Storm Water 101

Amber McIntyre
OKR10 General Permit

• If an acre or more will be disturbed, you must obtain an authorization to discharge under the OKR10 General Permit from the Oklahoma Department of Environmental Quality.

• A storm water pollution prevention plan must be developed for every project that is required to obtain coverage under the OKR10 General Permit.
Regulatory Changes…

- The OKR10 is re-issued every five years.
- The latest version went into effect on September 13, 2012 and will expire in 2017.
- Some regulatory changes were made…
Hay Bale Barriers are prohibited
Sensitive Waters have changed.

Oklahoma Sensitive Waters and Watersheds for Federal & State listed Species

Legend
- Northeast HUC-11 Watersheds
- Red River Corridor
- Lee & Little Lee Creek Watershed
- Kiarnici Watershed

Oklahoma Aquatic Resources of Concern for Federal & State Listed Species

Legend
- Glover River Watershed
- Illinois River Watershed
- Kiarnici River Watershed
- Lee & Little Lee Creek Watershed
- Red River Watershed
- Mountain Fork Watershed
- NE HUC-11 Watersheds
- Canadian River Corridor
- Cimarron River Corridor
- Elk River Corridor
- Neosho River Corridor
- Muddy Boggy Creek Corridor
- Verdigris River Corridor

2005 → 2012
Corrective Actions are now required to be documented in the SWPPP

- Corrective Actions are actions you take to
  - repair, modify or replace any storm water control used at the site
  - clean up and dispose of spills, releases or other deposits
  - remedy a permit violation
- Should have always been done. You are now required to document them.
Buffer Requirements

• If any waters of the state are located on or immediately adjacent to your site, you must maintain a natural buffer zone (measured from the top of the bank to disturbed portions of your site) from any named or unnamed receiving streams, creeks, rivers, lakes or other water bodies
  • 50 feet of natural buffer zone if not located within a sensitive watershed, aquatic resource of concern, or outstanding resource water
  • 100 feet of natural buffer zone if located within a sensitive watershed, aquatic resource of concern, or outstanding resource water

• Unless it is a water crossing, limited water access or stream restoration authorized under a CWA Section 404 permit

• OR no buffer exists due to preexisting development disturbances
What are waters of the state?
What if you cannot maintain the required buffer zone?

- Provide and maintain a buffer that is less than the required 50 or 100 feet and supplement with additional erosion and sediment controls.
- Provide no buffer zone of any size and implement erosion and sediment controls that achieve the sediment load reduction equivalent to the required 50 or 100 foot buffer.
- There is guidance included in the OKR10 General Permit to help you determine what controls or combination of controls will provide the equivalent sediment reduction of a buffer zone.
Lake Thunderbird TMDL
Lake Thunderbird TMDL

- Must comply with any additional requirements established by the local MS4 Municipalities.
- Submit SWP3 to DEQ for review for sites that disturb 5 acres or more.
- Vegetated buffer of at least 100 feet between the disturbed area and all receiving streams or equivalent.
- A sediment basin is required for all drainage locations serving 5 or more acres disturbed at one time. (Traps can also be used.)
- Stabilization measures for areas where earth-disturbing activities have permanently or temporarily ceased on any portion of the site and will not resume for 14 days must be completed within 7 days.
- You are required to conduct a soil nutrient test to determine actual nutrient needs before applying fertilizer on your site.
Common errors found on the plans...

- Wrong receiving waters
- Incorrect sensitive waters and impaired waters information
- Lack of site specific erosion and sediment control devices
- Calculation of area disturbed
- SWMP sheet is project specific. Don’t copy/paste from previous job
Pre-Construction
Notice of Intent

• The Notice of Intent is the application form that is submitted to DEQ.

• ODOT provides a partially completed NOI with the contract.

• The contractor completes the NOI and submits it to DEQ with payment.
A storm water pollution prevention plan (SWPPP) must be developed for every project that is required to obtain coverage under the OKR10 General Permit.

ODOT develops the Storm Water Management Plan (SWMP) that consists of...

