

What's a little dirt in the creek?

Why management of sediment is important.

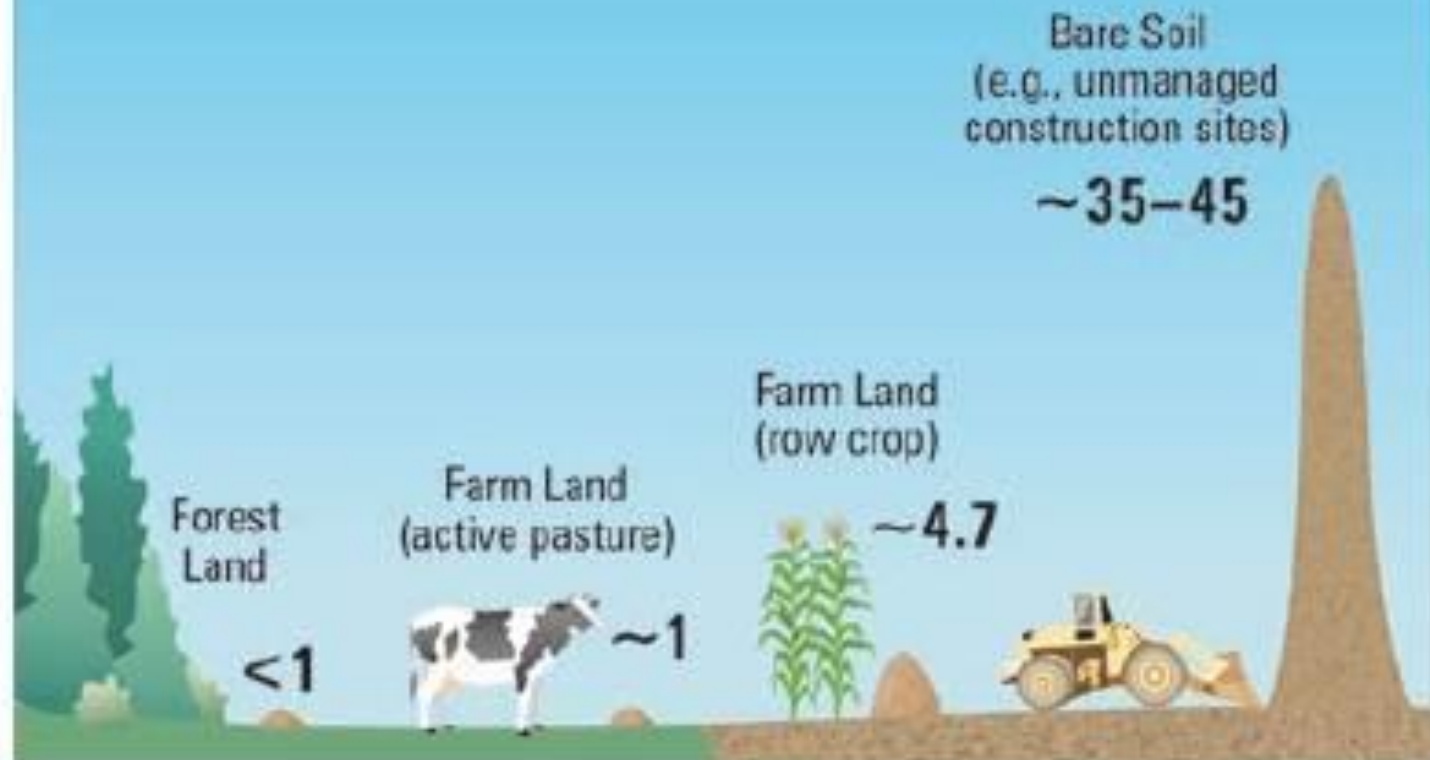
Let's talk dirt...

- Erosion is a natural process, producing 30% of the sediment found in bodies of water.
- The other 70% is caused by human land disturbing activities.
- EPA considers sediment the most common pollutant of water bodies in the United States.



