials.
4. After grading activities are completed, the following tasks will occur;
  - a) Paving of roads
  - b) Construction of homes.
  - c) Installation of landscaping material.
  - d) Maintenance of SCSs until 80% full buildout of development.
  - e) Maintenance of sediment and erosion control methods.



# Conducting Construction Site Inspections

## Sediment and Erosion Control Methods

Sediment control measures will include one or more following techniques with installation of additional methods occurring as deemed necessary by the designer.

- Silt fence and/or diversion barriers
- Barriers in front of “sump” inlets
- Vehicle tracking pads
- Sediment containment systems

Offsite tacking of soil will be minimized by at least weekly removal of accumulated sediment in access streets. More frequent sediment removal will occur when significant buildup is evident.

Erosion control measures will include one or more of the following methods:

- Construction of homes
- Installing landscaping materials
- Placement of pavement
- Applying erosion control materials

Final stabilization of the site will occur by placement of pavement, planting temporary and/or perennial grass seed on disturbed lands and installing landscape material on the lots and in common areas.

## **Inspection and Maintenance**

Sediment and erosion control measures should be inspected after any significant precipitation event that results in runoff. As a minimum, inspection of all sediment and erosion control facilities will take place at least once every 14 days while construction activities occur.

Inspections will occur until final stabilization of the site is realized, which is defined as vegetative cover of at least 70% of native vegetation, 100% completion of the commercial area and 100% completion of the homes sites.

Inspection of sediment and erosion control measures will include at least the following.

- Removal of accumulated material collected by SCSs or barriers once a 50% reduction of the storage capacity for the structures becomes evident,
- Repairing damage to sediment control structures,
- Adding or eliminating sediment and/or erosion control measures as deemed necessary,
- Immediate repair and/or replacement of BMPs when failure occurs or the mitigation measures are ineffective.

Records of each inspection will reside with the contractor, developer, or their representative.

## **Training**

Documentation is on file for each operator

## **Endangered Species**

There are no known endangered species on this project site.

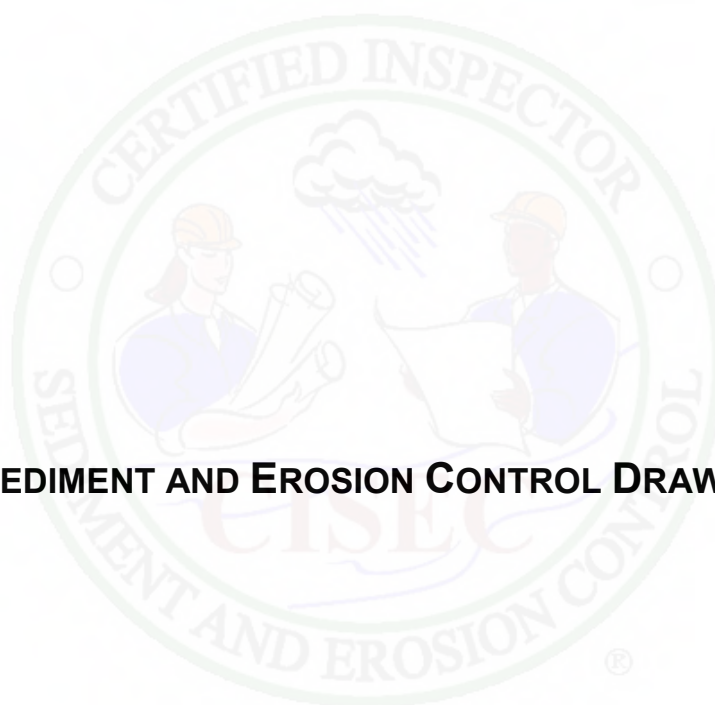
## **Historic Properties**

There are no known historic properties on this project site



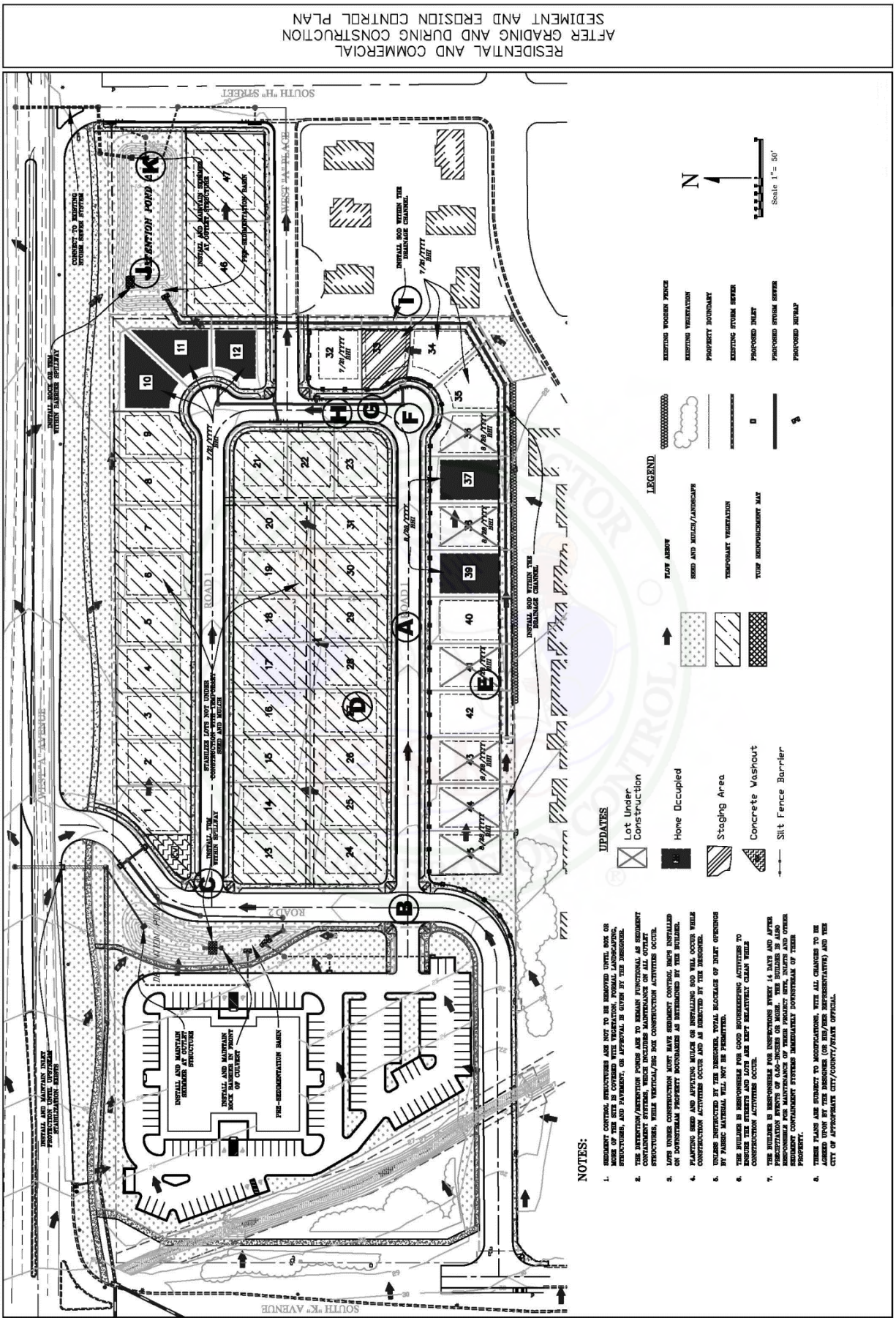
# Conducting Construction Site Inspections

## SEDIMENT AND EROSION CONTROL DRAWINGS





# Conducting Construction Site Inspections



# Conducting Construction Site Inspections

### INSPECTION REQUIREMENTS FOR ALL INSTALLED BMPs

1. AT LEAST ONCE EVERY 14 DAYS, INSPECT AND REPAIR ANY DAMAGED BMPs.
2. WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 0.5 INCHES OR MORE.

### MAINTENANCE NOTES FOR THE BMPs SHOWN

**ROCK BARRIERS:**

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE ROCK BARRIER WHEN IT IS WITHIN 6-IN. OF THE BARRIER.
- REMOVE ROCK BARRIER, POSTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**SILT FENCE BARRIERS:**

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP.
- REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**VEHICLE TRACKING MATS:**

- REPAIR ROLLED EROSION CONTROL PRODUCT.
- REMOVE SEDIMENT ON ADJACENT STREETS, IF TRACKING IS OCCURRING.

**HILLSIDE ROLLED EROSION CONTROL PRODUCT:**

- REPAIR RILLS AND GULLIES IF FORMING BENEATH BLANKET.

**CONCRETE WASHOUT:**

- REPAIR DAMAGED STRAW BALES.
- REMOVE ACCUMULATED MATERIAL WEEKLY OR AS NEEDED.

