

National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit for Construction Activities

RECOMMENDED SOLUTIONS TO ENHANCE COMPLIANCE WITH THE NPDES CONSTRUCTION PERMIT

Report To the Minnesota Stormwater Steering Committee

November 2007



Prepared by the NPDES Construction Site Erosion Control Permit Compliance Workgroup

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Subcommittee of the Minnesota State Stormwater Steering Committee.

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INTRODUCTION

Throughout the past several years, the Minnesota Pollution Control Agency (MPCA) has identified substantial levels of noncompliance with the state's general stormwater permit for construction activity. The state's general stormwater permit, implemented under the National Pollution Discharge Elimination Systems (NPDES) permitting program, requires operators of construction sites one acre or larger (including smaller sites that are part of a larger common plan of development) to obtain authorization to discharge stormwater.

On the surface, achieving permit compliance may seem straightforward; regulated parties must completely comply with the conditions of a permit. However, issues associated with, and resulting in, noncompliance are complex. Recognizing this, the MPCA requested the Minnesota Stormwater Steering Committee (SSC) to look into the issue. In response, the SSC convened a diverse group of stakeholders to discuss the issues leading to noncompliance and to develop solutions to achieve greater compliance and efficiency with the state's general stormwater permit for construction activities.

Over fifty members comprise the stakeholder group formally known as the NPDES Construction Site Erosion Control Compliance Workgroup. Represented stakeholders include builders, contractors, product suppliers, cities, counties, watershed districts, soil and water conservation districts (SWCD), MPCA, MDNR and others. The group began to meet in late 2006. Over the next year and a half, the group met formally eight times and devised strategies to achieve greater levels of compliance. Their work included identifying causes of noncompliance and developing reasonable recommendations to achieve greater compliance and efficiency with the permit.

The workgroup's recommendations are found in the following report and organized into eight major themes:

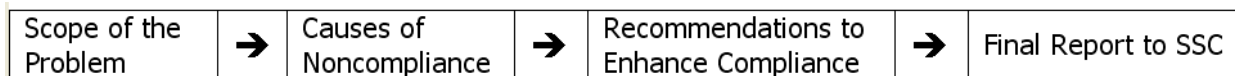
1. Education
2. Inspections
3. Enforcement
4. Technical Assistance
5. Overlap/Consistency/Responsibility
6. Cost & Bidding
7. Standards
8. Stormwater Pollution Prevention Plan (SWPPP)

Recommendations include both broad and specific solutions within multiple jurisdictions and regulatory levels including the MPCA, the State Legislature, and the local level. Furthermore, the report recommends solutions for the residential construction industry to be more proactive in achieving greater permit compliance.

This report is the result of a collaborative effort by partners involved in protecting the natural resources in the State of Minnesota. These recommendations should be recognized as practical solutions to achieve greater compliance and efficiencies with the state's general stormwater permit for construction activities.

THE PROCESS

The Workgroup discussion process was designed to follow a clear discussion path to define the scope of the problem, identify and prioritize the causes of noncompliance, and develop recommended solutions to enhance compliance and improve administrative efficiency.



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As the 2008 NPDES permit update process conducted by the MPCA was underway at the same time as the NPDES Compliance Workgroup, comments and input from the Workgroup that likely had direct impact on the ongoing permit update process were forwarded directly to MPCA.

SCOPE OF THE PROBLEM

Multiple studies have been undertaken since 2004 to assess the level of compliance with the NPDES permit. These studies and summary findings include:

Study	Year	Overall Noncompliance Rate
Dakota County SWCD and MPCA NPDES Pre-Pilot Project	2004	83%
MPCA Pilot Projects	2005 to Present	~75%
South Washington Watershed District Compliance Study	2006 to Present	70%

The studies show high noncompliance rates with the Permit. A site is considered non-compliant if there are one or more noncompliant inspection items in the MPCA inspection report. Accordingly, a site with one minor infraction would be considered noncompliant and additional analysis is needed to determine relative severity and environmental threat.

The relative severity of noncompliance is more difficult to determine, but includes sites where multiple violations were identified and/or water quality impacts were observed. Based on an evaluation of the studies noted above, it is estimated that 25-35% of the non-compliant sites have multiple violations where rapid corrective actions are needed.

