

Delaware Program Improves Construction Site Inspection

Erosion and Sediment Control (ESC) practices require vigilance and frequent maintenance. Unfortunately, most ESC programs do not have the resources to effectively inspect construction activity. Responses from the Center’s survey of 80 ESC programs indicate that each field inspector is responsible for an average of at least 150 sites per year. At this rate, inspectors are overburdened even if all the sites are not under active construction at the same time. If sediment controls are only 60 to 70% effective under good conditions, how can we expect protect streams without sufficient staff to ensure that ESC practices are applied properly?

One solution to this problem is to place part of the burden for inspection on the development community. A program in Delaware requires some developers to hire their own inspectors (Shaver and Piorko, 1996). Although these inspectors are officially called the construction reviewers, they are referred to as “private inspectors” in this article to avoid confusion with plan reviewers. The article describes when private inspectors are required, responsibilities under this program, other programs that can supplement it and some important safeguards. Finally, it provides some guidelines on developing a similar program.

Table 1: Site Required to Hire a Private Inspector

- All sites with greater than 50 acres of disturbed area
- Any site, as determined by the resource agency
- Sites under construction that present significant management problems

Table 2: Responsibilities Under the Private Inspector Program

Inspector Responsibility

- Certification and periodic re-certification (passing a training course)
- Making weekly inspection reports to the contractors and inspection agency
- On-site technical advice for contractors

Professional Engineer Responsibility

- Oversight and technical advice to the Private Inspector
- Usually works at the same firm as the Private Inspector

ESC Agency

- Training for Private Inspectors
- Review of all inspection reports
- “Spot Checks” on construction sites
- Enforcement action

Contractor/Developer Responsibility

- ESC maintenance and installation
- Hiring and Paying for Inspectors
- Feedback on site conditions, problems

Who Has to Hire a Private Inspector?

Private inspectors are required for sites that the state or local ESC agency anticipates will require intense agency resources to complete site inspection (Table 1). Because each construction project is different, the need for private inspector is decided on an individual basis.

Responsibilities

Private inspectors, government agencies and contractors/developers all have some responsibility to ensure that erosion and sediment control plans are effectively implemented. Private inspectors are required to become certified and periodically re-certified passing a standardized course. Once licensed, they act as the “eyes” on construction sites. They make at least weekly site visits and report both violations and inadequacies in the plan to the developer, contractor and ESC agency. The inspector also provides on-site technical assistance to the contractor when needed.

Although the goal of this program is to ease the burden on public sector employees, they still play an important role. Private inspectors are licensed through the state program of the Department of Natural Resources and Environmental Control (DNREC). The state offers a 32-hour course every year that covers both stormwater management and ESC. In addition, government inspectors review reports submitted by private inspectors, and conduct spot checks for accuracy. Finally, fines or other penalties are issued through government agencies.

Developer and contractor are ultimately responsible for the implementation of effective erosion and

sediment controls on construction sites. They must correct violations within a specific time period. An additional responsibility under this program is hiring a private inspector. Consequently, they have some input selecting the person that they will deal with on a regular basis.

Supporting Programs

Because developers and contractors have a great deal of responsibility, their training is important. Under Delaware’s “Blue Card” program, one contractor from each site is required to attend a training course (Table 3). This program provides a strong backdrop to supplement the private inspector program. In addition, it applies to all sites-not only the larger or more complicated sites covered in the private inspector program. Training for both designing professionals and public employees is also crucial to developing effective ESC plans.

Safeguards

One of the major concerns at the inception of the Delaware program was that private inspectors would not report violations because they are employed by developers. There are two provisions to protect against collusion in this program. First, if the spot checks conducted by the ESC agency show that the private inspector did not report violations, his license can be revoked or suspended. Second, the private inspector must be supervised by a Professional Engineer, whose P.E. license can be suspended for ethical breaches.

Table 3: Delaware’s “Blue Card” Contractor Program

- One contractor on each construction project needs to be certified
- The contractor attends a 3.5 hour course offered by DNREC
- This person is responsible for ESC techniques and on-the-job training of other contractors

Table 4: Steps to Implementing a Private Inspector Program

- Assign full-time staff to administer the program
- Decide on criteria for use of private inspectors
- Develop a training program and certification process
- Incorporate Professional Engineer oversight
- Define specific site spot checking schedule
- Include recourse for fraudulent inspection reports
- Carry out enforcement action for contractors who violate plans
- Pilot in a test area
- monitor using objective criteria to evaluate the program
- Revise the program periodically based on past performance

Results

Delaware's private inspector program began fairly recently (1991), so it is difficult to quantify its success. One measure, however, is the degree of response to training courses. Three hundred and forty people have been certified. In addition, there is a qualitative opinion that the "best sites" are those that use private inspectors (Shaver, personal communication). A more formal analysis is just beginning.

How to Start a Private Inspector Program

Developing a private inspector program is time consuming and must be done carefully. Some steps to implementing a successful program are described in Table 3. While Delaware's program seems to have been successful, using it as a "cookie cutter" approach may not be appropriate. Some of the details, such as what sites should be included, may vary between states. Thus, piloting in test areas and continuous reevaluation are recommended. Although

program development is a major undertaking, results in Delaware's suggest that the effort may pay off in the long run.

References

- Shaver, H.E., 1996. Personal Communication. Delaware Department of Natural Resources and Environmental Control. Dover, DE.
- Shaver, H.E. and F.M. Piorko, 1996. "A Certification Program for sediment and Stormwater Inspectors: A Private Supplement to Public Inspection." In: *Assessing the Cumulative Impact of Watershed Development on Aquatic Ecosystems and water Quality, A National Symposium*. US Environmental Protection Agency (EPA Region 5) with the Northeastern Illinois Planning Commission. Chicago, IL.