### INSTALLING A DISTURBED SLOPE RECP

**NOTES:**  
WASHOUT AREA TO BE IDENTIFIED BY SIGNAGE.  
RECLAMATION BARRIERS CAN BE CONSTRUCTED FROM STRAW BALES OR CARBON MATERIAL (MINIMUM 2-FT. HIGH).  
EXHAUSTIVE ADDITIONAL MINIMUM 1 FOOT FOR STORAGE.  
WASHOUT MATS SHALL BE INSTALLED AT ALL ACCESS. RECLAIMED MATERIAL TO BE DISPOSED OF PROPERLY AS DIRECTED BY THE REGULATORY AGENCY.

### ROCK BARRIER OUTLET STRUCTURE FOR CULVERTS

**TOP VIEW:** WITH 1/2" GAPS BETWEEN EACH ROCK BARRIER. SUPPORT WIRE SHALL BE 1/4" DIA. OPENINGS SHALL BE 1/2" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

**FRONT VIEW:** ROCK BARRIER SHALL BE 18" HIGH. SUPPORT WIRE SHALL BE 1/4" DIA. OPENINGS SHALL BE 1/2" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

**SIDE VIEW:** ROCK BARRIER SHALL BE 18" HIGH. SUPPORT WIRE SHALL BE 1/4" DIA. OPENINGS SHALL BE 1/2" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

### INSTALLING A DISTURBED SLOPE RECP

**NOTES:**  
RECLAMATION BARRIERS (NOT TO BE USED AS A SEDIMENT CONTROL MEASURE).  
WASHOUT AREA TO BE IDENTIFIED BY SIGNAGE. RECLAMATION BARRIERS CAN BE CONSTRUCTED FROM STRAW BALES OR CARBON MATERIAL (MINIMUM 2-FT. HIGH). EXHAUSTIVE ADDITIONAL MINIMUM 1 FOOT FOR STORAGE. WASHOUT MATS SHALL BE INSTALLED AT ALL ACCESS. RECLAIMED MATERIAL TO BE DISPOSED OF PROPERLY AS DIRECTED BY THE REGULATORY AGENCY.

### SOIL TRACKING PREVENTION DEVICE

**SIDE VIEW:** SOIL TRACKING PREVENTION DEVICE. OUTLET. 18" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

**PLAN VIEW:** SOIL TRACKING PREVENTION DEVICE. OUTLET. 18" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

**SECTION A-A:** SOIL TRACKING PREVENTION DEVICE. OUTLET. 18" DIA. TO ALLOW FOR FLOW OF WATER THROUGH THE STRUCTURE.

### ATTACHING TWO SILT FENCES WHEN TRENCHING

**ATTACHING TWO SILT FENCES WHEN TRENCHING:** PLACE THE END OF ONE SILT FENCE INTO THE TRENCH OF THE OTHER SILT FENCE. SECURE WITH WIRE. REMOVE SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP. REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

### SLICING METHOD

**SLICING METHOD:** SLICE THE SILT FENCE INTO STRIPS. PLACE THE STRIPS INTO THE TRENCH. SECURE WITH WIRE. REMOVE SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP. REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

### TRENCHING METHOD

**TRENCHING METHOD:** TRENCH THE SILT FENCE INTO STRIPS. PLACE THE STRIPS INTO THE TRENCH. SECURE WITH WIRE. REMOVE SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18-IN. DEEP. REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

RESIDENTIAL AND COMMERCIAL  
TYPICAL DETAILS





# Conducting Construction Site Inspections

## Pre-Grading and During Construction Notes

1. INSTALLATION OF THE OFFSITE STORM SEWER PIPE WITH A CONNECTION TO WEST "A" AVENUE SYSTEM MUST BE COMPLETED BEFORE BEGINNING ANY GRADING ACTIVITIES.
2. PRIOR TO OVERLOT GRADING ACTIVITIES, INSTALL AND MAINTAIN SEDIMENT CONTROL BARRIERS, AS ILLUSTRATED.
3. AT THE BEGINNING OF OVERLOT GRADING, ROUGH GRADE PROPOSED DETENTION AND RETENTION PONDS AND COVERT THEM INTO A SEDIMENT BASINS WITH OUTLET STRUCTURES.
4. UPON COMPLETION OF INLETS ALONG WEST "A" AVENUE, INSTALL AND MAINTAIN INLET PROTECTION UNTIL APPROXIMATELY 80% OF THE SITE HAS BEEN BUILT OUT.
5. GENERAL MAINTENANCE OF SEDIMENT CONTROL STRUCTURES WILL INCLUDE ENSURING THAT ROCKS ARE NOT CLOGGED WITH SEDIMENT, MAINTAINING THE INTEGRITY OF ROCK BARRIERS, REPAIRING DAMAGED BARRIERS, REPLACEMENT OF SEDIMENT FILLED ROCK, REMOVAL OF SEDIMENT FROM INLET INSERTS, AND REMOVING SEDIMENT WHEN HALF THE STRUCTURE VOLUME IS LOST (E.G. BEHIND SILT FENCE BARRIERS).
6. SEDIMENT TRACKED ONTO OFFSITE STREETS WILL BE REMOVED WEEKLY OR AS NEEDED.
7. SOIL STOCKPILES AREA WILL BE LOCATED BY THE CONTRACTOR AND PROTECTED WITH SEDIMENT AND EROSION CONTROL BMPs AS DIRECTED BY THE DESIGNER OR ENGINEER.
8. INSPECTION OF ALL BMPs IS TO OCCUR AT LEAST ONCE EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS THAT ARE 0.50-INCHES OR MORE. ALL NECESSARY MAINTENANCE AND REPAIRS SHALL BE COMPLETED WITHIN SEVEN DAYS, UNLESS OTHERWISE AGREED.
9. EROSION CONTROL MEASURES (SEE THE AFTER GRADING AND DURING CONSTRUCTION DRAWINGS) WILL BE INSTALLED, INSPECTED, AND MAINTAINED WHILE CONSTRUCTION AND DEVELOPMENT ACTIVITIES OCCUR.
10. THESE PLANS ARE SUBJECT TO CHANGE, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNERS (OR HIS/HER REPRESENTATIVE) AND THE APPROPRIATE CITY/COUNTY/STATE OFFICIAL.



# Conducting Construction Site Inspections

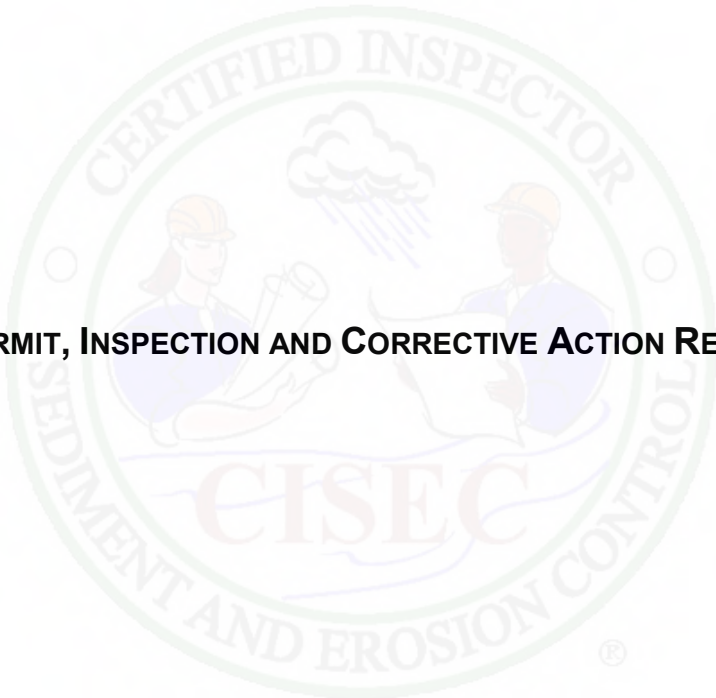
## After-Grading and During Construction Notes

1. SEDIMENT CONTROL STRUCTURES ARE NOT TO BE REMOVED UNTIL 80% OR MORE OF THE SITE IS COVERED WITH VEGETATION, FORMAL LANDSCAPING, STRUCTURES, AND PAVEMENT, OR APPROVAL IS GIVEN BY THE DESIGNER.
2. THE DETENTION/RETENTION PONDS ARE TO REMAIN FUNCTIONAL AS SEDIMENT CONTAINMENT SYSTEMS, WHICH INCLUDES MAINTENANCE ON ALL OUTLET STRUCTURES, WHILE VERTICAL/BIG BOX CONSTRUCTION ACTIVITIES OCCUR.
3. LOTS UNDER CONSTRUCTION MUST HAVE SEDIMENT CONTROL BMPS INSTALLED ON DOWNSTREAM PROPERTY BOUNDARIES AS DETERMINED BY THE BUILDER.
4. PLANTING SEED AND APPLYING MULCH OR INSTALLING SOD WILL OCCUR WHILE CONSTRUCTION ACTIVITIES OCCUR AND AS DIRECTED BY THE DESIGNER.
5. UNLESS INSTRUCTED BY THE DESIGNER, TOTAL BLOCKAGE OF INLET OPENINGS BY FABRIC MATERIAL WILL NOT BE PERMITTED.
6. THE BUILDER IS RESPONSIBLE FOR GOOD HOUSEKEEPING ACTIVITIES TO ENSURE THE STREETS AND LOTS ARE KEPT RELATIVELY CLEAN WHILE CONSTRUCTION ACTIVITIES OCCUR.
7. THE BUILDER IS RESPONSIBLE FOR INSPECTIONS EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS OF 0.50-INCHES OR MORE. THE BUILDER IS ALSO RESPONSIBLE FOR MAINTENANCE OF THEIR PROJECT SITE, INLETS AND OTHER SEDIMENT CONTAINMENT SYSTEMS IMMEDIATELY DOWNSTREAM OF THEIR PROPERTY.
8. THESE PLANS ARE SUBJECT TO MODIFICATIONS, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNER (OR HIS/HER REPRESENTATIVE) AND THE CITY OF APPROPRIATE CITY/COUNTY/STATE OFFICIAL.



