Erosion and Sedimentation Control on Mine Sites

Department of Environmental Quality
Land Quality Section

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The Mining Act of 1971

As indicated in § 74-47. Findings, “The General Assembly finds that the conduct of mining and reclamation of mined lands as provided by this Article will allow the mining of valuable minerals and will provide for the protection of the State's environment and for the subsequent beneficial use of the mined and reclaimed land.”

Mine Permit Requirements

When is a mine permit required?

- A mine permit is required if 1 or more acres of land are affected by mining activity (excavation, access/haul road, stockpiles, E&SC, etc.)

Exemptions to the Mining Act:

- On-site construction or farming
- DOT contractor borrow pits (conditional)
- Single project borrow pits (covered by the SPCA)

Mine Permit Application Process

Along with the required processing fee, a complete application and associated mine maps are submitted to the Central Office. These items fully describe the mine activities as well as proposed reclamation of the site.

Adjoining landowners (and county/city officials) must be notified of the proposed mine activity. If there is significant public interest in a project, the Division Director may call for a public hearing on the application.

A security covering the cost of reclamation must be deposited with the Program, if the fails to reclaim the site.

Interagency Review

Mine Permit Review Process

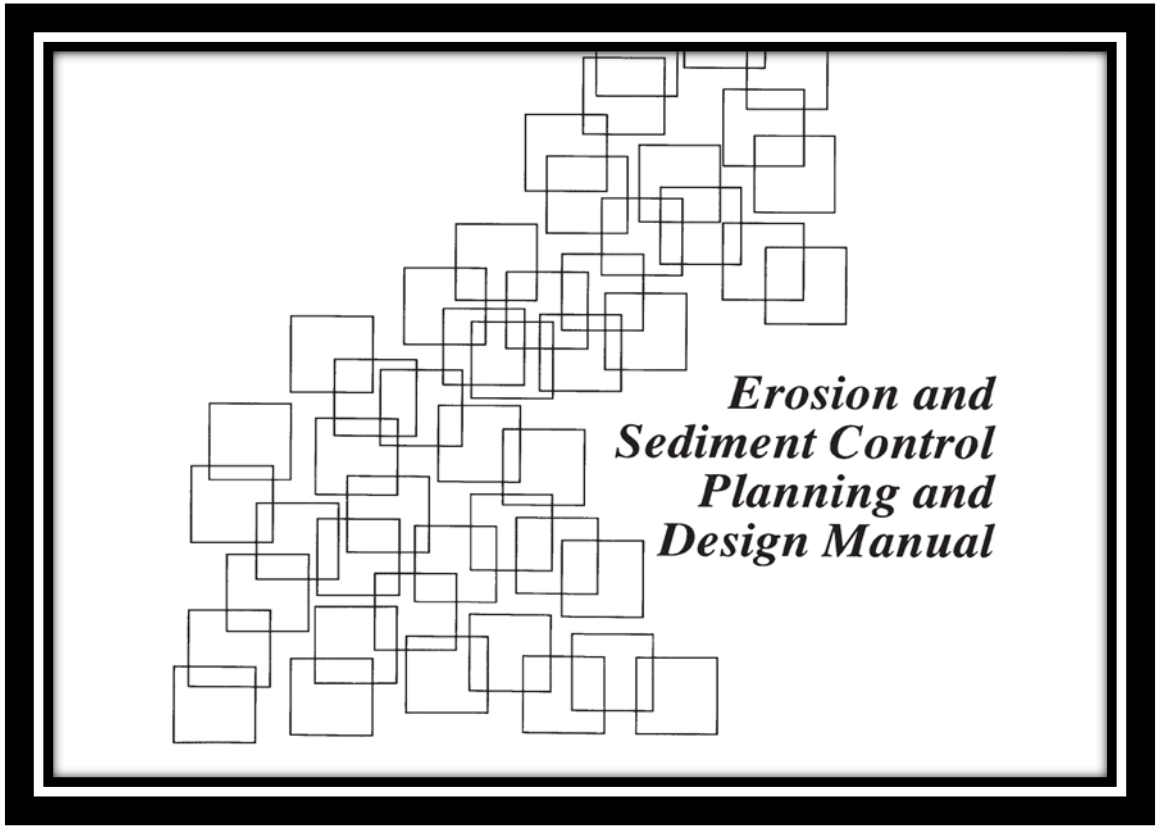
- The DEMLR Mining Program compiles and reviews comments from other agencies and Regional Office field staff.

- By statute, we have a 60 day review clock.

- Our goal is to have the initial review complete within 30 days.

- If additional information is needed to continue review of the application, a certified letter is sent to the applicant. The applicant has up to 180 days to respond to our request.

Mines Use the Same Design Criteria



E&SC for Mines is similar to E&SC for Construction sites

E&SC Measures for Mines:

- Sediment Fence
- Check Dams
- Temporary Sediment Traps
- Rock Dams
- Sediment Basins
- Outlet Stabilization
- Inlet Protection
- Etc.

E&SC Measures for Construction:

- Sediment Fence
- Check Dams
- Temporary Sediment Traps
- Rock Dams
- Sediment Basins
- Outlet Stabilization
- Inlet Protection
- Etc.

