



A CITIZEN'S GUIDE TO Erosion and Sediment Control in Maryland





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This guide was written and designed by James Melonas under the direction of Senior Planner George Maurer. It draws its information about Maryland's erosion and sediment control regulations primarily from the Annotated Code of Maryland, Environment Article, Title 4, Subtitle 1; the Code of Maryland Regulations (COMAR) 26.17.01; and from the *1994 Maryland Standards & Specifications for Soil Erosion & Sediment Control*. Cover photo by the Chesapeake Bay Foundation.

This guide is a supplement to the Chesapeake Bay Foundation publication, *Influencing Development in Your Community: A Citizen's Guide for Maryland*. Other related supplements include:

- *A Citizen's Guide to Stormwater Management in Maryland*
- *A Citizen's Guide to the Forest Conservation Act in Maryland*
- *A Citizen's Guide to Protecting Wetlands in Maryland*
- *A Citizen's Guide to the Critical Area Program in Maryland*

These publications are available on-line from the Chesapeake Bay Foundation at www.savethebay.cbf.org.



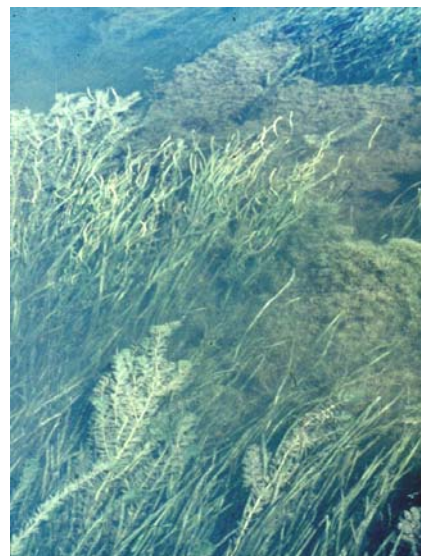
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I. INTRODUCTION

Chesapeake Bay restoration efforts have focused on stemming nutrient pollution, specifically nitrogen and phosphorus. However, there is mounting evidence that excess sediment can be just as detrimental to the Bay as excess nutrients. Erosion and sediment loss are a natural part of the Bay ecosystem, but human activities have greatly accelerated the process—degrading water quality and habitat in streams, rivers, and the Bay. New research indicates that suspended sediment is more to blame than algae for the decline or underwater Bay grasses.

Agriculture is the largest source of sediment in the Bay. However, construction activities are producing an increasingly significant amount of the Bay's sediment load. Compared to other types of land use, construction activities contribute a disproportionate amount of sediment to the Bay. While construction sites comprise only a tiny fraction of overall land area, the erosion and sediment loss that they cause account for about 10 percent of all sediment flowing to waterbodies in the United States.¹ Exposed and compacted soil, graded slopes, and removal of vegetation create the perfect conditions for erosion and sediment loss during storms. Controlling and preventing erosion and sediment loss on construction sites is critical for the health of the Bay and its tributaries.



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Sediment blocks sunlight from reaching underwater grasses—vital habitat for crabs, fish, and other Bay wildlife.

This guide focuses on the temporary control of erosion and sediment during construction. Reading this guide will help you understand:

