

Slide 1 - EROSION & SEDIMENT CONTROL CERTIFICATION PROGRAM Yellow Card

3/2016

SEDIMENT CONTROL CERTIFICATION PROGRAM

Yellow Card

SHA
State Highway
Administration

OED
OFFICE OF ENVIRONMENTAL DESIGN
STEWARDSHIP • COMPLIANCE • SUSTAINABILITY

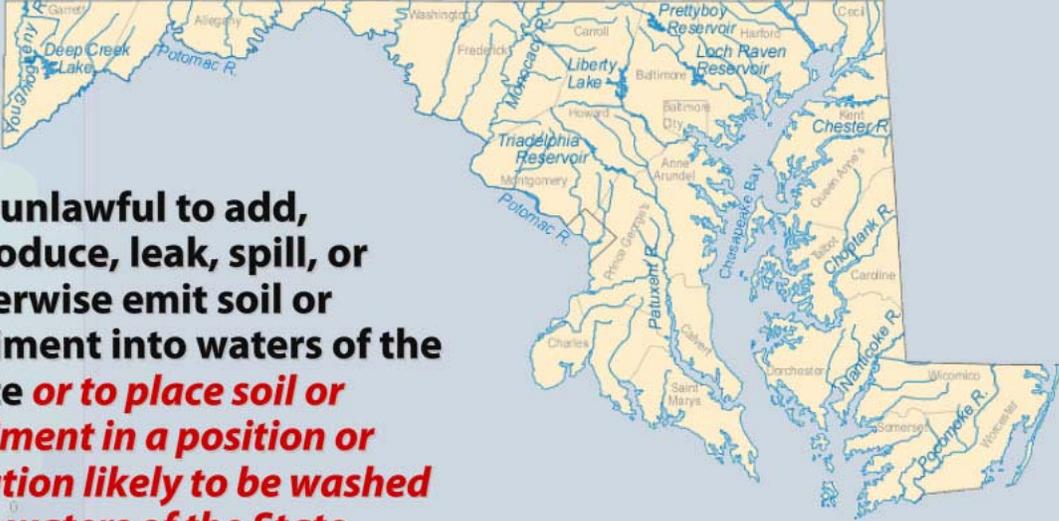
Slide notes

Welcome to the State Highway Administration’s Erosion and Sediment Control Program (Yellow Card). In this training, you will learn the many aspects of Erosion and Sediment Control along with Environmental Protection and the Administration’s Environmental Stewardship commitment. This section will outline reasons for this certification training and introduce the regulations that set the outline for how this program is to function. As stated on the introduction page of the training, you may move forward to the next slide of the presentation by clicking anywhere on the presentation. This is self-paced learning, so please take the time to listen to the narrative and also read the information on the screen to gain a full understanding of the content.

Notes

Slide 2 - Erosion and Sediment Control Environment Article Title 4, Water Management, §4-413

Erosion and Sediment Control
Environment Article Title 4, Water Management, §4-413



It is unlawful to add, introduce, leak, spill, or otherwise emit soil or sediment into waters of the State *or to place soil or sediment in a position or location likely to be washed into waters of the State*

Slide notes

The foundation of this program is based on the laws and state regulations related to sediment pollution and waters of the state.

