NPDES Construction Storm Water General Permit Requirements

Presented By: Mike Joseph
Ohio EPA - Storm Water Section
Permit Eligibility Requirements

- Since March 10, 2003, those disturbing 1 or more acres of land need NPDES permits
- 2 waiver options for small construction sites (Rainfall Erosivity Waiver & TMDL Waiver)
- Discharge for on-site asphalt & concrete batch plants, borrow pits, & material storage areas
- Authorized non-storm water discharges
Notice of Intent Requirements

- Notice of Intent (NOI) applications must be submitted at least 21 days prior to construction.

- Individual lot owners/homebuilders must submit Individual Lot NOI applications 7 days prior to the transfer of ownership.

- When a parcel within a development is sold:
  - Is the runoff from the parcel treated by a BMP that detains runoff from multiple parcels?
    - If so, the *Developer* remains responsible to maintain BMPs that receive runoff from multiple individual lots.
Storm Water Pollution Prevention Plan (SWP3) Requirements

- SWP3 must be:
  - Kept on site during normal working hours
  - Made available within 10 days of written request by
    - Ohio EPA
    - Local agency that reviews or approves plans (e.g., SWCD)
    - Operator of the MS4 system to which site discharges

- Permittee may be required to revise their SWP3 if an approved TMDL requires different BMPs

- Amended within 10 days of written notification by Ohio EPA that the SWP3 is deficient
For Projects with Coverage Under the Prior Generation NPDES Permit

- Ohio EPA will notify permittees of previous construction general permits that the renewal has been issued.

- If construction is not complete, those permittees must notify Ohio EPA that they require continued coverage.
  - For those with coverage < 5 years old, the permittee must sign & return notice to OEPA within 90 days & update SWP3, if feasible.
  - For those with coverage ≥ 5 years old, the permittee must submit an NOI & check for NOI fee within 90 days & update SWP3, if feasible.

- If Ohio EPA isn’t notified within 90 days for continuation of CGP coverage, the permit will be automatically terminated.
New OHC000004 Requirements

Non-Numeric Effluent Guidelines (40 CFR 450.21):

- Erosion & Sediment Controls
- Soil Stabilization (stabilize sites dormant 14 days)
- Dewatering (must use sediment removing BMPs)
- Pollution Prevention Measures
- Prohibited Discharges (wastewater, fuel, oil, soap)
- Surface Outlets (skimmers for sediment ponds)
New Non-Numeric Effluent Guidelines

- Erosion & Sediment Control Effluent Limitations:
- Control runoff volume & velocity to minimize erosion
- Control flowrates to minimize stream bank erosion
- Minimize soil exposure during construction
- Minimize steep slope disturbance
- Design, install, & maintain controls for rainfall intensity, frequency & duration
- Provide 50-foot undisturbed stream buffer (if feasible)
- Minimize soil compaction
**New Non-Numeric Effluent Guidelines**

Soil Stabilization Effluent Limitations Temporary Stabilization

<table>
<thead>
<tr>
<th>Type of disturbed area</th>
<th>Time frame to apply erosion controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 50 feet of stream but not at final grade</td>
<td>Stabilize within 2 days if area is dormant for over <strong>14</strong> days</td>
</tr>
<tr>
<td>Disturbed areas dormant for over <strong>14</strong> days but &lt; 1 year</td>
<td>Stabilize within 7 days; stabilize lots &gt; 7 days prior to transfer</td>
</tr>
<tr>
<td>Disturbed areas idle for winter</td>
<td>Prior to onset of winter weather</td>
</tr>
</tbody>
</table>
New Non-Numeric Effluent Guidelines

Soil Stabilization Effluent Limitations Permanent Stabilization

<table>
<thead>
<tr>
<th>Type of disturbed area</th>
<th>Time frame to apply erosion controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 50 feet of stream and at final grade</td>
<td>Stabilize within 2 days of reaching final grade</td>
</tr>
<tr>
<td>Disturbed areas dormant for over 1 year</td>
<td>Stabilize within 7 days of last disturbance</td>
</tr>
<tr>
<td>Disturbed areas reaching final grade (&gt; 50 feet of stream)</td>
<td>Stabilize within 7 days of reaching final grade</td>
</tr>
</tbody>
</table>
New Non-Numeric Effluent Guidelines