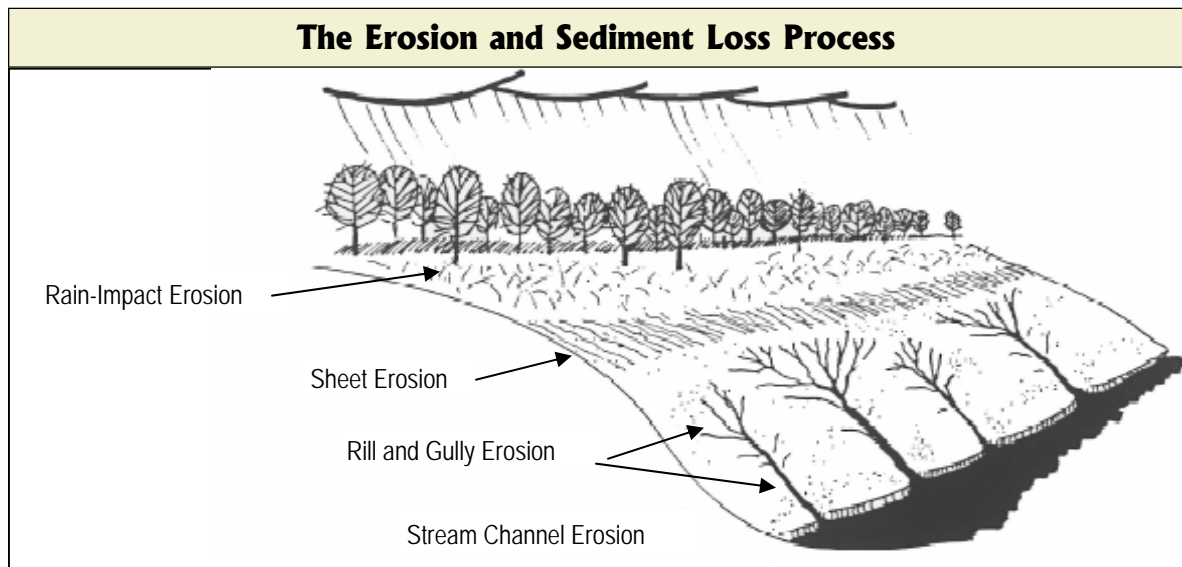
1. The importance of erosion and sediment control in restoring the Bay
2. The best ways to prevent erosion and sediment loss during construction
3. Erosion and sediment regulations in Maryland
4. How citizens can help ensure that developers comply with erosion and sediment control requirements and that erosion and sediment control facilities are properly maintained.

The Chesapeake Bay Foundation publication, *A Citizen's Guide to Stormwater Management in Maryland*, focuses on the stormwater management, which is the post-construction, permanent management of runoff.

¹1994 Maryland Standards & Specifications for Soil Erosion and Sediment Control, Maryland Dept. of the Environment.

The Erosion and Sediment Loss Process

Erosion and sediment loss start when small raindrops pound bare soil and ends with eroded streambanks and sediment-laden runoff pouring into the Bay. The process has several stages, each one building on the last to create a snowball effect.



North Carolina Dept. of Environment and Natural Resources

1. Rain-Impact Erosion — The cumulative energy from thousands of raindrops breaks up bare soil and sends the small particles downhill.

2. Sheet Erosion — Stormwater runoff flowing over soil picks up a thin layer of sediment. Sheet erosion can be imperceptible because only a fraction of an inch of soil may be lost. However, this thin layer of soil contains the majority of nutrients essential for establishing vegetation after construction is completed. The nutrients then flow to the Bay, causing algae blooms that create "dead zones" devoid of oxygen.

Sheet Erosion Adds Up!

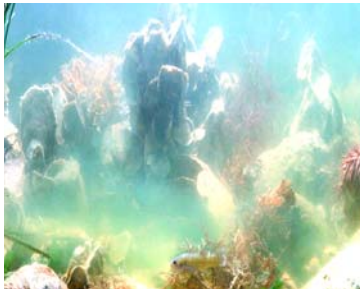
In a large storm, a one-acre construction site may lose about a millimeter of soil to sheet erosion. That tiny layer of soil weighs more than six tons!

3. Rill and Gully Erosion — Stormwater runoff picks up speed and converges as it flows downhill, forming small channels, called rills, which eventually grow into large gullies. Gullies transport large amounts of runoff and sediment to receiving waters.

4. Stream Channel Erosion — Gullies dump their large runoff volume to receiving streams. The quickly moving runoff scours and undercuts streambanks. Channel erosion destroys streambank vegetation that helps hold the bank in place, allowing even more sediment to wash into the stream and ultimately reach the Chesapeake Bay.

Effects of Erosion and Sediment Loss on the Bay and its Tributaries

Erosion and sediment loss have four main impacts on the Bay and its tributaries: lowered water clarity, habitat degradation, transport of pollutants, and blockage of boating channels.



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- **Lowered Water Clarity**

Fine soil particles stay suspended in water, clouding the water and reducing sunlight. Poor water clarity inhibits the growth of aquatic vegetation, which is essential habitat for young fish, crabs, and other creatures, and decreases the recreation and aesthetic value of water bodies.

- **Habitat Degradation**

Large soil particles settle to the bottom of streams, rivers, and the Bay. The soil smothers bottom-dwelling animals such as oysters, clams, and fish spawning beds.



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- **Transport of Pollutants**

Phosphorus and toxics bind to sediment and are carried to the Bay. Pollutants lead to algae blooms that create increased Bay “dead zones” devoid of oxygen while toxins concentrate in Bay creatures, making them unsafe for consumption.