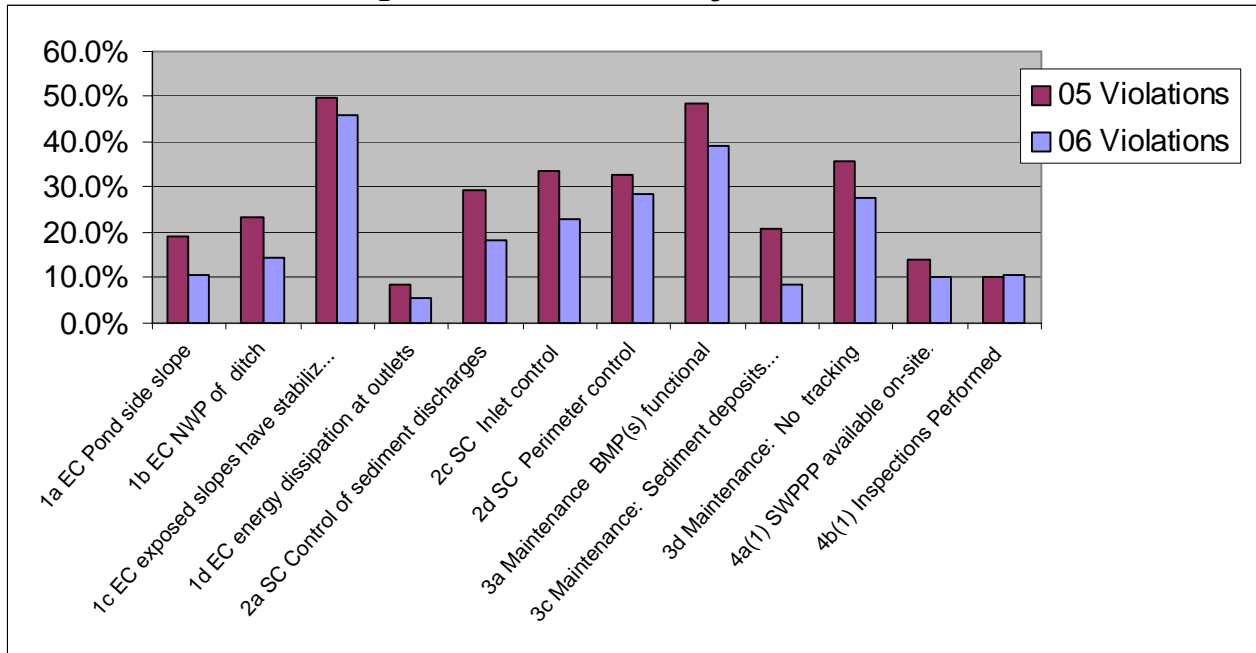
Dakota SWCD Pre-Pilot

The MPCA partnered with the Dakota County SWCD in 2004 to conduct the pre-pilot for the upcoming pilot projects. The pre-pilot evaluated over 320 construction sites with over 860 site inspections. Approximately 9% of the 320 construction sites disturbing more than an acre did not have NPDES permits. Compliance summary data from the pre-pilot are shown in the table above.

MPCA Pilot Projects

The report titled “MPCA Construction Site Erosion Control Inspection Partners Data Analysis 2005 & 2006” identifies statistically significant trends of noncompliance with the MPCA erosion and sediment control requirements for 2062 site inspections of NPDES/SDS permitted sites. The site inspections were performed in 2005 and 2006 by 10 different organizations that work in partnership with the MPCA to perform construction site inspections under a Joint Power Agreement pilot program.

Percentage Violation Summary 2005 vs. 2006



In 2005 the average percentage of sites that had at least one noncompliant item was 79.63%. In 2006 that number decreased to 71.86%. The table above shows the percentage of violations for multiple inspection items. As noted above, the table does not indicate relative severity of noncompliance and only whether or not the specific inspection item is or is not in compliance with the permit requirements. For example, if the site has 30 inlets and one does not have inlet protection (even though it may not necessarily receive any stormwater), it could be listed as noncompliant.

South Washington Watershed District 2006 Compliance Study

The SWWD conducted this study in partnership with the Washington Conservation District (WCD) and the Cities of Cottage Grove, Woodbury, Oakdale, S. Paul Park, and Newport. The study included the following components:

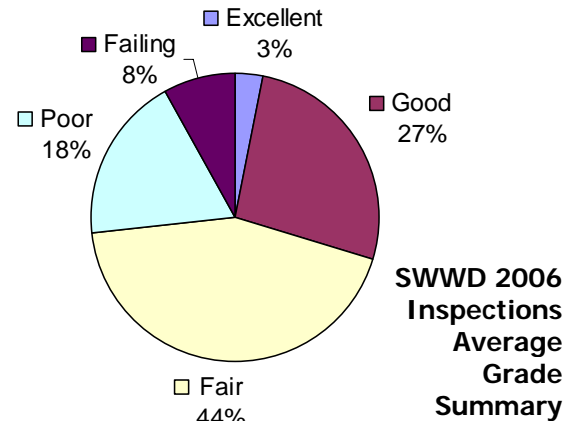
Site Identification and Database Development: The WCD compiled a map and permit-holder database of all sites greater than one-acre. The SWWD used site information from communities within the watershed.

Inspections: The WCD inspected all sites greater than one acre four times during the year: spring, post significant rain event, mid-summer, and fall. MPCA NPDES inspection procedures were followed to determine compliance with the GSP for construction activity. Sites were evaluated on the status and condition of their temporary and permanent sediment and erosion control practices, including (but not limited to), perimeter sediment control, stabilized site exits, temporary cover, steep slope stabilization, runoff management, inlet protection, sediment tracking, and final stabilization.

