WASHTENAW COUNTY

SOIL EROSION & SEDIMENTATION CONTROL PROGRAM GUIDE

• application • fee schedule • goal • plan review • sample plan •
• details • standards • requirements • staff information •

SOIL EROSION PERMITS are required for all projects involving earth moving activities that…

- occur **within 500 feet of surface water** (as defined) and **disturb more than 225 square feet**
- **disturb one or more acres**
- are classified as **MAJOR** projects, **regardless of size**
- include the construction of **new ponds** or **alterations to existing ponds**.

Permits are divided into **two categories**:

MAJOR For projects undertaken **for the purposes of commerce, multiple residential, or public service**, including but not limited to: residential development, commercial or industrial projects or additions, recreation developments, churches, schools, roads for lot splits, street construction, drainage construction, mining and large utilities.

MINOR For projects undertaken for a proposed or existing **private residence**, or undertaken on private land not intended for commercial or public use or multiple residential development.

An application must be submitted for a Soil Erosion Permit, with an initial application fee due at time of application submittal.

SOIL EROSION WAIVERS are required for projects involving earth moving activities that…

- **disturb less than one acre** and are located **more than 500 feet from surface water**
- are located **within 500 feet of surface water,** but **disturb less than 225 sq. ft.,** and do not contribute sediment to surface water.

An application must be submitted for a Soil Erosion Waiver, but no fee is required.

SOIL EROSION EXEMPTIONS are allowed for those projects that…

- **disturb less than 225 square feet** and are **stabilized within 24 hours**
- include only **post holes for decks**
- include only **shrub and tree removal** when no vegetation is disturbed
- include only the **plowing and tilling of fields** for crop production
- include only borings and percolation tests **when stabilized within 24 hours** of the initial earth change and **disturb less than 225 square feet**.

No paperwork is required or exchanged for projects eligible for a Soil Erosion Exemption.

SURFACE WATER is defined as:

ponds, lakes, streams, rivers, wetlands, designated county drains, and storm drains (including culverts, natural water channels, catch basins, or roadside drainage ditches). These surface water areas may hold or convey water continually or seasonally.

Have / N/A	✓ SITE PLAN CHECKLIST
☐☐	Map scale: 1" = 200' or less (for **minor projects**) or 1" = 100' or less (for **major projects**) Note: A 1" = 40' scale is required by Washtenaw County Environmental Health to obtain Well and Septic permits
☐☐	Vicinity/location map
☐☐	Legal description of property
☐☐	Location and physical limits of each proposed earth change
☐☐	Location and physical limits of all temporary soil stockpiles
☐☐	Location and description of all predominant land features and landmarks
☐☐	Location and perimeters of all existing buildings and structures
☐☐	Location of all tree lines and forested areas
☐☐	Locations and descriptions of soil types
☐☐	Proximity of proposed earth changes to surface water (see definition above) within 500 feet of earth changes
☐☐	Location of all existing and proposed on-site drainage facilities (ditches, catch basins, etc.) and dewatering facilities (used for pumping and filtering water from basement excavations, ponds, wetlands, etc.)
☐☐	2' contour interval lines extending 50' beyond property line describing current and proposed site contours (for **major projects**), or general slope information (for **minor projects**)
☐☐	Location and description of all proposed temporary and permanent soil erosion and sedimentation control measures, including silt fences, inlet protection, stone check dams, erosion control blankets, seeding and mulching, etc.
☐☐	Program proposal for the continued maintenance of all permanent soil erosion and sediment control measures (e.g. on-site catch basins; detention/retention ponds; grass, mulch, or other ground cover) that remain after project completion, including person(s) responsible for maintenance
☐☐	Schedule of street sweeping (for **major projects**)
☐☐	Copy of Master Deeds (for **residential developments**)

MAILING ADDRESS:
Wastenaw County
Soil Erosion Division
P.O. Box 8645
Ann Arbor, MI 48107-8645

eWashtenaw.org

BUSINESS LOCATION:
Washtenaw County
Western County Service Center
705 N. Zeeb Rd.
Ann Arbor, MI 48103
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Soil Erosion Permit Fee Schedule

(Natural Resources and Environmental Protection Act, Part 91, Soil Erosion & Sedimentation Control, 1994, Act 451, as amended 2000, Act 504; and Washtenaw County Soil Erosion & Sedimentation Control Ordinance, 1997, as amended)

INITIAL APPLICATION FEE:

