

**Report to the Environmental Review Commission  
and Fiscal Research Division of the N.C. General Assembly  
on the Community Conservation Assistance Program**



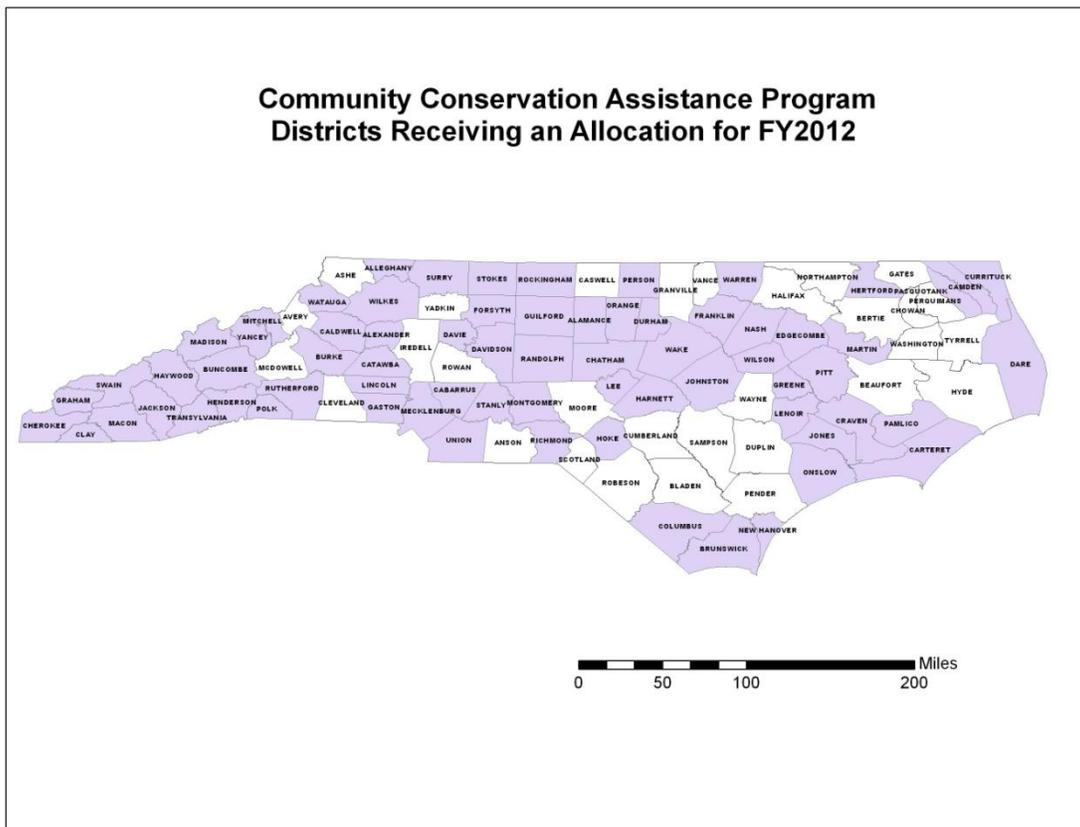
**FISCAL YEAR 2012 ANNUAL REPORT  
January 2013**

General Statute 143-215.74M(e) of Session Law 2006-78 mandates that the Soil and Water Conservation Commission report to the Environmental Review Commission and the Fiscal Research Division a summary of the Community Conservation Assistance Program (herein referred to as CCAP) annually. The purpose of CCAP is to reduce the delivery of nonpoint source (NPS) pollution into the waters of the State by installing best management practices (BMPs) on developed lands, not directly involved in agricultural production. Through this voluntary, incentive-based conservation program, landowners are provided educational, technical and financial assistance.

