

## History of Regulations and Effluent Limitations

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## Stormwater?

- Rain water runoff, snowmelt runoff, surface runoff and drainage
- Water flow resulting from precipitation and which occurs following rainfall or resulting from snowmelt
  - Only some stormwater sources are regulated



## Stormwater Regulated Under Federal Clean Water Act

- National Pollutant Discharge Elimination System (NPDES) CWA, Sec. 402
  - Requires Permits for:
    - Process wastewater discharges
    - Industrial and Municipal stormwater sources
- Water Quality Standards CWA, Sec. 303
  - Listing of Impaired Waters
  - Total Maximum Daily Loads (TMDLs)

## State Authority

- ND Dept. of Health is responsible for operating CWA programs in the state
  - Delegation agreement with US EPA
  - Equivalent state laws and rules regarding water quality protection (NDCC 61-28, NDAC 33-16)
  - Issue NPDES permits within state
  - EPA retains program over-site

## Stormwater Rule – Phase I

- Permits Required beginning in 1992
  - Industrial Activities (11 categories described)
    - Agriculture is not one of them
  - Construction sites with land disturbance of 5 acres and greater
  - Large and Medium city storm sewer systems
    - Municipalities > 100,000
    - Referred to as MS4s (Municipal Separate Storm Sewer Systems)



## Stormwater Rule – Phase II

- Established March 2003 permit deadline for:
  - Construction involving 1 to 5 acres
  - Small City storm sewers (Small MS4s)
    - Municipalities < 100,000
    - Regulated by rule or designated by criteria
    - Requires Stormwater Management program to reduce impacts from storm drain systems
  - North Dakota MS4s
    - Grand Forks, Fargo/West Fargo, Bismarck/Mandan/Lincoln
    - UND, NDSU, BSC, NDDOT
    - Minot, Jamestown, Dickinson, Williston
    - Burleigh, Morton, Cass, and Grand Forks County

## Water Resource Protection

- Stormwater permitting is considered in water quality protection measures under the CWA
  - Tool to maintain State Water Quality Standards
  - Role in responding to impaired waters (303d Lists)
  - Source considered in TMDL allocations



## Water Quality Standards

### Classification/Beneficial Uses

The quality of a river, stream or lake is protected for current and future use

- Drinking water source
- Industrial source
- Recreation uses
- Aquatic habitat
- ✓ Wastewater disposal



## Stormwater Impacts

- The stormwater pollution problem is twofold:
  - Increased volume and rate of runoff
  - Increased concentration of pollutants in the runoff
    - pesticides, fertilizers, construction chemicals, solvents, acids, oils, sediment, and debris
- Can result in...
  - fish kills, destruction of wildlife habitat, increased flooding, sedimentation in waterways, loss of water storage capacity, and erosion



## Role of Stormwater Permits

- Compensate for changes in drainage characteristics that impact water resource
- Reduce potential for chemical contamination of waters
- Respond to impacts to water bodies



## Regulatory Review

- Sec 402 CWA – stormwater control under NPDES (point source permits)
- EPA Codified Rules – 40CFR 122
- NDCC 61-28 Control, Abatement, of Pollution of Waters
- NDAC 33-16-01, NDPDES
- NDAC 33-16-02, Water Quality Standards
- Permits Issued by Health Department

## Construction General Permit

- NDR10-0000: Authorization to Discharge Stormwater from Construction Activity
  - Basically the rules
- Best management practices (BMPs) for erosion and sediment control and general pollution prevention on site
- Stormwater Pollution Prevention Plan (SWPPP)
- Keep Site Inspection Records
- Keep Maintenance Records

## Important Definitions

- Owner:

The person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease holder, the party or individual identified as the lease holder; or the contracting government agency responsible for the construction activity.

## Important Definitions

- Operator:

The person (usually the general contractor), designated by the owner, who has day to day operational control and/or the ability to modify plans and specifications related to the SWPP plan. The person must be knowledgeable in those areas of the permit for which the operator is responsible and must perform those responsibilities in a workmanlike manner.