- Dewatering Activities
- Turbid water must go through pond or filter bag
- Do not discharge trench water onto eroded soil
- Pollution Prevention Measures
- Vehicle wheel wash water treated in a pond
- Keep fertilizers, pesticides & detergents out of rain
- Spill & leak prevention & response
New Non-Numeric Effluent Guidelines

- Prohibited Discharges
  - Concrete chute wash water discharge
  - Fuel and oil from vehicle maintenance
  - Vehicle wash water
- Surface Outlets
  - Sediment settling ponds must be dewatered at the surface unless it’s infeasible
  - Skimmer is commonly used to do this
Example of a Skimmer
Example of a Skimmer
Storm Water Pollution Prevention Plan (SWP3)

Contents include:

- Description of the project
- Area of disturbance
- Post-construction impervious area information
- Pre & post construction runoff coefficients
- Existing soil data
- Prior land use description
- Sequence of construction & S&E control installation
- Names & locations of receiving streams
- For a subdivision – an example individual lot with BMPs
- Location of onsite asphalt &/or concrete batch plants
- Copy of the CGP
- Names of contractors & contact information
- Log documenting SWP3 changes, grading changes, & stabilization
Site Map contents include:

- Earth disturbing limits & offsite borrow/spoil areas
- Soil types
- Existing & new contours with drainage areas
- Surface water locations within 200 feet of site
- Locations of future buildings, parking lots, roads
- Location of sediment & erosion controls
- Sediment pond volume & drainage area
- Location of structural post-construction BMPs
- Waste disposal areas
- Construction site entrances
- Location of stream crossings
Sediment settling ponds will be required for:
- Concentrated storm water runoff
- 10 or more acres of disturbance
- Runoff exceeding design capacity of silt fence or inlet protection

Must be sized to detain $\geq 1800 \text{ ft}^3/\text{drainage acre}$

Other sediment pond requirements include:
- a maximum pond depth of 5 feet
- a minimum 2:1 length to width pond ratio
- a sediment settling zone $\geq 1000 \text{ ft}^3/\text{disturbed acre}$
## Silt Fence Requirements

### Design Capacity of Silt Fence

<table>
<thead>
<tr>
<th>Maximum drainage area to 100 linear feet of silt fence</th>
<th>Slope range for the corresponding drainage area</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 acres</td>
<td>&lt; 2%</td>
</tr>
<tr>
<td>0.25 acres</td>
<td>≥ 2% but &lt; 20%</td>
</tr>
<tr>
<td>0.125 acres</td>
<td>≥ 20% but &lt; 50%</td>
</tr>
</tbody>
</table>
Post-Construction BMPs

Post-Construction BMP Requirements:

- Different post-construction BMP requirements for small and large construction activities
- A maintenance plan must be developed & provided to the post-construction operator
- The CGP does not require maintenance plan compliance, but local municipalities may
- Linear projects without added impervious surfaces do not need post-construction BMPs
- Projects that will not have any impervious surface will not require post-construction BMPs (e.g., soccer field)
Post-Construction BMP Requirements

Large Construction Activities (5 acres & up)

- The structural post-construction BMP must be sized to treat the water quality volume (WQv)

- The WQv is calculated by 2 methods:
  1) Using hydrologic simulation with hourly precipitation data from local municipality
  2) Using the following equation: \( WQv = C \times P \times A / 12 \)
Calculating the WQv

- If using the following formula to calculate WQv
  \[ WQv = \frac{C \times P \times A}{12} \]

  where:
  - \( C \) = Runoff Coefficient
  - \( P \) = Precipitation Depth of 0.75-inches
  - \( A \) = Total Contributing Drainage Area (Acres)

  \( WQv \) = in units of acre-feet (to convert to \( \text{yd}^3 \), multiply by 1613)

- Add 20% to this volume for storage of sediment, which will accumulate in the structure
  - For extended detention basins, this should be located within forebays or micropools
  - For wet basins and constructed wetlands, add 20% to the wet pool but **not** the extended detention volume
## Calculating the WQv

<table>
<thead>
<tr>
<th>Runoff Coefficients (C)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial &amp; Commercial</td>
<td>0.8</td>
</tr>
<tr>
<td>High Density Residential (&gt; 8 dwellings/acre)</td>
<td>0.5</td>
</tr>
<tr>
<td>Medium Density Residential (4 to 8 dwellings/acre)</td>
<td>0.4</td>
</tr>
<tr>
<td>Low Density Residential (&lt;4 dwellings/acre)</td>
<td>0.3</td>
</tr>
<tr>
<td>Open Space and Recreational Areas</td>
<td>0.2</td>
</tr>
</tbody>
</table>