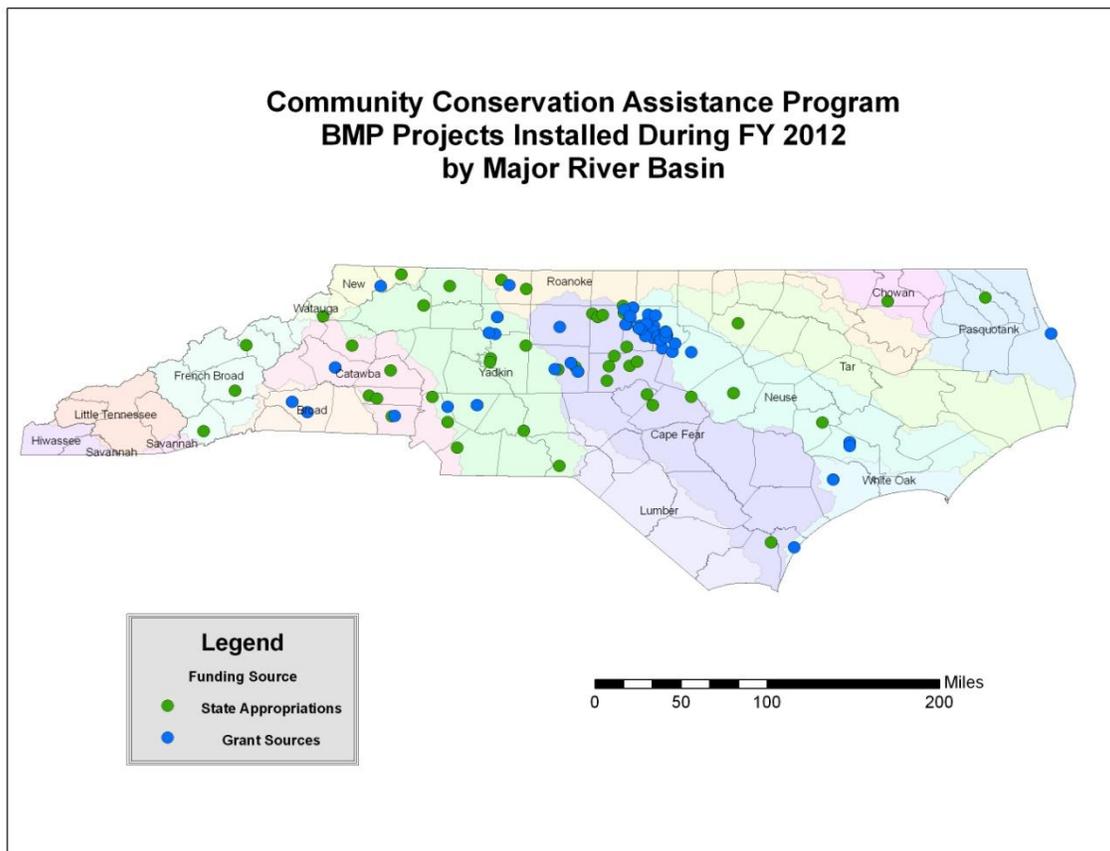
Eligible landowners, including homeowners, businesses, schools, parks, churches, and others, may be reimbursed up to 75 percent of the cost of retrofitting BMPs. Soil and Water Conservation Districts (districts) provide educational services to local governments and the public and direct technical and financial assistance to property owners. The Soil and Water Conservation Commission administers the program through the Division of Soil and Water Conservation. CCAP BMPs include: abandoned well closures, backyard rain gardens, backyard wetlands, bioretention areas, cisterns, critical area plantings, diversions, grassed swales, impervious surface conversions, marsh sills, permeable pavement, pet waste receptacles, riparian buffers, stormwater wetlands, stream restoration, stream and shoreline protection, and structural stormwater conveyance. During PY2012, the CCAP Advisory Committee utilized the technical skills of its members to develop additional design tools and maintenance plans for various BMPs. More information regarding CCAP BMPs can be found in Appendix A.

During Fiscal Year (FY) 2012 the Division of Soil and Water Conservation received recurring appropriated funds for CCAP in the amount of \$200,000. A portion of these funds support a full-time permanent employee to coordinate the program and administer the funds for program implementation. To maintain technical assistance positions in two active CCAP counties, a portion of these funds was used to provide technical assistance cost share funding in the amount of \$23,958. The remainder of the state appropriations was allocated to local districts for BMP installation. At their August 16, 2011 meeting, the Soil and Water Conservation Commission allocated \$212,651 to be distributed to interested districts according to the parameters outlined in 02 NCAC 59H .0103. The districts that received an allocation of CCAP state funds in FY2012 are displayed in Figure 1 below.

Figure 1: Soil and Water Conservation Districts Receiving CCAP State Appropriated Funds in FY2012



In addition to the State appropriation, unencumbered BMP implementation grant funds were allocated to participating districts. The funding sources for these grants include the NC Environmental Enhancement Grant Program, US EPA Section 319 Clean Water Act Program, and the Clean Water Management Trust Funds. These funds, in combination with the recurring state appropriation, allowed this program to address water quality concerns and reach citizens across the state.