Applicants seeking to obtain a Soil Erosion Permit will be required to pay an initial application fee upon submitting the Soil Erosion Permit application. **(A $5.00 GIS FEE IS REQUIRED IF THE INITIAL APPLICATION FEE TOTALS $100.00 OR MORE.)**

MINOR PROJECTS: **$50.00 PER ACRE DISTURBED*** **** Round up - For example 1.1***
MAJOR PROJECTS: **$65.00 PER ACRE DISTURBED *** ***acres would be charged for 2 acres***

This initial fee covers the plan review, preliminary inspection and the first month (major projects) or two months (minor projects) of disturbance. Note that the initial fee is calculated based on the total acreage to be disturbed throughout the duration of the project. The GIS Fee is required of all County permits of $100.00 or more and is used to develop and maintain the county's Geographic Information System. **Checks should be made payable to Washtenaw County Soil Erosion.**

IN THE EVENT THAT EARTH-MOVING ACTIVITIES OCCUR PRIOR TO ISSUANCE OF A SOIL EROSION PERMIT, THE OWNER IS SUBJECT TO DOUBLE THE INITIAL APPLICATION FEE.

MONTHLY/BI-MONTHLY INSPECTION FEES:

Following the payment of the initial fee, SESC Program staff will perform monthly or bi-monthly inspections, and issue invoices to each project based on the acreage disturbed on-site at the time of inspection. **ANY UNPAID RE-INSPECTION FEES RESULTING FROM STOP WORK ORDERS WILL BE ADDED TO THE INVOICE.**

MINOR PROJECTS: **$50.00 PER ACRE DISTURBED, BILLED BI-MONTHLY**
MAJOR PROJECTS: **$65.00 PER ACRE DISTURBED, BILLED MONTHLY**

Invoices are calculated based only on the area that is disturbed at the time of inspection. If an area is stabilized using approved permanent or temporary stabilization methods, the permit holder will not be billed for the stabilized area. A list of approved methods of stabilization will be given out with permits, and more are available through the SESC Program Office.

PERMIT TRANSFER:

If you transfer ownership of property prior to permanent stabilization, an SESC Transfer Form must be completed, submitted, and signed by Washtenaw County SESC (Soil Erosion and Sedimentation Control).

RE-INSPECTION FEE:

If a Stop Work Order is posted due to failure to adhere to Soil Erosion Permit requirements, a re-inspection will be performed when notified that the situation has been corrected. A Re-Inspection Fee of $45.00 will be applied to the next regular inspection invoice.

MAJOR PROJECTS MUST ALSO SUBMIT A PERFORMANCE GUARANTEE OR RESOURCE REMEDIATION FEE

PERFORMANCE GUARANTEE

A Performance Guarantee is a monetary guarantee of the proper completion and stabilization of the project. Applicants for major projects are required to submit cash, a check, or letter of credit for the amount of $500.00 per acre disturbed, with a minimum of $2,000.00. **The performance guarantee provides an assurance that all exposed soil surfaces will be stabilized should development discontinue or proper control measures are not installed and/or maintained**. Monies are held until the completion of the project, and released once the site is stabilized and permanent Erosion Control Measures are functioning. Checks should be made payable to the **Washtenaw County Clerk's Registrars Office**.

RESOURCE REMEDIATION FUND

The Washtenaw County SESC Division may accept a Resource Remediation Fee in lieu of a Performance Guarantee. It is a non-refundable fee equal to 5% of the Performance Guarantee requirement for the project ($100.00 for a $2,000.00 Performance Guarantee). Funds taken in through the Resource Remediation Fee **are** used to remediate sites that have been abandoned, failed to properly stabilize, **or have** special concerns. Make checks payable to Washtenaw County Soil Erosion.

Goal

The purpose of the **Soil Erosion and Sedimentation Control Division** is to serve the public by protecting the waters of the State of Michigan and Washtenaw County, and to ensure clean water for drinking, swimming, fish and wildlife habitat.