- If mixed use, must calculate C using a weighted average
- Calculate WQv for the contributing drainage area to the BMP
- Alternative formula:

\[
C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04
\]

\(i\) = ratio of impervious surface
# Post-Construction Requirements

## Target Drain Times for Structural BMPs

<table>
<thead>
<tr>
<th>Best Management Practice</th>
<th>WQv Drain Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infiltration Basin or Trench</td>
<td>48 Hours</td>
</tr>
<tr>
<td>Permeable Pavement - Infiltration</td>
<td>48 Hours</td>
</tr>
<tr>
<td>Permeable Pavement – Extended Detention</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Dry Extended Detention Basin</td>
<td>48 Hours</td>
</tr>
<tr>
<td>Wet Extended Detention Basin</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Constructed Wetlands (above permanent pool)</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Sand &amp; Other Media Filtration</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Bioretention Area/Cell</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Pocket Wetland</td>
<td>24 Hours</td>
</tr>
</tbody>
</table>
Infiltration Basin & Trench

Infiltration Basin

Infiltration Trench
Permeable Pavement
Wet Extended Detention Pond

Flood Control Volume (per local requirements)

Extended Detention Volume = 0.75 * WQv

Permanent Pool = 0.75 * WQv + 0.2 * WQV
Constructed Wetland
Bioretention Areas
Post-Construction BMP Requirements

Transportation Projects - permittees must comply with Post-Construction BMP standards in ODOT’s Location & Design Manual, Vol. 2

Redevelopment Projects – Only need to:
- reduce the impervious area by 20%,
- detain 20% of the WQv for 100% of the area,
- detain 100% of the WQv for 20% of the area, or
- a combination of both
Post-Construction BMP Requirements

Offsite Mitigation of Post-Construction – Ohio EPA may authorize this on a case-by-case basis if:
1. A maintenance agreement is established,
2. Offsite location discharges to same HUC-14,
3. WQV mitigation ratio is 1.5:1 (unless the WQV at the point of retrofit is greater)

Non-Structural Post-Construction BMPs – For examples of such BMPs, please visit:
http://balancedgrowth.ohio.gov/
Alternative Post-Construction BMPs – Can be considered if equivalent if effectiveness to Table 2 BMP

- Equivalent if effectiveness includes:
  - 80% TSS removal efficiency
  - 24 hour discharge time for WQv
    - discharge time not necessary if hydrologic impacts are negligible

- BMPs must be tested using the TARP Protocol
  - [http://www.njstormwater.org](http://www.njstormwater.org)
  - [http://www.mastep.net](http://www.mastep.net)
Post-Construction BMP Requirements

Small Construction Activities (> 1, but < 5 acres)

- Language is consistent with all previous CGPs

- A structural post-construction BMP must be installed (however, no minimum design standards are specified)

- Velocity dissipation devices (e.g., riprap) must be placed at a discharge culvert for erosion control
**Inspection Requirements**

- The project must be inspected by the permittee
  - Once every 7 days
  - Within 24 hours of a rainfall event ≥ 0.5-inch

- Areas to inspect
  - Walk the site perimeter and note areas where sediment is leaving the site
  - All BMPs to assure that they have been installed as the SWP3 specified, built correctly, and are functional and appropriate
  - Areas where construction vehicles access the site
  - Water resources on the site or which flow through the site
## Maintenance Requirements

<table>
<thead>
<tr>
<th>BMP</th>
<th>Repair Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment barriers &amp; erosion control</td>
<td>3 days</td>
</tr>
<tr>
<td>Sediment ponds</td>
<td>10 days</td>
</tr>
<tr>
<td>Modify SWP3 &amp; replace failing BMPs</td>
<td>10 days</td>
</tr>
<tr>
<td>Install BMPs in SWP3 that were not</td>
<td>10 days</td>
</tr>
<tr>
<td>installed (or provide justification)</td>
<td></td>
</tr>
</tbody>
</table>
Notice of Termination
Requirements

• NOT forms must be submitted to Ohio EPA within 45 days of completing all permitted land disturbance activities

• Post-Construction BMP maintenance agreement must exist

• To terminate CGP coverage, a permittee must either:
  ◦ Achieve final stabilization on the site;
  ◦ Transfer CGP coverage for the entire site;
  ◦ For residential areas, build the homes, temporarily stabilize the lots, & transfer ownership of all lots; or
  ◦ Have an exception granted under Part III.G.4
Storm Water Permit Applications
Notice of Intent (NOI) Application