Significant advancements in program development and project installations were seen during this fifth program year.

Program highlights and accomplishments in FY2012 include the following:

- The CCAP Advisory Committee met quarterly during FY2012 to provide oversight and technical review of the program. This group was active in improving program policies, promoting partnership involvement, and recommending new BMPs for adoption. The membership of the CCAP Advisory Committee, as described in § 106-860, is shown in Appendix B.
- Guidance documents, including operation and maintenance plans for critical area planting were developed.
- A grant was awarded by the Environmental Enhancement Grant Program for \$125,000 benefitting 20 districts.
- 165 project contracts were submitted to encumber \$485,420 and \$176,481 was expended on completed BMP projects exclusive of staff time and overhead, using both state appropriations and grant funds.

## ATTACHMENT 8

BMPs installed in FY2012 from all funding sources are included in the chart below:

| CCAP BMP                            | Measurement | Units  |
|-------------------------------------|-------------|--------|
| Abandoned Well Closure              | Units       | 49     |
| Backyard Rain Garden                | Square Feet | 1,922  |
| Bioretention Area                   | Square Feet | 25,148 |
| Cistern                             | Units       | 24     |
| Critical Area Planting              | Square Feet | 37,937 |
| Grassed Swale                       | Square Feet | 22,095 |
| Impervious Surface Conversion       | Square Feet | 5,008  |
| Permeable Pavement                  | Square Feet | 6,708  |
| Pet Waste Receptacle                | Units       | 58     |
| Stormwater Wetland                  | Square Feet | 1,795  |
| Streambank And Shoreline Protection | Feet        | 1,682  |

- Pictures of selected BMPs are included in Appendix C.
- CCAP contracts encumbered using state funds are listed in Appendix D.
- The job approval authority process continued to be improved and implemented to ensure district employees are certified to design and approve installation of CCAP BMPs. To date, 46 district employees have CCAP job approval authority for select conservation practices.

The N.C. Community Conservation Assistance Program is securing a future for Soil and Water Conservation Districts as North Carolina's landscape, community and pollutant sources change. Demand for the program from districts across the state continues to exceed the current funding. During FY2012, over \$2.3 million was requested from the 71 participating districts.

Many existing water quality initiatives are geared towards new construction, such as Low Impact Development, the State's Erosion and Sediment Control statute, and design standards. CCAP is unique, in that it is a retrofit only program. The results illustrate the important accomplishment of the General Assembly in creating the only state-wide program that addresses non-point water pollution sources from already developed areas. In addition, CCAP will be a cost effective mechanism for implementing the Falls Lake and Jordan Lake Existing Development Rules.

Future program recommendations include:

- Increasing program funding to accommodate the existing project needs
- Increasing technical assistance funding to support district staff
- Increasing funding to provide additional engineering support
- Expanding the water quality benefits tool to measure the impact of all BMPs in reducing stormwater conveyed pollutants
- Continuing training on BMP design and installation
- Expanding outreach efforts and distribution of materials statewide
- Expanding efforts by the CCAP Advisory Committee to increase program recognition and support through partnership opportunities
- Updating program policies and BMP design tools

- Revising program and design manuals to ensure consistency

For more information on the CCAP, please refer to the appendices:

- Appendix A: CCAP PY2012 Detailed Implementation Plan
- Appendix B: CCAP Advisory Committee members
- Appendix C: Photographs of selected projects completed during PY2012
- Appendix D: Summary of all state funded CCAP contracts in FY2012

**Appendix A: Community Conservation Assistance Program Detailed Implementation Plan:  
Program Year 2012**

All practices defined below are to be maintained by the landowner of a single-family residence for a five-year period; all other types of properties are to be maintained by the landowner for a 10-year period.

