PREVENTING SOIL EROSION

A guide for property developers and home builders

Candice S. Miller
Public Works Commissioner
Letter from the Commissioner

Dear community partner,

As your Public Works Commissioner, I have one overarching goal for our office. We always begin with a question: Is this action somehow contributing to having clean water in our community? We want to do all that we can do to preserve, protect and defend our magnificent Great Lakes. To do that, our focus begins with the 475 county drains under our jurisdiction. We put special emphasis on doing what is right for the Clinton River and Lake St. Clair. Daily, we work with local, state and federal partners, as well as citizens groups and others who care as deeply about our water as we do.

An important partner in this is you — the local building and development community. Whether you are building a new shed in your backyard near a county drain or planning a new subdivision, we believe part of what made you decide to invest in Macomb County is your agreement that our lake, river and streams are part of what makes this such a great place to live, work and play. So, we all need to work together to continue to enhance the great quality of life we all enjoy here.

In this booklet, you’ll find best management practices and key points from both the Michigan Soil Erosion and Sediment Control Statute and Macomb County Soil Erosion Control Ordinance. By following these standards, you’ll help to keep sediments and pollutants out of our county drains. This helps improve water quality and prevents flooding in local communities. You’ll also find information on who to contact if you have any questions.

We’ll be sure to do our part. In 2018, just to take a snapshot, the Public Works Office issued 1,263 soil erosion permits and conducted 14,022 soil erosion inspections. We also responded to more than 150 citizen calls about an issue in the drains — ranging from oil spills to drains clogged by fallen trees.

Thank you for all you do to contribute to the water quality here in Macomb County.

Sincerely,

Cardio B. Miller
What are the effects of soil erosion?

- Loss of top soil
- Increased peak flows & flooding
- Clogged ditches & culverts
- Turbid lakes and streams
- Damaged plant, animal and aquatic habitats
- Increased cost for water treatment
- Structural damage to roads, bridges and other structures

What steps can I take to reduce soil erosion?

Any time earthwork or construction is taking place a Soil Erosion permit may be required. The Macomb County Public Works Office issues Soil Erosion permits for every community in the county, with the exception of Sterling Heights and St. Clair Shores. These communities issue their own permits. The most important step is contacting our office to see if a permit is needed and then reviewing your plan with our staff, to be sure adequate measures are in use at your site.

Some common soil erosion measures include:

- Buffer Strips—Strips of vegetation that act as a sediment filter between the active construction and a road or environmentally sensitive area.
- Vegetation — temporary and permanent, helps to stabilize disturbed areas of land
- Erosion control blankets — blankets made of straw or wood fiber that are bound with a biodegradable mesh
- Silt fence — a temporary barriers that prevent soil from running into lakes streams, drains, and other environmentally sensitive areas such as wetlands.
- Inlet Protection—bag filters and sediment cages that keep soils from entering catch basins.
Soil Erosion Permit Checklist

____ Map or maps at a scale of not more than 200 feet to the inch. A map shall include a legal description and site location sketch that includes the proximity of any proposed earth change to lakes and streams, or both; predominant land features and contour intervals or slope information.

____ Soil survey or written description of the soil types for the property.

Details of the proposed earth changes, including all of the following:

____ Description and the location of the physical limits of each proposed earth change.

____ Description and the location of all existing and proposed on-site drainage facilities and dewatering facilities.

____ Timing and sequence of construction of each proposed earth change.

____ Location and description for installing and removing all proposed temporary erosion and sediment control measures.

____ Description and the location of all proposed permanent soil erosion and sediment control measures.

____ Program proposal for the continued maintenance of all permanent soil erosion and sediment control measures that remain after project completion, including the designation of the person responsible for the maintenance. Maintenance responsibilities shall become a part of any sales or exchange agreement for the land on which the permanent soil erosion control measures are located.
Permit Materials Examples

Sample map showing location of proposed earth movement.

Example of a site plan map.

Example of a plan showing vegetated buffers.

Above is an example of a soil type map that needs to be included with a Soil Erosion Permit issued by the Macomb County Public Works Office. This information is available, free of charge, from the Macomb County Planning & Economic Development Department’s on-line mapping service, https://gis.macombgov.org/portal1/home/

SOIL EROSION MEASURE IN USE: Properly installed bag-type filter.
**DO**

Silt fence

This is a properly installed properly maintained silt fence.

**DON’T**

Sediment over topping a silt fence causes a discharge to a wetland.

**Bag Type Inlet Protection**

Properly installed and installed bag type inlet filter.

Sediment impacted catch basin due to lack of proper inlet protection.
Silt fence

Bag Type Inlet Protection
**DO**  
Cone Type Inlet Protection

Proper rear yard inlet protection.

**DON’T**  
Cone Type Inlet Protection

Straw bales swell and promote flooding. They are not approved for use in Macomb County.

**Rear Yard Drain Guard**

Silt fence and mulch blanket used in combination to protect a rear yard catch basin.

Filter fabric haphazardly placed under a storm grate. This promotes flooding in back yards.
Cone Type Inlet Protection

Rear Yard Drain Guard
For more information contact:

Macomb County Public Works Office,
Soil Erosion Department.
21777 Dunham Road
Clinton Township, MI, 48036

Office hours:
8 a.m.—5 p.m. Monday-Friday

Phone:
586-469-5325 main line
586-469-5327 soil erosion

E-mail:
public.works@macombgov.org

Website:
publicworks.macombgov.org

A link to the Macomb County Soil Erosion And Sediment Control Ordinance is available at the website.

24-hour hotline: 877-679-4337