Notes

Slide 3 - Federal Regulations



U.S. Department of Transportation
Federal Highway Administration

Sec. 650.203 Policy

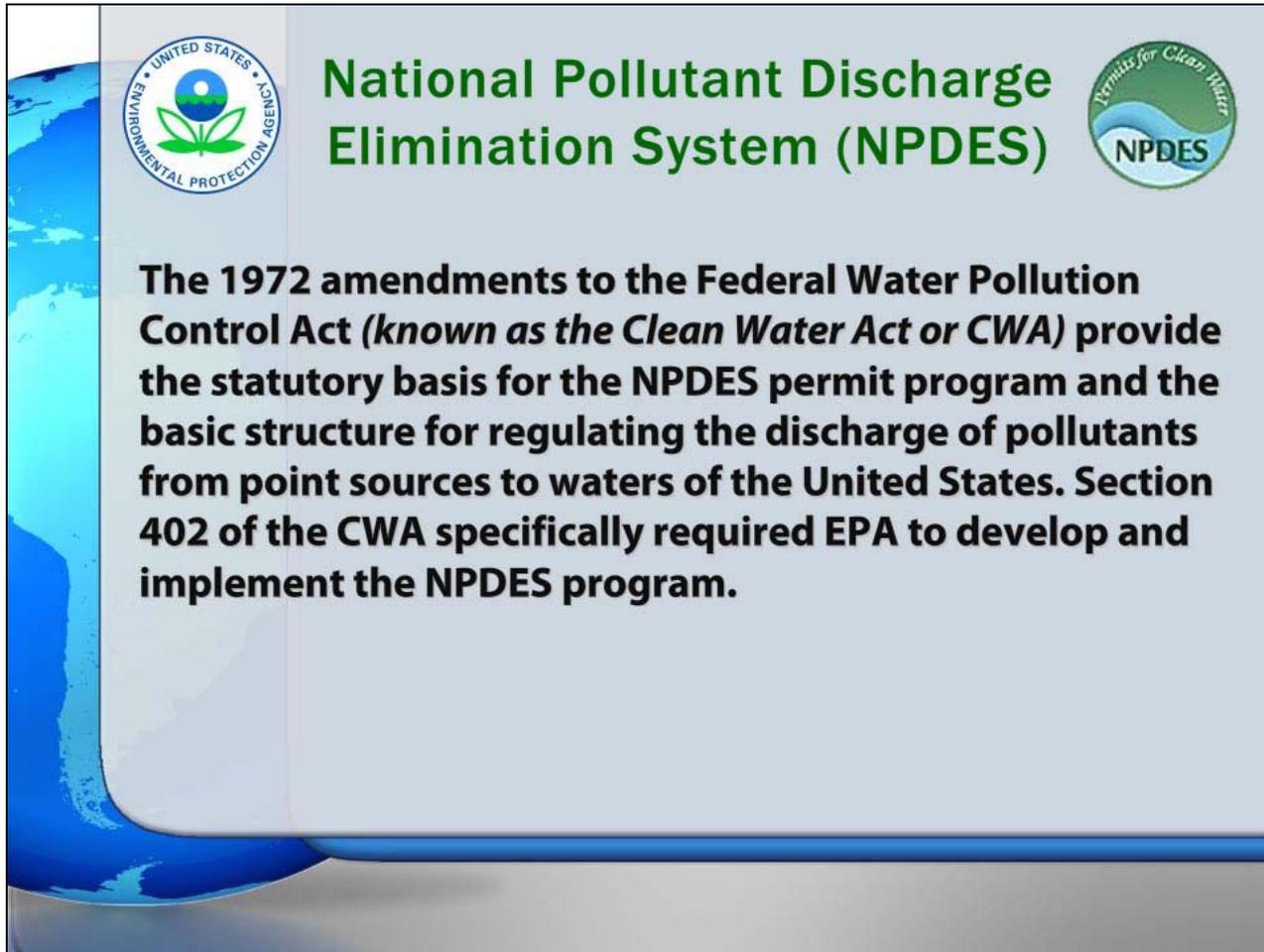
It is the policy of the Federal Highway Administration (FHWA) that *all highways funded in whole or in part under title 23, United States Code, shall be located, designed, constructed and operated according to standards that will minimize erosion and sediment damage* to the highway and adjacent properties and abate pollution of surface and ground water resources. Guidance for the development of standards used to minimize erosion and sediment damage is referenced in Sec. 650.211 of this part.

Slide notes

The Federal Highway Administration also requires that highways be constructed and maintained in an environmentally sensitive manner throughout the country.

Notes

Slide 4 - National Pollutant Discharge Elimination System (NPDES)



The slide features a light blue background with a vertical blue gradient on the left side. At the top left is the EPA logo, and at the top right is the NPDES logo. The main title is in large green font. Below it, a paragraph in bold black font explains the 1972 amendments to the CWA.

United States Environmental Protection Agency

Permits for Clean Water
NPDES

National Pollutant Discharge Elimination System (NPDES)

The 1972 amendments to the Federal Water Pollution Control Act (*known as the Clean Water Act or CWA*) provide the statutory basis for the NPDES permit program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States. Section 402 of the CWA specifically required EPA to develop and implement the NPDES program.

Slide notes

The National Pollutant Discharge Elimination System was developed as part of the Clean Water Act. This permit system is designed to regulate the discharge of pollutants from point sources to waters of the United States.

Notes

Slide 5 - Environmental Stewardship



Environmental Stewardship

- **Containment of concrete cleanout discharge**
- **Containment of machine fluids**
- **Proper disposal of construction debris**
- **Proper disposal of garbage**
- **Develop a spill containment action plan**
- **Tree protection**
- **Habitat protection**
- **Waterway protection**



Slide notes

Environmental Stewardship can take many forms beyond abatement of sediment pollution from a construction project. Containment and disposal of fluids and materials and protection of natural habitats and waterways are also a part of the overall goal of helping to protect our environment.