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- **Blockage of Boating Channels**

Accumulated sediment makes boating channels impassible. Commercial and recreational waterways are rendered useless or require costly dredging.

See the Chesapeake Bay Foundation publication, *A Citizen's Guide to Stormwater Management in Maryland*, for more information on the impacts of pollution from developed areas on the Bay.



Construction Sites: Hotspots for Erosion and Sediment Loss

Three main factors combine to make construction sites hotspots for erosion and sediment loss: vegetation removal, exposed and compacted soil, and graded slopes.

- **Vegetation Removal**

Vegetation holds soil in place, soaks up stormwater runoff, and traps sediment before it reaches the Bay and its tributaries. Construction projects often call for the removal of all vegetation on a work site.



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- **Exposed and Compacted Soil**

Without vegetation to hold soil in place, soil loss increases dramatically. Removing vegetation from highly erodible soils such as silt and sand is especially damaging. Soil heavily compacted by construction equipment is so dense that rainwater cannot infiltrate the soil and becomes runoff. Soil then erodes from compacted areas in the form of sheet erosion.



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- **Graded Slopes**

Steeply graded slopes and dirt piles (with a grade greater than 15 percent) promote increased erosion and sediment loss. Stormwater runoff picks up velocity and erosive force as it rolls downhill. The steeper and longer the slope, the higher the chance for erosion.



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Erosion and sediment control aims to minimize these construction impacts. The guiding principle is to expose only the smallest land area for the shortest amount of time to the erosive effects of rain. Following this simple principle will significantly reduce erosion and sediment loss. The reduction is achieved through thoughtful construction planning, innovative approaches like Low Impact Development, and the proper use of erosion and sediment control techniques during construction. Section II describes several techniques for minimizing erosion and sediment loss.

Low Impact Development: An innovative approach to development that decreases land disturbances and preserves natural vegetation. See the Chesapeake Bay Foundation publication, *A Citizen's Guide to Stormwater Management in Maryland*, for more information.



II. BEST MANAGEMENT PRACTICES

Every site, no matter how well designed, experiences erosion and sediment loss during construction. Therefore, it is essential to use erosion and sediment control techniques, called Best Management Practices (BMPs), during the construction process. Their effectiveness depends on proper installation and maintenance, especially after storm events. The BMPs fall into two groups: erosion prevention and sediment control.

- **Erosion Prevention** — Erosion prevention BMPs aim to stop erosion and sediment loss before it starts. Erosion prevention BMPs minimize soil loss by covering bare soil, planting and preserving vegetation, and protecting slopes from rain with special erosion mats or vegetation.
- **Sediment Control** — Sediment control BMPs manage any excess sediment not stopped by erosion prevention BMPs. These BMPs are designed to slow down the velocity of stormwater runoff and trap sediment before it can leave the construction site.

Erosion and sediment control BMPs are only effective when functioning together as a system. As a result, construction sites will use most if not all of the BMPs described in the following pages.

Erosion Prevention BMPs

- **Natural Area Conservation**

Site plans should maximize naturally vegetated areas to provide erosion and sediment protection. Natural area conservation is especially important along streams, steep slopes, and areas with highly erodible soils. Natural areas should be marked and fenced off to avoid accidental clearing.



US Environmental Protection Agency

- **Soil Roughening**

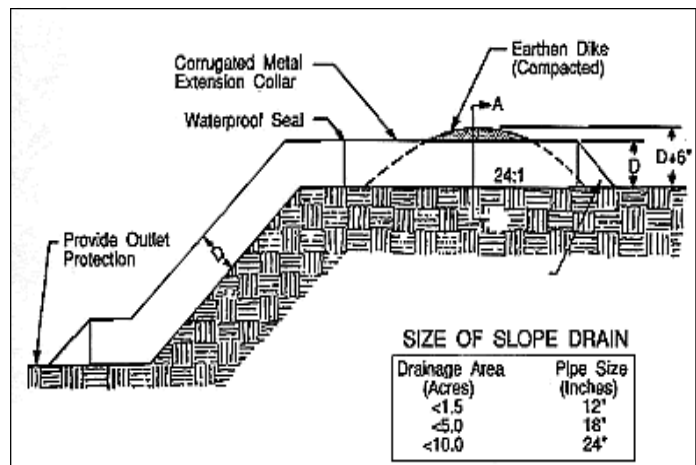
During small storms with less than half an inch of rain, a roughened slope prevents erosion because the ridges (shown at right) slow down the velocity of stormwater runoff. Slopes require maintenance since large storms can smooth out the rough patterns.



