

## The Conservation District – Programs and Accomplishments

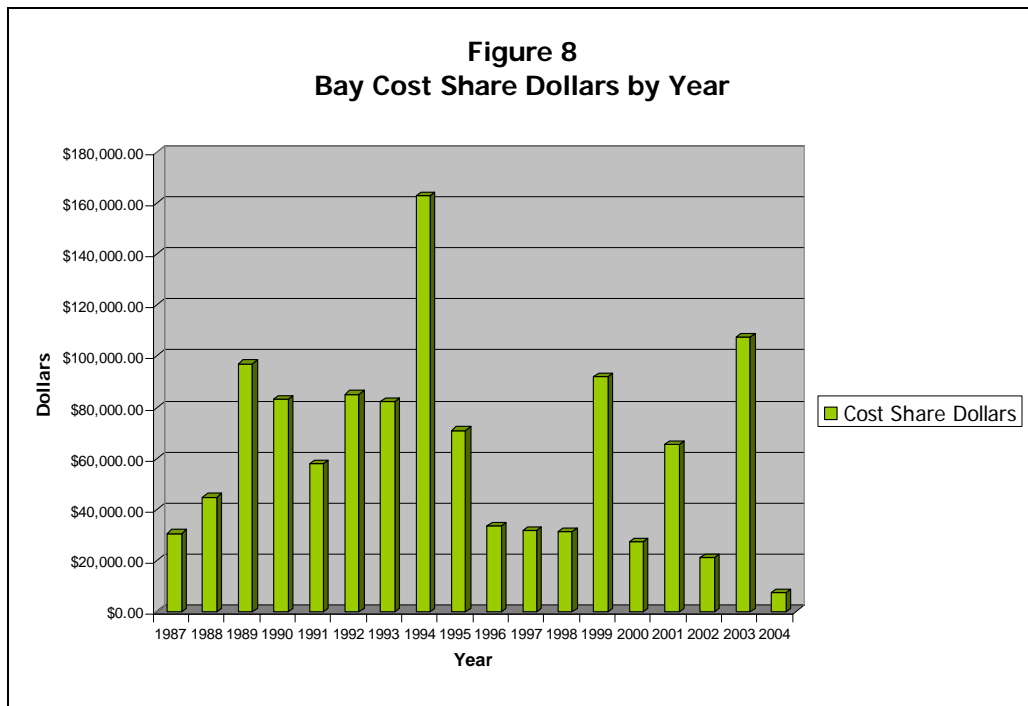
The Cumberland County Conservation District employs 8 full time staff members who are dedicated to "...minimizing the impact of human activities on and enhancing the natural resources of the county..." As previously mentioned, the District accomplishes this goal through a combination of laws and regulations, education, and cooperation with a variety of government agencies, organizations, and private individuals.

The Conservation District is very proud of their staff retention and experience levels. With the exception of the administrative support position, the shortest time a staff member has been with the District is nearly 4 years. The total combined years of staff experience with the Conservation District is 68 years, or an average of 8.5 years per person!

In short, staff members provide technical assistance and help to secure financial assistance for agricultural producers. A second major function of the staff is to oversee residential and commercial development in the County. These tasks are accomplished through a variety of programs which are summarized in this section.

### The Chesapeake Bay Program

The Cumberland County Conservation District has actively participated in the Pennsylvania Financial Assistance Funding Program (FAFP) since 1987. To date the FAFP, commonly know as the Bay Program, has helped landowners install over 1.2 million dollars worth of Best Management Practices designed to reduce nutrient and sediment pollution to local waterways and the Chesapeake Bay. Figure 8 tracks Bay dollars spent in Cumberland County since 1987:



Based on past Status reports received from the PA DEP, Cumberland County is consistently in the top ten counties in terms of Bay Dollars spent implementing BMPs. The average Cost Share dollars spent per year is just shy of \$62,000. With the exception of 1999 and 2003, this chart indicates a general decline in the number of dollars spent implementing BMPs in the last 8 years.