Notes

Slide 6 - Quality Assurance (QA) Program

Quality Assurance (QA) Program

- The Maryland Department of the Environment (MDE) has delegated "self-inspection" of SHA projects to the QA program.
- The QA Program provides for independent inspections and evaluations of projects.
- A QA review is an objective evaluation of a project's compliance.

The QA Program Tracks Projects By:

- Contract
- Contractor
- District
- Inspector
- Frequency of Inspection
- Project Engineer
- By date or time period (month, year, etc.)

The collage includes: 1) A screenshot of the SMA Statewide Management System showing a table of project data. 2) A map of Maryland with various regions highlighted and labeled. 3) A bar chart titled 'Erosion & Sediment Control Quality Assurance' showing the number of projects from 2008 to 2013. 4) A bar chart titled 'Erosion & Sediment Control Inspections' showing the percentage of projects meeting weekly inspection requirements from 2008 to 2013.

Slide notes

The Quality Assurance program was created through an M.O.U between SHA and the Maryland Department of the Environment (MDE) to provide environmental oversight of construction and maintenance projects. The Quality Assurance program conducts routine project reviews and completes an independent, objective evaluation of the compliance status of that project related to environmental concerns.

The information is tracked in multiple ways through an extensive online database.

Notes

Slide 7 - Objective: Erosion and Sediment Control Compliance

Quality Assurance (QA) Program

Objective: Erosion and Sediment Control Compliance

SHA State Highway Administration Maryland Department of Transportation

BUSINESS PLAN SYSTEM

Quarterly Report Summary Report

▣ Safety ▣ Mobility ▣ System Preservation ▣ Organizational Effectiveness ▣ Environmental Stewardship ▣ Customer Satisfaction ▣ My Listing

KPA: ENVIRONMENT COMPLIANCE AND STEWARDSHIP

Co-Chairs: Sonal Sandhu, Greg Slater

Performance Measures

1. Number of Quality Assurance (QA) inspections performed (BP)
2. Percentage of compliance on erosion/sediment control ratings (BP)
3. Number of non-compliance findings (D or F ratings) (BP&SS)

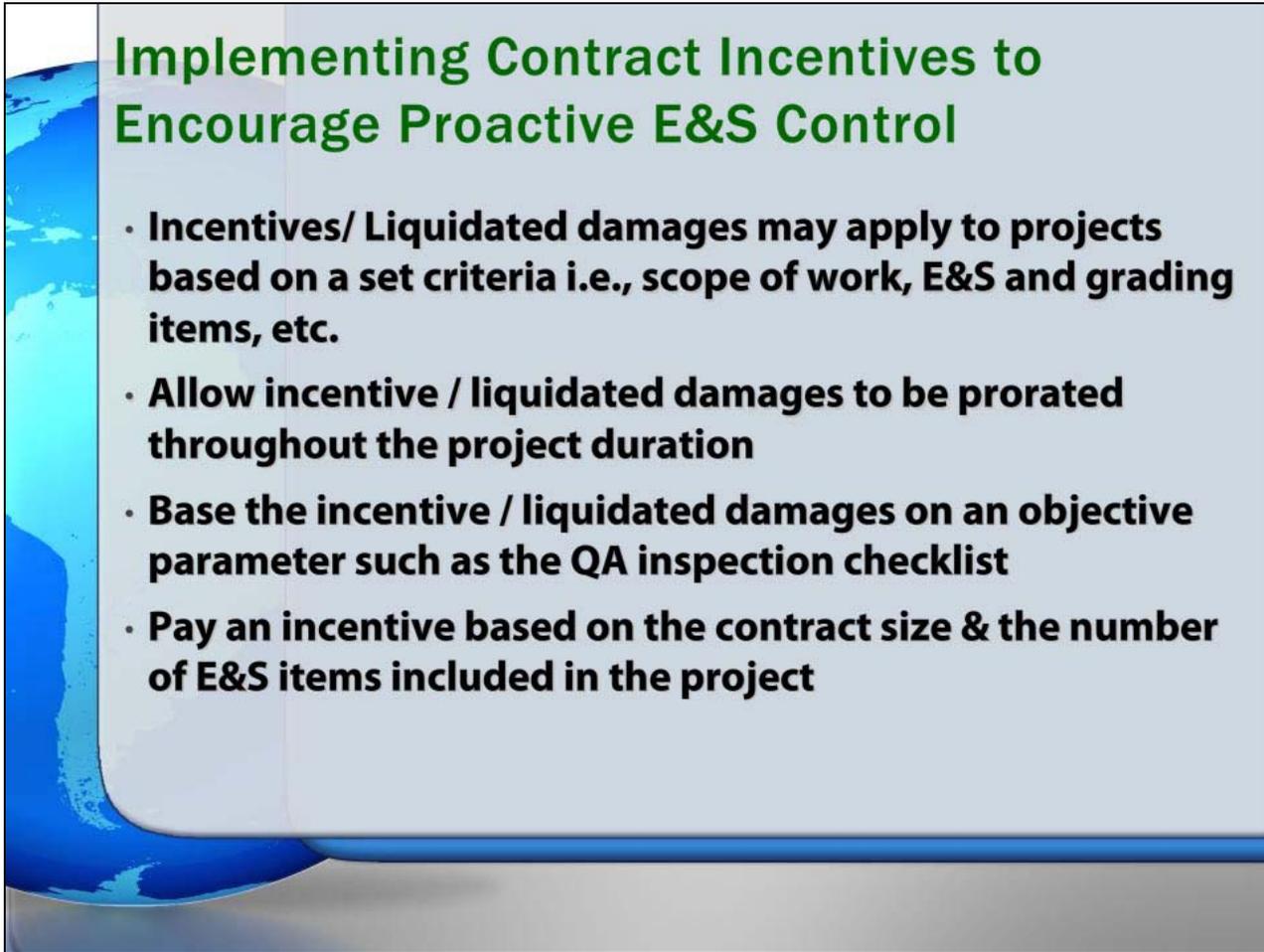
Business Plan (BP)/StateStat (SS)