**Definition of Practices**

- (1) Abandoned well closure is the sealing and permanent closure of a supply well no longer in use. This practice serves to prevent entry of contaminated surface water, animals, debris or other foreign substances into the well. It also serves to eliminate the physical hazards of an open hole to people, animals and machinery.
- (2) Bioretention area is the use of plants and soils for removal of pollutants from stormwater runoff. Bioretention can also be effective in reducing peak runoff rates, runoff volumes and recharging groundwater by infiltrating runoff. Bioretention areas are intended to treat impervious surface areas of greater than 2500 ft<sup>2</sup>.
- (3) A backyard rain garden is a shallow depression in the ground that captures runoff from a driveway, roof, or lawn and allows it to soak into the ground, rather than running across roads, capturing pollutants and delivering them to a stream. Backyard rain gardens are intended to treat impervious surface areas of less than 2500 ft<sup>2</sup>.
- (4) Stormwater wetland means a constructed system that mimics the functions of natural wetlands and is designed to mitigate the impacts of stormwater quality and quantity. Stormwater wetlands are intended to treat impervious surface areas of greater than 2500 ft<sup>2</sup>.
- (5) Backyard wetlands are constructed systems that mimic the functions of natural wetlands. They can temporarily store, filter and clean runoff from driveways, roofs and lawns, and thereby improve water quality. The wetland should be expected to retain water or remain saturated for two to three weeks. Backyard wetlands are intended to treat impervious surface areas of less than 2500 ft<sup>2</sup>.
- (6) A cistern is a system of collection and diversion practices to prevent stormwater from flowing across impervious areas, collecting sediment and reaching the storm drains. Benefits may include the reduction of stormwater runoff thereby reducing the opportunity for pollution to enter the storm drainage system.
- (7) A critical area planting means an area of highly erodible land, which cannot be stabilized by ordinary conservation treatment on which permanent perennial vegetative cover is established and protected to improve water quality. Benefits may include reduced soil erosion and sedimentation and improved surface water quality.
- (8) A diversion means a channel constructed across a slope with a supporting ridge on the lower side to control drainage by diverting excess water from an area to improve water quality.

- (9) A grassed swale consists of a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff to improve water quality. Benefits may include reduced soil erosion, and sedimentation and improve the quality of surface water pollution from dissolved and sediment-attached substances.
- (10) Impervious surface conversion means the removal of impenetrable materials such as asphalt, concrete, brick and stone. These materials seal surfaces, repel water and prevent precipitation from infiltrating soils. Removal of these impervious materials, when combined with permeable pavement or vegetation establishment, is intended to reduce stormwater runoff rate and volume, as well as associated pollutants transported from the site by stormwater runoff.
- (11) Permeable pavement means materials that are designed to allow water to flow through them and thus reduce the imperviousness of traffic surfaces, such as patios, walkways, sidewalks, driveways and parking areas.
- (12) A pet waste receptacle means a receptacle designed to encourage pet owners to pick up after animals in parks, neighborhoods and apartment complexes so as to prevent waste from being transported off-site by stormwater runoff.
- (13) A riparian buffer means an area adjacent to a stream where a permanent, long-lived vegetative cover (sod, shrubs, trees or a combination of vegetation types) is established to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate and sediment-attached substances.
- (14) A stream restoration system means the use of bioengineering practices, native material revetments, channel stability structures and/or the restoration or management of riparian corridors to protect upland BMPs, restore the natural function of the stream corridor and improve water quality by reducing sedimentation to streams from streambanks.
- (15) Streambank and shoreline protection means the use of vegetation to stabilize and protect banks of streams, lakes, estuaries or excavated channels against scour and erosion.
- (16) Marsh Sills protect estuarine shorelines from erosion, combining engineered structures with natural vegetation to maintain, restore, or enhance the shoreline's natural habitats. A sill is a coast-parallel, long or short structure built with the objective of reducing the wave action on the shoreline by forcing wave breaking over the sill. Sills are used to provide protection for existing coastal marshes, or to retain sandy fill between the sill and the eroding shoreline, to establish suitable elevations for the restoration or establishment of coastal marsh and/or riparian vegetation.

**Appendix B: Community Conservation Assistance Program Advisory Committee,  
Program Year 2012**

The Community Conservation Assistance Program Advisory Committee was established to assist with the development and implementation of the NC Community Conservation Assistance Program (CCAP). Following the appropriation of State funds, the purpose of the CCAP Advisory Committee expanded to include reviewing best management practices (BMPs) and making recommendations to the Soil and Water Conservation Commission. In addition to the continual review of current program BMPs, the Advisory Committee focuses on the consideration of potential new BMPs and improving the technical aspects program.

