



North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

MEMORANDUM

TO: ENVIRONMENTAL REVIEW COMMISSION  
The Honorable David Rouzer, Chair  
The Honorable Mitch Gillespie, Co-Chair  
The Honorable Ruth Samuelson, Co-Chair

FROM: Kari Barsness *KKB*  
Director of Legislative and Intergovernmental Affairs

SUBJECT: Annual Sedimentation Program Report

DATE: October 11, 2012

Pursuant to G.S. 113A-67, the department is required to report annually to the Environmental Review Commission on the implementation of the Sedimentation Pollution Control Act of 1973. The attached report satisfies this reporting requirement.

If you have any questions, please contact me by phone 919-707-8618 or via email at [Kari.Barsness@ncdenr.gov](mailto:Kari.Barsness@ncdenr.gov).

Cc. Robin Smith, Assistant Secretary for Environment  
Tracy Davis, Director, Division of Energy, Mineral, and Land Resources  
Kristin Walker, Fiscal Research Division  
Lanier McRee, Fiscal Research Division  
Mariah Matheson, Fiscal Research Division

**Report to the Environmental Review Commission  
On the Implementation of the  
Sedimentation Pollution Control Act  
By the Department of Environment and Natural Resources  
Division of Energy, Mineral, and Land Resources, Land Quality Section**

**Oct. 1, 2012**

**Executive Summary**

The department shall report to the Environmental Review Commission on the implementation of the Sedimentation Pollution Control Act (SPCA) of 1973 on or before Oct. 1 each year. The Land Quality Section in the Division of Energy, Mineral, and Land Resources is responsible for implementing the SPCA. Either county or municipal governments implement 52 delegated SPCA programs across the state. Although the total number of new projects dropped slightly from 2,118 in FY 2010-11 to 1,959 in FY 2011-12, the number of open (active/inactive) sediment projects requiring inspection remained at 8,000 projects. The total number of newly disturbed acres has slightly increased to 24,495 acres, with a majority of that increase occurring near the end of the fiscal year. As plan review fees are based on the acreage to be disturbed, fee receipt collections saw a slight improvement near the end of the fiscal year. As a result of the continued downturn in development activity throughout most of the past fiscal year, the Land Quality Section continued to downsize staff. Low sediment fee revenue required the Section to eliminate three positions supported by sediment fee receipts at the beginning of the fiscal year. In addition, the budget for FY 2011-12 abolished two sediment positions that had been supported by appropriations effective July 2011 and DENR eliminated four vacant positions supported by sediment fees - (for a total of nine sediment program positions eliminated in FY 2011-12 alone). In light of this loss of positions, and the inability to fill remaining vacant fee-supported positions, sediment inspections dropped from 20,152 inspections in FY 2010-11 to 15,659 inspections in FY 2011-12. Note that the budget for FY 2012-13 eliminated another four sediment positions supported by appropriations, effective July 1 2012.

**Background**

“The sedimentation of streams, lakes and other waters of this State constitute a major pollution problem. Sedimentation occurs from the erosion or depositing of soil and other materials into the waters, principally from construction sites and road maintenance. The continued development of this State will result in an intensification of pollution through sedimentation unless timely and appropriate action is taken. Control of erosion and sedimentation is deemed vital to the public interest and necessary to the public health and welfare, and expenditures of funds for erosion and sedimentation control programs shall be deemed for a public purpose”.