Slide notes

The goal of this program is to help SHA achieve compliance with Maryland Department of Environment’s erosion and sediment control permit requirements on all SHA construction projects and maintenance activities on a quarterly basis. The information is entered into the Administration’s business plan and Maryland StateStat. The Business Plan and StateStat are tracking and reporting systems designed to help improve the efficiency and effectiveness of state government. This information is reviewed at the highest levels of the state government.

Notes

Slide 8 - Implementing Contract Incentives to Encourage Proactive E&S Control



Implementing Contract Incentives to Encourage Proactive E&S Control

- **Incentives/ Liquidated damages may apply to projects based on a set criteria i.e., scope of work, E&S and grading items, etc.**
- **Allow incentive / liquidated damages to be prorated throughout the project duration**
- **Base the incentive / liquidated damages on an objective parameter such as the QA inspection checklist**
- **Pay an incentive based on the contract size & the number of E&S items included in the project**

Slide notes

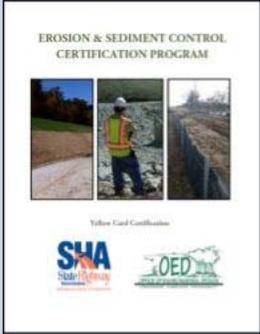
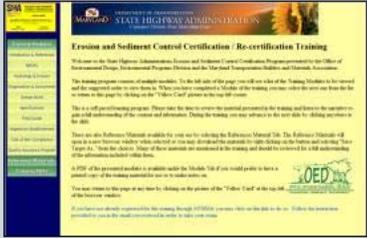
The goal of this program is to help SHA achieve compliance with Maryland Department of Environment’s erosion and sediment control permit requirements on all SHA construction projects and maintenance activities on a quarterly basis. The information is entered into the Administration’s business plan and Maryland StateStat. The Business Plan and StateStat are tracking and reporting systems designed to help improve the efficiency and effectiveness of state government. This information is reviewed at the highest levels of the state government.

Notes

Slide 9 - Training & Certification for Designers, Contractors & Inspectors

Training & Certification for Designers, Contractors & Inspectors

- **Pilot Training was held on December 8 & 9 2004 for inspectors and contractors. To date we have certified over 4500 people in the industry.**
- **Emphasize more practical application such as conducting an effective preconstruction meeting, proper installation & maintenance of controls, required procedures for initiating a permit modification, & things to look for during inspections**
- **Certification required for Superintendents and Erosion and Sediment Control Managers (ESCM) on SHA projects.**
- **Require recertification every 3 years**