## Note:

- The definition of operator states, “usually the general contractor.”
- Anyone working on site that is not an owner is an operator – this includes subcontractors.
- All owners and operators are responsible for compliance with the conditions of the general permit.

## Stormwater Pollution Prevention Plan (SWPPP)

- It is a legal document that must be developed, implemented and maintained for each project.
- It is a living document, so it can change.

## Inspections

- Comprehensive site inspections SHALL be performed and recorded at least once every 14 calendar days and within 24 hours of any storm event that is 0.50 inches or more.
  - I would recommend maintaining a rain gauge on site.
- If you come on site and notice a BMP needs to be addressed, you should:
  1. Document it (such as in a memo book).
  2. Document when it is scheduled to be repaired.
  3. If you know rain is approaching, repair the BMP immediately.

## Inspections

### Must record:

- Date and time of the inspection,
- Name of person(s) conducting the inspection,
- Findings of the inspections, and recommendations for corrective actions,
  - Note: Simply saying, “all BMPs inspected,” is not adequate.
  - You must document the condition of the BMP.
- Corrective actions taken (i.e., maintenance activities)
- Date and amount of all rainfall events greater than 0.50 inches within 24 hours, and
- Documentation if the SWPPP had to be amended due to the inspection.

## Maintenance

- When maintenance of BMPs occurs, you must record:
  - The date and time the maintenance occurred, and
  - The party completing the activity.



## Effluent Limitations

- A turbidity limit of 280 NTU (nephelometric turbidity units)
- Took effect February 1, 2010. All construction general permits issued after that date must incorporate the limit
- The NDDoH's permit expires September 30, 2014
- The EPA's permit expires June 30, 2011
- August 2, 2011: Applies to sites that disturb 20+ acres at one time
- February 2, 2014: Applies to sites that disturb 10+ acres at one time

## Effluent Limitations

- What does it mean?
  - Depends on where the project takes place
    - Projects within tribal boundaries fall under EPA's permit.
  - So far we think the limit will not apply until the general permit is reissued (October 1, 2014)
  - When it is incorporated, it will apply to sites that disturb 10 or more acres at one time
  - EPA may direct the NDDoH to incorporate it sooner
  - Things to consider: sampling locations, type and frequency
  - Further information:
    - <http://www.epa.gov/waterscience/guide/construction>

## Effluent Limitations

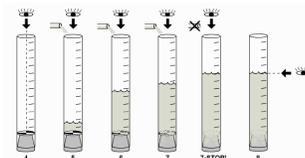
- Current Status
  - EPA received two petitions to reconsider the rule which pointed out a potential error in the calculations of the limitation
  - EPA reviewed its data and concluded it improperly interpreted the data
  - A stay was put on the numeric limit only, all other aspects of the rule still apply
    - Implement erosion and sediment controls and stabilize soils sooner
    - Manage dewatering with BMPs and prohibit discharging wash water from concrete, stucco, paint, etc.
    - Incorporate pollution prevention measures for equipment washing, on-site material and spills
    - Require water to be drawn from basins and ponds from the top of the water column

## Effluent Limitations

- Current Status
  - EPA intended to publish the proposed corrected numeric limit in December of 2010 for public comment
  - The proposed limit was to be finalized by May 30, 2011
  - The finalized limit was to be incorporated into EPA's construction general permit by June 30, 2011
    - Remember all other aspects of the rule still apply
  - As of March 27, 2011, a proposed limit has not been published for public comment

## Effluent Limitations

- If you want to be ambitious, you could do your own monitoring before the permits take effect to see how effective your current practices are
- Any result wouldn't be held against you unless it was required by a permit (EPA or NDDoH)
- The NDDoH would like any field data
- You could use a turbidity tube and/or a turbidity meter



The Turbidity Tube: Simple and Accurate Measurement of Turbidity in the Field. Myre & Shaw, 2006