All construction site inspections were conducted by a Certified Professional in Erosion and Sediment Control (CPESC). Data were collected digitally using a handheld computer which transfers the data directly into an Access database.

Grades: Each inspection report was assigned a grade based on the following scale:

- A (Excellent)** The site is in full-compliance, all practices are in place, and the site is well maintained.
- B (Good)** The site is in compliance, but normal maintenance activities are required.
- C (Fair)** The site is not in compliance. Maintenance or supplemental practices are required.
- D (Poor)** The site is not in compliance. Erosion and sediment control practices are in poor condition and controllable water resource or off-site impacts are likely.
- F (Failing)** The site is in severe noncompliance. Controllable water quality or off-site impacts have occurred.



During the course of the 2006 inspection season, 48 construction sites were inspected and 110 inspections were conducted. A summary of the inspection results are shown in pie chart on the right. The grades are averaged for each site over the duration of the 2006 construction season.

Accordingly, approximately 70% of inspections were considered not in compliance with the permit. Most (44%) of these non-compliant grades were considered “Fair,” 18% were “Poor,” and 8% were failing.

CAUSES OF NONCOMPLIANCE

Following the analysis of the Scope of the Problem, the Workgroup began the process of identifying and prioritizing the Causes of Noncompliance. Three main sources of information were used during this process:

1. BATC/MPCA, Doug McKenzie-Mohr and Associates Report (2006)
2. University of Minnesota, NPDES “Good Actors Survey” (2007)
3. Stakeholder Presentations and discussion

Early on in the Workgroup process, the BATC/MPCA Study provided useful information about the barriers to compliance. In the BATC/MPCA project, the barriers to four behaviors related to storm water management at construction sites were investigated. These four behaviors included having: 1) A Storm Water Pollution Prevention Plan (SWPPP) on-site and readily available; 2) Appropriate Best Management Plans (BMPs) installed; 3) BMPs inspected and logs kept; and 4) BMPs properly maintained. In order to investigate the barriers to these four actions, surveys were completed with four different audiences, each of whom play a role in reducing the impact of storm water at construction sites. Contact BATC or the MPCA to receive a copy of this report.

The second source of information for the causes analysis was the “Good Actors Survey” conducted by members of the Workgroup in partnership with the University of Minnesota. The survey was initially sent to permit holders shown to have high compliance rates with the Permit. The following questions were posed to the respondents.

1. How long (years/months) have you been working in the construction industry?
2. How did you learn how to get good erosion and sediment control on your sites?
3. What parts of the NPDES permit compliance are the most expensive?

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- 4 What do you believe are benefits of NPDES compliance (such as installing and maintaining erosion control practices)?
- 5 What aspects of NPDES enforcement influence how you manage your erosion control on sites?
- 6 What are your primary motivations to comply with NPDES Construction Site Permit Requirements?
- 7 How do inspections and technical assistance help you with compliance?
- 8 Is there anything else you would like to tell us about NPDES compliance?

The results of the survey are shown in the attached “Good Actors Survey” final report.

The third and primary noncompliance source of information regarding causes of noncompliance was stakeholder presentations and discussions. During the workgroup meetings, a series of presentations were given from stakeholder groups such as cities, counties, transportation departments, watershed districts, building associations, home builders, contractors, inspectors, and product suppliers. Each group discussed the complications they encounter with the current system. Throughout the discussions, reasons for noncompliance began to emerge. A comprehensive list was eventually compiled and each workgroup member was given the opportunity to distribute 25 points to the causes he or she deemed to be the biggest reasons contributing to noncompliance. The causes were grouped into nine major themes and prioritized. A summary for each of the areas is given below. One theme (subdivision registration) was not addressed by our group because it was already being studied by a separate team at the MPCA. A “Commander” was assigned to each theme. Solutions from the workgroup members were submitted to the commanders who in turn presented the ideas to the group. The final list of solutions is the result of majority agreement among group members. These solutions are believed could make a positive impact on compliance.

Causes and Solution Summary

Weaknesses in the following areas are believed to be contributing to the unacceptable rate on noncompliance. More specific details can be found on the solution sheets immediately following this narrative.

Area One: Education

A lack of education among owners, developers, contractors, inspectors, designers, installers, construction supervisors, and other key personnel appears to be contributing to noncompliance. The proposed solutions involve adding training requirements for more groups of people involved in the construction process and unifying various training programs for inspectors.

Area Two: Inspections

Currently, there are not enough inspections performed to promote compliance. Expansion of the Joint Powers Agreement (JPA) program currently underway as a pilot project with 10 local partners or similar locally-based programs may provide the additional staff needed to bring the number of inspections to an acceptable number. The term Qualified Local Program (QLP) has specific requirements under federal law, so these local programs are referred to as “QLP-like.”