-Preamble to the Sedimentation Pollution Control Act of 1973

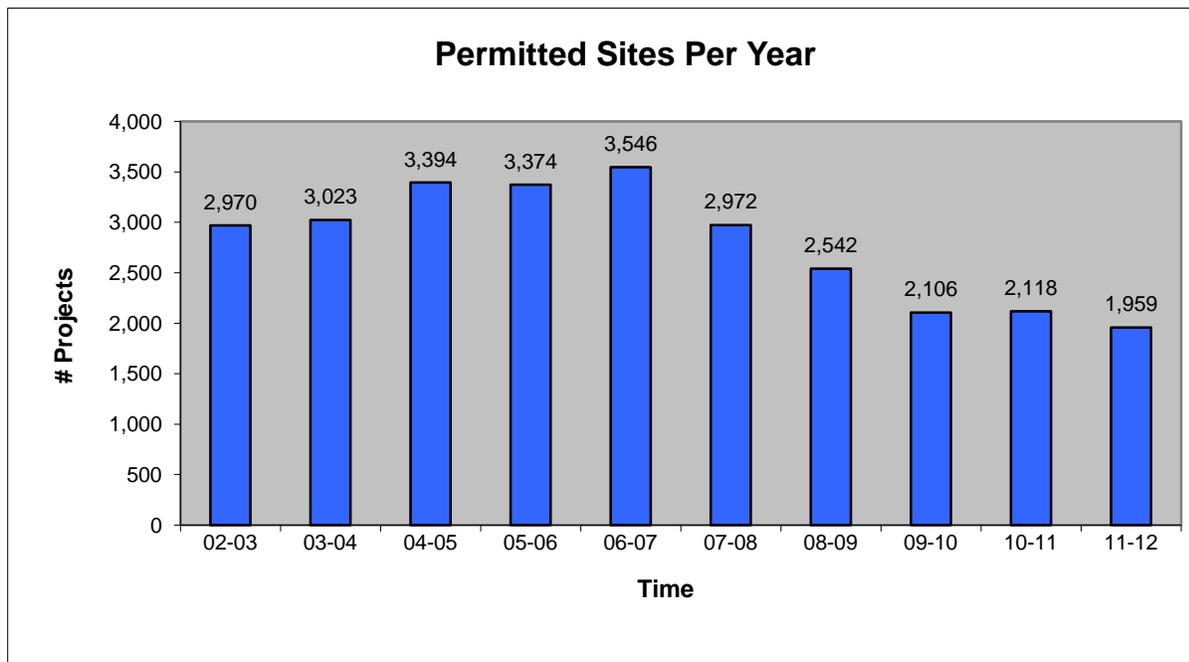
The Division of Energy, Mineral, and Land Resources, Land Quality Section, in the Department of Environment and Natural Resources, administers the SPCA. The Sedimentation Control Commission has also delegated administration of the SPCA to 52 county or municipal governments. These local program delegations do not regulate land-disturbing activities conducted by local, state or the federal government or persons with the power of eminent domain (e.g. public utilities), which remain under jurisdiction of the Land Quality Section.

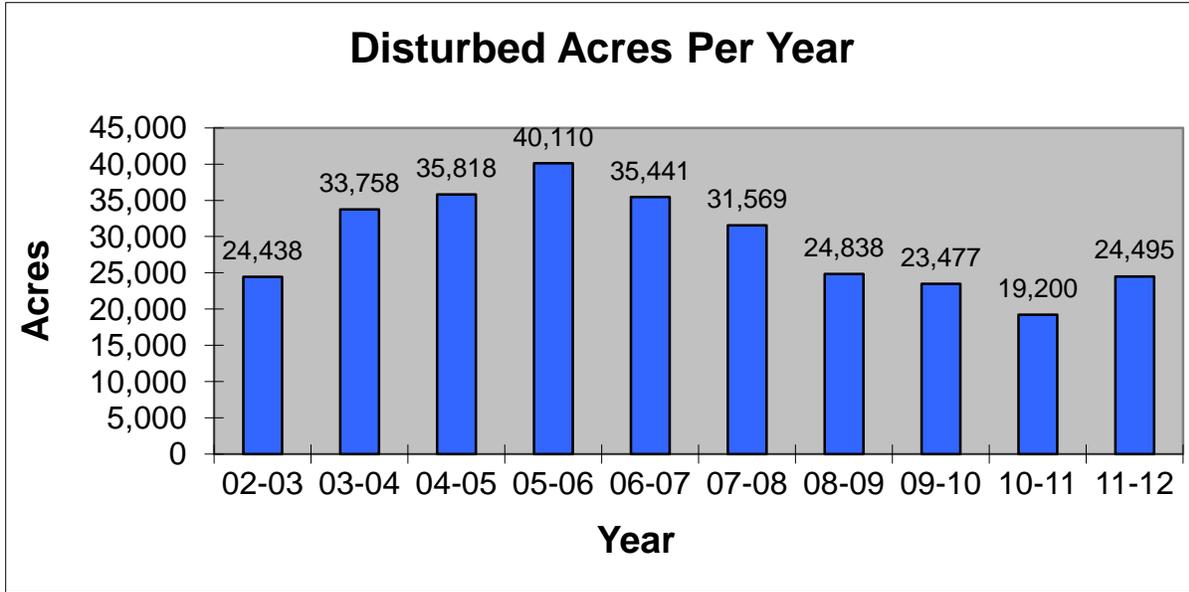
The state sedimentation program also plays a critical role in meeting federal construction stormwater permitting requirements under the Clean Water Act. The U.S. Environmental Protection Agency (EPA) implements federal permitting requirements for stormwater discharges from active construction sites, but also has the authority to delegate those permitting responsibilities to the states. In many ways, federal construction stormwater requirements mirror the requirements of the state Sedimentation Pollution Control Act, and the intent of the federal program is the same – to prevent sedimentation damage to water bodies.