The Advisory Committee consists of the following members:

1. The Director of the Division of Soil and Water Conservation or the Director's designee, who shall serve as the Chair of the Advisory Committee.
2. The President of the North Carolina Association of Soil and Water Conservation Districts or the President's designee.
3. The Director of the Cooperative Extension Service at North Carolina State University or the Director's designee.
4. The Executive Director of the North Carolina Association of County Commissioners or the Executive Director's designee.
5. The Executive Director of the North Carolina League of Municipalities or the Executive Director's designee.
6. The State Conservationist of the Natural Resources Conservation Service of the United States Department of Agriculture or the State Conservationist's designee.
7. The Executive Director of the Wildlife Resources Commission or the Executive Director's designee.
8. The President of the North Carolina Conservation District Employees Association or the President's designee.
9. The President of the North Carolina Association of Resource Conservation and Development Councils or the President's designee.
10. The Director of the Division of Water Quality or the Director's designee.
11. The Director of the Division of Forest Resources or the Director's designee.
12. The Director of the Division of Land Resources or the Director's designee.
13. The Director of the Division of Coastal Management or the Director's designee.
14. The Director of the Division of Water Resources or the Director's designee.
15. The President of the Carolinas Land Improvement Contractors Association or the President's designee.

**Appendix C – Photographs of CCAP Best Management Practices**



*Catawba County – cistern system at municipal building*



*Permeable pavement – Jones County*



*Before – stream stabilization project Caldwell County*



*After – stream stabilization project Caldwell County*



*Stormwater wetland – New Hanover County*



*Grassed swale – Wake County*

Appendix D  
CCAP FY2012 Contracts Funded by State Appropriations

| <b>County</b> | <b>Contract Number</b> | <b>Best Management Practice Name</b> | <b>Contract Amount</b> |
|---------------|------------------------|--------------------------------------|------------------------|
| Alamance      | 01-2012-501            | Abandoned Well Closure               | \$1,000                |
| Alamance      | 01-2012-502            | Abandoned Well Closure               | \$819                  |
| Alamance      | 01-2012-504            | Abandoned Well Closure               | \$214                  |
| Alamance      | 01-2012-508            | Abandoned Well Closure               | \$1,000                |
| Brunswick     | 10-2012-501            | Cistern                              | \$4,042                |
| Buncombe      | 11-2012-502            | Grassed Swale                        | \$1,034                |
| Buncombe      | 11-2012-503            | Grassed Swale                        | \$1,034                |
| Buncombe      | 11-2012-504            | Critical Area                        | \$2,119                |
| Burke         | 12-2012-521            | Streambank And Shoreline Protection  | \$4,133                |
| Cabarrus      | 13-2012-501            | Stormwater Wetland                   | \$1,811                |
| Cabarrus      | 13-2012-503            | Critical Area                        | \$4,348                |
| Caldwell      | 14-2012-514            | Streambank And Shoreline Protection  | \$864                  |
| Caldwell      | 14-2012-516            | Streambank And Shoreline Protection  | \$3,223                |
| Camden        | 15-2012-501            | Pet Waste Receptacle                 | \$997                  |
| Carteret      | 16-2012-600            | Marsh Sill                           | \$1,914                |
| Catawba       | 18-2012-501            | Cistern                              | \$1,567                |
| Catawba       | 18-2012-502            | Cistern                              | \$2,227                |
| Chatham       | 19-2012-502            | Grassed Swale                        | \$390                  |
| Chatham       | 19-2012-508            | Abandoned Well Closure               | \$2,250                |
| Chatham       | 19-2012-509            | Abandoned Well Closure               | \$375                  |
| Chatham       | 19-2012-510            | Abandoned Well Closure               | \$2,250                |
| Clay          | 22-2012-501            | Backyard Rain Garden                 | \$2,265                |
| Currituck     | 27-2012-501            | Marsh Sill                           | \$2,185                |
| Dare          | 28-2012-501            | Bioretention Area                    | \$8,827                |
| Davidson      | 29-2012-501            | Abandoned Well Closure               | \$1,200                |
| Davidson      | 29-2012-502            | Abandoned Well Closure               | \$1,200                |
| Davidson      | 29-2012-503            | Abandoned Well Closure               | \$1,050                |
| Davie         | 30-2012-501            | Abandoned Well Closure               | \$2,400                |
| Durham        | 32-2012-513            | Backyard Rain Garden                 | \$280                  |
| Durham        | 32-2012-523            | Cistern                              | \$2,167                |
| Durham        | 32-2012-525            | Backyard Rain Garden                 | \$2,501                |
| Durham        | 32-2012-529            | Cistern                              | \$1,458                |
| Forsyth       | 34-2012-503            | Streambank And Shoreline Protection  | \$7,970                |
| Franklin      | 35-2012-503            | Backyard Rain Garden                 | \$1,653                |
| Gaston        | 36-2012-513            | Stormwater Wetland                   | \$4,506                |
| Guilford      | 41-2012-501            | Cistern                              | \$1,714                |
| Harnett       | 43-2012-505            | Abandoned Well Closure               | \$750                  |
| Harnett       | 43-2012-506            | Abandoned Well Closure               | \$750                  |
| Harnett       | 43-2012-507            | Abandoned Well Closure               | \$750                  |
| Haywood       | 44-2012-501            | Riparian Buffer                      | \$3,261                |
| Henderson     | 45-2012-501            | Streambank And Shoreline Protection  | \$4,325                |
| Hertford      | 46-2012-501            | Abandoned Well Closure               | \$750                  |
| Hertford      | 46-2012-502            | Abandoned Well Closure               | \$750                  |
| Jackson       | 50-2012-501            | Pet Waste Receptacle                 | \$2,375                |