So what's different?

- The length of the project
- How buffers are used for sediment control
- How wetland buffers are treated
- Measures may be designed differently
- Bonding
- Stormwater permits are different

Design Criteria

Mines:

- Permanent (greater than 1 year) – must dewater from the surface
- Design for 25 year/24 hour storm event

Construction:

- Temporary

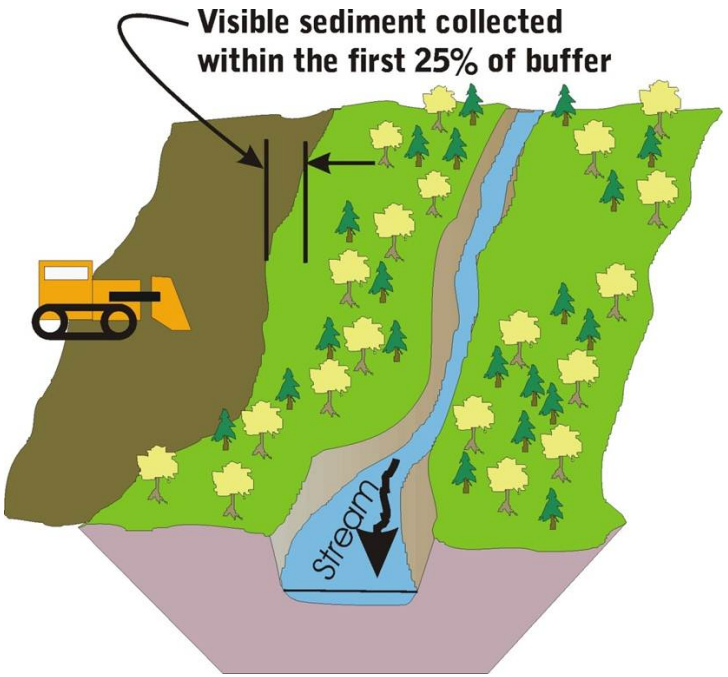
Mines – Decades

Construction - Months

How are Buffers Treated?

Mines:

- Mine buffers may <u>not</u> be used as a measure
- Minimum of 50 feet undisturbed buffer



Construction:

- Construction buffers may use the first 25% to collect sediment
- May be less than 50 feet

Mine Buffers

Unexcavated:

- May be used along adjoining property
- May include roads, berms, stockpiles
- May **not** be used along streams or wetlands

Undisturbed:

- Used to protect streams and wetlands
- May **not** be disturbed
- May **not** include roads, berms, stockpiles

Measures May Be Designed Differently

- Mining Program will review innovative practices such as stone baffles
- Mines often build berms

Bonding

- Reclamation bond is calculated for each permitted mine site
- Bond is returned when the site is “released”
- Final grading and vegetation must be established prior to release

Stormwater Permits

Mines

- NCG02 (renewal 2014)
- Must send Notice of Intent and Fee

Construction

- NCG01
- Issued with plan approval

Seven Denial Criteria

1. That any requirement of this Article or any rule promulgated hereunder will be violated by the proposed operation.

This means that the very nature of the activity proposed in the application will immediately violate any of the basic requirements of the Act and corresponding Administrative Rules.

Seven Denial Criteria

2. That the operation will have unduly adverse effects on potable groundwater supplies, wildlife, or fresh water, estuarine, or marine fisheries

- NC Wildlife Resources Commission
- US Fish and Wildlife Service
- Division of Water Resources
- Division of Marine Fisheries

Seven Denial Criteria

3. That the operation will violate standards of air quality, surface water quality, or groundwater quality that have been promulgated by the Department

- Division of Water Resources
- Division of Air Quality

Seven Denial Criteria

4. That the operation will constitute a direct and substantial physical hazard to public health and safety or to a neighboring dwelling house, school, church, hospital, commercial or industrial building, public road or other public property, excluding matters relating to use of a public road

- Slopes – Active and Final
- Blasting
- Access (Fencing, etc.)
- Buffers

Seven Denial Criteria

5. That the operation will have a significantly adverse effect on the purposes of a publicly owned park, forest or recreation area

Division of Parks & Recreation

Seven Denial Criteria

6. That previous experience with similar operations indicates a substantial possibility that the operation will result in substantial deposits of sediment in stream beds or lakes, landslides, or acid water pollution

- Land Quality Section
- Central and Regional Office Staff

Seven Denial Criteria

7. That the applicant or any parent, subsidiary, or other affiliate of the applicant or parent has not been in substantial compliance with this Article, rules adopted under this Article, or other laws or rules of this State for the protection of the environment or has not corrected all violations that the applicant or any parent, subsidiary, or other affiliate of the applicant or parent may have committed under this Article or rules adopted under this Article and that resulted in:

   a. Revocation of a permit,
   b. Forfeiture of part or all of a bond or other security,
   c. Conviction of a misdemeanor under G.S. 74-64,
   d. Any other court order issued under G.S. 74-64, or
   e. Final assessment of a civil penalty under G.S. 74-64.

The Operator’s record with the Mining Program and NCDENR as a whole

Questions?