North Carolina has delegated authority that allows DENR – rather than EPA – to issue federal construction stormwater permits in the state. Since the state sediment program was already performing many of the activities required for a delegated construction stormwater program, DENR has used a memorandum of understanding (MOU) between the Division of Water Quality and the Land Quality Section in the Division of Energy, Mineral, and Land Resources to share responsibility for construction stormwater permitting. Under the MOU, the Land Quality Section completes all sedimentation plan reviews and most inspections necessary to meet the federal permit requirements. Sedimentation staff activities are so critical to implementation of the delegated federal program (providing 28 of 34 staff who work on construction stormwater permitting and enforcement), that the severe reduction in sedimentation program staff over the last few years is straining the state’s ability to maintain a delegated program.

### Implementation

The decline in the number of new projects under state jurisdiction has leveled off. New projects steadily declined from a peak of 3,546 in the 2006-07 fiscal year to a new low of 1,959 in FY 2011-12. The actual area of land-disturbance covered by new erosion and sedimentation control plans approved in 2011-12 was 24,495, higher than the 19,200 acres approved to be disturbed in FY 2010-2011. These totals do not include erosion and sedimentation control plans approved by local government sedimentation programs or land disturbed by the Department of Transportation.

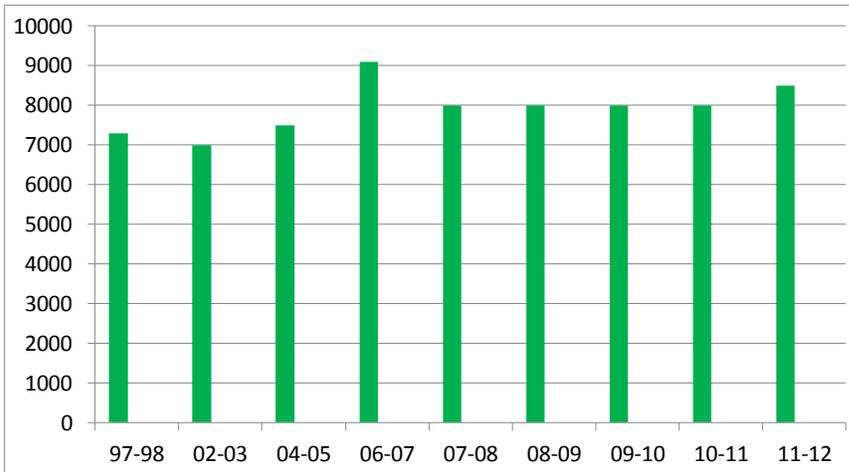




Although the number of new construction sites requiring plan review has been declining since the 2008 economic downturn, the number of total projects has not. The number of open sediment projects requiring inspection by the state program has consistently remained at around 8,000 sites. The total includes all sites that are either under active construction or are inactive, but incomplete. While the economic downturn has slowed new project starts, it has contributed to the consistently high inventory of incomplete projects due to slowdown in project construction or abandonment as a result of foreclosures and bankruptcies.

## “Open” Sediment Projects

(active/inactive projects that have not been completed/closed)



A number of abandoned projects have been left in poor condition, creating off-site sedimentation damage and in some cases public safety hazards. Just in the last few months, the Land Quality Section has responded to two situations where abandoned projects have created risk of flooding and slope failure. A number of homeowners had to be evacuated from their homes near the failed Serenity Forest development in Buncombe County for almost two months this summer until temporary emergency measures could be taken to stabilize a failing sediment basin and unstable slopes.

