

# Large Site Construction

Trevor Hansen

City of Lincoln

Public Works and Utilities Department

Watershed Management Division

# Emphasis This Year

1. Permit Process (Opening, Closing)
2. BMPs (Correctly Installed, Repairs)
3. Seeding
4. Inspection Logs (Updating, Copy on site)
5. Enforcement Letters

# Permit Process

Prior to land disturbance of sites one (1) acre or greater in size, a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) for erosion and sediment control must be submitted to both the City of Lincoln, Public Works Department and to the Nebraska Department of Environmental Quality.

# Notice of Termination (NOT)

- YOU'RE responsible for the site as long as the permit is open (includes inspections every 14 days and after rain  $\frac{1}{2}$ " or greater)



# Closing a Permit

## When can I Submit a NOT?

- Soil disturbing activity complete
- 70% density of vegetative cover
- Drainages stabilized
- All temporary measures removed
- Sediment basins cleaned out

# SWPPP Sign

- **Permit Procedures (28.01.050)**

“The permittee shall conspicuously post and maintain a notice about the permit and SWPPP near the main entrance of the site prior to engaging in any construction activity.”

- A SWPPP Sign must include the project number, name and phone number of a local contact, a brief description of the project and location of the SWPPP, if not kept on site.

Examples:





**Soil Excavation Special Permit #10004**

**Land Owner/Contractor Name and Contact Info:**

**North Bluff Employment Center, LLC**

**Attn: Mike Eckert**

**• Phone: 402-434-8494 •**

**Email: [meckert@civildg.com](mailto:meckert@civildg.com)**

**Building & Safety Department Phone Number:**

**402-441-7521**

**NO TRESPASSING - PRIVATE PROPERTY**





# When to install BMPs

- **DO NOT** install BMPs only at the beginning of construction and call it good.
- To have an effective SWPPP plan, BMPs are continuously installed and maintained as conditions change.



# Construction Entrance

- Coarse Aggregate 2" to 3" stone should be used with filter fabric underneath the stone.
- DO NOT use recycled concrete.
- Must be installed at every location where traffic leaves and enters the site.
- You **MUST** maintain entrance (adding new rock, keeping rock in place, etc).