# Conducting Construction Site Inspections

**PERMIT, INSPECTION AND CORRECTIVE ACTION REPORTS**

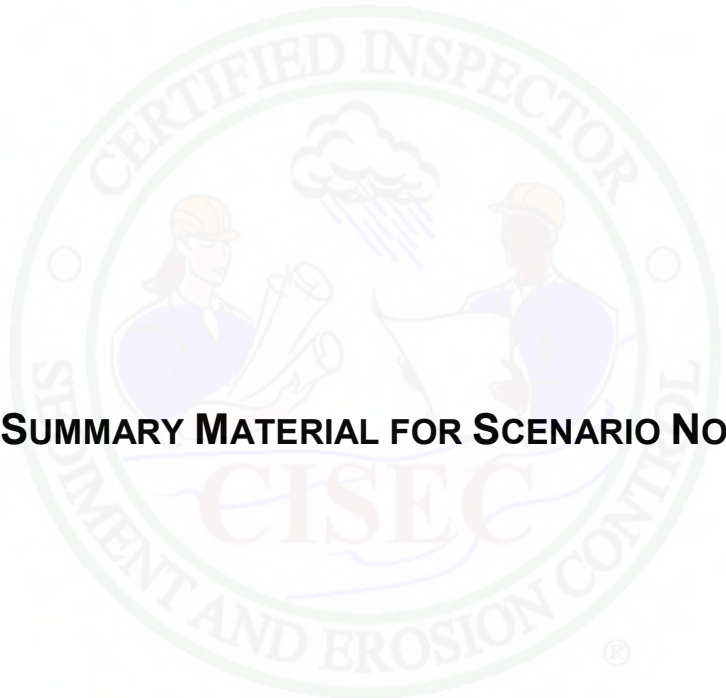


# Conducting Construction Site Inspections

**Contractor has decided that neither a NPDES permit nor inspections  
or corrective action reports are necessary**



# Conducting Construction Site Inspections



## **SUMMARY MATERIAL FOR SCENARIO NO. 1**



# SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Report Date: \_\_\_\_\_

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

Operator Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.				
√ Visible from a public road nearest to the active part of the construction site.				
√ Identifies the NPDES Permit tracking number.				
√ Identifies a current contact name and telephone number for obtaining permit information.				
√ If not on the site, identifies location of SWPPP.				
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.				
√ Identifies current stormwater team member names.				
√ Identifies current construction site operator names.				
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.				
3. Inspection records exist on the site, or at an easily accessible location, or electronically.				
√ Frequency and timing of inspections is occurring as specified in the SWPPP.				
√ Water quality records exist.				
√ Documentation exists on inspection of tasks completed for previous corrective action items.				
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
<del>4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.</del>				
<del>5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.</del>				
<del>6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.</del>				
<del>7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.</del>				
<del>8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.</del>				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
<del>9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.</del>				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
<del>10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.</del>				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
<del>11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.</del>				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
<del>12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.</del>				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
<del>13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b></del>				<b>To be done within seven calendar days.</b>



# Conducting Construction Site Inspections



## SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.

Inspection Time and Location	Corrective Action Needed	Date Corrected (with initials)
<u>Location No. 1</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		



# Conducting Construction Site Inspections



## SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.

Date Corrected (with initials)

Inspection Time and Location	Corrective Action Needed	Date Corrected (with initials)
<p><u>Location No. 1</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p><u>Location No. 2</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		





# Conducting Construction Site Inspections



## SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.

Date Corrected (with initials)

Inspection Time and Location	Corrective Action Needed	Date Corrected (with initials)
<u>Location No. 1</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		



# Conducting Construction Site Inspections



## SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<u>Location No. 1</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 2</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		



# Conducting Construction Site Inspections



<p><u>Location No. 3</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p><u>Location No. 4</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		

Date: \_\_\_\_\_

Signature of Inspector \_\_\_\_\_

Title of the Inspector:  CISEC     Other \_\_\_\_\_

**The following statement must be signed by a corporate officer (for corporations), general partner or proprietor (for partnership or sole proprietorship), principal executive officer or ranking elected official (for municipality, state, federal or other public agency), or their duly authorized representative.** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Title or Position: \_\_\_\_\_



# SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Report Date: \_\_\_\_\_

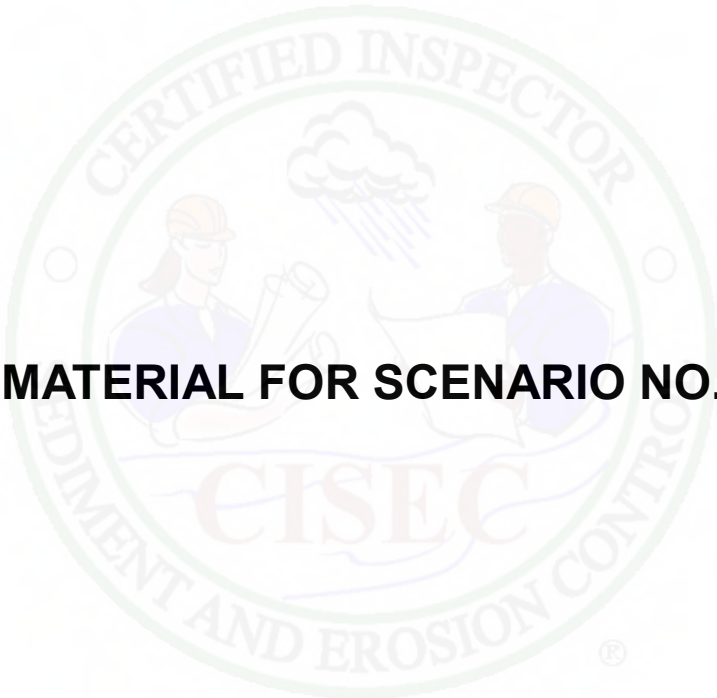
Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

Operator Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.		<b>X</b>		} <b>Could have been "NO"</b>
√ Visible from a public road nearest to the active part of the construction site.			<b>X</b>	
√ Identifies the NPDES Permit tracking number.			<b>X</b>	
√ Identifies a current contact name and telephone number for obtaining permit information.			<b>X</b>	
√ If not on the site, identifies location of SWPPP.			<b>X</b>	
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.		<b>X</b>		<b>Updates are needed</b>
√ Identifies current stormwater team member names.		<b>X</b>		<b>No Designer</b>
√ Identifies current construction site operator names.		<b>X</b>		<b>No Subcontractors</b>
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.		<b>X</b>		<b>Updates are likely needed after six months of construction</b>
3. Inspection records exist on the site, or at an easily accessible location, or electronically.		<b>X</b>		} <b>Could have been "NO"</b>
√ Frequency and timing of inspections is occurring as specified in the SWPPP.			<b>X</b>	
√ Water quality records exist.			<b>X</b>	
√ Documentation exists on inspection of tasks completed for previous corrective action items.			<b>X</b>	
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.				
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.				
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.				
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.				
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.				
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.				
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.				
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>				<b>To be done within seven calendar days.</b>



# Conducting Construction Site Inspections

## MATERIAL FOR SCENARIO NO. 2



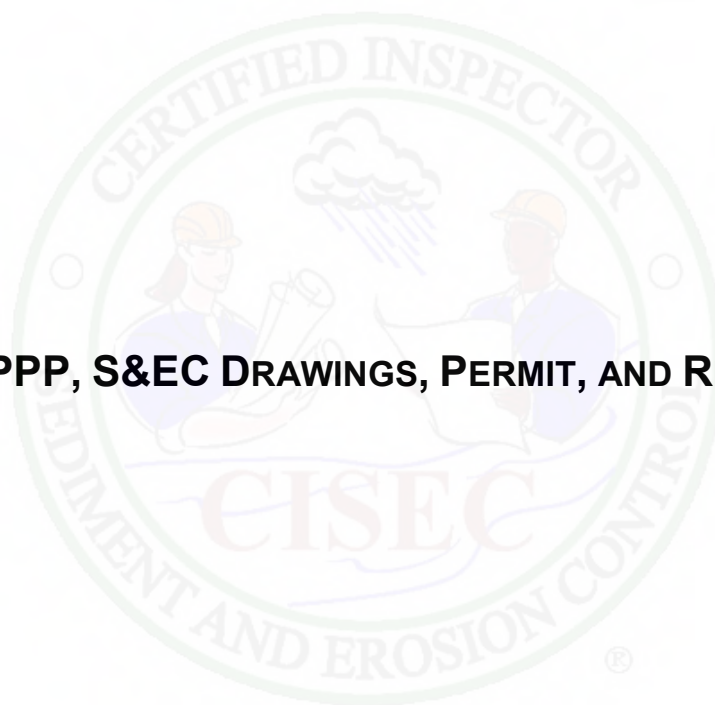
# Conducting Construction Site Inspections