Soil Erosion Control Requirements

- No earth moving activity can begin without a Soil Erosion Permit or Soil Erosion Waiver. **The Soil Erosion Permit or Soil Erosion Waiver must be posted and be clearly visible from the road.**
- Soil erosion and sedimentation control measures as designated on plans and/or as required must be installed prior to any earth moving activities.
- Earth changes to a property must not adversely affect drainage to surrounding areas.
- Detention/retention/sedimentation ponds must be constructed and stabilized prior to other earth moving activities
- Outlets of detention/retention/sedimentation ponds shall be designed and constructed to reduce the water flow to a non-erosive velocity. Rip rap must be installed on all stormwater outlets.
- Riser pipes in detention ponds must be wrapped in geotextile fabric and choked with pea gravel.
- All earth moving shall be designed, constructed and completed in such a manner that limits the exposed area of any disturbed land for the shortest possible period of time. The site must be stabilized within 5 calendar days after final grading or earth moving activity has been completed.
- Stone access drives, if required, must be installed prior to construction for purposes of mud tracking.
- Soil, sediment, and miscellaneous debris must be kept off streets and out of drainage ditches and catch basins throughout the duration of the project.
- Rock check dams are to be used instead of straw bales or silt fencing in concentrated flow locations such as ditches or pipe outlets. Straw bales should never be used for soil erosion control.
- Silt fencing, if required, must be trenched in and backfilled. Fencing may be toed-in with pea gravel if installed in winter.
- Catch basins, if installed, must be protected with a sediment filter with overflow.
- Dewatering operations must have some type of control, e.g.: filter bag and vegetative filter area. There shall be no dewatering of unfiltered water.
- Stockpiling of any excavated material must be kept clear of sensitive areas. Adequate controls must be in place to ensure this requirement.
- Erosion control blankets are required on slopes of 4:1 or steeper.
- All permanent erosion control measures shall be permanently maintained by the owner or homeowner association

Soil Erosion and Sedimentation Control Measures

CATCH BASIN FILTER ..... Geotextile filter fabric placed inside a catch basin (storm drain) to filter suspended sediment from water. Must have regular maintenance after storm or melt events to function properly.

CHECK DAM ..... Temporary measure consisting of a line of 4-8" stone piled a maximum of 2 ft. high that slows the flow of water in ditches, swales or natural drainage areas. Check dams should be built so that the center of the wall is lower than the outside edges, and should be spaced so that the top of the downslope check dam is level with the bottom of the upslope check dam.

DETENTION/RETENTION BASIN ..... Drainage basins or ponds designed to hold and filter water draining from developed site so as to prevent flooding and filter suspended sediment from water. Required for most Major projects. Detention basins retain inlet and outlet water. Retention basins retain inlet water only.

EROSION CONTROL BLANKET ..... A blanket composted of a mesh of biodegradable material, usually interlaced with straw mulch, and sometimes containing grass seed, used for controlling erosion on steeper downslopes. Erosion Control Blankets must be staked in, trenched in at the top and flat against the ground.

RIP-RAP ..... Rock-type material (usually 6-8" stone) placed on the edges of culverts or drainage outlets to slow water to a non-erosive velocity, preventing erosion. Stone should be arranged in a half-circle around the end of the outlet.

SILT FENCING ..... Temporary measure consisting of wooden fence posts, support system, and a geotextile filter fabric (usually nylon) used to keep suspended soil particles from leaving the site. Required to be trenched in to a depth of 6".

VEGETATIVE BUFFER ..... A strip or area of vegetation used to filter sediment and pollutants from runoff. The minimum width for a filter strip is usually 25'.

When turning in an Application for a SOIL EROSION PERMIT, be sure to:

- ❑ completely **fill out and sign** the Soil Erosion Permit application
- ❑ if signed by a **designated agent**, include a copy of the **letter of authorization**
- ❑ include **two sets of site plans** (see the Project/Site Plan Checklist, and the back page of this guide for an example of a complete site plan and vicinity map for a minor project.
- ❑ **indicate whether you want to** pick up **the permit when it is ready or** have it mailed**, and if mailed,** which party **to mail it to. Please keep the SESC Office updated of address changes.**
- ❑ include the **application fee** (see the Soil Erosion Permit Fee Schedule)

For MAJOR projects, also include:

- ❑ a performance guarantee, or alternatively, if offered, a resource remediation fee

When turning in an Application for a SOIL EROSION WAIVER, be sure to:

- ❑ completely **fill out and sign** the Soil Erosion Waiver application
- ❑ if signed by a **designated agent**, include a copy of the **letter of authorization**
- ❑ include a **site plan** or sketch a site plan in the area indicated on the back of the application.
- ❑ **fill out and sign** the official Soil Erosion Waiver.
- ❑ **post the Waiver** on site visible from the road

Frequently Asked Questions about Soil Erosion (Grading) Permits

There's no water on my site, why do I need a permit?
Proximity to drainage ditches, drainage swales, catch basins, detention or retention basins, wetlands, and designated drains must be taken into account. These may appear dry for much of the year, but all serve a vital role in the conveyance of surface water, and can carry sediment into larger bodies of water.