• Must be submitted to Ohio EPA at least 21 days prior to initiation of ground disturbing activities

• For construction activities, the NOI must include a vicinity map and check for the appropriate fee

• A storm water pollution prevention plan (SWP3) must be developed prior to the NOI submittal, but it does not need to be included with the NOI

• Ohio EPA will respond to the NOI submittal within 21 days of receipt
Common NOI Problems

- The facility address/location was not provided or is the same as company address
- The type of general permit or general permit # not provided
- Estimated start & completion dates not provided
- Land disturbance only represents street & utilities
- Land disturbance does not match the NOI fee
- NOI was not signed or a photocopy was sent in
- Vicinity map wasn’t included
Co-Permittee NOI

- Anyone who is considered an “operator” must complete and submit this.
- There is no fee associated with this application.
- Although many contractors meet the operator definition, co-permittees should include owner/developer & general contractor.
- The Co-Permittee NOI can be submitted with a NOI for dual processing.
- See Part I.F.1 of the NPDES construction general permit.
**Individual Lot NOI**

- This form is submitted by a homebuilder or commercial builder when a lot is purchased from a developer.

- There is no fee associated with this application.

- This application must be submitted ≥ 7 days prior to transfer of ownership.

- If a lot contains a centralized sediment control, the developer shall maintain permit coverage.


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**Division of Surface Water**

**Individual Lot Notice of Intent (NOI) for Coverage Under Ohio EPA Construction Storm Water General NPDES Permit**

- Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized by Ohio’s NPDES general permit for storm water associated with construction activity. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. NOTE: All necessary information must be provided on this form. Read the accompanying instructions carefully before completing the form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

**I. Applicant Information/Mailing Address:**
- Company (Applicant) Name:
- Mailing (Applicant) Address:
  - City:
  - State:
  - Zip Code:
  - Contact Person:
  - Phone:
  - Contact E-mail Address:

**II. Facility/Site Location Information:**
- Name of Subdivision:
- Facility Address/Location:
  - City:
  - State:
  - Zip Code:
  - County:
  - Township:
  - Latitude:
  - Longitude:
  - Lot(s) Number(s):
  - NPDES General Permit: [ ] Statewide CGP [ ] Darby CGP [ ] Olentangy CGP
  - Facility Permit Number:
  - Original owner/developer name:
  - Phone:
  - Contact E-mail Address:

**III. Construction Activity Information:**
- Lots:
- Est. Start Date:
- Est. Comp. Date:
- Est. Dist. Acreage:

**IV. Certification:**
- I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also acknowledge that qualified personnel working on behalf of the applicant have read the construction general permit and that there is a storm water pollution plan prepared for the above referenced lots. I also have a copy, provided by the original owner/developers, of a site map identifying individual parcels/ lots. I am aware that there are significant penalties for submitting false information, including the possibility of the fine and imprisonment for knowing violations.

**Individual Lot Operator Name (printed or typed):**

**Signature:**

**Date:**

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**EPA 4495 (Rev. 11/12)**
NPDES General Permit Coverage Transfer Application

**Division of Surface Water - National Pollutant Discharge Elimination System General Permit Coverage Transfer Application Form**

**Instructions:** Submit the completed form below with the original signatures of the previous and new owners or those responsible for the permit. Send to the following address: Ohio EPA, Division of Surface Water, P.O. Box 2045, Columbus, Ohio 43210-2045. A letter will be sent to the transferee and a copy of the letter will be sent to the transferor after the application is reviewed.

**A. Existing Permit Holder Information (Transferer)**

1. **Facility Permit Number:**
2. **General Permit Number:** OH
3. **Corporate (Parent Company) Name:**
4. **Contact:**
5. **Division Name:**
6. **Facility Name:**
7. **Mailing Address After Transfer:**

**B. Proposed Permit Holder Information (Transferees)**

1. **Corporate (Parent Company) Name (New):**
2. **Phone Number:**
3. **Division Name (New):**
4. **Facility Name (New):**
5. **Mailing Address for all permit related correspondence:**
6. **Facility Mailing Address (if different):**

7. **Individual authorized to sign applications and Transfer Agreement pursuant to OAC 3745-33-03(b):**
   - [Check one] Principal executive officer, vice president or higher for a corporation; a general partner in a partnership; the proprietor of a proprietorship; principal executive officer, ranking elected official or duly authorized employee of a public entity.