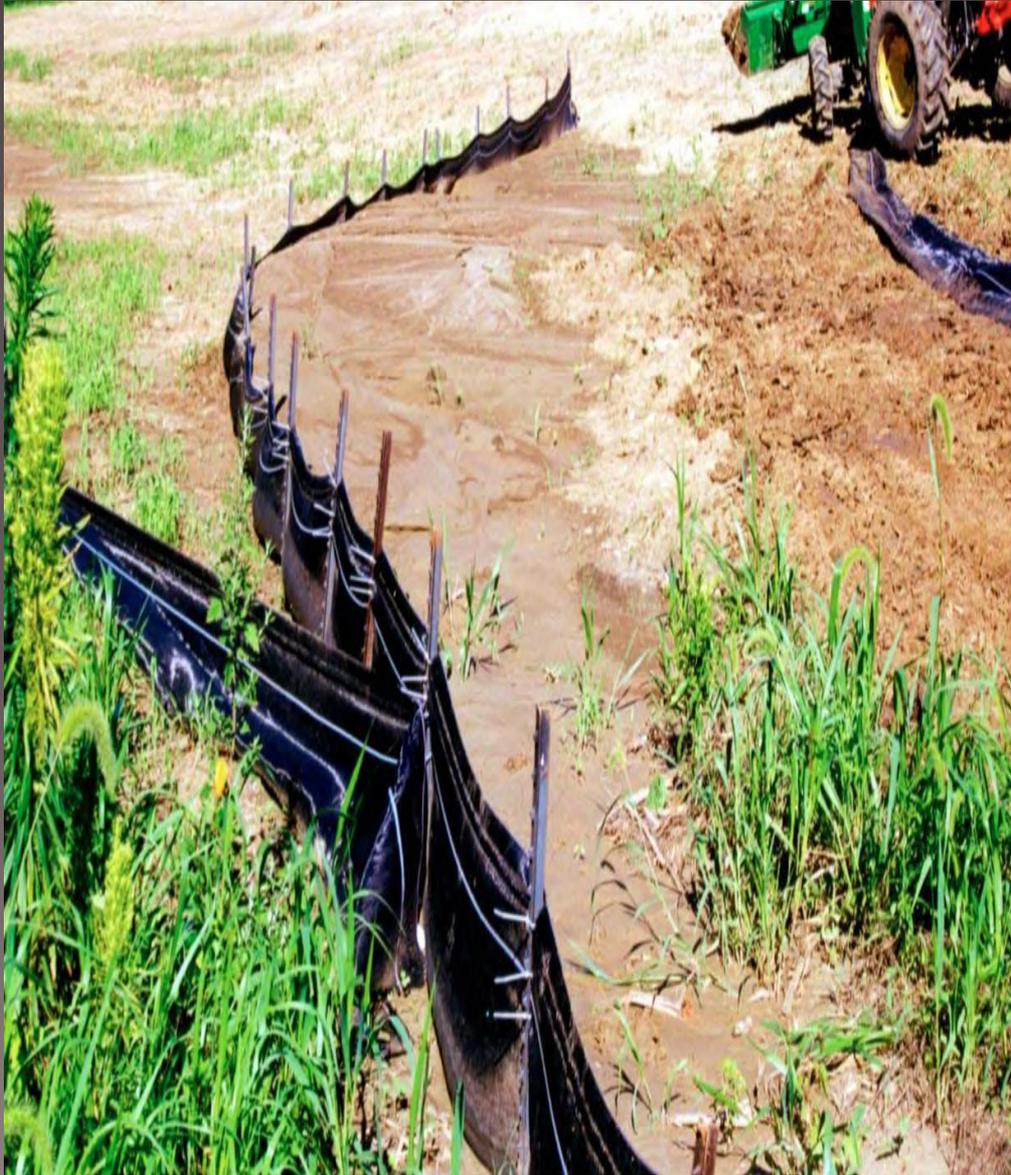






# Silt Fence

- Silt fence should be installed prior to any grubbing or grading activity.
- Inspect silt fence regularly for sediment accumulation, tears, undermining, and separation from posts.
- Silt fence should be removed once it has served its purpose and the area has been stabilized.



- Sediment should be removed when it accumulates to one third (1/3) of the exposed fabric height and be disposed of properly.
- A properly supported silt fence will carry about 24 inches of sediment.



Poor example of silt fence installation. The silt fence was not trenched into the soil.

# J-Hooks



- These are curved sections of silt fence that act as small dams to stop, pond up, and filter or settle out sediment in runoff.
- J-Hooks reduce the risk of blowouts/failures.





Maintenance is required often





DO NOT  
cause damage  
to adjacent  
properties!

Downstream of a large site



# Inlet Protection

- Inlet protection BMPs should be installed prior to any soil disturbance on a construction site where storm sewer systems are in place.
- Last line of defense, not a catch all.
- Must be maintained.















# Seeding

## Planting Seasons (Grasses)

- April – Early June
- September – Early October
- November – March (Dormant seeding)

If Possible, avoid seeding during the hot Summer months

# Importance of Seeding

- Reduces rainfall impacts
- Enhances infiltration
- Keeps soil in place
- Promotes permanent vegetation

# Hydroseeding

Growing in popularity



## Advantages

- Tackifiers can be used with the application to help keep the seed in place.
- Provides mulching medium around the seed to hold moisture.
- Cheaper than sod.
- Rate of germination is quicker.

# Slope Tracking/Disking



- A good alternative when seeding is not feasible.
- Slope Tracking creates grooves that are perpendicular to the slope.
- The primary functions for slope tracking is to reduce erosion potential by decreasing runoff velocities, trap sediment, increase the chances for water infiltration, and aid in the establishment of vegetative cover.

# Good Housekeeping

- Practices such as trash disposal, recycling, proper material handling and storage, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters.



X

31 12:28PM

# Proper handling and storage



You must develop a spill prevention and response plan.

# Inspection Logs

- A copy of the SWPPP must be kept at the construction site from the date of project initiation to the date of final stabilization.
- If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance at the construction site.

# Inspection Logs

## Overall Site Issues

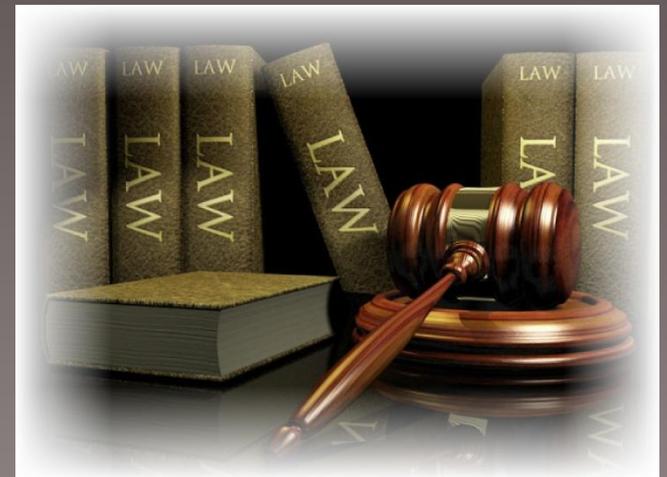
Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>No stabilization seeded or mulched Repaired 5/31/13</b>
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Corrective action needed measures not installed properly Repaired 5/31/13</b>
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Are discharge points and receiving waters free of any sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Are storm drain inlets properly protected?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Is the construction exit	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

- Update the SWPPP **EVERYTIME** a change has occurred.
- Accuracy in Inspection reports. If the measures need repairs say so, then repair them.

# Enforcement Letters

- Notice to Comply (Ten Day correction period)
- Return to Compliance (RTC)
- Notice of Violation (NOV)
- Request for Enforcement (Inspection Hold, Stop work Order)



# For More Information

- City of Lincoln Watershed Management  
[www.lincoln.ne.gov](http://www.lincoln.ne.gov) (keyword: mud)
- Lower Platte South NRD  
[www.lpsnrd.org](http://www.lpsnrd.org) (keyword: stormwater)

Trevor Hansen  
Engineering Specialist  
Public Works and Utilities, Municipal Services Center  
thansen@Lincoln.ne.gov  
402-430-9716