Area Three: Enforcement

Similar to the issues discovered with inspections, there are not an adequate number of enforcement officials available across the state. Furthermore, MPCA enforcement mechanisms do not achieve timely compliance. The workgroup encourages the legislature to create rapid enforcement mechanisms, such as stop work orders and to consider expanding existing state enforcement programs to include NPDES compliance. Local units of government could provide an additional layer of enforcement, if ordinances are written to allow such enforcement actions.

Four: Technical Assistance

Contractors currently do not have a good place to go for erosion control advice. Because of liability concerns, regulatory inspectors are directed to refrain from giving technical advice. Better compliance may be achieved if a help-line program was set up. Fact sheets illustrating a variety of methods for common problem situations may also be useful.

Area Five: Overlapping Regulations

There are clearly too many government bodies with rules associated with erosion and sediment control. One project can see up to five different inspectors with five different sets of regulations and ideas of how the site should look. This is a source of frustration for contractors and a waste of everyone's time. This level of duplication needs to be reduced. When multiple jurisdictions are involved, a system is needed to define the hierarchy of authority.

Area Six: Costs and Bidding

Integrating the real costs of effective erosion and sediment control installation and maintenance is a very complicated and serious noncompliance issue. The low bid system often results in inadequate erosion and sediment controls and creates a competitive environment that often results in permit violations. Lump sum bidding and lack of quantification of costs in the SWPPP place the responsibility of pricing erosion and sediment controls on contractors. A level playing field that rewards (and pays) contractors for quality erosion and sediment control is needed. Solutions may include setting up escrow accounts, educating owners and contractors on the real cost of implementation, and eliminating lump sum bids for erosion control practices.

Area Seven: Standards

Currently, the erosion control industry does not have well-defined standards for installation of Best Management Practices. The lack of set standards makes it difficult for a permittee to gauge the appropriate number and extent of required BMPs and adds to the difficulty defining a violation. The MPCA will continue to work with the SSC to determine if a defined set of standards could be applied across the state.

Area Eight: Storm Water Pollution Prevention Plans

SWPPPs do not appear to be designed with enough care to protect our resources. Often the same plan is used for different sites. Designers need to be held accountable for their designs. Although the MPCA does not review all SWPPPs, local units of government could require approved SWPPPs or certification of Permit coverage prior to the issuance of building permits.

The entire ranked list of Causes of Noncompliance are attached as an Appendix.

RECOMMENDED SOLUTIONS

Based on the prioritized causes of noncompliance, Actors Survey, Builders Association of the Twin Cities (BATC)/MPCA Survey, and stakeholder input, multiple recommended solutions to enhance NPDES Permit compliance were developed. These recommendations are flagged with the following symbols:

- No permit or legislative changes are needed to implement – additional funding may be necessary
- Requires NPDES Permit modifications to implement
- ◆ Require legislative or rule-making changes to implement

The recommended solutions are also grouped by topics, such as permit, legislative and local government unit (LGU) solutions. The term LGU refers to cities, counties, watersheds, and SWCDs. Additional NPDES Permit-related causes were handed over to the MPCE for integration into the 2008 Permit update process.

Causes for Noncompliance & Suggested Solutions

Theme: EDUCATION

EDUCATION CAUSE OF NONCOMPLIANCE # 1:

Noncompliance of NPDES regulations is occurring because permittees and key personnel involved in decision making do not have good understanding of the regulations and construction techniques that will meet the regulations.

SHORT TERM SOLUTIONS:

1a. Permit Solutions:

■ New permit language be included in the August 2008 Permit, such that responsible construction personnel are required to be (1) trained at a level appropriate for their responsibilities, and (2) able to demonstrate they are knowledgeable and experienced, with supporting training records. These training records will be included with other SWPPP records and must be verifiable by consulting the training organization.

LONG TERM SOLUTIONS:

1b. Educator Group Solutions:

● Develop a formalized training curriculum with required attendance by permittees involved with the construction permit process which is coordinated with inspector training. This approved training program will include cost and estimation training, field training (or experience) and a documentation process that will allow parties to verify training, possibly by certification of a responsible entity.

1c. Statute/Rule Making Solutions:

◆ Certification requirements should be incorporated into rule Ch. 7090. The benefits of specified certification for certain job responsibilities involved with construction sites, such as SWPPP writers/designers, site supervisors, product installer/maintenance staff, construction staff inspectors, and regulatory inspectors should be investigated.

EDUCATION CAUSE OF NONCOMPLIANCE # 2:

Noncompliance with NPDES regulations is occurring because there is a lack of coordinated inspector training. Inconsistent training of inspectors results in inconsistent and incorrect inspection and recommendations.