8. **Authorization:** Pursuant to 40 CFR Part 122.23(b), the individual or position identified in this space is duly authorized by the individual in Item 7 to sign all reports required by permit and other information that may be required by the Director:

9. **Operator of Facility:**
   - **Name:**
   - **Address:**
10. **Contact Person for facility information or inspections:**
    - **Name:**
    - **Phone:**
11. **Describe any material modifications to production or facilities, subsequent to the transfer, which may alter the volume or characteristics of this discharge (including change of SIC code):** Attach additional pages as necessary.

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**Agreement to Transfer Permit**

- as the holder of an NPDES permit which stipulates...
- responsibility, coverage and liability for operations involving discharges of wastewater from the facility located at...

- hereby applies for approval of the Director to transfer the permit...

- responsibility, coverage and liability to...

- hereby agrees to continue to assume the responsibility for compliance...

with all terms, limitations and conditions and any coverage or liability thereunder for the period ending on...

- as the proposed new permittee, hereby...

agrees to assume the responsibility for compliance with the entirety of the coverage, responsibility and liability of the...

NPDES permit commencing at...

In witness whereof, the parties have executed this Agreement on ...

it is so agreed.

**Transferor**

- **Company name:**
- **By (Company Representative signature):**
- **Title:**

**Transferee**

- **Company name:**
- **By (Company Representative signature):**
- **Title:**

**12. By signing this form, I (transferee), certify and acknowledge that I have read and fully understood terms and conditions of General Permit Number: OH**

I certify under penalty of law that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Transferee Signature:**

**Title:**

**Date:**
Notice of Termination

- This form must be completed and submitted within 45 days of construction completion
- There is no fee associated with this application
- This form must be submitted by the original permittee (NOI applicant)
- To terminate coverage, the site must have either:
  1. Achieved final stabilization;
  2. Transfer of CGP coverage;
  3. Temporary stabilization & homeowner occupancy
- See Part IV.B of the CGP
Individual Lot NOT

- This form can be submitted by a homebuilder or commercial builder to terminate coverage for their lot(s)

- This form can also be submitted by a developer to terminate coverage for the lot(s) he transferred coverage

- There is no fee associated with this application

- There is no timeframe to submit the Individual Lot NOT form to Ohio EPA

- For additional information, see Part I.F.1 of the CGP
Examples of Effective and Ineffective Sediment and Erosion Control Best Management Practices (BMPs)
Sediment & Erosion Controls

- BMPs for Erosion Controls are 90 to 98 percent effective at keeping sediment at a construction site.
- BMPs for Sediment Controls are 50 to 80 percent effective at keeping sediment at a construction site.
- Therefore, Erosion Control BMPs are preferred over Sediment Control BMPs.
Erosion Control BMPs

Erosion Controls must be installed in 7 days when the site will remain dormant for over 14 days.

Examples include:
- Vegetation
- Mulch (i.e., straw or wood chip mulch)
- Matting or Sod
- Ditch Checks
- Riprap
- Geotextiles
Temporary Seeding

- Use fast growing grasses such as rye or winter wheat
- Apply at 40 lbs per acre
- Cover with straw mulch at a rate of 2 tons per acre
Permanent Stabilization

- Must be applied within 7 days of reaching final grade

- Should only be applied between March 1 to May 31 and August 1 to September 30. Apply dormant seeding, temporary seeding or mulch during other times of the year

- Prepare the soil and add topsoil, lime and/or fertilizer as necessary

- Be sure to WATER
Permanent Stabilization
Mulch Application to Prevent Erosion

- Provides immediate cover over bare soil
- Can be applied regardless of the time of year
- Is a temporary stabilization technique, so it must be reapplied from time to time
- If straw is used, crimp, net or tackify in place
Mulch Application

Straw mulch has been crimped into the soil
Mulch Application for Soil Piles
Matting

For Steep Slopes

For High Velocity Ditches
Matting

To repair erosion gullies
Ditch Checks/Check Dams

Ditch checks are intended to reduce flow

- Are an erosion control feature
- Must be placed across entire width
- Can’t be spaced more than 200 ft
- Can’t be composed of straw bales
Good Rock Check Dam
Riprap for Storm Sewer Outlets

- To stabilize channel or stream banks
- To reduce the velocity of the storm water discharge
- Placed under outfall pipes to prevent channel scour
- Recommend placing geotextile under the rock
Rock Construction Entrances

- Installed at all points where vehicles access disturbed areas
- Place geotextile under the rock
- Use 2-inch diameter or larger rock...*not* pea gravel
- May need:
  - Culvert pipe to allow clean water to pass through
  - Water bar to intercept sediment-laden runoff
Rock Construction Entrances
Vehicle Access Road and Wheel Washing
Sediment Control BMPs

Sediment Controls must be installed in 7 days after the initiation of grubbing (construction) activities.