Slide notes

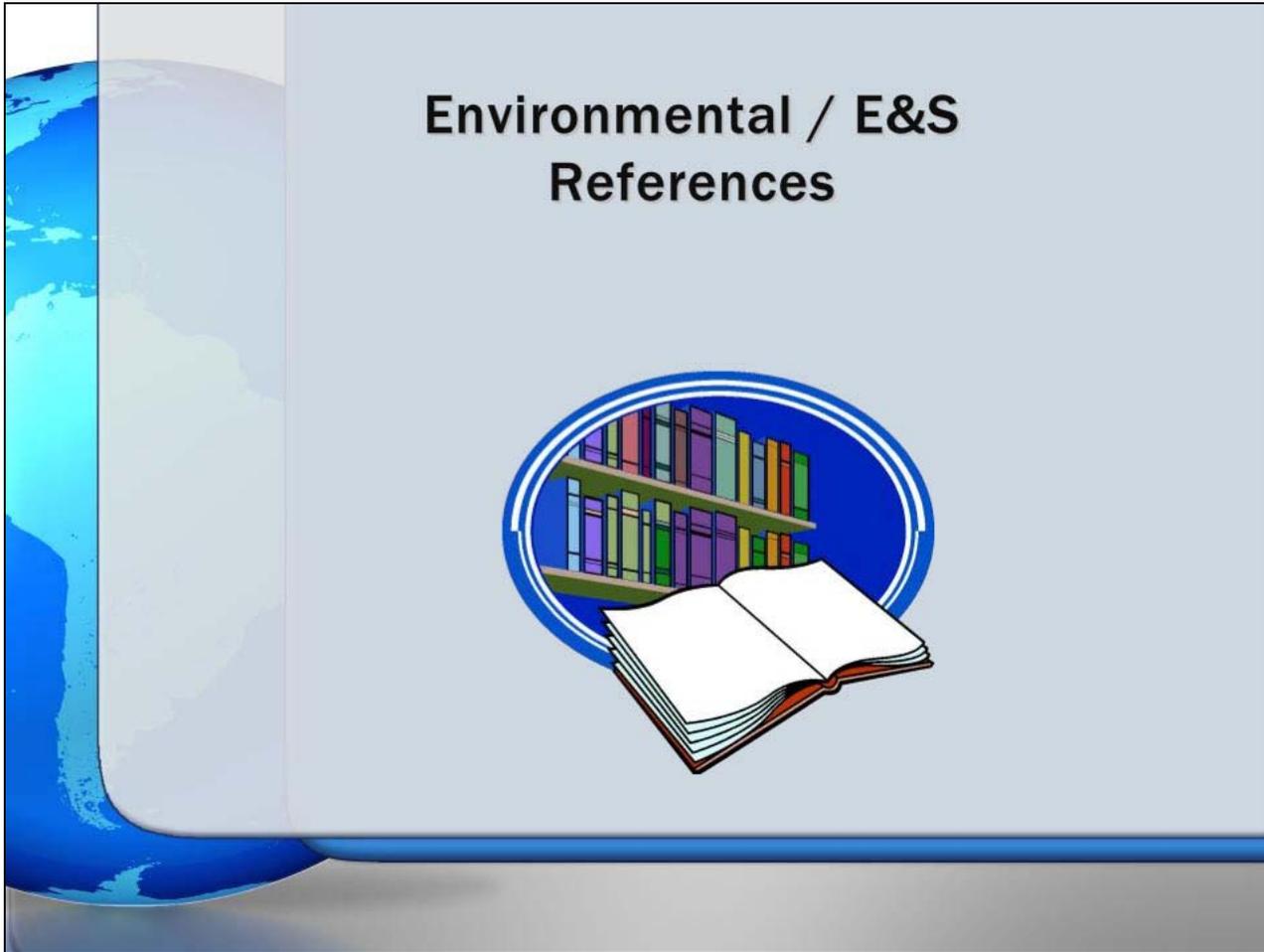
The Yellow Card training has been conducted for nearly a decade and has trained individuals from local governments to the federal level. State employees, consultants and private contractors have attended the classes, which are conducted on a regular basis. As you will see in the training, this certification is required for certain individuals on an Administration project.

Enhancements to the training are continuing as the regulations related to the environment continue to change.

The Administration is committed to a policy of environmental stewardship and the goal of the training you are about to see is to help you gain an understanding of what you can do to help everyone continue to succeed in that challenge

Notes

Slide 10 - Environmental / E&S Reference Use



Slide notes

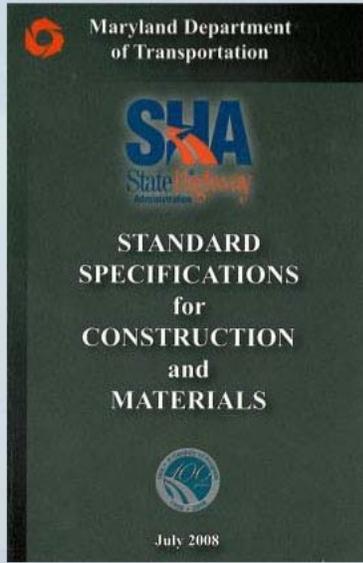
The QA program continues to move forward with an emphasis on outreach and training, part of this effort includes the development of reference materials and guides to help individuals in the field to better understand what is necessary to comply with the many specifications and regulations related to environmental protection.

