

10.30 STORM WATER DISCHARGE

Since October 1, 1992 all Iowa DOT construction projects which disturb 2 ha (5 acres) or more are required to have a STORM WATER PERMIT. Effective March 10, 2003, all construction projects that disturb 1 acre or more are required to a stormwater permit. Storm Water Discharge requirements are mandated by *Iowa Code in Chapter 455B.105 and 455B.173*. Further guidance is provided in *Iowa Administrative Code 567 Chapter 64*.

A Storm Water Permit requires specific actions intended to reduce and/or eliminate the problems associated with runoff, soil erosion, and siltation. To comply with this environmental regulation, the DOT has developed the following procedure:

- Projects which disturb 0.4 hectare (1 acre) or more are identified by the Office of Design. It is Office of Design's (or a consultant's) responsibility to prepare a Pollution Prevention Plan (PPP), the Notice of Intent (NOI), and newspaper notices for these projects.
- When projects are turned in, the Office of Contracts tabulates projects with PPPs. The Office of Design sends NOIs and newspaper notices to the Office of Construction.
- The Office of Construction forwards required notices to appropriate newspapers for publication. Once publication verification is returned, the Office of Construction assembles all parts for NOIs and forwards copies to Iowa DNR and the project engineer.
- At this point, the project engineer administering a particular project is notified that a Storm Water Permit is in place. (The contractor may begin work any time after that notification.)

The project engineer shall check to assure that projects requiring a Storm Water Permit have a Pollution Prevention Plan (PPP). Along with a PPP there "should" be bid items for pollution control items such as silt fence, stabilizing crops, ditch checks, etc. As always, it is important to check preliminary plans whenever possible to be sure all needed contract items have been included. Obviously, if a contract is let without erosion control items, the project engineer will have to add those items.

10.31 NOTICE OF INTENT (NOI)

NOIs are Iowa DOT's official notification to Iowa DNR that there is a project, located at "xxxxxxxxxxxxxxxxxx," and the project will be disturbing soil. Once Iowa DNR receives and processes the NOI, they return a Discharge Authorization Number (DAN) to the Office of Construction.

Most DANs are issued by Iowa DNR for 3 years, after which they must be either renewed or discontinued. When the Office of Construction receives a notice of renewal, the project engineer is contacted to inquire if a permit should be renewed. If renewal is requested, the Office of Construction will process and pay the renewal fee. Before requesting renewal, answer:

- Is permanent seeding 70% established? If so, the project should have (or needs to have) a Notice of Discontinuation (NOD) prepared. The project engineer is required to complete a NOD and submit it to the Office of Construction. If a project is completed "and" permanent seeding is 70% established, **DO NOT** wait to process a NOD. **Prepare the NOD as part of your ongoing project paperwork.** (A blank NOD is provided in [Appendix 10-4](#). Please copy as needed.)
- Is the project incomplete, or is the permanent seeding less than 70% established? If so, the DAN most likely will need to be renewed. (Be sure to make a real effort to

- evaluate the permanent seeding issue. Every DAN that is renewed also requires a renewal fee.)
- The DNR has interpreted that “70% established” is considered within a random square area, not that 70% of the project area is fully seeded and 30% is bare.

10.32 TYPES OF STORM WATER PERMITS

General Permit #1

General Permit #1 is the Storm Water Discharge Permit required for industrial activities.

General Permit #2

General Permit #2 is the Storm Water Discharge Permit required for construction projects which result in disturbance of 1 acre or more.

General Permit #3

General Permit #3 is the Storm Water Discharge Permit required for asphalt plants, concrete batch plants, rock crushing plants, construction sand and gravel facilities. This permit applies to portable and stationary plants. The 1 acre requirement does not apply to plant sites.