Typical erosion rates for land-based activities

(soil loss from various land areas, in tons per acre per year)



Sediment is a pollutant.

- High amounts of sediment clog fish gills, making it difficult or impossible for them to filter oxygen out of the water.
- Suspended sediment decreases the penetration of light into the water, affecting fish feeding and schooling.
- Sediment particles absorb warmth from the sun and thus increase water temperature.
- Sediment can bury and suffocate fish eggs.
- Sediment acts as a sponge and transports other pollutants, like pesticides, oil and greases, bacteria and other harmful pollutants and chemicals.

Our Goal: to limit the amount of sediment that is discharged from the construction site.



How?

- Erosion Controls & Best Management Practices such as...
 - Silt fence
 - Silt dikes
 - Inlet protection
 - Rock filter dams
 - Stabilized exits
 - Sediment traps
 - Sediment basins

What's wrong here?





Often, a combination of
controls is the best solution.



Phasing


Limiting the amount of area disturbed means there is less to worry about washing away or trying to control.



Big equipment is fun, but let's control ourselves.

Sometimes folks can get a little out of hand when clearing and grubbing the site.





Leaving as much existing
vegetation as you can is one of the
best storm water controls.

Let's talk paperwork...

- The Notice of Intent (NOI) form is the permit application you submit to ODEQ before work begins.
- The Inspection Request form is what you submit when construction is complete but you aren't sure about stabilization. It is a courtesy inspection. If the site doesn't pass, you still have a permit.
- The Notice of Termination (NOT) form is what you submit when construction is complete and the site is stabilized. Once signed and submitted to ODEQ, you no longer have a permit.

The SWPPP is not just something that is submitted to ODEQ.

- It is a living document.
- When changes are made on the job site, the SWPPP must be updated.
- DO NOT falsify the inspection reports. It is a crime.
- Pristine SWPPP = Long Inspection

The SWPPP is your guide to preventing storm water pollution.



Everything ties back to erosion control

- 401/404 USACE Permits

401/404

Subject to the exceptions noted above, the DEQ grants Clean Water Act 401 Water Quality Certification for the Corps of Engineers Nationwide Permits subject to the following conditions:


1. All spills of fuel or other pollutants in excess of five gallons shall be reported to the DEQ, within twenty-four (24) hours, to the pollution prevention hotline at 1-800-522-0206.
2. All fueling and servicing of vehicles and equipment shall be done above the Ordinary High Water Mark (OHWM).
3. The permittee shall provide access to the property for DEQ inspection purposes.
4. Any material and fuels used in the project shall be stored and/or stockpiled above the Ordinary High Water Mark (OHWM) and shall be removed from a likely flood zone prior to any predicted flood.
5. If a stormwater discharge permit for construction activities is required, one can be obtained from the DEQ at (405) 702-8100.
6. If the project is located on or may affect water impaired for turbidity and/or sediment, Best Management Practices and other controls shall be selected and implemented in order to control soil erosion and maintain compliance with Water Quality Standards (Oklahoma Administrative Code, Chapter 45). The permittee shall maintain sufficient records to document the type of practices implemented to maintain compliance with this condition, during the term of the permit. A copy of the current EPA-approved list of impaired waters (303(d) list) can be viewed at http://www.deq.state.ok.us/wqdnew/305b_303d/index.html
7. For any project involving bank stabilization, the permittee shall consider installing bioengineering practices in lieu of structural practices (riprap) to minimize impacts to the aquatic resource and enhance aquatic habitat.



The biggest violation in regards to USACE permits is erosion control.

We can help you!

- The regulations can be overwhelming.
- You don't have to be an expert.
- It is our job to know the regulations.
- We all share the same goal.
- We are a resource, not an obstacle.



What are the consequences?
What happens when the rules are
not followed?



A bad report.....

A violation....

A fine....

Do you enjoy the outdoors?



Do you rely on a surface water for your drinking water source?



Do you fish?



SEQUENCE OF SEDIMENT POLLUTION