How do I complete the timing sequence?
The timing sequence gives us a general idea of when your project will begin and when it will be finished, and also lays out a sequence of steps to follow for erosion control. Temporary measures, such as silt fence, check dams, or vegetative buffers should be installed at the beginning of the project. The stone aggregate drive should also be in at the start of construction. Permanent measures, such as grass, shrubs, pavement or other vegetation should be installed as soon as possible after final grade. Removal of temporary measures should be done after the site is completely stabilized. For major projects please note in determining a timing sequence, detention/retention/sediment pond installation should occur at the beginning of a project and that catch basin covers should be cleaned at least once a month until permanent measures are functioning.

How big is an acre?
One acre is 43,560 square feet, or 208' x 208' if square. Determine from your plans the areas where earthwork will occur and measure the areas length and width. Remember to include area for utilities, well, septic, fill brought in, lot grading, building structures and driveways.

What are impervious surfaces?
Impervious surfaces are areas that do not absorb rainfall, these are covered by pavement or structures. Pervious surfaces are areas that do absorb rainfall such as vegetated ground.

Who is the party responsible for on-going maintenance of permanent erosion control measures?
Examples of permanent erosion control measures are vegetation and stormwater detention/retention areas. The responsible party is the property owner and/or homeowners association for commonly held properties.

Why is Soil Erosion and Sedimentation Control Important?

Economic Reasons

- ♦ Excess sediment can increase the cost of treating drinking water and negatively affect the equipment used in the treatment process.
- ♦ Sites developed with sound erosion control avoid the costs of removing sediment from storm water structures. Clean sites are also more appealing to potential buyers.

Health & Safety Reasons

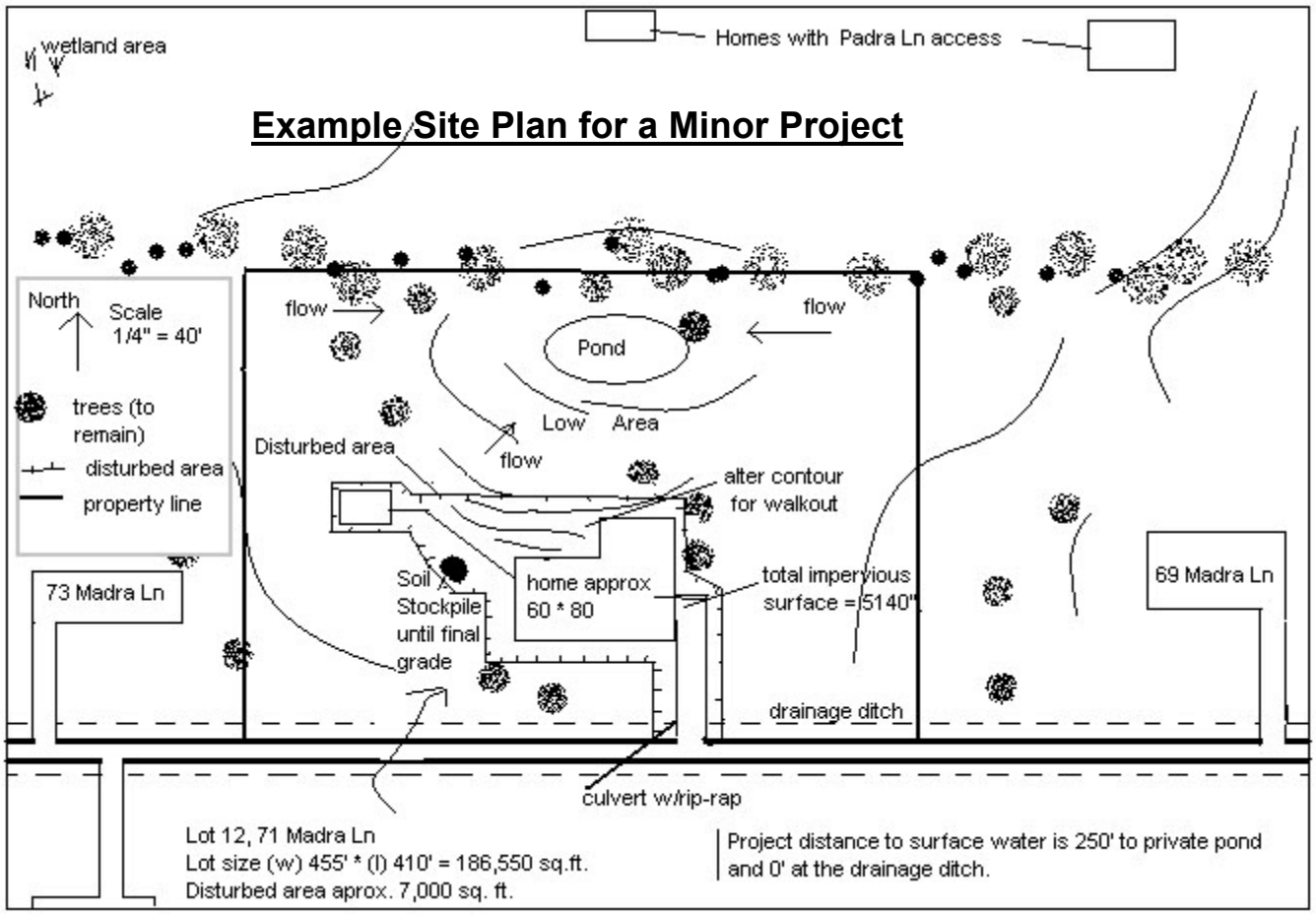
- ♦ Eroded soils enter water bodies and channels, raising water levels and blocking culverts, flooding surrounding land.
- ♦ Sediment can be deposited onto streets and roads by vehicles leaving the site or by stormwater runoff. These sediments can make roadways dangerous.
- ♦ Soil particles carry pollutants such as pesticides, oil and herbicides, that enter water bodies along with the soil, creating unhealthy conditions for wading and swimming, and affecting water quality.