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# Conducting Construction Site Inspections

**SWPPP, S&EC DRAWINGS, PERMIT, AND RECORDS**



# Conducting Construction Site Inspections

## Stormwater Team

Permittee: Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Contact Information: I. M. Aperson  
Example Development  
12345 First Street  
Any Town, Any State zip  
(XXX) 123- 4567

Person Responsible for Plan: Mr. Loman Onthetotempol

Designer: Iare Adesigner

Subcontractors: S&EC Grading and Contracting 8/20/20XX  
Johnston Pipe Line Contractors BHI  
Acme Painters  
Seth Plumbing  
AAA general contractor  
JJJ builders  
New to Stormwater Inspections Services

## Nature of Construction Activity

This project consists of developing land for a subdivision and commercial area.

Construction activities on the site will consist of removing existing vegetation, grading of the land, installing utilities, paving, and development of the land for a subdivision and commercial area.

This project will disturb approximately 37.1 acres out of a total of 42.1 acres.

## Sequence for Major Activities:

Construction tasks to be completed will include the following sequential activities.

- Removal of existing vegetation,
- Clearing and grubbing of the land,
- Grading,
- Installing utilities,
- Development and paving of roads, and
- Construction of commercial and single family homes.

## Site Map:

A map has been included with this SWPPP.





# Conducting Construction Site Inspections

## Site Planning Documentation

Soils on the project have the following characteristics:

Symbol	Type of Soil Material	Percent of Site	Rainfall Erodibility	Comments
A5b5	Sandy Loam	100%	3	Low to moderate water erosion and wind hazards and moderate to high runoff potential.

Predominate soils of the site are moderately deep and well drained. Historic vegetation for this area is pasture grass.

## Construction Site Pollutants

It will be the responsibility of the heavy equipment contractor to take appropriate actions to ensure pollution of storm water does not occur. Fueling areas will be at least 100 feet from drainage channels and/or storm sewer systems.

The heavy equipment contractor will be responsible for protecting the soil from contamination due to any hydrocarbon or other hazardous spills associated with his contractual obligations.

Operator will be responsible for preventing soil contamination where building materials, fertilizers, chemicals, waste piles or other potential hazardous materials may exist.

No dedicated concrete or asphalt batch plants exist on this site.

## Non-Storm Water Components of Discharge

There is no non-storm water components of discharge associated with this project.

## Descriptions of Stormwater Control Measures

Reduction of sediment in runoff waters will occur in the following manner.

1. Before over lot grading activities begin, the following BMPs will be installed:
  - a) A storm sewer pipe to convey offsite flows away for the project site.
  - b) Silt fence barriers as illustrated on the drawings.
  - c) Vehicle tracking pads at major entrances into the site.
2. During initial over lot grading activities, installation of one or more of the following BMPs will occur:
  - a) As soon as feasible, complete a rough installation of the detention ponds (with outlet structures) and convert them into sediment containment systems (SCSs).
  - b) Install additional silt fence barriers as necessary to minimize discharge of sediment into waterways.
  - c) Apply erosion control materials.



# Conducting Construction Site Inspections

3. During major over lot grading activities, one or more of the following tasks will occur:
  - a) Install diversion structures to ensure the discharge of runoff into an SCS.
  - b) Maintain all sediment and erosion control BMPs.
  - c) Install utilities
  - d) Install barriers at inlet.
  - e) Apply erosion control materials.
4. After grading activities are completed, the following tasks will occur;
  - a) Paving of roads
  - b) Construction of homes.
  - c) Installation of landscaping material.
  - d) Maintenance of SCSs until 80% full buildout of development.
  - e) Maintenance of sediment and erosion control methods

## Sediment and Erosion Control Methods

Sediment control measures will include the following techniques with installation of additional methods occurring as deemed necessary by the designer.

- Silt fence and/or diversion barriers
- Barriers in front of “sump” inlets
- Vehicle tracking pads
- Sediment containment systems

Offsite tacking of soil will be minimized by at least weekly removal of accumulated sediment in access streets. More frequent sediment removal will occur when significant buildup is evident.

Erosion control measures will include the following methods:

- Construction of homes
- Installing landscaping materials
- Placement of pavement
- Applying erosion control materials

Final stabilization of the site will occur by placement of pavement, planting temporary and/or perennial grass seed on disturbed lands, and installing landscape material on the lots and in common areas.

## **Inspection and Maintenance**

Sediment and erosion control measures should be inspected after any significant precipitation event that results in runoff. As a minimum, inspection of all sediment and erosion control facilities will take place at least once every 14 days while construction activities occur. **and after precipitation events of 0.25-inches or more.** 8/20/20XX

Inspections will occur until final stabilization of the site is realized, which is defined as vegetative cover of at least 70% of native vegetation, 100% completion of the commercial area and 100% completion of the homes sites. **BH**

Inspection of sediment and erosion control measures will include at least the following.

- Removal of accumulated material collected by SCSs or barriers once a 50% reduction of the storage capacity for the structures becomes evident,
- Repairing damage to sediment control structures,



# Conducting Construction Site Inspections

- Adding or eliminating sediment and/or erosion control measures as deemed necessary,
- Immediate repair and/or replacement of BMPs when failure occurs or the mitigation measures are ineffective.

Records of each inspection will reside with the contractor, developer, or their representative.

## **Training**

Training documentation is on file.

## **Endangered Species and Historic Properties**

There are no known endangered species or historic properties on this project site.

## **Sensitive Areas**

There are no known sensitive areas within this project site.



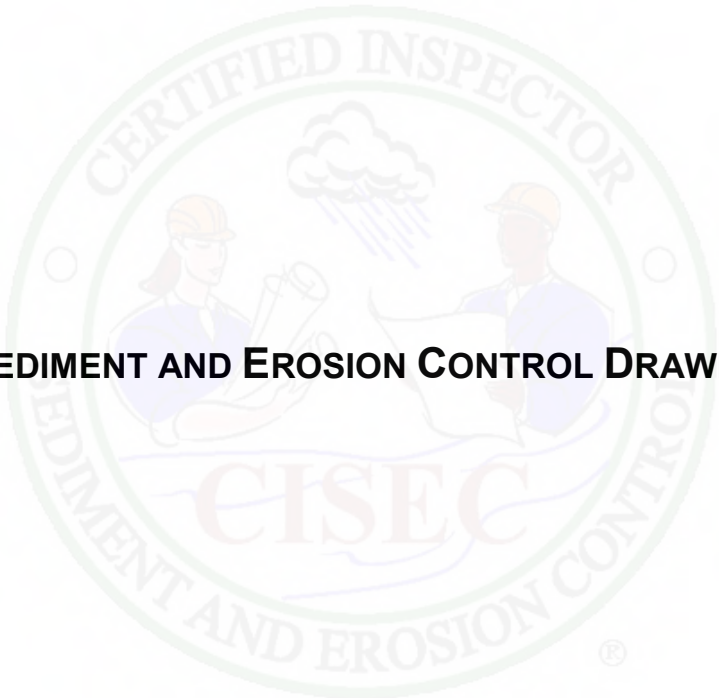
# Conducting Construction Site Inspections