10.33 ADMINISTERING PROJECTS WITH STORM WATER DISCHARGE PERMITS

- Contractors will be responsible to obtain Storm Water Permits for their activities on or off of the project. For example: if a contractor sets a portable plant “on” or “off” Iowa DOT ROW, the contractor is responsible for obtaining coverage for the site under Permit #3. The contractor is also responsible to provide proof of coverage to the project engineer. Project engineers should not allow that site to provide material to a project until there is documented proof of coverage.
- All contractors and subcontractors who deal with or have an impact on storm water pollution issues shall sign a co-permittee certification prior to conducting any land disturbing work on the project. Prime contractors are required to submit the signed certificate with their signed contract to the Office of Contracts. It is the prime contractor’s responsibility to obtain and provide signed certificates for the subcontractors to the project engineer. (A copy of a co-permittee certificate is included in [Appendix 10-2](#)). Co-permittee certifications are not required for subcontractors who do not disturb a significant amount of soil (i.e. contract survey, material suppliers and traffic control).
- Inspection of the project’s erosion control features are required at least once every 7 calendar days and after each storm event that is 0.5 inches or more. Inspection staff and contractors are to perform joint inspections and document findings on the Storm Water Site Inspection Report (Form 830214). A copy of this form is included in [Appendix 10-3](#). Deficiencies of erosion control features such as silt fence which is damaged or needs silt removed, washed out mulch, lack of silt fence or mulch shall be reported to the contractor as soon as possible. The contractor is expected to correct the deficiency or install additional erosion control features within 3 working days.
- Project engineers must ensure that erosion control measures and inspection are maintained by a responsible party during winter shutdown and between projects (i.e. grading/paving/erosion control).
- [Article 2102.11](#) requires the contractor to keep finishing operations current with other construction operations. Criteria for maximum exposure limit will be based on:
 - A. Having current exposed area protected with erosion control measures. Minimum measures would include silt fence around the perimeter of the area, ditch checks, and additional silt fence where sediments may leave the project. This includes

all disturbed areas (i.e., borrows, areas within temporary and permanent easements.)

- B. The contractor has demonstrated ability and willingness to keep erosion control measures current and maintained within existing work areas.
- C. Consideration must be given for the time of year before exposing additional areas. For example: It would not be unreasonable to deny a request for additional working area in a situation where it is late in the grading season and the contractor is falling behind in finishing, applying mulch, or temporary seeding.

Also, it would not be unreasonable to place a condition on approving an additional spread. For example: "Contractor, you may open area "X" as soon as you have finished and stabilized up to Station "Y"."

- D. The contractor has successfully followed **their** erosion control work plan. The project engineer has not noted storm water violations, and has every reason to believe additional open areas will **not** over-extend the contractor's ability to comply with our Storm Water Pollution Permit.

It is strongly recommended that the project engineer approve additional area on a case-by-case basis and consider approval on the contractor's previous work experience as well as site conditions.

- Installing and maintaining erosion control features is the responsibility of the prime contractor. On most projects, the contractor will assign the erosion control items to a subcontractor. The prime contractor must be prepared to accomplish the required erosion control work if a subcontractor is not able to perform satisfactorily or timely.

10.34 QUESTIONS OFTEN ASKED

The weather is not favorable to establish temporary seeding or silt fences. What do we do?

A. Stabilization

Regulations say if an area will not have any activity for 21 days; by the 14th day, some form of stabilization will be required. There is very little latitude in that statement even if it is wet or freezing.

To be in compliance with storm water regulations, something needs to be done. For example, incorporating mulch, using Hydro-Mulch or Soil Binders which are comprised of wood fiber and paper mulch. Both work, but tend to be expensive knowing it is less than temporary and we will have to ultimately seed.

Best solution is to conduct temporary seeding in a timely manner and not let the contractor get so much open that it cannot be stabilized by seeding. At the least keep it to a minimum so if one of the other alternates is necessary, costs can be kept to a minimum.