The number of full time equivalent positions (FTE) in the Land Quality Section for the erosion and sedimentation control program has declined yearly from 61 in FY 2008-09, 52 in FY 2009-10, to 44.12 at the end of FY 2011-12. Also, an additional four appropriated positions were eliminated by the General Assembly in July 2012, reducing staff levels to its current level of 40.12 FTE. Including the four positions eliminated in the 2012-13 budget, the total number of staff in the program has declined by more than 34 percent in the last three years. Since the only fee revenue for the program comes from a sedimentation plan review fee for new projects, a downturn in new construction significantly affects staffing levels. However, the reduction in new starts (and therefore fee revenue) does not mean a reduction in total workload because of the large number of open project sites.

Regional activities for the 2011-12 fiscal year include:

- 1,923 new erosion and sedimentation control plan reviews,
- 909 revised erosion and sedimentation control plan reviews,
- 15,659 sedimentation site inspections,
- 247 notices of violation and
- 18 enforcement case referrals.

The Land Quality Section collaborates closely with the Division of Water Quality's Stormwater Management Program in permitting, inspection and enforcement activities. The Land Quality Section encloses a copy of the federal Clean Water Act stormwater general permit for construction activities with each erosion and sedimentation control plan approval, and provides the Division of Water Quality with a copy of the financial responsibility/ownership form that accompanies each plan submittal. When sedimentation inspection reports document potential violations of the stormwater general permit for construction activities, a copy is furnished to the Division of Water Quality. Any enforcement activities are coordinated between the agencies.

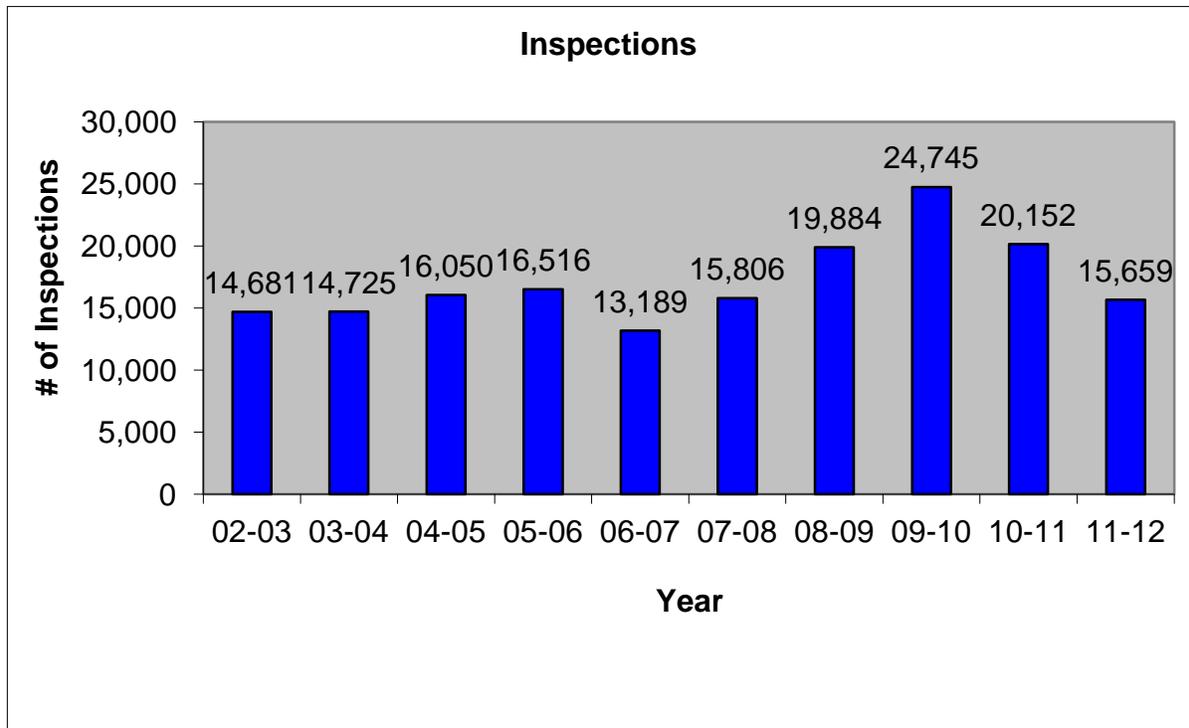
## **Plan Approval**

The SPCA requires review of a proposed erosion and sedimentation control plan within 30 days for a new plan submittal and within 15 days for a revised plan. As mentioned above, newly disturbed acreage in North Carolina increased slightly last fiscal year. The number of new erosion and sedimentation control plans received was 1,959 and the number of revised plans received was 945 for FY 2011-12.