US Environmental Protection Agency

- **Pipe Slope Drain**

This technique uses an earth dike (see sediment BMPs) to direct stormwater runoff into a pipe. As shown in the diagram below, the pipe conveys the water down steep slopes, rather than allowing it to flow unabated on the soil. This BMP is especially useful on steep slopes. However, drains require monitoring and maintenance to make sure that runoff doesn't undercut the pipe inlet and that the pipe is not blocked by debris.



US Environmental Protection Agency

- **Mulching**

Covering bare soil with hay, straw, wood chips, or compost reduces the velocity of stormwater runoff and prevents erosion. Mulching is the perfect compliment to temporary or permanent seeding as it protects seeds from runoff and hungry birds, while retaining moisture.

Erosion Prevention BMPs (cont.)

- **Geotextile Mats**

Geotextile mats are thickly woven synthetic or natural blankets designed to stabilize steep slopes and prevent erosion while allowing permanent vegetation to grow through the fabric. Natural geotextile mats are designed to enrich the soil and biodegrade by the time permanent vegetation is fully established. Mats must be securely anchored with stakes and checked after large storm events to ensure that they are not undercut by runoff.



US Environmental Protection Agency

- **Temporary Seeding**

Quick growing grasses, like rye, can be seeded on dirt piles and excavated areas that will not be used for several weeks. While the top of a dirt pile is seeded, soil from its lower areas can still be used for construction (shown at right). This is an effective and inexpensive way to preserve top soil and prevent erosion.



J. Melonas, Chesapeake Bay Foundation

- **Permanent Seeding**

Permanent seeding should occur as soon as construction is completed. The type of seed used depends on the slope, soil, and local conditions of the site. For example, hard fescue is shade tolerant and does not require frequent mowing.



US Environmental Protection Agency

- **Phased Construction**

Phased construction takes place when one portion of the site is cleared and built on at a time. Construction on a new portion only begins after completing construction on the previous portion and permanently seeding the area. The U.S. Environmental Protection Agency recommends phasing for all sites over thirty acres, with each phase comprising five or six acres. This is a simple and effective way to minimize exposure of bare soil, but advanced planning is needed to coordinate the phases. Compared to a conventional construction site, phased construction can significantly reduce sediment loss.

Sediment Control BMPs



US Environmental Protection Agency

- **Sediment Traps and Basins**

Sediment traps (shown on left) are small ponds or excavated depressions where stormwater runoff is diverted and held so that sediment can settle out. A rock outlet slows down runoff as it exits the trap. Large sediment basins are used for disturbed areas of more than five acres. Often, instead of building two separate structures, developers will construct a permanent stormwater pond that acts as a sediment basin during construction.



Mount St. Mary's College, MD

- **Earth Dikes**

Earth dikes (shown at left) are raised barriers around the perimeter of the construction site. Earth dikes are used to contain on-site runoff and direct runoff into a sediment trap or pipe slope drain.



Indiana Dept. of Transportation

- **Check Dam**

A check dam is a temporary dam placed across swales and ditches to slow the velocity of stormwater runoff and trap sediment. The number of check dams increases with the amount of runoff and the length and slope of the swale or ditch. The dams are constructed with logs, straw bales, or rocks. Rock check dams (shown below) are the most effective in slowing runoff and trapping sediment.

Sediment Control BMPs (cont.)

- **Silt Fence**

Silt fences are the most noticeable sediment BMP because they extend around the perimeter of the construction site. Silt fences consist of wood posts and black filter fabric that must be anchored at least eight inches into the ground so that runoff cannot undercut the fence. Silt fences are only designed to contain sheet erosion and cannot take the full brunt of channel runoff like a check dam. The super silt fence is a new technique that uses chain link fencing to reinforce filter fabric. Initial costs are higher, but maintenance and repair costs drop significantly because a super silt fence can hold up better to storm events, as well as normal wear and tear.



US Environmental Protection Agency

- **Storm Drain Inlet Protection**

All storm drains around a construction site must be protected by gravel or filter fabric to trap sediment (shown at right). It is essential to properly protect all storm drains since they release stormwater runoff directly into streams and rivers.