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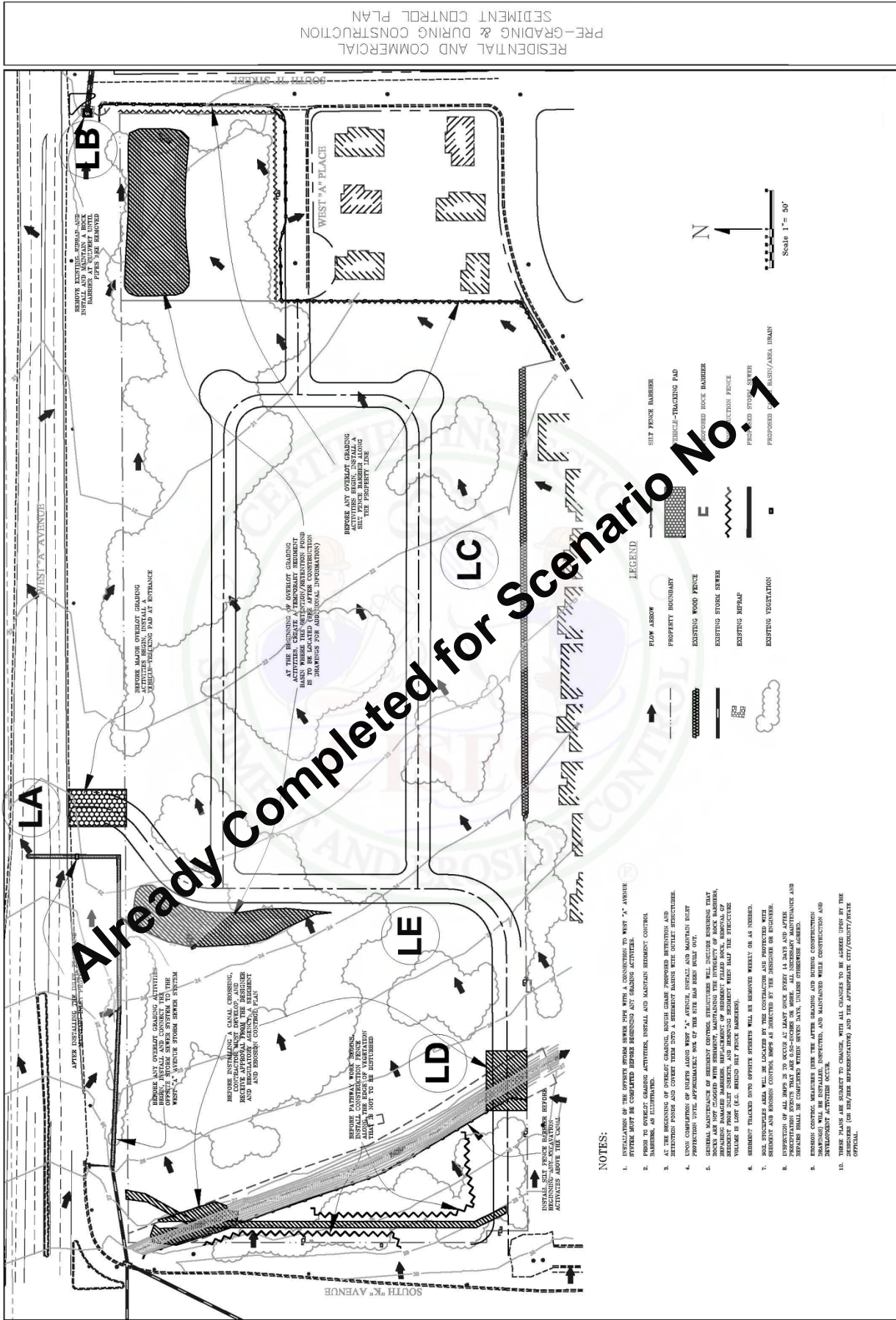


# Conducting Construction Site Inspections

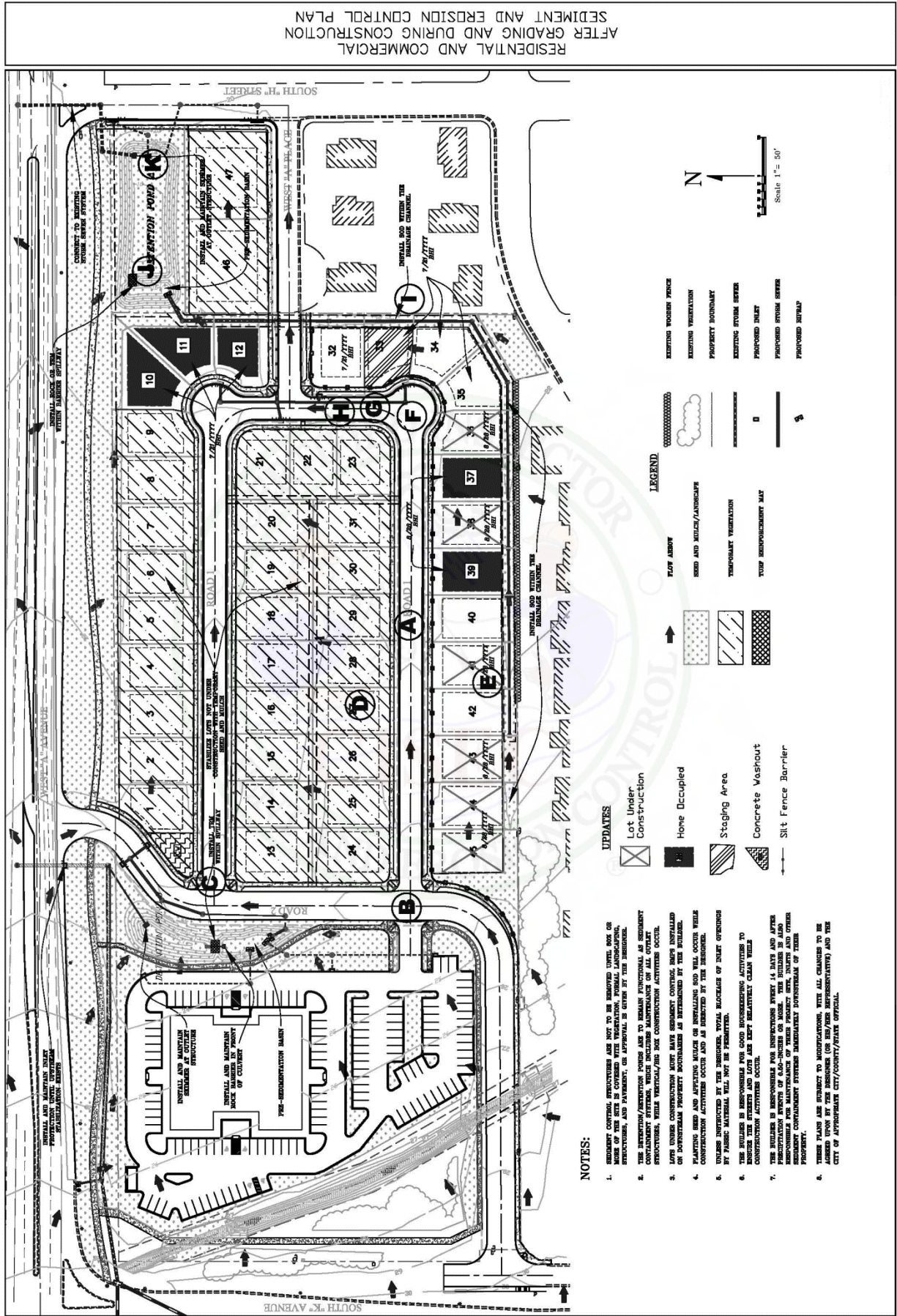
## **SEDIMENT AND EROSION CONTROL DRAWINGS**



# Conducting Construction Site Inspections



# Conducting Construction Site Inspections



# Conducting Construction Site Inspections

### TYPICAL DETAILS RESIDENTIAL AND COMMERCIAL

#### INSPECTION REQUIREMENTS FOR ALL INSTALLED BMPS

1. AT LEAST ONCE EVERY 14 DAYS, INSPECT AND REPAIR ANY DAMAGE FOUND.
2. WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 0.5 INCHES OR MORE.

#### MAINTENANCE NOTES FOR THE BMPS SHOWN

**ROCK BARRIERS:**

- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE ROCK BARRIER WHEN IT IS WITHIN 6-IN. OF THE TOP OF THE ROCK.
- REMOVE ROCK BARRIERS, POSTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**SILT FENCE BARRIERS:**

- REMOVE SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 18 IN. DEEP.
- REMOVE SILT FENCES (FABRIC AND POSTS) ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

**SEDIMENT TRAPPING AND CONTROL:**

- UNLEAK ISOLATED EROSION CONTROL PRODUCTS.
- REPAIR RILLS AND DULLES IF FORMING BEHIND S-BANKET.
- REPAIR DAMAGED BLANKET MATERIAL.
- CONCRETE WASHOUT.
- REPAIR ACCUMULATED STRAW BALE.
- REMOVE ACCUMULATED MATERIAL, WEEKLY OR AS NEEDED.

#### INSTALLING A DISTURBED SLOPE RECP

**NOTES:**

- VEGETATION AREA TO BE RESTORED BY REPAIR.
- RESTORATION MATS CAN BE CONSTRUCTED FROM STRAW BALES OR DRYED MATERIAL (MINIMUM 2-FT. HIGH).
- EXHAUSTIVE ADDITIONAL VEGETATION 1 FOOT FOR STRAW.
- MATS MUST BE CLOSED OFF WEEKLY OR AS NEEDED. RESTORED MATERIAL TO BE CLOSED OFF WEEKLY AS DIRECTED BY THE REGULATORY AGENCY.

#### CONCRETE WASHOUT

**NOTES:**

- RESTORATION MATS (NOT TO BE USED AS A RESTORATION CONTROL MEASURE).

#### ROCK BARRIER OUTLET STRUCTURE FOR CULVERTS

#### SOIL TRACKING PREVENTION DEVICE

#### SILT FENCE BARRIER INSTALLATION

**SLIDING METHOD:**

ATTACHING TWO SILT FENCES WHEN TRENCHING IS USED:

- TRENCHING METHOD: TRENCHING IS USED TO INSTALL THE SILT FENCE.
- SLIDING METHOD: THE SILT FENCE IS SLIDED INTO PLACE.