Appendix D  
CCAP FY2012 Contracts Funded by State Appropriations

|              |             |                        |         |
|--------------|-------------|------------------------|---------|
| Johnston     | 51-2012-501 | Cistern                | \$2,493 |
| Jones        | 52-2012-501 | Permeable Pavement     | \$900   |
| Lincoln      | 55-2012-503 | Stream Restoration     | \$4,065 |
| Macon        | 56-2012-501 | Cistern                | \$1,857 |
| Madison      | 57-2012-501 | Pet Waste Receptacle   | \$1,947 |
| Mecklenburg  | 60-2012-501 | Bioretention Area      | \$1,805 |
| Mitchell     | 61-2012-501 | Stream Restoration     | \$2,265 |
| Moore        | 63-2012-501 | Abandoned Well Closure | \$1,350 |
| Moore        | 63-2012-502 | Abandoned Well Closure | \$1,350 |
| Moore        | 63-2012-503 | Abandoned Well Closure | \$675   |
| Nash         | 64-2012-502 | Stormwater Wetland     | \$3,997 |
| New Hanover  | 65-2012-503 | Grassed Swale          | \$4,620 |
| Onslow       | 67-2012-502 | Cistern                | \$1,349 |
| Orange       | 68-2012-511 | Abandoned Well Closure | \$1,500 |
| Orange       | 68-2012-512 | Abandoned Well Closure | \$635   |
| Orange       | 68-2012-515 | Cistern                | \$1,000 |
| Orange       | 68-2012-517 | Abandoned Well Closure | \$338   |
| Orange       | 68-2012-522 | Abandoned Well Closure | \$345   |
| Orange       | 68-2012-524 | Abandoned Well Closure | \$975   |
| Pasquotank   | 70-2012-501 | Cistern                | \$2,969 |
| Polk         | 75-2012-502 | Stream Restoration     | \$1,703 |
| Randolph     | 76-2012-501 | Backyard Rain Garden   | \$362   |
| Randolph     | 76-2012-502 | Abandoned Well Closure | \$225   |
| Randolph     | 76-2012-503 | Riparian Buffer        | \$3,183 |
| Richmond     | 77-2012-501 | Abandoned Well Closure | \$1,500 |
| Rutherford   | 81-2012-504 | Stream Restoration     | \$3,893 |
| Stokes       | 85-2012-502 | Cistern                | \$1,719 |
| Stokes       | 85-2012-503 | Cistern                | \$839   |
| Surry        | 86-2012-501 | Pet Waste Receptacle   | \$1,256 |
| Surry        | 86-2012-502 | Abandoned Well Closure | \$1,500 |
| Swain        | 87-2012-502 | Stormwater Wetland     | \$2,808 |
| Transylvania | 88-2012-501 | Abandoned Well Closure | \$1,468 |
| Union        | 90-2012-501 | Abandoned Well Closure | \$110   |
| Wake         | 92-2012-501 | Grassed Swale          | \$246   |
| Wake         | 92-2012-502 | Grassed Swale          | \$3,051 |
| Wake         | 92-2012-503 | Grassed Swale          | \$4,886 |
| Watauga      | 95-2012-501 | Pet Waste Receptacle   | \$600   |
| Watauga      | 95-2012-502 | Pet Waste Receptacle   | \$2,502 |
| Wilkes       | 97-2012-501 | Cistern                | \$2,638 |
| Yadkin       | 99-2012-004 | Pet Waste Receptacle   | \$2,679 |
| Yancey       | 00-2012-501 | Cistern                | \$2,831 |