US Environmental Protection Agency

- **Stabilized Construction Entrances**

A gravel drive (shown at right) removes most of the dirt and debris from large truck tires before they leave the construction site. The entrance must be fifty feet long and are comprised of a six inch layer of crushed gravel over a layer of geotextile fabric. Developers must stabilize all entrances to the site and ensure that trucks don't circumvent the entrances.



US Environmental Protection Agency



III. EROSION AND SEDIMENT CONTROL REGULATIONS

The Sediment Control Law of 1970 established Maryland's first statewide erosion and sediment control (ESC) program. While specific BMPs have improved over the years, the basic ESC program for construction remains similar to the one laid out in 1970.

The Maryland Department of the Environment (MDE) is the authority for implementing statewide ESC regulations. MDE delegates authority to counties and municipalities to administer and enforce their own ESC programs. Local authorities set specific guidelines and procedures that must meet or exceed the statewide regulations.

Construction activities are also regulated under the federal Clean Water Act. The Clean Water Act regulates all construction activities disturbing more than one acre. Maryland's ESC regulations are more rigorous than the federal regulations, but there are federal penalties, on top of existing state penalties, for violations (see Section IV, "Enforcement"). The federal government delegates power to MDE to administer and enforce the Clean Water Act in Maryland.

A comprehensive ESC plan is the developer's primary tool for compliance with both the Maryland and federal regulations. A certified architect or site designer must draw up the ESC plan, detailing the construction phases, grading activities, and ESC measures. Before construction can begin, the local soil conservation district must approve the ESC plan and issue a permit. In Maryland, a single permit satisfies both the federal and state regulations. Developers must prominently display the permit at the site entrance.

Spelling It Out

- Maryland's ESC law is written in the Annotated Code of Maryland, Environment Article, Title 4, Subtitle 1.
- Maryland's ESC regulations are contained in the:
 - Code of Maryland Regulations (COMAR) 26.17.01
 - *1994 Maryland Standards & Specifications for Soil Erosion & Sediment Control*

Construction Projects in Maryland that Require an ESC Plan:

- Any project that disturbs more than 5,000 square feet or 100 cubic yards of soil
- Single-family homes on a lot of two acres or more that disturb less than half an acre of land



Basic Criteria for ESC Plans

ESC plans must meet five basic criteria to gain approval.

1. **Fit development to the site** — Avoid sensitive areas such as steep slopes, wetlands, and highly erodible soils. Fit buildings and roads to the natural topography of the site so that they require minimal grading.
2. **Minimize the area and duration of bare land exposure.**
3. **Use erosion prevention BMPs.**
4. **Use sediment control BMPs.**
5. **Adopt a maintenance routine** — Ensure additional maintenance checks after storm events.



According to Maryland regulations, after grading, developers must temporarily seed or mulch cleared areas within fourteen days for level ground or seven days for steep slopes.

Developing the ESC Plan

Site designers must follow three steps to meet the basic criteria for an ESC plan.

1. **Establish Construction Limits** — Plans must clearly mark the limits of grading and land clearing activities to protect wetlands, forests, and other natural areas. The plan should also detail how construction phases will minimize area and duration of land exposure.
2. **Assess Construction Site** — Designers must assess the site's unique soil type and topography. Sandy soil is more erodible than clay soil. Steep slopes increase the velocity of stormwater runoff and increase the chance of erosion. ESC plans should avoid include strategies to avoid construction in areas with erodible soils or steep slopes. Designers must also determine the site's natural drainage areas to establish how stormwater runoff will flow over the site. ESC plans are then devised to treat runoff from each of the drainage areas.
3. **Use Best Management Practices** — Most of the BMPs presented in this guide are used at every construction site. Erosion and sediment control BMPs are only effective when they function together as a system.



The MDE publication, *1994 Maryland Standards for Soil Erosion and Sediment Control*, contains design and construction specifications for erosion and sediment BMPs.

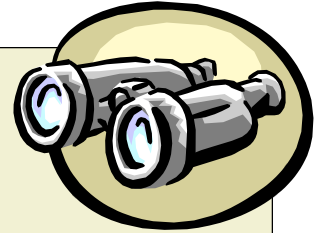
The Limitations of Maryland's ESC Regulations

Maryland's ESC regulations are very generalized, and they only require that construction plans meet general design requirements. They do not contain specific standards for pollution prevention or removal. In addition, enforcing specific standards is difficult given the temporary nature of ESC.

