

STANDARD OPERATING PROCEDURES FOR
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STORMWATER CONSTRUCTION INSPECTION
AND ENFORCEMENT

CITY OF
ORONOGO, MISSOURI

December 2023

Inspection Procedures Overview

An on-site construction site inspection will usually consist of the following components, followed by the development of an inspection report:

- Pre-Inspection Preparation
- Entry
- Records Review
- Site Inspection
- Exit Interview

Pre-Inspection Preparation

Prioritize your sites

- With stream buffers or environmentally sensitive areas
- Contractors with a history of non-compliance or frequent violations
- Projects on steep slopes or with major grading plans
- Commercial/Industrial or high density subdivisions

Review available files

- Permits (City Land Disturbance, City Building Permits, State Land Disturbance Permits)
- Stormwater Pollution Prevention Plan (SWPPP) or Erosion and Sediment Control (ESC) plans
- Past inspection reports
- Monitoring/assessment reports
- Maintenance records

Identify significant pollutant sources and Best Management Practices (BMPs) you want to inspect

- Silt fence, sediment basins/silt traps, slope stabilization, etc.

Gather any items needed to perform the inspection

- Personal protective equipment
- Inspection checklists (copies will be needed for both the City and for the permittee)

Entry

Before entering the site

- Observe surroundings and various stages of construction
- Look at the construction exit locations and perimeter controls
- Enter date/time and weather conditions on the inspection form

When entering the site

- Review all postings
- Public Notification Sign in place and visible from construction entrance?
- Announce yourself to the person in charge

Records Review

Ask to see a copy of the SWPPP, permit, and inspection reports

- Specific items to review:
 - SWPPP
 - Date and preparer
 - Primary ESC BMPs used on-site
 - Are all BMPs required by the SWPPP in place?
 - Have BMPs been installed correctly and maintained?
 - Amendments to design, construction, or maintenance
 - * If a SWPPP is not available for review, note the lack of an on-site SWPPP on the inspection form.
 - Inspection and maintenance records
 - Operator is required to inspect the site:
 - Once every fourteen days,
 - Within 72 hours of any rain event, and
 - Within 48 hours of any storm event of 3.89" or more in 24 hours.
 - Permanent stormwater management practices
 - Pollution prevention practices
 - Discharge points
 - Amendments to design, construction, maintenance, weather or seasonal conditions
- Site Map
 - Should be up to date with construction activities
 - Should be red-lined and dated

Site Inspection

Inspect discharge points and downstream, off-site areas for signs of impact

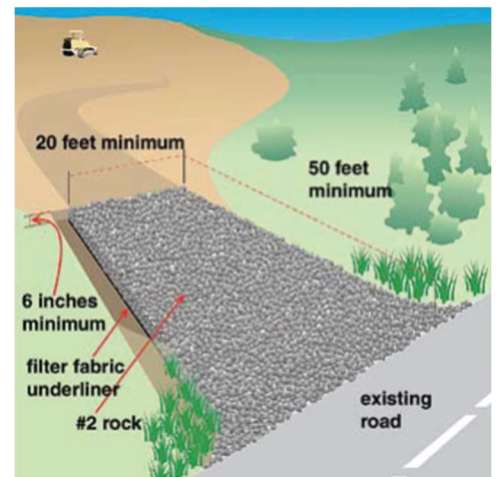
- If sediment is leaving the site, walk downstream and document the extent of travel and impact on receiving waters or storm drains.
- Inspect down-slope inlets

Inspect Perimeter Controls

- Note what controls are being used and if they're installed correctly and being maintained
- Inspect the construction entrance to determine if there is excessive tracking
- Check sediment controls and make sure inlets are protected.

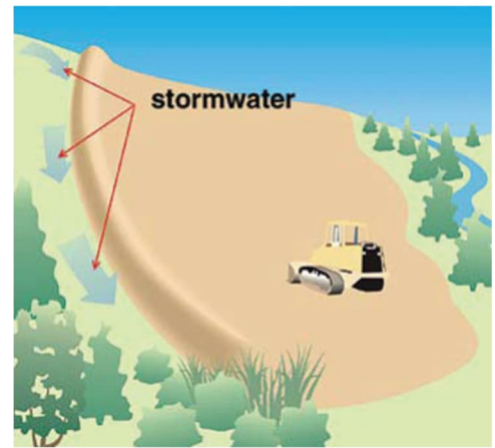
Stabilized Construction Entrance

- If there is track-off from the entrance, the operator has 12 hours to clean it up.
- Are vehicles leaving the site from other locations and not using the designated entrance/exit?
- Does the rock need to be replaced, replenished, or raked?
- Is the entrance/exit long enough to remove mud from tires?
- Is the site graded away from the entrance/exit to prevent runoff from leaving the site?