The Express Permitting Program for erosion and sedimentation control plans provides for plan review within three working days. During FY 2011-12, 527 Express Permit reviews were conducted. This represented a modest increase over the 475 express reviews done in the previous year. The Fayetteville region had the most express reviews, reflecting the numerous Department of Defense projects submitted for express review at Fort Bragg.

## Inspections

Of the 40.12 FTEs in the Sediment Program, **only 14 FTEs** from the seven regional offices inspect land-disturbing activities and complete sedimentation inspection reports. The reports document field observations and compliance or non-compliance with the SPCA. Based upon current staffing levels, open erosion and sedimentation control projects are inspected, on average, once every 14 months. The infrequency of inspections remains a chronic problem that limits the effectiveness of the sedimentation program. Regional staff conducted 15,659 inspections last year, a decline of 4,493 inspections from the previous year, reflecting the loss of regional office personnel.



The combination of significant cuts to program staff and a consistently high inventory of open project sites have put a tremendous strain on the program's ability to carry out its responsibilities. In the last few years, the strain has been increased by the larger than usual number of abandoned projects. Dealing with an unstable site that had been abandoned by the developer requires more time because of the need to find responsible parties and often deal with lien holders to ensure that problems are addressed.



*Examples of abandoned construction sites with eroding roadways and slopes causing offsite sedimentation.*

## **Enforcement**

The Division of Energy, Mineral, and Land Resources documents compliance or non-compliance with the SPCA through sedimentation inspection reports. Most violations are resolved by providing an inspection report to the responsible party and requesting correction of the deficiencies. Of the 15,659 inspections conducted during FY 2011-12, 247 (1.6 percent) resulted in a Notice of Violation (NOV). The NOVs led to 18 requests from the regional offices for additional enforcement action (7.3 percent of NOVs issued or less than 0.1 percent of the inspections conducted). Thirteen civil penalties were assessed, including eight initial penalties of \$5,000 or less.

The Attorney General's Office continues to work in state courts and federal bankruptcy court to resolve soil erosion, stream sedimentation and landslides at abandoned residential developments resulting from bankruptcy and foreclosure.

## **Local Programs**

The Sedimentation Control Commission encourages local governments to administer a delegated erosion and sedimentation control program by providing a model ordinance and technical assistance. Once a program is delegated to a local government, the Land Quality Section provides periodic oversight to ensure that the local programs are meeting the standards for the state program. State personnel informally assist and advise the local staff on problematic sites. A review of each local program is scheduled at least every two years. The Land Quality Section and the Attorney General's Office review the city or county ordinance to ensure that it is as stringent as state law and rules. The Land Quality regional engineer and sediment specialist and/or their assistants meet with the local program staff during the review. A detailed report is provided back to the local government, noting strengths, deficiencies and corrective actions. A summary report is presented to the Sedimentation Control Commission at its quarterly meetings. The Commission then takes action to continue the delegation, place the program on probation, or give a 30-day notice that the Commission will assume administration and enforcement of the program.

Twenty local program reviews were conducted during FY 2011-12. Most occurred since the position of Assistant State Sedimentation Specialist was filled in February 2012. The regional offices also conducted field work with 10 local programs last year. Two local programs were placed on probation due to a lack of effective administration and enforcement. These programs have improved and continued delegation is anticipated after the next evaluation.

## **Training**

The Division of Energy, Mineral, and Land Resources held three two-day workshops this past year for design professionals, with a total attendance of 279. Fifty local governments participated in the annual workshop for local government erosion and sedimentation control personnel with a total attendance of 104.

## **Legislative Changes to the SPCA**

The SPCA was not amended during the 2012 short session.

## **Recommendations**

### *Local Program Authority*

The SPCA should be amended to clarify the authorization of local governments to continue to use their existing appeals procedures for civil penalty assessments. One administrative law judge has ruled that the SPCA requires that the Office of Administrative Hearings must handle all appeals. However, G.S. 150B-2 (1a) states that “A local unit of government is not an agency,” as defined in the Administrative Procedures Act. In 2008, House Bill 2506 sought to clarify the appeals procedures for local sedimentation programs, but did not advance. Reintroduction and adoption of a bill to clarify the appeals procedure for local governments is recommended.