SOLUTIONS:

2. NPDES Construction Program Solutions:

● A training program should be coordinated, supported and enhanced for inspectors. Inspector training will be required on a regular basis for all NPDES Construction Stormwater inspectors (including all applicable State, County, SWCD, Watershed, and City partners). Content shall include topics on how to consistently use the existing forms to properly document maintenance issues and how to offer solutions to problems in the field through BMP references.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- Certification should be requirement of the permit.
- Education (Inspector & Permittee). A large issue leading to inconsistency is inspector training. There is not adequate baseline education for inspectors working in the field. This can lead to many differing interpretations of the same requirement. An education problem lies with the permittee as well. When an individual is issued a permit, they should be knowledgeable of the same requirements an inspector is enforcing.
- Need consistent, well-trained inspectors on site on a regular basis – for all sites over the entire State – currently the inspections are rare or, at best, predominantly inconsistent and erratic on a statewide basis.
- Need for education of builders (*but more importantly the builder's superintendent: how can this be done? We need to get 1 hour continuing education credit on ESC added to the builder's license – 2*)
- We not only need to educate the builder but more importantly the builder's superintendent: how can this be done? We need to get 1 hour continuing education credit on ESC added to the builder's license.
- Education is good, but also need field training
- Education important: outline goal, simple, grading scale, liked the weighted numbers for items out of compliance
- Have to be in field (inspectors) to get to training, not in class/book
- Mankato is going to require proof that project has someone who has gone through site certification program. Want to be able to check with UofM. Eagan (all projects, including designer), Lakeville (?), Mankato (just city projects),
- UofM has determined that 14% of non MNDOT contractors have certification. Unless certification is required, nobody is going to go. The good contractors go. Certification should be a requirement.

Causes for Noncompliance & Suggested Solutions

Theme: Inspection

INSPECTION CAUSE OF NONCOMPLIANCE # 1 :

Insufficient number of well-trained compliance inspectors available to provide consistent inspections for all sites in the State.

SOLUTIONS:

1a. Program Solution:

- Expansion of JPA or similar QLP-like program to increase the numbers of inspectors in the field. The frequency of inspections should be adequate to promote compliance.

1b. Program Solution:

- Develop a Web-based inspection and reporting system for the QLP-like programs to allow easier coordination, reporting, and analysis and promote consistency.

INSPECTION CAUSE OF NONCOMPLIANCE # 2:

Inspectors are restrained from giving specific instructions as to which BMPs to use to meet Permit conditions.

SOLUTIONS:

2a. Program Solution:

- Train qualified inspectors to offer options for permittees to choose from.

2b. Fact Sheets:

- Develop a set of informational fact sheets to address a number of relatively common types of BMP failures and insufficiencies. Each sheet would list variations of the type of problem, a variety of solutions, and guidance on the selection of solutions depending on site conditions and other variables. When an inspector finds one of these types of problems, she could give the site operator the appropriate fact sheet to guide them to a resolution of the problem.

INSPECTION CAUSE OF NONCOMPLIANCE # 3:

Inspectors sometimes record an item that is noncompliant but simply requires maintenance.

SOLUTIONS:

3a. Solution:

- For BMPs that need maintenance, the inspector shall record the item as 'under review', unless, or until, the inspector is able to document that the maintenance was not performed as required in the Permit.

3b. Solution:

- The MPCA and Partners should develop methods to summarize relative severity of noncompliance issues to enhance communication with permit holders and long-term statistical analysis of compliance rates.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- In-the-Field Corrections – Technical Inspections & Assistance Absent. Part of flexibility is the need to work with inspectors to find reasonable solutions for both the inspector and the permittee. An inspector needs to be allowed to advise a permittee (on site) how to improve or correct BMP's, rather than automatically find the site non-compliant.
- Need consistent, well-trained inspectors on site on a regular basis – for all sites over the entire State – currently the inspections are rare or, at best, predominantly inconsistent and erratic on a statewide basis.
- Lakeville (and Eagan) model is good. Building inspector identifies issues and then relays it to engineering dept. Get example inspection form out to other cities
- Maintenance vs. noncompliance
- Frequency and quality of inspections. Should only multimillion dollar site get inspected? Smaller sites not held to same standards.
- NPDES compliance relies on the inspector's interpretation of the regulations. Inspectors have different levels of experience and training, resulting in inconsistent levels of feedback and compliance information to contractors. A standard of consistent inspection should be developed and adhered to state wide.
- The rules need to be reasonable and flexible: the inspector needs to have the flexibility when on-site to look at different remedies for a situation and not be afraid to make a change on-site. The idea that a change made on-site needs to be made in the SWPPP seems a little over-kill.
- Inconsistent Inspections/Permit Interpretation. The NPDES permit inspectors inconsistently interpret requirements and may give conflicting inspections. Whereas one inspector may ask for specific items to be addressed, another may ask for something different. Complicating this situation is the broader regulatory system, which separates and isolates regulators who are giving different opinions.
- Consistent inspections are needed
- The city ordinance needs to have proper language.
- Needs to be some program developed (expansion of JPAs)
- Inspectors need to talk to someone on the site
- Turn over of inspectors in field – lower end position and when trained move on. Do they really know what they are doing?
- Proactive vs. reactive will make it less controversial.
- Built a deck and had two inspections, but can open up acres and nothing done.
- MPCA understaffed and burden of construction site oversight pushed down to the cities,
- Inspectors are hesitant to give a solution because they then take on liability – solution - instead, give fact sheets including options.