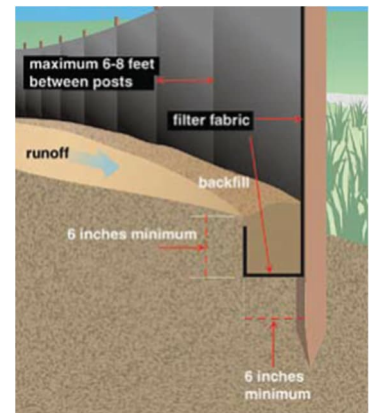
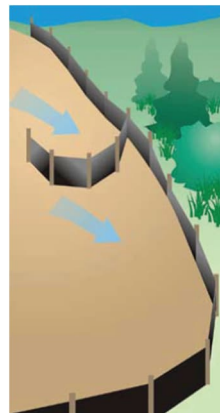
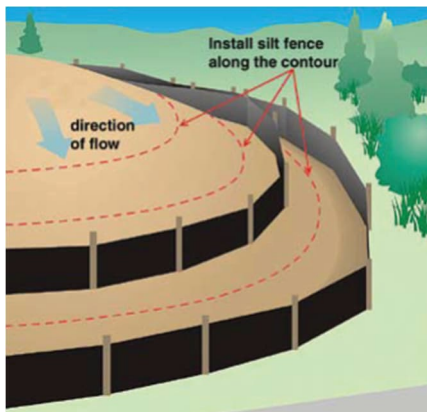


Diversion Berms

- Make sure the diversion discharges to a stable outlet or channel.
- Make sure diversion ditches and berms have been seeded.
- Is the diversion eroding? (channel grades should be relatively flat)
- Check dams may be necessary if high velocity flows are present.



Silt Fence



- Is the silt fence installed along the contour (on a level horizontal plane)?
- Are the ends turned up to help pond the water behind the filter? – J-hooks
- Is the filter trenched in with the stakes on the downhill side (6” deep by 6” wide)? • Has the sediment been removed when it reached 1/3 the height of the barrier?
- Filters should not be installed where concentrated flow is expected
 - Inadequate installation
 - Soil should be compacted after trenching
 - Stakes should be on the downhill side
 - Improper placement
 - Should not be used for steep, long slopes
 - Drainage area should be no greater than ¼ acre per 100 ft. of fence
 - Should be spaced 60-110 ft. apart on long slopes
 - Maintenance
 - Torn or degraded silt fence fabric should be replaced immediately
 - Sediment should be removed after reaching 1/3 the height of the fence

Temporary Silt Traps

- Check the location of the silt trap to make sure if it fails that it doesn't pose a risk to life or property • Silt should be removed after it reaches 1/3 the design volume
- The trap should not be installed in a mainstream or near culvert outlets
- Check the outlet for needed maintenance

Vegetative Stabilization

- Are all exposed soil areas stabilized?
- Check for signs of erosion in vegetated areas
- Concentrated flows should not be allowed across newly seeded slopes
- If late in the year, the slope may need to be mulched versus seeded

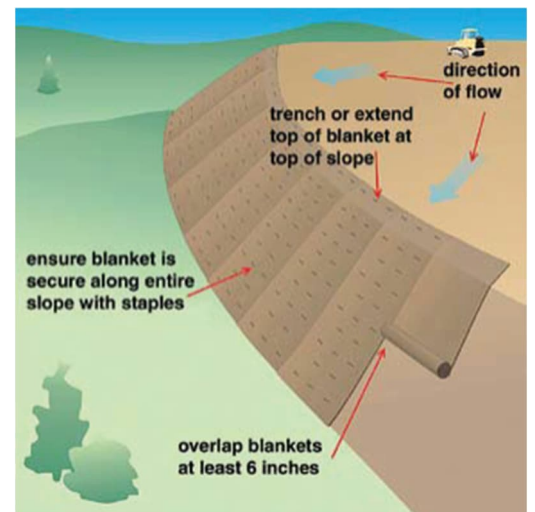


Compare BMPs in the SWPPP with construction site conditions

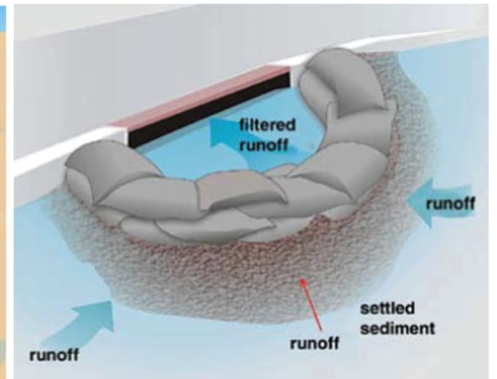
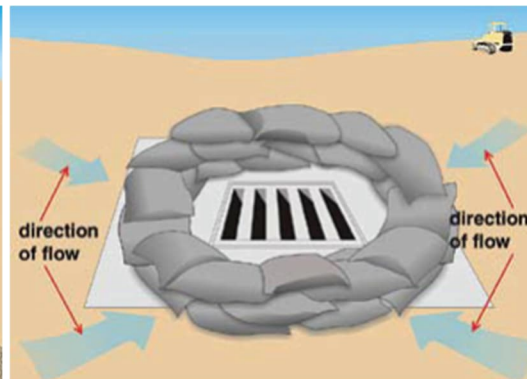
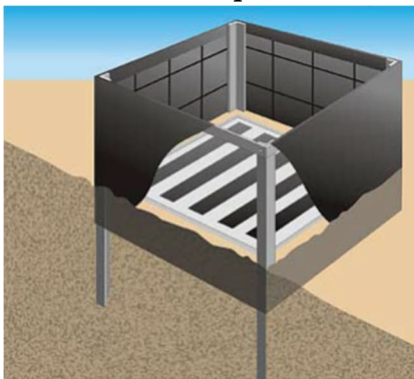
- Are additional BMPs needed? Look for areas where BMPs are needed, but are missing
- Describe potential violations and their locations.