- SWMP Information Sheet
- Site Specific Erosion and Sediment Control Plan Sheets
- Contract Pay Items with Plan Notes
- Summary of Temporary and Permanent Erosion and Sediment Controls
- Site Drainage Map

The contractor develops the SWPPP for the site by incorporating the SWMP provided by ODOT.
Authorization to Discharge

- Also known as the storm water permit.
- Must be obtained and a copy provided to the Residency before work can begin.
Construction
Have a copy of the Authorization posted at the job site.
Keep the SWPPP on site or close by
Inspection Reports

- Do them. Always. No Excuses.
- The inspection report must be completed within 24 hours of the inspection.
- The report must be signed.
- Keep copies in the SWPPP.
- Be honest.
- Do not back-date or falsify any information on the report.
- Do not pre-fill the reports.
Areas to inspect:

- all areas that have been cleared, graded or excavated and that have not been stabilized
- all storm water controls
- material, waste, borrow, storage and maintenance areas
- discharge points
- areas where stabilization has been implemented
- areas where storm water typically flows within the site
What are you looking for?

- Are your controls properly installed? Operational? Effective?
- Does anything need to be replaced? Repaired? Maintained?
- Do you see any conditions that could lead to a spill or leak?
- Look for signs of erosion and sedimentation.
What information is required on the inspection report?

- The inspection date
- Names and titles of personnel making the inspection
- A summary of your inspection findings and observations
- Rain gauge or weather station readings if a rainfall measuring 0.5 inches or greater triggered the inspection
- If you have determined it is unsafe to inspect the site, document why
- Signed with required certification included
Don’t Forget about Corrective Actions...
When to take a corrective action...

- A required control was never installed, was installed incorrectly or not in accordance with the OKR10 General Permit.
- You discover that controls you have installed and are maintaining are not effective.
- An illegal discharge has occurred.
- If required to conduct numeric effluent monitoring (Asphalt Batch Plants) and samples indicate you have exceeded applicable effluent limitations.
Additional Requirements of Corrective Actions

• Corrective actions must be completed no later than 7 days from the time of discovery.

• If they cannot be completed within 7 days, you have to document why and provide a schedule for when they will be completed in the SWP3.

• If the actions result in changes to any storm water controls or procedures, you must modify your SWP3 accordingly within 7 days of completing the corrective action work.
Corrective Action Report

Within 24 hours of discovery, complete a record of:

• Which condition was identified at your site
• The nature of the condition identified
• The date and time of the condition identified and how it was identified

Within 7 days of discovery, complete a record of:

• Any follow-up actions taken to review the design, installation and maintenance of storm water controls; including the dates such actions occurred.
• A summary of modifications taken or to be taken, including a schedule to implement changes and dates the modifications were completed or are expected to be completed.
• A notice of whether SWP3 modifications are required.
Feeling overwhelmed?
Update the SWPPP

• Take time to do this, it is something the regulator will **ALWAYS** check.

• It doesn’t have to be formal. Simple pen and ink changes are fine. Just initial and date all changes.

The SWPPP should be updated when:

• conditions at the site change

• when inspections indicate that a BMP or control is not operating effectively
Common Violations

- Paperwork
- Improperly installed controls
- Maintenance of erosion controls
- Controls not operating effectively
- Concrete wash-outs
- Stabilization
Paperwork

- SWPPP not updated.
- Inspection Reports missing or not accurate.
- Corrective actions not addressed.
- Failure to implement what the SWPPP outlines.
Know what you are committed to in the SWPPP
Improperly installed controls

- Silt Dikes/Check Dams need to be installed bank-to-bank
- Silt Fence needs to be trenched in, back filled and compacted
Maintenance of Erosion Controls
Controls not operating effectively
Concrete Wash-Outs
Stabilization

- When earth disturbing activities have ceased on any portion of the site and will not resume for 14 or more days, you must initiate stabilization.

- Stabilization doesn’t have to be permanent. It can be temporary stabilization.
Storm Water Violation =
404 Violation = Increased regulatory inspections
Post-Construction
Notice of Termination vs. Inspection Request

NOTICE OF TERMINATION

Oklahoma Department of Environmental Quality
Notice of Termination (NDT) for Storm Water Discharges Associated with Industrial or Construction Activity Under an OPDES General Permit

Submission of this Notice of Termination constitutes notice that the party identified in Section I of this form is no longer authorized to discharge storm water associated with industrial or construction activities under the OPDES program.

All Requested Information Must Be Provided on This Form. See Instructions on The Back Of Form.