- Inspection and first visit should be technical assistance and not an immediate red tag. A consultation wing vs. an enforcement wing.
- Timeframe problems – may be a maintenance issue and not be noncompliance
- Does see differences between jurisdictions
- Review inconsistent, or not at all (most not reviewed at PCA)
- Building dept. is not going to take on (refusing to).
- Building officials trained on building codes, erosion and sediment control shouldn't come upon them by default.
- Building officials are not going to take on erosion and sediment control, But are able to get them to hold approvals if problems on site.
- Need training on self inspections/weekly inspections.
- Would rather invite out an inspector to the site and discuss how to get into compliance. They may be doing too much and spending unneeded money or are they missing something and out of compliance.
- Consider adding language to building code.
- A lot of these comments are tied to the permit and some are not. Recommendations should be grouped by those that apply to permit and those that go beyond the permit.
- There needs to be enhanced coordination between agencies.

Causes for Noncompliance & Suggested Solutions

Theme: Enforcement

ENFORCEMENT-RELATED CAUSE OF NONCOMPLIANCE #1

Current enforcement mechanisms do not achieve immediate compliance.

SOLUTIONS:

1a. Legislative Solution:

◆ Legislators should enact legislation granting rapid enforcement tools to enforcement officials, such as ticketing authority, stop work orders, and cease-and-desist orders. Legislative solution should allow for JPA or local program to implement rapid enforcement tools.

Note: see attached APO and Stipulation Agreement processing times in appendices.

1b. LGU Solution:

● LGUs should adopt ordinances allowing “stop-work” orders and other rapid enforcement mechanisms in addition to withholding building permit inspections. Contractors would not be allowed to continue work until the sites met minimum erosion and sediment control requirements regardless of the project phasing.

ENFORCEMENT-RELATED CAUSE OF NONCOMPLIANCE #2

There are not enough enforcement officials around the state to adequately monitor construction activities and enforce erosion and sediment control rules.

Note: See Inspection Solutions and contraction stormwater enforcement statistics in appendix.

SOLUTIONS:

2a. Legislative Solution:

● ◆ Legislators should expand the civil authorities (and staffing level as needed) of Conservation Officers to cover the stormwater program. Conservation Officers would work with inspectors to provide enforcement assistance on sites with egregious violations and/or the potential for substantial environmental harm. Additional funding, staffing, and training are needed.

2b. LGU Solution:

● For construction projects disturbing greater than one acre, LGUs should require verification that the project has NPDES permit coverage and a SWPPP prior to the issuance of local permits, such as grading permits. Projects disturbing less than one acre, but part of a common plan of development, should be required to submit verification that the project has a project-appropriate SWPPP and proof of subdivision registration prior to the issuance of local permits, such as building permits.

2c. LGU Solution:

● LGUs should require building inspectors to check for minimum erosion and sediment controls when performing routine inspections, such as plumbing, framing, or footing inspections. A review of perimeter sediment controls and other basic sediment controls could be done as the inspector is walking into the house. Additional follow-up mechanisms such as those noted above would need to be in place as well. Follow-up could be conducted by other appropriate staff as well.

2d. MPCA Program Solution:

● MPCA should work with local partners to audit basic permit compliance and present this information to the public. Target compliance rates should be evaluated.

Causes for Noncompliance & Suggested Solutions

Theme: TECHNICAL ASSISTANCE

TECHNICAL ASSISTANCE CAUSE OF NONCOMPLIANCE # 1:

Noncompliance of NPDES regulations is occurring because of a lack of in-field technical assistance and in-field technical inspections.

SOLUTIONS:

1a. Permit Solutions:

- New language should be included in guidance for the August 2008 permit to provide greater emphasis on the current permit approach to BMP flexibility.

1b. NPDES Construction Program Solutions:

- Promote use of MPCA website for technical assistance and develop a “1.800.Stormwater” help line or agency division to assist permittees who seek technical advice on BMPs and various design scenarios or BMP failures. Additional funding will be needed to staff help line.

1c. NPDES Construction Program Solutions:

- Develop a technical review panel to provide an inspector with peer review of worst-case scenarios and issue advisory statements to assist others facing similar construction site scenarios.

TECHNICAL ASSISTANCE CAUSE OF NONCOMPLIANCE # 2:

Non-Compliance with NPDES regulations is occurring because inspectors are unable to provide specific instructions on how to improve a site's compliance or correct BMPs due to a fear of liability.