Environmental Reasons

- ♦ Sediment in water bodies can cover the eggs of fish and other organisms, preventing them from hatching.
- ♦ Excess sediment that is suspended in streams and rivers acts like sandpaper on fish and other organisms and can clog their gills, making breathing difficult.
- ♦ Sediment reduces light penetration, making photo-synthesis more difficult for water plants.
- ♦ Soil particles absorb heat, raising the temperature of the water and driving off desirable fish populations.

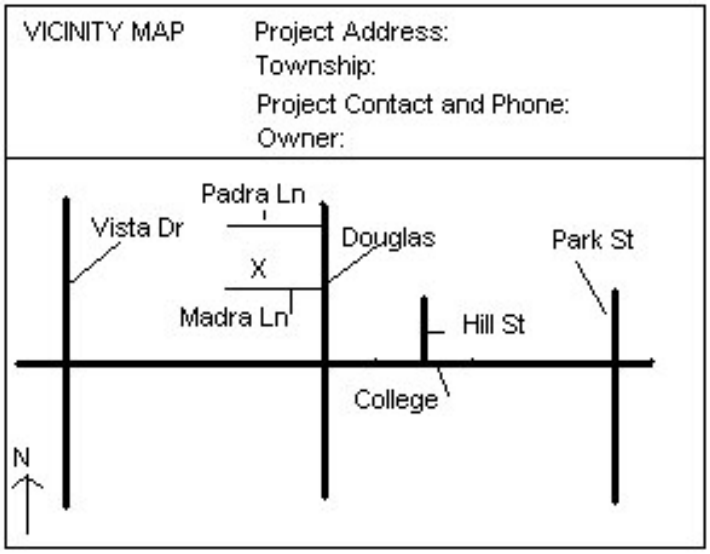
Aesthetic & Recreational Reasons

- ♦ Clear water is more desirable for swimming, boating, canoeing and fishing than muddy water.
- ♦ Excess sediment builds up in lakes and rivers. This raises the water level but reduces water depth, which decreases canoeing and fishing opportunities.



The site plan above includes:

- ❖ Existing natural and constructed features of property and nearby areas
- ❖ Surface water features and drainage pattern.
- ❖ Existing & proposed site contours.
- ❖ Expected erosion controls and their placement, including stockpile duration.
- ❖ Area to be disturbed.
- ❖ Total lot size and total impervious (paved & built upon) surface.
- ❖ Property identifer.
- ❖ Adjacent property features.
- ❖ A scale.



Washtenaw County
Building Services Department
Soil Erosion Division

Main Line	Soil Erosion Division	734-222-3900	Fax: 734-222-3930
Jamie Kryscynski	Soil Erosion Control Officer	734-222-3921	kryscynj@eWashtenaw.org
Chris Benbow	Soil Erosion Control Officer	734-222-3871	benbowc@eWashtenaw.org
Katie Lee	Soil Erosion Control Officer	734-222-3978	fennellk@eWashtenaw.org
Marlene Todd	Soil Erosion Permit Coordinator (Accounting)	734-222-3829	toddm@eWashtenaw.org

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