#### INSTALLING A DISTURBED SLOPE RECP

**NOTES:**

- VEGETATION AREA TO BE RESTORED BY REPAIR.
- RESTORATION MATS CAN BE CONSTRUCTED FROM STRAW BALES OR DRYED MATERIAL (MINIMUM 2-FT. HIGH).
- EXHAUSTIVE ADDITIONAL VEGETATION 1 FOOT FOR STRAW.
- MATS MUST BE CLOSED OFF WEEKLY OR AS NEEDED. RESTORED MATERIAL TO BE CLOSED OFF WEEKLY AS DIRECTED BY THE REGULATORY AGENCY.

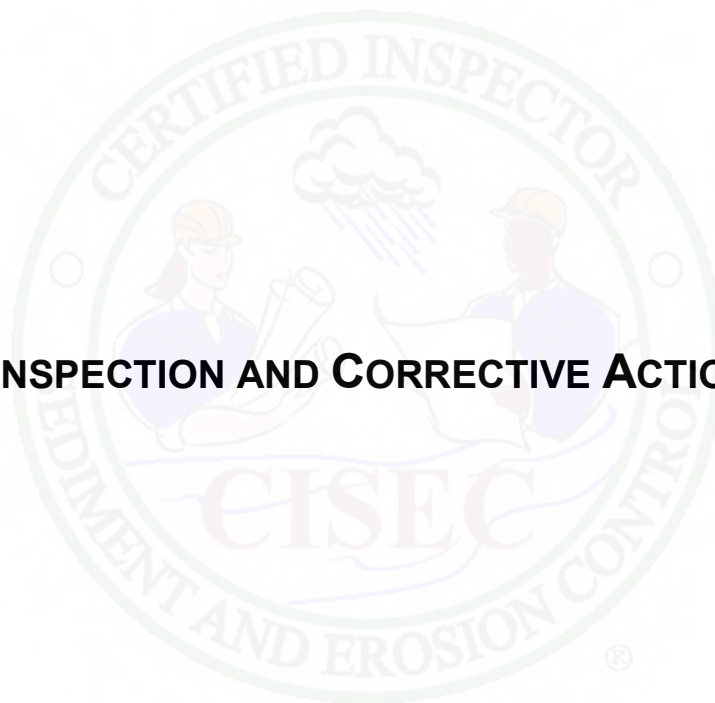
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# Conducting Construction Site Inspections

## PERMIT, INSPECTION AND CORRECTIVE ACTION RECORDS



# Conducting Construction Site Inspections

<b>NPDES FORM 3510-9</b>		<b>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY</b> <b>WASHINGTON, DC 20460</b> <b>NOTICE OF INTENT FOR THE 2017 NPDES CONSTRUCTION GENERAL PERMIT</b>	<b>Form Approved.</b> <b>OMB No. 2040-0004</b>
----------------------------------	--	---	---

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

### I. Approval to Use Paper NOI Form

Have you been granted a waiver from electronic reporting from the Regional Office \*?  YES  NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:  The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver:

Date approval obtained:  /  /

**\* Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

### II. Permit Information

**NPDES ID (EPA Use Only):**

Master Permit Number:  (see Appendix B of the CGP for the list of eligible permit numbers)

### III. Operator Information

**Operator Information**

Operator Name:

Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A?  YES  NO

Mailing Address:

Street:

City:  State:  ZIP Code:  -

County or Similar Government Division:

Phone:  -  -  Ext.

E-mail:

Operator Point of Contact Information:

First Name, Middle Initial, Last Name:

Title:

**NOI Preparer (Complete if NOI was prepared by someone other than the certifier):**

First Name, Middle Initial, Last Name:

Organization:



# Conducting Construction Site Inspections

Receiving Waters Information: (Attach a separate list if necessary)

Point of Discharge ID	For each point of discharge, provide the following receiving water information:		
	Provide the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to:	If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:	If a TMDL been completed for this receiving waterbody, providing the following information:
CANAL	XYZ BAY		TMDL Name and ID:   Pollutant(s) for which there is a TMDL:
COMMERCIAL DETENTION POND	CITY STORM SEWER SYSTEM		TMDL Name and ID:   Pollutant(s) for which there is a TMDL:
SUBDIVISION DETENTION POND	CITY STORM SEWER SYSTEM		TMDL Name and ID:   Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:   Pollutant(s) for which there is a TMDL:



# Conducting Construction Site Inspections

## VIII. Endangered Species Protection

Using the instructions in Appendix D of the CGP, under which criterion listed below are you eligible for coverage under this permit? Check only 1 box, include the required information and provide a sound basis for supporting the criterion selected. You must consider Endangered Species Act listed threatened or endangered species (ESA-listed) and/or designated critical habitat(s) under the jurisdiction of both the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) and select the most conservative criterion that applies.

**A** No ESA-listed species and/or designated critical habitat present in action area. Using the process outlined in Appendix D of this permit, you certify that ESA-listed species and designated critical habitat(s) under the jurisdiction of the USFWS or NMFS are not likely to occur in your site's "action area" as defined in Appendix A of this permit. **[Basis statement content: A basis statement supporting the selection of this criterion should identify the USFWS and NMFS information sources used. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.]**

**B** Eligibility requirements met by another operator under the 2017 CGP. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility Criterion A, C, D, E, or F of the 2017 CGP and you have confirmed that no additional ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS not considered in the that certification may be present or located in the "action area." To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other CGP operator's certification. By certifying eligibility under this criterion, you agree to comply with any conditions upon which the other CGP operator's certification was based. You must include in your NOI the NPDES ID from the other 2017CGP operator's notification of authorization under this permit. If your certification is based on another 2017 CGP operator's certification under criterion C, you must provide EPA with the relevant supporting information required of existing discharges in criterion C in your NOI form. **[Basis statement content: A basis statement supporting the selection of this criterion should identify the eligibility criterion of the other CGP NOI, the authorization date, and confirmation that the authorization is effective.]**

If you select criterion B, provide the NPDES ID from the other operator's notification of authorization under this permit: \_\_\_\_\_

**C** Discharges not likely to adversely affect ESA-listed species and/or designated critical habitat. ESA-listed species and/or designated critical habitat(s) under the jurisdiction of the USFWS and/or NMFS are likely to occur in or near your site's "action area," and you certify to EPA that your site's discharges and discharge-related activities are not likely to adversely affect ESA-listed threatened or endangered species and/or designated critical habitat. This certification may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. To certify your eligibility under this criterion, indicate 1) the ESA-listed species and/or designated habitat located in your "action area" using the process outlined in Appendix D of this permit; 2) the distance between the site and the listed species and/or designated critical habitat in the action area (in miles); and 3) a rationale describing specifically how adverse effects to ESA-listed species will be avoided from the discharges and discharge-related activities. You must also include a copy of your site map from your SWPPP showing the upland and in-water extent of your "action area" with this NOI. **[Basis statement content: A basis statement supporting the selection of this criterion should identify the information resources and expertise (e.g., state or federal biologists) used to arrive at this conclusion. Any supporting documentation should explicitly state that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in the evaluation.]**

What ESA-listed species and/or designated critical habitat are located in your "action area":

\_\_\_\_\_  
\_\_\_\_\_

Distance between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed):

\_\_\_\_\_  
\_\_\_\_\_

**D** Coordination with USFWS and/or NMFS has successfully concluded. Coordination between you and the USFWS and/or NMFS has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS, and resulted in a written concurrence from USFWS and/or NMFS that your site's discharges and discharge-related activities are not likely to adversely affect listed species and/or critical habitat. You must include copies of the correspondence with the participating agencies in your SWPPP and this NOI. **[Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies participated in coordination, the field office/regional office(s) providing that coordination, and the date that coordination concluded.]**

**E** ESA Section 7 consultation has successfully concluded. Consultation between a Federal Agency and the USFWS and/or NMFS under section 7 of the ESA has concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, Indicate the result of the consultation:

biological opinion from USFWS and/or NMFS that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

written concurrence from USFWS and/or NMFS with a finding that the site's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat.

You must include copies of the correspondence between yourself and the USFWS and/or NMFS in your SWPPP and this NOI. **[Basis statement content: A basis statement supporting the selection of this criterion should identify the federal action agency(ies) involved, the field office/regional office(s) providing that consultation, any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, PCTS number), and the date the consultation was completed.]**

**F** Issuance of section 10 permit. Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the site's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI. **[Basis**

# Conducting Construction Site Inspections

**statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies provided a section 10 permit, the field office/regional office(s) providing permit(s), any tracking numbers of identifiers associated with that consultation (e.g., PaC number, PCTS number), and the date the permit was granted.**

Provide a brief summary of the basis for criterion selection listed above [the necessary content for a supportive basis statement is provided under the criterion you selected].