I. Permit Information: OPDES
   Storm Water General Permit Authorization Number:
   Check here if you are no longer the operator of the facility/site: □
   Check here if the storm water construction or industrial discharge is being terminated: □

II. Facility/Site Operator Information:
   Name: ____________________________ Phone: ____________________________
   Address: ____________________________ State: ____________________________ Zip Code: ____________________________
   City: ____________________________

III. Facility/Site Location:
   Name: ____________________________
   Address: ____________________________ State: ____________________________ Zip Code: ____________________________
   City: ____________________________
   Latitude: ____________________________ Longitude: ____________________________

IV. New Facility/Site Information:
   If you are no longer the operator of the facility/site, provide the following information pertaining to the new operator at the facility/site:
   Name: ____________________________
   Address: ____________________________
   City: ____________________________ County: ____________________________ Zip Code: ____________________________
   Latitude: ____________________________ Longitude: ____________________________

V. Certification:
   I certify under penalty of law that all storm water discharges associated with industrial/construction activity from the identified facility/site that were authorized by a general permit have been eliminated or that I am no longer the operator of the facility/site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial or construction activity under this general permit, and that discharging pollutants in storm water associated with industrial or construction activity to waters of the State is unlawful under the Clean Water Act and OAC 252:606-13(b)(3)(L) where the discharge is not authorized by an OPDES permit. I also understand that the submission of this Notice of Termination does not release me as an operator from liability for any violations of this permit or the Clean Water Act.

   Print Name: ____________________________ Date: ____________________________
   Signature: ____________________________ Title: ____________________________

INSPECTION REQUEST

Oklahoma Department of Environmental Quality
Inspection Request for Storm Water Discharges Associated with Construction Activity Under an OPDES General Permit

All Requested Information Must Be Provided on This Form. See Instructions on The Back Of Form.

I. Permit Information: OPDES
   Storm Water General Permit Authorization Number:

II. Facility/Site Operator Information:
   Name: ____________________________ Phone: ____________________________
   Address: ____________________________ State: ____________________________ Zip Code: ____________________________
   City: ____________________________

III. Facility/Site Location:
   Name: ____________________________
   Address: ____________________________ State: ____________________________ Zip Code: ____________________________
   City: ____________________________
   Latitude: ____________________________ Longitude: ____________________________

IV. New Facility/Site Information:
   If you are no longer the operator of the facility/site, provide the following information pertaining to the new operator at the facility/site:
   Name: ____________________________
   Address: ____________________________
   City: ____________________________ County: ____________________________ Zip Code: ____________________________
   Latitude: ____________________________ Longitude: ____________________________

V. Operator’s Signature:
   Print Name: ____________________________ Date: ____________________________
   Signature: ____________________________ Title: ____________________________
Questions?
Other ODEQ Regulations

Amber McIntyre
Debris Burial

“Uncontaminated dirt, rock, concrete, bricks, and solidified asphalt may be disposed of at locations that do not have a permit issued by DEQ IF the material is composed of ONLY uncontaminated dirt, rock, concrete, bricks, or solidified asphalt, the landowner consents to the disposal, and the disposal does not violate any other state or local laws or regulations.”
Debris Burial

- Material that can be buried...
  - Bricks
  - Solidified concrete
  - Solidified asphalt
- Material that cannot be buried...
  - Rebar
  - Hazardous or contaminated material
- Where you can bury...
  - Within the ROW if approved by the ODOT Resident Engineer for the project
  - In the floodplain? Maybe. Have to get the proper permits.
- Where you cannot bury...
  - In critical habitat for endangered or threatened species (this includes the riparian corridors)
  - Below the ordinary high water mark
Debris Burial

• Always check to make sure that you will not be in violation of any local, state or federal regulations **BEFORE** you bury any material.
Air Curtain Incinerators

- Required for land clearing operations in the Oklahoma City and Tulsa Metropolitan Statistical Areas.
- This includes the following counties:

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<tr>
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- The rule applies to the entire county. No distinction between urban and rural areas.
What is an ACI?

- An incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench in which combustion occurs.

- In the figure:
  1. The nozzle blowing air into the trench.
  2. The back wall of the trench.
  3. Materials to be burned.
  4. The air curtain.
  5. The increased air flow that improves combustion.
What can be burned in an ACI?

• Wood waste such as untreated wood or untreated wood products like tree stumps, trees, tree limbs, bark, sawdust, chips, scraps, slabs, millings, and shavings.

• Clean lumber such as wood or wood products that have been cut or shaped and include wet, air-dried and kiln-dried wood products.