We will now consider environmental erosion and sediment control reference use. With changing regulations it remains important to stay updated with current reference material. The following reference materials will be mentioned throughout the training modules.

Notes

Slide 11 - 2008 Specifications

2008 Specifications



TC-3.01 GOVERNING ORDER OF CONTRACT DOCUMENTS

The Contract Documents, including but not limited to the Standard Specifications, the Special Provisions Inserts, the Plans, Special Provisions, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In the event of any discrepancy between the drawing and figures written thereon, the figures, unless obviously incorrect, will govern over scaled dimensions. In the event of any discrepancy between the various Contract Documents, the governing order from highest to lowest shall be Special Provisions, Plans, Special Provisions Inserts, and Standard Specifications.

General Provisions will govern over all Contract Documents unless expressly provided for in the Contract.

Slide notes

The standard specifications are the baseline that a contract is built upon.

It is important to understand the hierarchy of contract documents.

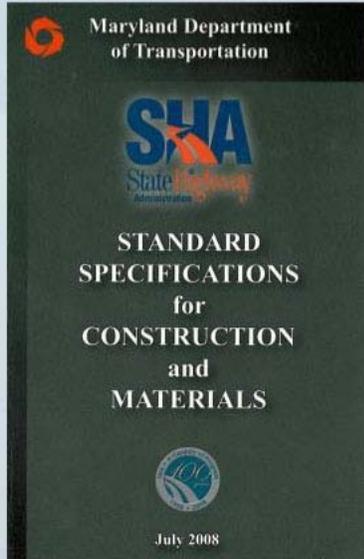
The governing order of the contract documents from highest to lowest is: Special Provisions included within the IFB / Invitation for Bid (The Contract), Plans, Special Provision Inserts, Standard Specifications.

The General Provisions will govern over all contract documents unless expressly provided for in the contract.

Notes

Slide 12 - 2008 Specifications

2008 Specifications



- SECTION 101 — CLEARING AND GRUBBING
- SECTION 107 — CONSTRUCTION STAKEOUT
- SECTION 120 — TREE PRESERVATION AREA
- SECTION 203 — BORROW EXCAVATION
- SECTION 308 — EROSION AND SEDIMENT CONTROL
- CATEGORY 700 LANDSCAPING

Slide notes

These sections contain environmental information that needs to be reviewed and understood in order to achieve full environmental compliance on a project.

Notes

Slide 13 - Onsite Documents

Field Guide for Erosion and Sediment Control

This field guide is intended to serve as a supplemental document to the 2011 Maryland Standards and Specifications for Soil Erosion Sediment Control and Maryland SHA Standard Specifications for Construction and Materials

SHA State Highway Administration
Maryland Department of Transportation

OED OFFICE OF ENVIRONMENTAL DESIGN
IN COMPLIANCE WITH CONSTRUCTION BEST MANAGEMENT PRACTICES

Version X – January 2013

2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control

December 2011

Maryland Department of the Environment
Water Management Administration
in association with
Natural Resources Conservation Service
and
Maryland Association of Soil Conservation Districts

2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I & II

PREPARED BY:
C&S
CONSULTANTS

AND THE
MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
2210 BROADBENT DRIVE • BALTIMORE, MARYLAND 21224
(410) 531-3543 • FAX (410) 531-3101 • WWW.MDE.GOV

308.01.02 Standards and Specifications. Construct and maintain the erosion and sediment control measures and devices in accordance with the latest Maryland Department of the Environment (MDE) Erosion and Sediment Control and Stormwater Management regulations, “Maryland Standards and Specifications for Soil Erosion and Sediment Control”, “Maryland Stormwater Design Manual, Volumes I and II”, “SHA Field Guide for Erosion and Sediment Control”, and as specified in the Contract Documents. **Keep a copy of the latest “Maryland Standards and Specifications for Soil Erosion and Sediment Control” on the site at all times. Where details differ from the MDE Standards and Specifications and the SHA Field Guide, use the details from then Field Guide.**

Slide notes

There are multiple guides that are required to be on a project site for reference.

If there are discrepancies among the various contract documents, remember the hierarchy of those contract documents as discussed earlier. If there are details for E&S controls included in the plans, they govern.

As stated in the 2008 specifications, when there is a difference between the MDE specifications and the SHA E&S Field Guide, the field guide is the reference document to be utilized. The intent of the field guide is to provide the most up to date changes related to E&S controls.