Examples Include:

- Silt Fence or Berms
- Sediment Settling Ponds
- Curb or Field Drain Inlet Protection
- Trench Dewatering Filter Bags
Silt Fence and Berm Barriers

Silt Fence

Berm - Diversion
Placing silt fence along streams
Poor Silt Fence Installation

Poorly installed silt fence along a stream

Not trenched in and in backwards
Poor Silt Fence Installation

Silt fence may not be placed across a ditch or stream.
Poor Silt Fence Maintenance

Buried Silt Fence
Berms - Diversions

- An earthen berm or channel which collects flow from a diffuse area
  - 18 inches high (deep) for 5 acre or less
  - 24 inches high (deep) for 5 to 10 acres
  - Maximum drainage area = 10 acres

- Must be used in conjunction with a sediment pond to provide sediment control

- Stabilize with vegetation, mulch, matting or rock check dams
Diversions direct runoff to sediment ponds
Diversions at the base of a fill slope
Diversions can be used to keep runoff away from sensitive areas.
Sediment Settling Ponds

Sediment Trap (for < 10 acre areas)

Sediment Basin (for larger drainage areas)
Sediment Traps
Sediment Settling Ponds

Dual sediment traps treat runoff
Sediment Basin
Empty Sediment Basin
Size Basins for the Total Drainage Area

Off-site drainage area

On-site drainage area
Baffle to Prevent Short-Circuiting
Inlet Protection

- Required on all inlets that do not drain to a sediment pond
- Should not be the only sediment control due to low trap efficiency (40%)

Field Drain Inlet Protection

Curb Drain Inlet Protection
Field Drain Inlet Protection

Poor Field Drain Inlet Protection

Good Field Drain Inlet Protection
Incorrect Curb Inlet Protection

No Curb Inlet Protection  Still Not Effective
Commercially Available Products
Dandy Bag in Action
Filter Bag to Dewater Ponds or Trenches
Filter Bag for Trench Dewatering
Stream Crossings
Stream Crossings

What is wrong with this picture?
Stream Crossings

Good Stream Crossing
In-Stream Activities

Build a pad to work in-stream

Or simply divert the water
In this example, the stream has been re-routed to perform construction activities within the stream.
Non-Sediment Pollution Control

- Cement Washout
- Trench & Groundwater Dewatering
- Open Burning
- Fuel Tank & Drum Storage
- Waste Disposal
- Good Housekeeping/Street Sweeping
Concrete Chute Washout Pits
Concrete Chute Washout

Do not direct washout to inlets
Trench & Groundwater Dewatering

- Groundwater is generally clean
  - Be sure it does not flow over disturbed soils or other pollutants as it is discharged from the site

- Trench water is generally sediment-laden
  - Must pass through a sediment pond, filter bag, or be pumped out via a sump pit before discharging
  - Visible sheens should be removed with an absorbent prior to passing through a sediment control
Trench Dewatering Activities

Keep it clean all the way to the stream.
Sump for Trench Dewatering
Improper Groundwater Dewatering
Fuel Storage Tank Containment

Store fuel tanks within diked areas
Spills must be cleaned up when they occur
Good Housekeeping

- Sweep areas adjacent to construction site
- Do not store erodible materials above storm sewers or other conveyance systems
Waste Disposal

- Open burning to dispose of wastes is generally prohibited
- Do not bury wastes on site
- Provide a covered dumpster for construction debris
Ohio EPA Emergency Spill Hotline

1-800-282-9378
For Additional Assistance

Contact the following storm water personnel:

- Dan Bogoevski  NEDO   (330) 963-1145
- Lynette Hablitzel NWDO (419) 373-3009
- Harry Kallipolitis CDO   (614) 728-3844
- Aaron Wolfe      SEDO   (740) 380-5277
- Chris Cotton     SWDO   (937) 285-6442
- Michael Joseph   CO     (614) 752-0782

The CGP and application forms are available at:
http://epa.ohio.gov/dsw/storm/index.aspx
Any Questions?