Mats, mulches, and blankets

- Should come into complete contact with the soil.
- The top of the blanket should be trenched in – water shouldn't flow underneath it.
- Mulch should not be placed in concentrated flow areas.
- If erosion is occurring in mulched areas, more mulch may need to be applied.
- Check blankets and mats to see if sections are overlapped 4-6 inches and staples are 12 inches apart on tops and 24 inches apart down the sides and in the middle.



Storm drain inlet protection



- Inlet protection is a secondary BMP. Additional controls are also needed.
- Should not block the storm drain or cause flooding
- Should be in place immediately following storm drain installation, or prior to any land disturbance for existing inlets
- Sediment should be removed after each storm event
- Make sure unfiltered stormwater cannot enter the inlet
- If there's a specific safety concern, the BMP can be removed temporarily.

Inspect disturbed areas not currently being worked.

- All exposed soil areas must be stabilized no later than 14 days after the construction activity in that area has temporarily or permanently ceased.
- Temporary seed or straw, permanent seed or straw.

Inspect areas with final stabilization.

- Inspect stabilized areas to ensure that excessive erosion isn't occurring.
- If an area has uniform perennial vegetative cover (100%) with 70% density of the entire area, temporary BMPs need to be removed.

Taking Photographs

Take photos of

- Public notification sign
- All potential violations
- General views of the site
- Impacts to receiving waters.

Exit Interview

- Ask to speak to the responsible party for the ESC. If they're not on site, ask to speak to whomever is in charge.
- Let them know what findings you have (deficiencies, areas of concern, SWPPP not updated, inspections not being done, etc.).
- Leave a completed copy of the inspection checklist/report. (Keep one for City records.)
- Don't tell them what BMPs to use! You can tell them what typically works/doesn't work and refer them to the Best Management Practices (BMP) Manual for Land Disturbance Activity located on the City's stormwater website.

Summary of Enforcement Procedures

1) VERBAL NOTICE:

If there is no immediate threat of contaminants being released into the stormwater system (streams, ditches, pipes, inlets, street gutters, etc.), then enforcement often can start with verbal communication during the inspection and exit interview.

- a. Discuss any deficiencies or areas of concern (as listed above, under Exit Interview).
- b. Education as to rules, regulations, and proper procedures may be appropriate here. Refer to the Best Management Practices (BMP) Manual for Land Disturbance Activity.

2) WRITTEN NOTICE: (City Code, Section 425.090)

If there is immediate threat of contaminants being released into the stormwater system, or if deficiencies are not, or cannot, be immediately remedied, the City, or designated agent, will immediately issue written notice to the permittee:

- a. Include the nature and location of the alleged non-compliance.
- b. Include documentary evidence demonstrating non-compliance.
- c. Specify what remedial work is necessary to bring the project into compliance.

3) PERMITTEE'S RESPONSE TO WRITTEN NOTICE:

- a. The permittee should take the required remedial action within seventy-two (72) hours, or within a reasonable time after receipt of notice.
- b. Time may be extended if weather conditions or other factors beyond the control of the permittee prevent immediate remedial action.

4) NOTICE OF COMPLIANCE:

Upon satisfactory completion of the remedial work the City Building Inspector will issue a Notice of Compliance and the development may proceed.

5) REVOCATION OF PERMIT & STOP WORK ORDERS: (City Code, Section 425.100)

- a. The Building Inspector may revoke the drainage permit if:
 - i. The permittee has not agreed to perform the required remedial action, or
 - ii. The permittee has not completed the required remedial action within the allotted time.
- b. Upon revocation of a drainage permit the City shall issue a Stop Work Order.
 - i. Stop Work Order shall be directed to the permittee, and he/she shall immediately notify persons owning the land, the developer, and those persons or firms actually performing the physical work of clearing, grading, and developing the land.
 - ii. The Stop Work Order shall direct the parties involved to cease and desist all or any portion of the work on the development or a portion thereof which is not in compliance, except such remedial work necessary to bring the project into compliance.
- c. If, after revocation of permit and issuance of the Stop Work Order, the permittee satisfactorily completes the remedial work, the City will issue a Notice of Compliance and the development may proceed.

6) APPEALS: (City Code, Section 425.330)

The permittee may appeal any order, requirement, decision, or determination made by the City:

- a. Any person receiving a Notice of Violation may appeal the determination of the City.
- b. The notice of appeal must be received within ten (10) days from the date of the Notice of Violation.
- c. Hearing on the appeal before the City Council shall take place within sixty (60) days from the date of receipt of the notice of appeal.
- d. The decision of the City Council shall be final, except on appeal to the Circuit Court of Jasper County, Missouri.