Notes

Slide 15 - Environmental Guidelines for Construction Activities

The slide features a large poster on the left and a document preview on the right. The poster is titled "ENVIRONMENTAL GUIDELINES FOR CONSTRUCTION ACTIVITIES" and is published by the Maryland State Highway Administration in September 2010. It includes the SHA logo and a collage of construction-related images. The document preview on the right is titled "Environmental Guidelines for Construction Activities" and contains a "FREQUENTLY ASKED QUESTIONS" section with six numbered items. A table at the bottom of the document lists various departments and their contact information.

ENVIRONMENTAL GUIDELINES FOR CONSTRUCTION ACTIVITIES

Maryland State Highway Administration
September 2010

SHA
State Highway Administration
Maryland Department of Transportation

Environmental Guidelines for Construction Activities

11. FREQUENTLY ASKED QUESTIONS

- What do I need to do prior to starting work? Are there any pre-qualification activities I need to have in place?**
Before your contract documents, Contractor is required to submit an ERAC schedule within 14 days of Notice of Award, all permits must be in hand. Separate and EROCA must be identified and accompanying certification must be reviewed, and an ERAC pre-con must be held. Special conditions in either the state or Federal permits may require additional activities.
- What do I need to do when the project is in close-out phase?**
Before your project has met the environmental requirements/conditions of the submittal and contract documents, ERAC must all required items with help from the supporting offices/Division and Federal as required. State or the Environmental Permit Close-out Procedures in this document. Also ERAC OROCA items will need to be completed.
- What forms do I need, and how do I secure them?**
There are several forms that can be used with regard to environmental issues. The daily inspection form produced by the contractor ERAC as set on SHA form and contractors may also use any form which provides the minimum required information. State to contact SHA form (OOCE), OOCCE, OOCCE-1, OOCCE, and OOCCE are listed in the index.
- How do I know what permits I need and which permits do I have to obtain before I start construction? How do I get additional permits? How do I get permit modifications?**
Prior to ERAC, the Lead Office along with Highway Rehabilitation Division and Environmental Programs Division have performed extensive coordination with various agencies, such as MDE, CDE, etc. to ensure the required permits contained in contract documents. Any remaining permits should be noted and secured prior to any work. The contractor is usually responsible for additional submittals/permits required based on their bid to do the work including activities such as how we intend to remove material, staging, stockpiling, and track plate installation/repairs. These additional permit requests are forwarded to the appropriate agencies per the contract documents. The Highway Rehabilitation Division is responsible for obtaining permit modifications for ERAC permits. SHA form OOCCE should be used to request modifications. Environmental Programs Division is responsible for obtaining State and Federal related and necessary permit modifications.
- What steps do I need to take when I am at the final working/establishment phase?**
Prior to final establishment phase, the Contractor Project Engineer should have completed Landmark Operations to notify a Statewide Management Plan approval. In accordance with the final establishment requirements of the contract Division T01 and the Federal Management Plan the contractor should be directed to complete the work. Once receiving ERAC approval on the project shall remain in place until proper rehabilitation has been reached.
- I have hazardous material associated with my job? Are there special steps I have to take?**
Hazardous materials will need to be located in accordance with the Technical and Specifications for Construction and Materials Section 210, including identification of the source site from one of the approved methods.
If the contractor is removing fill from the site (hazard material), their disposal location must be authorized to receive the material. Identification comes from MDT and/or local Soil Conservation District and will include a site ERAC plan. SHA personnel must be notified via telephone from both work offices.

Office of Structures, Engineering Division	410-543-6070	Cost Guard permit or issues
Environmental Planning Division (EPD)	410-543-6504	NEPA/MDA issues Historic standing structures and archeological resources Park and recreational facilities RTS issues Air quality issues Critical Area Communities for Chesapeake and Atlantic Coastal Bays

Slide notes

This document addresses various environmental issues, requirements, contacts, and reference materials. Within this document, are the answers to many questions that may arise in the field. If it cannot answer your question, it can direct you to the person or group that can help.

Notes

Slide 16 - Environmental Monitor User Guide

The image displays the cover and two internal pages of the 'Environmental Monitor User Guide'. The cover, on the left, features a photograph of a construction worker in a blue hard hat and yellow safety vest, holding a clipboard. The title 'ENVIRONMENTAL MONITOR USER GUIDE' is prominently displayed, along with the Maryland State Highway Administration logo and the date 'December 2009'. The right side of the image shows two overlapping pages from the guide. The top page, page 6, lists requirements for the Environmental Monitor User Guide, such as 'As part of the daily report and input into the EM Toolkit, record the actions taken at any open EIS locations and other open compliance items.' Below the text is a central diagram with a worker icon in the center, surrounded by six blue ovals: 'Environmental Review', 'Project Team Coordination', 'Effective Communication', 'Management of the Compliance Process', 'Documentation', and 'Proactive Recommendations'. The bottom page, page 11, is titled 'EM Toolkit daily inspection report' and contains a form with various fields and checkboxes.