## IX. Historic Preservation

Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbance? (Appendix E, Step 1)  YES  NO

If yes, have prior surveys or evaluations conducted on the site have already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E, Step 2)  YES  NO

If no, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? (Appendix E, Step 3)  YES  NO

If no, did the SHPO, THPO, or other tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? (Appendix E, Step 4)  YES  NO

If yes, describe the nature of their response:

- Written indication that no historic properties will be affected by the installation of stormwater controls.
- Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.
- No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.
- Other:

## X. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: I A M A P E R M I T T E E

Title: O W N E R

Signature:  Date: MM / DD / YYYY

Email: X X X X @ X X X X . C O M

# SWPPP Compliance Inspection Report

Site Name/Permit No. EXAMPLE DEVELOPMENT

Report Date: 8/25/yyyy

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: 2.0 inches

Permittee Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.	<b>X</b>			
√ Visible from a public road nearest to the active part of the construction site.	<b>X</b>			
√ Identifies the NPDES Permit tracking number.	<b>X</b>			
√ Identifies a current contact name and telephone number for obtaining permit information.	<b>X</b>			
√ If not on the site, identifies location of SWPPP.			<b>X</b>	
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.	<b>X</b>			
√ Identifies current stormwater team member names.	<b>X</b>			
√ Identifies current construction site operator names.	<b>X</b>			
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.		<b>X</b>		
3. Inspection records exist on the site, or at an easily accessible location, or electronically.		<b>X</b>		
√ Frequency and timing of inspections is occurring as specified in the SWPPP.			<b>X</b>	
√ Water quality records exist.			<b>X</b>	
√ Documentation exists on inspection of tasks completed for previous corrective action items.			<b>X</b>	
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.	<b>X</b>			
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.		<b>X</b>		
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.		<b>X</b>		
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.		<b>X</b>		
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.	<b>X</b>			<b>X</b> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.			<b>X</b>	<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>	<b>X</b>			<b>To be done within seven calendar days.</b>



# SWPPP Compliance Inspection Report

Site Name/Permit No. EXAMPLE DEVELOPMENT Inspection Date: 8/25/yyyy

Existing Weather Conditions: PARTIAL CLOUDY Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<u>Location No. 1</u>  Lot 43, 44, & 45  Time: _____ <input type="checkbox"/> Discharges are Occurring	Repair silt fence barrier  <hr/> <hr/> <hr/>	
<u>Location No. 2</u>  Lot 32  Time: _____ <input type="checkbox"/> Discharges are Occurring	Erosion is evident  <hr/> <hr/> <hr/>	
<u>Location No. 3</u>  Commercial Pond  Time: _____ <input type="checkbox"/> Discharges are Occurring	Water is contained by the structure  <hr/> <hr/> <hr/>	
<u>Location No. 4</u>    Time: _____ <input type="checkbox"/> Discharges are Occurring	  <hr/> <hr/> <hr/>	

Date: \_\_\_\_\_

Signature of inspector \_\_\_\_\_

Title of the Inspector:  **CISEC**     Other \_\_\_\_\_

**The following statement must be signed by a corporate officer (for corporations), general partner or proprietor (for partnership or sole proprietorship), principal executive officer or ranking elected official (for municipality, state, federal or other public agency), or their duly authorized representative.** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Title or Position: \_\_\_\_\_

# SWPPP Compliance Inspection Report

Site Name/Permit No. EXAMPLE DEVELOPMENT

Report Date: 8/05/yyyy

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

Permittee Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.	<b>X</b>			
√ Visible from a public road nearest to the active part of the construction site.	<b>X</b>			
√ Identifies the NPDES Permit tracking number.	<b>X</b>			
√ Identifies a current contact name and telephone number for obtaining permit information.	<b>X</b>			
√ If not on the site, identifies location of SWPPP.	<b>X</b>			
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.	<b>X</b>			
√ Identifies current stormwater team member names.	<b>X</b>			
√ Identifies current construction site operator names.	<b>X</b>			
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.	<b>X</b>			
3. Inspection records exist on the site, or at an easily accessible location, or electronically.	<b>X</b>			
√ Frequency and timing of inspections is occurring as specified in the SWPPP.		<b>X</b>		
√ Water quality records exist.			<b>X</b>	
√ Documentation exists on inspection of tasks completed for previous corrective action items.	<b>X</b>			
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.		<b>X</b>		
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.		<b>X</b>		
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.		<b>X</b>		
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.		<b>X</b>		
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>		<b>X</b>		<b>To be done within seven calendar days.</b>



# SWPPP Compliance Inspection Report

Site Name/Permit No. EXAMPLE DEVELOPMENT

Report Date: 7/19/yyyy

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

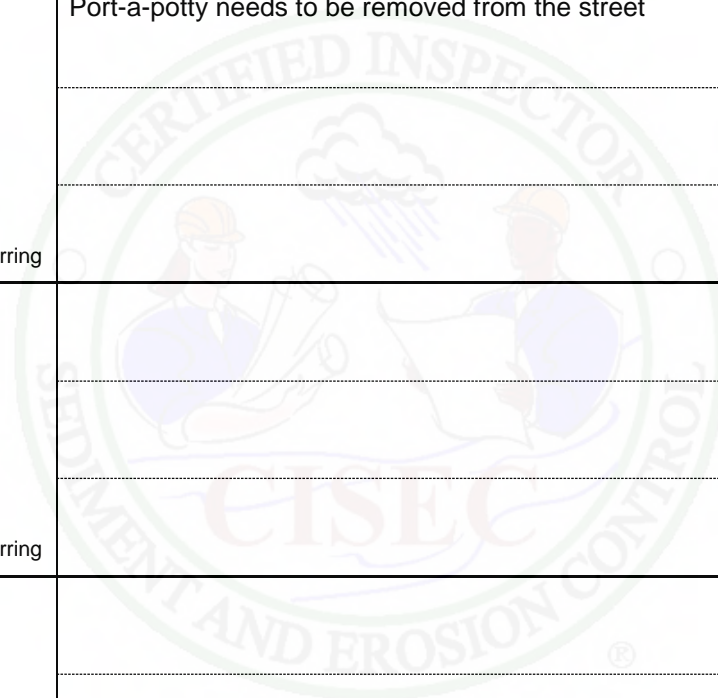
Permittee Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.	<b>X</b>			
√ Visible from a public road nearest to the active part of the construction site.	<b>X</b>			
√ Identifies the NPDES Permit tracking number.	<b>X</b>			
√ Identifies a current contact name and telephone number for obtaining permit information.	<b>X</b>			
√ If not on the site, identifies location of SWPPP.			<b>X</b>	
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.	<b>X</b>			
√ Identifies current stormwater team member names.	<b>X</b>			
√ Identifies current construction site operator names.	<b>X</b>			
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.	<b>X</b>			
3. Inspection records exist on the site, or at an easily accessible location, or electronically.	<b>X</b>			
√ Frequency and timing of inspections is occurring as specified in the SWPPP.		<b>X</b>		
√ Water quality records exist.			<b>X</b>	
√ Documentation exists on inspection of tasks completed for previous corrective action items.	<b>X</b>			
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.	<b>X</b>			
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.		<b>X</b>		
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.		<b>X</b>		
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.		<b>X</b>		
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.	<b>X</b>			<input checked="" type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.	<b>X</b>			<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.	<b>X</b>			<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.			<b>X</b>	<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.		<b>X</b>		<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>	<b>X</b>			<b>To be done within seven calendar days.</b>

# SWPPP Compliance Inspection Report

Site Name/Permit No. EXAMPLE DEVELOPMENT Inspection Date: 7/19/yyyy

Existing Weather Conditions: CLOUDY Inspector's Name: R. J. Crook

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<p style="text-align: center;"><u>Location No. 1</u></p> <p style="text-align: center;">Main Detention Pond</p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>Need to install skimmer per plans</p>	<p>7/25/yyyy ZWI</p>
<p style="text-align: center;"><u>Location No. 2</u></p> <p style="text-align: center;">Lot 32</p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>Port-a-potty needs to be removed from the street</p>	<p>7/22/yyyy ZWI</p>
<p style="text-align: center;"><u>Location No. 3</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p style="text-align: center;"><u>Location No. 4</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		



Date: 7/19/yyyy

Signature of inspector:

Title of the Inspector:  CISEC     Other \_\_\_\_\_

**The following statement must be signed by a corporate officer (for corporations), general partner or proprietor (for partnership or sole proprietorship), principal executive officer or ranking elected official (for municipality, state, federal or other public agency), or their duly authorized representative.** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Title or Position: \_\_\_\_\_

# Conducting Construction Site Inspections

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# Conducting Construction Site Inspections



## INSPECTION FORMS



# SWPPP Compliance Inspection Report

Site Name/Permit No. \_\_\_\_\_ Report Date: \_\_\_\_\_

Reason for Inspection:  7 calendar day requirement.  14 calendar day requirement.  Storm event of 0.25 inches or greater with total rainfall for the day of occurrence being: \_\_\_\_\_ inches