### *Performance Bonds*

Problems continue with bankrupt and abandoned projects being left unstabilized and eroding on to adjacent properties and into waters of the state. When this occurs no money is available to provide adequate groundcover to stop the erosion, which in some cases causes severe damage to adjacent property or waters of the state. Nine local governments have erosion and sedimentation control ordinances that require the posting of a bond for land-disturbing activity. Local governments with bond requirements for development have been able to stabilize abandoned developments. Forfeited reclamation bonds and securities have allowed them to establish adequate groundcover on abandoned developments.

It is recommended that the Sedimentation Control Commission be given statutory authority to adopt rules for bonding of land-disturbing activity. Initially, a bond should be required on projects involving 20 acres or more of land-disturbing activity. The potential environmental damage from an abandoned site increases with the size of the area left bare and eroding. The bonding would target larger projects that have the most potential for sediment loss and not place a financial burden on small projects. The amount of the bond should be based on the disturbed acreage and the cost of stabilizing the site with permanent groundcover. The authority for the Commission to require a bond on smaller projects in sensitive watersheds, where sediment could substantially damage the water resource, should also be considered. Currently mining activities are bonded in North Carolina. Reclamation costs for abandoned development are comparable to those for a soil mine, which requires a bond of \$2,000 per acre for grading and establishment of permanent ground cover.

### *Funding Levels*

As stated earlier, the number of new projects approved during the past fiscal year continued to decline, as did the program’s staffing levels, as a result of the continued downturn in development activity. However, the total number of projects still open and requiring inspections did not decline in a similar fashion. Construction projects have proceeded at a slower pace or have been abandoned before final stabilization. Projects that have limited financial resources or have been abandoned still require continued inspections by Land Quality Section staff.

Many residential subdivisions were abandoned before completion, without sufficient storm drainage facilities or groundcover to prevent soil erosion. The consequence has been that many bare sites have

been left exposed to the rain and wind. Stormwater runoff is often concentrated by graded roadbeds, but is not conveyed in a stable manner by storm drains or permanent channels. The result is deep gully erosion of the roadbeds, fill slopes and unstable ditches, causing significant impacts to the environment and safety of citizens. Dramatic collapse of slopes and failure of erosion and sedimentation control measures due to lack of maintenance eventually leads to sediment overflows into streams.



*Abandoned subdivisions with slope stability issues and slopes causing offsite sedimentation.*

Additional staff time is required to meet and negotiate with developers and banking institutions to ensure that sufficient funds are spent to address severe erosion and sedimentation problems. In some cases, staff has prepared documentation for the Attorney General's Office to present in Federal Bankruptcy Court, to persuade the Court to fund at least temporary site stabilization. Division staff must address sites that have limited available funds, or are in foreclosure or bankruptcy. These projects take time and staff resources away from other active construction projects across the state.

At the current time, more than 8,000 open construction projects require inspection by approximately 14 full-time equivalent (FTE) Land Quality Section sediment inspection positions (more than 570 open projects per FTE).

NCGS 113A-54.2 establishes a fee to cover administrative and personnel costs incurred by the department for the review of erosion and sedimentation control plans and for related compliance activities statewide, including technical assistance to the regulated community and oversight of delegated local programs. According to the EPA, sedimentation is the No. 1 pollutant by volume to the waters of the state and the nation. DENR's Strategic Goal No. 1: Sustaining Water for the Future targets reducing pollution from non-point sources through implementation of stormwater programs and an increased emphasis on inspections and enforcement within the Erosion and Sedimentation Control Program. As noted above, there are, on any given day, approximately 8,000 open land disturbance sites that could have offsite sedimentation in North Carolina. These sites should be inspected at least monthly according to the recommendation of the Sedimentation Control Commission. Currently, these sites are being inspected on the average once every 14 months.

By increasing the current fee from \$65/disturbed acre to \$170/disturbed acre (the median fee of current delegated local programs), the division would be able to fill its currently vacant sediment plan reviewer and inspector positions, increase its frequency of inspections, provide more timely technical assistance to designers and developers, and improve interaction with delegated local programs by providing timely feedback on existing programs and promoting new delegated programs.