Slide notes

This is a reference for Environmental Monitors. This guide helps all stakeholders understand the role of the Environmental Monitor.

Notes

Slide 18 - MD Waterway Construction Guidelines

The slide features two main components. On the left is the cover of the 'MARYLAND'S WATERWAY CONSTRUCTION GUIDELINES' manual, published by the Maryland Department of the Environment, Water Management Administration. The cover shows a scenic view of a river flowing through a lush green forest. On the right is a technical diagram titled 'Maryland's Guidelines To Waterway Construction DETAIL 1.2: PUMP-AROUND PRACTICE'. This diagram includes a 'PLAN VIEW' showing the layout of a pump-around structure with labels for 'upstream shutoff device', 'discharge hose', 'shutoff device pump', 'intake hose', 'pump intake or pipe (6\" to 12\" diam. 2-1/2')', 'work area', and 'downstream shutoff device'. It also includes a 'SECTION A-A' showing a cross-section of the structure with labels for 'upstream shutoff device', 'work area', and 'downstream shutoff device'. Below the diagrams are several paragraphs of text providing specific instructions and safety guidelines for the construction process.

Slide notes

These reference materials are available in multiple ways including, the SHA Intranet, the QA Toolkit and on the Resource CD available from your Regional Environmental Coordinator.

Notes

Slide 19 - Availability

Search Field	Name	Description
CD 276	Nature Resource Conservation Service Code 276 (Procs)	
ESC Field Guide (2007)	ESC Field Guide for Design and Sediment Control	
Construction Guidelines for Construction Activities	SHA Environmental Guidelines for Construction Activities (page 2010)	
Environmental Guidelines for Maintenance Activities	SHA Environmental Guidelines for Maintenance Activities (Rev 2010)	
Environmental Review User Guide	Environmental Review user guide (Rev 2009)	
General NPDES Permit Number (SERV)	General Permit For Stormwater Associated With Construction Activity	
Inspection Log	Station # & Log for tracking CA reports and outcomes	
Integrated Engineering Management Manual For Maryland Highways	SHA Vegetation Management Manual (2010)	
M&E License and Sediment Control Guidelines for State and Federal	NEC E&S Guidelines - (used for project planning) (1996/2004) Permit	
NEC 1994 M&E Specifications	1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control	
NEC Sediment Management Guidelines	Sediment Management Guidelines for State and Federal Projects (April 15, 2010)	
NEC Stormwater Control Guidelines	NEC Stormwater Construction Guidelines (2009)	
NPDES / NEC Inspection Form	Standard Inspection Form - General Permit for Stormwater Associated with Construction Activity	
NPDES / M&E NOT	Notice of Termination	
NPDES/SC Team Guidelines for E&S control meeting	Additional talking points to cover at the weekly E&S meeting	
NPDES SC	Crosscut and Sediment Control Field Investigation Report	
NPDES SC (7-1-11)	Crosscut and Sediment Control Field Investigation Report (7-1-11)	
NPDES SC	Independent Quality Assurance E&S Report (8-2009)	
NPDES SC (7-1-11)	Independent Quality Assurance E&S Report (7-1-11)	
NPDES SC	Independent Quality Assurance E&S Report (02/2010)	

E&S Resource CD 2013

OOC 60 (3/10/04 CD 07220.300.01)

OOC 60 (7/1/11 CD 07220.300.01)

OOC 61 (9/2/05 CD 07220.300.01)

OOC 61 (7/1/11 CD 07220.300.01)

OOC 62 (3/01/04 CD 07220.300.01 CM 7210.300.01)

OOC 63 (3/01/04 CD 07220.200.01 & .02)

NPDES General Permit

NPDES Inspection Form

IEM User Guide

SHA Environmental Guidelines for Construction

Field Guide for ESC DRAFT 2009

Best Management Practices

1994 MDE Standard and Specs

2011 MDE Standard and Specs

OED/EPD Quality Assurance Team Guidelines for E&S meeting




Slide notes

These reference materials are available in multiple ways including, the S.H.A intranet, the Q.A toolkit and on the Resource C.D. available from your Regional Environmental Coordinator.

Notes

Slide 20 - End



Slide notes

This concludes the Environmental Stewardship and reference section of the training. Please continue with the next module of the training by selecting it from the menu on the left side of your screen.

Notes