B. Localized Soil Erosion (Ditch Check and Silt Fences)

Bale checks used as ditch checks are most likely not as effective as "properly" installed silt fence. However, in situations where you are unable to properly install silt fence, bale checks are far superior to nothing at all. For example:

- It is wet and muddy; a trencher cannot get in to place silt fence. Interim ditch

check should be bale checks.

- The ground is frozen to a point where a trencher will not work. Winter is coming. Rather than do nothing, bale checks should be installed. At least there is protection in place during the spring thaw. If an "Indian Summer" comes along and silt fence can be installed, by all means replace the bale check.

Bottom Line: Bale checks are very good interim erosion control measures when used in emergency situations. (Check Road Standards RL-10 as Roadside Development is resurrecting this standard for bale checks.)

How are borrows evaluated for Storm Water compliance?

All project specified borrows are included in the calculation for a Pollution Prevention Plan (PPP). Plus, these borrows are included in determining compliance with [Specification 2602.03](#).

A. Pond Borrows

- All pond borrows (wet or dry) during construction must have at least the perimeter protected by erosion control measures. Plus, site specific considerations must be included if there is any dredging involved during construction.
- Temporary stabilization and mulching will not be required on concave slopes within the borrow. However, channels (in-flow and/or out-flow) will require stabilization or erosion control measures.
- Seeding for pond borrows will be required on any disturbed area above normal design pool or ground water elevation.

B. Wetland Mitigation Areas

- Seeding for wetland areas typically does not require special attention. Usually these areas are seeded with the same vegetation crop as any other disturbed segment on a project. Check the contract documents for non-standard situations where special aquatic plants such as cattails, wild rice, etc. may be required.
- Refer to Pond Borrows (Section A, above) for guidance in areas of standing water and selected sections in Normal Borrows (Section C, below) for those areas which are dry during seeding. In either case, all "normal" erosion control practices are required for wetland areas.

C. Normal (Dry) Borrows

- All normal borrows must be protected by perimeter erosion control measures, and are included for temporary erosion control measures if work is halted at that site for more than 21 days.
- All normal borrows, purchased by fee title, shall be included in the area which is permanently seeded. As such, a Notice of Discontinuation (NOD) cannot be processed until 70% of the permanent seeding is established.
- Normal borrows obtained by temporary easement:
 1. That require replacement of topsoil **AND** are used for agricultural row crops. The project engineer needs to ask the property owner if they want the area permanently seeded.
 - a. If the property owner requests permanent seeding, provide that seeding. In such situations, the NOD cannot be processed until permanent seeding is 70% established.
 - b. If the property owner does not want permanent seeding, shape and place temporary seeding on the area. In this case, because the property will be returned to agricultural row crop use, consider temporary seeding as

complying with storm water requirements and proceed with the NOD accordingly. Note: Other temporary erosion control measures in that area will have to be maintained until the project is accepted.

2. For temporary easements **NOT** used for agricultural row crops, permanent seeding will be required. (Examples of this situation would be permanent pastures, timberland, non-farmed land, etc.)

Is snow considered temporary cover in the Storm Water regulations? YES.

Storm water regulations are written recognizing that snow is a **"temporary"** preventive measure. However, just because it snows may or may not fulfill a winter long stabilization and definitely will not comply as spring thaws begin. As soon as the snow is gone, some other means of stabilization is required. ("Gone" could be by melting, wind, or snow plow.) Best advice is to keep working on some form of soil stabilization until it absolutely freezes so hard that work from then on will not be practical.

EXAMPLE: If snow comes in late October and is blown off the site by mid December, then some other form of temporary stabilization is required from that point forward.

Plan notes have designated a plant site within Iowa DOT ROW. Further, the contractor is told it is their responsibility to provide a permit #1 for this activity. Who is ultimately responsible?

The contractor is responsible for that portion of area designated as the "plant site." When this situation occurs, modify the project PPP by note to exclude the plant site when the contractor's NOI becomes effective.