The generalized nature of the ESC regulations means that ESC practices are only designed to handle runoff from smaller storms. This results in two inherent risks to ESC practices on any construction site:

- A site that meets all the ESC standards may still contribute a significant amount of sediment to the Bay and its tributaries.
- During large storms, even well designed and maintained BMPs cannot stop sediment from leaving the site.

These risks arise from the fact that ESC practices are only designed to handle the runoff from smaller storms.



During a large storm, citizens may see sediment-laden runoff coming from a construction site. Because of the limitations of the ESC regulations, the runoff may not constitute an ESC violation. See Section IV, "Opportunities for Citizen Involvement," for more information about reporting ESC violations.



Enforcement



Inspection and enforcement of ESC regulations are usually undertaken by the county or municipal office of permits and inspections. Under Maryland regulations, inspections are required once every 14 days during construction to ensure that BMPs are maintained throughout the development process.

County and municipal inspectors have several tools for enforcing ESC regulations and ensuring that problems are addressed quickly. They can issue fines and penalties if:

- The ESC plan is not followed.
- The ESC plan is not adequately controlling erosion and sediment loss.
- BMPs are not properly maintained.

The table on page eighteen describes both the Maryland penalties and additional federal penalties under the Clean Water Act.

A Maryland law passed in 2004 enables counties and municipalities to impose additional fines for ESC violations occurring in the Bay's Critical Area. For instance, Anne Arundel County recently doubled its fines for Critical Area violations to \$10,000.

State and Federal Consequences for ESC Violations

Jurisdiction	Enforcement Method	Fines	Comments
Maryland (Usually enforced by county or local officials)	Formal Complaint	Not Applicable	Complaints are issued first if ESC techniques are not effective. Developers must correct deficiencies to avoid further penalties. Issued when: <ol style="list-style-type: none"> ESC Plan is not followed. ESC structures are not properly maintained. ESC structures not adequate, even if ESC plan is followed.
	Stop Work Order	Not Applicable	All construction onsite is stopped until violation is resolved. Used if problem is not fixed promptly after the formal complaint—can be more effective than fines since “time is money” for developers.
	Fines	Up to \$1,000 per day of violation, and can be up to \$10,000 per day in the Critical Area*	Used after formal complaint if not addressed promptly. Similar to a ticket issued by a police officer.
	Civil Penalties	Up to \$10,000 per day of violation*	Court proceedings—last resort for prosecuting developers that refuse to fix problems.
	Criminal Penalties	Up to \$10,000 per day of violation* and/or up to 1 year in jail	
Federal Clean Water Act (Enforced by MDE through court proceedings)	Civil Penalties	Up to \$25,000 per day of violation*	
	Negligent Violations (Criminal)	Up to \$25,000 per day of violation* and/or up to 1 year in jail	Applied if developer fails to take reasonable care and unintentionally violates the Clean Water Act.
	Knowing Violations (Criminal)	Up to \$50,000 per day of violation* and/or up to 3 years in jail	Applied if developer intentionally violates the Clean Water Act.
	Knowing Endangerment (Criminal)	Up to \$250,000 per day of violation* and/or up to 15 years in jail	Applied if developer intentionally violates the Clean Water Act and realizes that the violation will endanger people.

* Each day a violation remains uncorrected may be considered as a separate violation. For example, the fine issued by an inspector for a 10-day unresolved violation would total 10 times \$1000, or up to \$10,000.



IV. OPPORTUNITIES FOR CITIZEN INVOLVEMENT

Local inspectors are responsible for dozens of construction sites and cannot catch every violation. Citizens can help compensate for limited enforcement staff. Listed below are practical ways citizens can help ensure effective ESC practices and keep sediment out of the Bay and its tributaries.