SOLUTIONS :

2a. NPDES Construction Program Solutions:

- Provide direction from the MPCA commissioner to the MPCA and other governmental entities that provide increased stormwater technical assistance services. The directive may address official immunity particularly as it relates to technical assistance given to permittees and underscore the limited / lack of liability that government has for assisting permittees in implementing, changing or improving a stormwater BMP.

2b. Legislative Solutions:

- ◆ Provide clarification in statute affirming the official immunity of government officials and entities acting to provide technical assistance for the purposes of achieving compliance with NPDES permit requirements.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- In-the-Field Corrections – Technical Inspections & Assistance Absent. Part of flexibility is the need to work with inspectors to find reasonable solutions for both the inspector and the permittee. An inspector needs to be allowed to advise a permittee (on site) how to improve or correct BMP's, rather than automatically find the site non-compliant.
- The rules need to be reasonable and flexible: the inspector needs to have the flexibility when on-site to look at different remedies for a situation and not be afraid to make a change on-site. The idea that a change made on-site needs to be made in the SWPPP seems a little over-kill.
- Inspectors are hesitant to give a solution because they then take on liability – solution - instead, give fact sheets including options.
- Inspection and first visit should be technical assistance and not an immediate red tag. A consultation wing vs. an enforcement wing.

Causes for Noncompliance & Suggested Solutions

Theme : OVERLAP/CONSISTENCY/RESPONSIBILITY

CAUSE OF NONCOMPLIANCE # 1 :

Site inspection/enforcement inconsistency between multiple levels of jurisdictions (LGU's) with overlapping permits and regulations.

SHORT TERM SOLUTION:

1a. NPDES Construction Program Solutions:

- ◆ Development of local construction site inspection QLP-like or other mechanism program to establish consistent local programs, with the goal of establishing a single layer of Permit coverage and inspection to eliminate duplication. Program should also address overlap between WCA and DNR waters permits to maximize efficiency.

CAUSE OF NONCOMPLIANCE # 2:

Noncompliance of NPDES regulations is occurring due to a lack of clear responsibility between developers, contractors, builders, utilities, and cities on site during various phases of construction.

SHORT TERM SOLUTIONS:

2a. Permit Solutions:

- Permit guidance information be included with the August 2008 Permit to assist with clarification of the responsibility and emphasize the importance responsibility of coverage throughout the project.

2b. NPDES Construction Program Solutions:

- Need model development and transfer agreements between developers, contractors, and homeowners regarding responsibility – BATC developed models 3 years ago.

LONG TERM SOLUTIONS:

2c. Solutions:

- Develop a formalized/concise transfer of responsibility between developers, contractors, builders, utilities, and cities and include notice of termination upon sale or with proof of established temporary/permanent cover.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- Inspection and enforcement inconsistency between jurisdictions
- Duplication exists between the MS4 and construction permits (confusion between the programs).
- Cities problem is that this is an unfunded mandate. Many times permit fees pay for resources, but we have duplicative permitting programs at the state and local levels.
- Many levels of regulations, some overlap, conflicting
- More 'cooks' (inspectors) in the kitchen has caused trouble - private, city, county, state all have separate view of sites.
- Overlap in regulating agencies, why? Long term need to address
- Centex have within 3 week timeframe 7 different inspectors (including Centex) with all different. And what a waste of resources. PCA partnerships good.
- Watershed board folks can be the biggest problem – state says site is OK, but they say something doesn't look right, but won't say what to do about it. Can shut site down - but at least they are involved.
- Contractors and installers prefer to argue with one person, not many levels of government
- Responsibility not clear between developer, contractors, and builders. No one is willing to take full responsibility
- Construction sites have multiple companies on site with a lot of activity and personnel. A large part of compliance is related to clean up and repairs. Individuals who may disable a BMP are not typically identified, and there is typically no reward for individuals who may take responsibility for cleaning up damage. The identification of a responsible individual is critical, and this individual needs to be well trained and able to act.
- MS4 ultimately responsible – we're in this together, includes pond maintenance at end of construction
- Responsibility not clear between developer and builders – who clean street at night.
- Issues between developers and contractors on responsibility. Need model development agreements – BATC developed them about 3 years ago.

Causes for Noncompliance & Suggested Solutions

Theme: COST/BIDDING

CAUSE OF NONCOMPLIANCE DESCRIPTION ITEM 1 :

Sediment and erosion control is an increased cost for construction and is often not accounted for in the overall estimate, therefore, it is shortchanged resulting in accountability inequity, unfair enforcement costs, and no allocated \$'s to do the job.

TRAINING AND EDUCATION SOLUTIONS:

1a. Solution:

- Project bid forms should have a separate cost element for the sediment and erosion control for the particular site.