Permittee Requirement Summary	YES	NO	NA	Comments
1. A sign or other notice is posted conspicuously in close proximity to the project site.				
√ Visible from a public road nearest to the active part of the construction site.				
√ Identifies the NPDES Permit tracking number.				
√ Identifies a current contact name and telephone number for obtaining permit information.				
√ If not on the site, identifies location of SWPPP.				
2. A copy of the SWPPP (including updates) exists on the construction site, or at an easily accessible location.				
√ Identifies current stormwater team member names.				
√ Identifies current construction site operator names.				
√ Includes legible (with updates) site maps that illustrate current construction site conditions and locations of stormwater control measures.				
3. Inspection records exist on the site, or at an easily accessible location, or electronically.				
√ Frequency and timing of inspections is occurring as specified in the SWPPP.				
√ Water quality records exist.				
√ Documentation exists on inspection of tasks completed for previous corrective action items.				
<b>Stormwater Control &amp; Housekeeping Items</b>				<b>See accompanying reports for more detailed information.</b>
4. Installation, repair, and/or maintenance of <u>sediment</u> control BMPs needs to occur.				
5. Installation, repair, and/or maintenance of <u>erosion</u> control BMPs needs to occur.				
6. Locations exist where an assessment and decision on installing additional stormwater controls needs to occur.				
7. Locations exist where an assessment and decision on removing existing stormwater controls needs to occur.				
8. Evidence of erosion and/or sedimentation exists that is attributable to discharges from the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
9. Evidence of erosion and/or sedimentation exists on the banks of surface waters flowing through the property.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
10. Sedimentation and/or other deposits are evident and may require removal of accumulated material.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
11. Areas exist where implementation of BMPs may be necessary to minimize wind borne particles.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
12. Evidence or the potential exists for accumulation of pollutants and/or waste materials on the site.				<input type="checkbox"/> Informational Item. <input type="checkbox"/> Corrective action is required.
13. <b>Modify the SWPPP and/or accompanying sediment and erosion control drawings.</b>				<b>To be done within seven calendar days.</b>



# SWPPP Compliance Inspection Report



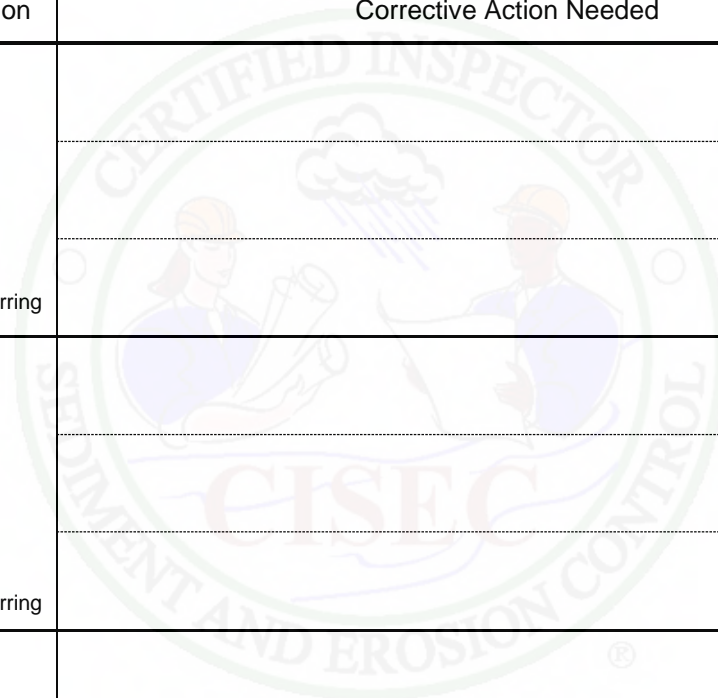
Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.

Date Corrected (with initials)

Inspection Time and Location	Corrective Action Needed	Date Corrected (with initials)
<p style="text-align: center;"><u>Location No. 1</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p style="text-align: center;"><u>Location No. 2</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p style="text-align: center;"><u>Location No. 3</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		
<p style="text-align: center;"><u>Location No. 4</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>		



# SWPPP Compliance Inspection Report



Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.

Date Corrected (with initials)

Inspection Time and Location	Corrective Action Needed	
<p><u>Location No. 5</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p><u>Location No. 6</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p><u>Location No. 7</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p><u>Location No. 8</u></p> <p>Time: _____</p> <p><input type="checkbox"/> Discharges are Occurring</p>	<p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p>



# SWPPP Compliance Inspection Report



Site Name/Permit No. \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Existing Weather Conditions: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

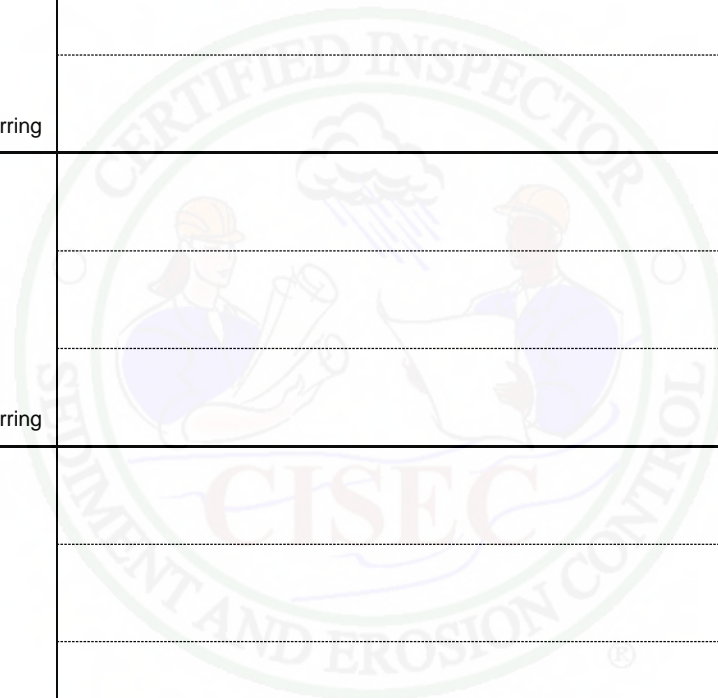
Record the location, inspection time, and corrective action items. If discharges are occurring, identify the point of discharge and document the visual quality (color, odor, floating, settled, or suspended solids, foam, oil sheen, etc.) and whether the stormwater controls are operating effectively.		Date Corrected (with initials)
Inspection Time and Location	Corrective Action Needed	
<p style="margin: 0;"><u>Location No. 9</u></p> <p style="margin: 10px 0 0 0;">Time: _____</p> <p style="margin: 0 0 0 20px;"><input type="checkbox"/> Discharges are Occurring</p>		
<p style="margin: 0;"><u>Location No. 10</u></p> <p style="margin: 10px 0 0 0;">Time: _____</p> <p style="margin: 0 0 0 20px;"><input type="checkbox"/> Discharges are Occurring</p>		
<p style="margin: 0;"><u>Location No. 11</u></p> <p style="margin: 10px 0 0 0;">Time: _____</p> <p style="margin: 0 0 0 20px;"><input type="checkbox"/> Discharges are Occurring</p>		
<p style="margin: 0;"><u>Location No. 12</u></p> <p style="margin: 10px 0 0 0;">Time: _____</p> <p style="margin: 0 0 0 20px;"><input type="checkbox"/> Discharges are Occurring</p>		



# SWPPP Compliance Inspection Report



<u>Location No. 13</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 14</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		
<u>Location No. 15</u>  Time: _____ <input type="checkbox"/> Discharges are Occurring		



Date: \_\_\_\_\_

Signature of inspector \_\_\_\_\_

Title of the Inspector:  CISEC     Other \_\_\_\_\_

**The following statement must be signed by a corporate officer (for corporations), general partner or proprietor (for partnership or sole proprietorship), principal executive officer or ranking elected official (for municipality, state, federal or other public agency), or their duly authorized representative.** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Title or Position: \_\_\_\_\_



# Workshop Evaluation Form

Your feedback is critical for CISEC, Inc. to ensure we are meeting the educational needs of inspectors. We would appreciate it if you could take a few minutes to share your opinions with us so that we can serve you better.

Date: \_\_\_\_\_ Instructor(s): \_\_\_\_\_

	5	4	3	2	1
The workshop was applicable to my job	5	4	3	2	1
I will recommend this workshop to others	5	4	3	2	1
The program was well paced within the allotted time	5	4	3	2	1
The instructors were good communicators	5	4	3	2	1
The material was presented in an organized manner	5	4	3	2	1
The instructors were knowledgeable on the topics	5	4	3	2	1
The modules were applicable to my job	5	4	3	2	1
Given the topics, was this workshop	Too short		Right length	Too long	
In your opinion, was this workshop:	Introductory		Intermediate	Advance	

Please rate the following

	Excellent	Very Good	Good	Fair	Poor
Visuals					
Acoustics					
Meeting Space					
Handouts					
Overall Program					

How could this workshop be improved? \_\_\_\_\_

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What additional topics should be presented? \_\_\_\_\_

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Comments: \_\_\_\_\_

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