- **Report Erosion and Sediment Control Violations** — The appendix shows some of the most common erosion and sediment violations you are likely to observe. Remember that BMPs are not designed to handle large storm events. It is therefore possible that sediment-laden runoff pouring off a construction site from a large storm may not constitute a violation. In any event, Maryland urges citizens to err on the side of caution and report all suspected violations. Photographs and proper documentation greatly assist inspectors and provide a record of your observations. According to Maryland regulations, the inspector should check for reported violations within three working days and respond to you within seven working days. If, after a few calls, local inspectors fail to act on an ESC violation, contact MDE's Soil and Erosion Compliance Program at (410) 631-3510. See *Influencing Development in Your Community: A Citizen's Guide for Maryland* for a procedure for reporting violations.
- **Organize Members of Your Community to Monitor Construction Sites** — A small group of watchful citizens can work together to report ESC violations. See Section V, "For More Information," to order *A Citizen's Guide to Investigating and Reducing Sediment Pollution*.
- **Low Impact Development** — Encourage development projects that minimize land clearing and grading and preserve natural vegetation. See the Chesapeake Bay Foundation publication, *A Citizen's Guide to Stormwater Management in Maryland*, for more information.
- **Encourage ESC Training for Developers** — MDE offers *Responsible Personnel Training for Erosion and Sediment Control* for developers and contractors. This training program teaches construction personnel about ESC principles, Maryland regulations, and how to implement and maintain BMPs. For more information, contact MDE at 410/537-3543.
- **Encourage Your Local Government to Adopt Higher Penalties for ESC Violations** — A Maryland law passed in 2004 enables county and municipal governments to impose up to \$10,000 in penalties for ESC violations in the Bay's Critical Area. Refer to *Influencing Development in Your Community: A Citizen's Guide for Maryland* for help in organizing citizens and advocating for change in your local ordinances.

Speaking Out

Phone numbers for reporting erosion and sediment violations can be found at:

[www.dnr.state.md.us/
streams/res_protect/
regulations.html](http://www.dnr.state.md.us/streams/res_protect/regulations.html)



V. FOR MORE INFORMATION

Websites

Construction Site Storm Water Runoff Control by the US Environmental Protection Agency. A good description of federal Clean Water Act requirements for construction activities and excellent fact sheets describing erosion and sediment control BMPs.
cfpub.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm

Stormwater Center. A comprehensive site for stormwater management information, including ESC, produced by the Center for Watershed Protection. www.stormwatercenter.org

Publications

Citizen's Guide to Investigating and Reducing Sediment Pollution. Teaches citizens how to organize a group for investigating and reporting sediment violations on construction sites. To order a copy, visit: www.delawariverkeeper.org/factsheets/muddy_waters.html

Keeping Soil on Construction Sites: Best Management Practices. A video training tool that describes the erosion and sediment loss process and the design, construction, and inspection of BMPs. Contact the Ohio Department of Natural Resources, Division of Soil and Water Conservation, Foundation Square, Building E- 2, Columbus, OH 43224. Phone 614/265-6610.

Stormwater and the Construction Industry. An informative poster from the US Environmental Protection Agency that describes erosion and sediment control BMPs and the ESC planning process. Download from: cfpub.epa.gov/npdes/stormwatermonth.cfm

Maryland ESC Laws and Regulations

Annotated Code of Maryland, Environment Article, Title 4, Subtitle 1

Code of Maryland Regulations (COMAR) 26.17.01

Maryland Department of the Environment. *1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.*

VI. Appendix: Common Erosion and Sediment Control Violations



R. Schnabel, Chesapeake Bay Foundation
Sediment laden runoff pouring off the construction site



US Environmental Protection Agency
Uncovered dirt pile (Dirt piles should be temporarily seeded to prevent erosion.)



US Environmental Protection Agency
Failing silt fence (Runoff pools at a low point and can overwhelm a silt fence.)



R. Schnabel, Chesapeake Bay Foundation
Dirt tracked onto adjoining roads by heavy equipment



US Environmental Protection Agency
Poorly graded slope (Slopes should be roughly graded to slow runoff velocity.)



US Environmental Protection Agency
Unprotected slope (Immediately after construction, slopes must be seeded and covered with mulch or geotextile material.)



US Environmental Protection Agency
Storm drain filled with trash and debris

Adapted from *Stormwater and the Construction Industry*,
US Environmental Protection Agency.



CHESAPEAKE BAY FOUNDATION
Save the Bay

Founded in 1967, the Chesapeake Bay Foundation is the largest nonprofit conservation organization working solely to Save the Bay. CBF's mission is to restore and sustain the Chesapeake Bay's ecosystem by substantially improving the water quality and productivity of the watershed, with respect to water clarity, resilience of the system, and diversity and abundance of living resources, and to maintain a high quality of life for the people of the Chesapeake Bay region.

The Chesapeake Bay Foundation is a charitable, tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

Chesapeake Bay Foundation

Maryland Office

6 Herndon Avenue

Annapolis, MD 21401

410/268-8833

410/269-1870 (from Baltimore metro)

301/261-1131 (from DC metro)

www.savethebay.cbf.org

Email: chesapeake@cbf.org

Membership information: 1/888/SAVEBAY