1b. Solution:

- Escrowing \$'s to help ensure that the sediment and erosion control is implemented right can continue as a formal relationship between developer, builder, contractor, subcontractor

1c. Solution:

- Provide training and education on the real costs of implementing sediment and erosion control. This training should be provided to all levels of participants in the construction process, including owners/developers, designers/engineers, and regulators/inspectors.

1d. Solution :

- Provide training and education on the real costs of implementing sediment and erosion control

CAUSE OF NONCOMPLIANCE DESCRIPTION ITEM 2 :

The lack of estimated quantities results in inadequate dollars planned and allocated for erosion and sediment control BMPs.

SOLUTIONS:

1a. Permit Solution:

- Require estimated quantities tabulation in the SWPPP for erosion and sediment control practices.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- There must be a level playing field for contractors, builders and developers. Those who do it right are punished financially if others are able to get away with not doing effective erosion and sediment controls.
- Need quantities on bid sheet (usually highly under bid)
- NPDES compliance requires more effort and expense than previous construction. Some projects and owners may not have budgeted for these expenses and efforts in the original project scope. Owners may not be willing to pay the contractor for the effort.
- Lump sum bids result in putting off until permanent cover.
- Everyone wants to comply, but it comes down to costs
- 3% of cost of house is for sed/erosion control
- Money – why haven't we made e/s control profitable? Contractors need to make money on it. Working at MnDOT, they pay contractors to do it.
- Costs to re-mulch
- Fairness: developer spending a lot of money on sed/erosion control while another is not
- Has escrow with subcontractors
- E/s not going to be profitable, cost of business. But don't know what the cost is
- Low bid system – set up to fail for MnDOT and when have to cut, then it is environment. Lump sum results from lazy design. Should we look at pulling out e/s control out and have separate – concern over “yahoo” in a pickup truck.
- Can't estimate mother nature, need to have avenue in bid sheet (price/quantity already arranged for the level of rapid stabilization). MnDOT spec 1903
- Bidding Issues. If they get paid they will do it
- Lump sum bids – can be more cost effective, but big mobilizations are not used.
- Making money on building, site is secondary.

Causes for Noncompliance & Suggested Solutions

Theme: STANDARDS

STANDARDS RELATED CAUSE OF NONCOMPLIANCE # 1:

Erosion and sediment control technologies are outpacing publicly available CAD drawings and special provision language resulting in inadequate tools to address foreseeable conditions during construction.

SOLUTIONS:

1a. Solution:

- Update the MPCA Blue Book and include CAD details for BMPs. Provide funding for periodic future updates of these documents.

STANDARDS RELATED CAUSE OF NONCOMPLIANCE # 2

There is not a defined design standard (i.e. storm event, intensity, duration)

SOLUTIONS:

2a. Solution:

- MPCA will convene a workgroup to develop recommendations regarding design criteria and standards.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- Standards, are there any? Little ASTM standards, they use minimum and is cheaper. Contractor has to fix concrete if doesn't meet standards, but not in erosion control. Not held to same standard, still paid if erosion BMPs fail. Reject bids with not enough money for bituminous, but not for erosion control
- Design, many not in MnDOT spec book (lack of tools and guidance)
- Standards – no agreement
- Codes are specific, uniform, come from state level, liability associated and seen at a different level (someone could get killed) versus erosion and sediment control that is more subjective.

Causes for Noncompliance & Suggested Solutions

Theme: SWPPP

SWPPP CAUSE OF NONCOMPLIANCE # 1 :

Stormwater Pollution Prevention Plans (SWPPPs) are often times cookie cutter plans that do not reflect the specific site conditions through all phases of a project. Contractors therefore do not have a useful tool to use in the field to aid them in their erosion and sediment control decision-making.

SOLUTIONS:

1a. Solution

● To improve consistency between the State and local programs, LGUs should require SWPPP designers to be certified and have taken training in SWPPP design and writing. The certification and training should emphasize the need for project specific SWPPPs.

1b. Solution

● LGUs should require verification that a project has NPDES Permit coverage and a project-appropriate SWPPP before issuing permits for construction.

RAW LANGUAGE SUPPORTING RECOMMENDATIONS:

- Most SWPPPs are cut and paste and do not adequately address the site. SWPPPs do not address phasing or changing site conditions.
- SWPPPs are important
- Cities starting to require SWPPP submittals, They aren't usually very good, Concern if contractors are reading them.
- Blaine looking at developing template, seeing cookie cutter SWPPPs with a phone number of headquarters, not the person in the field.
- Need goal/target of which storm event to design to. Need that standard to design to.
- Different design and different designers (credentials)

IMPLEMENTATION

Implementation of these recommendations is dependent upon the MPCA and Stormwater Steering Committee. Each recommendation should have an associated implementation strategy developed by the SSC.

In addition to selecting recommendations to pursue, the NPDES Compliance Workgroups encourages regular progress reports on the status of the recommended solutions implementation. And do not let the relative size of this section convey any sense of insignificance.