This is primarily due to decreased levels of funding in the Bay Program and not a decrease in the number of landowners needing assistance. Table 1 shows the number of designs completed by the Chesapeake Bay Engineer for Cumberland County since 1999 and the associated project costs. This table demonstrates there has been no drop off in the number of landowners needing assistance. Due to the lack of Bay Funding in recent years, many of these potential projects were funded through other programs. One of the primary programs Cumberland County has utilized since 2000 is the PA Nutrient Management Program.

**TABLE 1**

| <b>Bay Engineering 1999-2004</b> |             |             |             |             |             |              |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| <b>Designs</b>                   | <b>1999</b> | <b>2000</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b>  |
| 1                                | \$ 30,000   | \$ 8,000    | \$ 99,000   | \$ 40,000   | \$ 57,000   | \$ 88,000    |
| 2                                | \$ 36,000   | \$ 24,500   | \$ 49,500   | \$ 87,000   | \$ 25,000   | \$ 124,000   |
| 3                                | \$ 3,000    | \$ 99,000   | \$ 18,000   | \$ 59,000   | \$ 5,000    | \$ 97,500    |
| 4                                | \$ 54,000   | \$ 93,500   | \$ 54,000   | \$ 53,000   | \$ 32,700   | \$ 64,500    |
| 5                                |             |             | \$ 10,800   | \$ 172,000  | \$ 25,000   | \$ 50,000    |
| 6                                |             |             | \$ 80,800   | \$ 52,000   | \$ 16,000   | \$ 22,000    |
| 7                                |             |             | \$ 123,000  | \$ 23,500   | \$ 53,000   | \$ 160,000   |
| 8                                |             |             |             | \$ 15,700   | \$ 42,800   | \$ 22,850    |
| 9                                |             |             |             |             |             | \$ 144,000   |
| 10                               |             |             |             |             |             | \$ 84,500    |
| 11                               |             |             |             |             |             | \$ 70,000    |
| 12                               |             |             |             |             |             | \$ 23,000    |
| 13                               |             |             |             |             |             | \$ 300,000   |
| 14                               |             |             |             |             |             | \$ 80,000    |
| 15                               |             |             |             |             |             |              |
| <b>Total Costs</b>               | \$ 123,000  | \$ 225,000  | \$ 435,100  | \$ 502,200  | \$ 256,500  | \$ 1,330,350 |

### **Cumberland County Nutrient Management Program**

In 1997, the PA legislature approved the current Nutrient Management Rules and Regulations. One of the primary purposes of the Nutrient Management Act is "...to establish criteria, nutrient management planning requirements and an implementation schedule for the application of nutrient management measures on certain agricultural operations which generate or utilize animal manure." The Nutrient Management Act classifies operations as either Volunteers, Concentrated Animal Operations (CAOs), or Concentrated Animal Feeding Operations (CAFOs).

The Cumberland County Conservation District requires a Nutrient Management Plan written to the standards of the PA Nutrient Management Act for all agricultural landowners requesting financial and / or technical assistance. The Conservation District is responsible for reviewing all Nutrient Management Plans submitted and for inspecting operations with an approved Nutrient Management Plan. Additionally, three Conservation District staff members are approved to write Nutrient Management Plans for volunteer operations.

In 2000, the Nutrient Management Grant Program was initiated to encourage the development and implementation of nutrient plans and to assist landowners with the cost of implementing required BMPs. Under this program, landowners may receive up to \$75,000 of cost share funds at an 80% cost share rate. This program has been extremely successful in Cumberland County. In the past few years, many landowners who applied for Bay funding were turned down due to a lack of funds. The Nutrient Management Grant Program has provided many of these landowners

with another option to receive funding, and in many cases has resulted in successful project implementation.

### **Cumberland County Nutrient Management Activities Summary**

- Number of Nutrient Management Plan on File: 84
- Number of Concentrated Animal Operations: 13
- Number of Volunteer Animal Operations: 71
- Number of Plans Filed in 2004: 11
- Number of Applications filed to receive cost share funding under the program: 29
- Total Dollar Amount awarded in landowner contracts: \$953,430

### **Section 319 and Growing Greener Grant Funding**

In addition to the Bay Program and Nutrient Management Program, the Conservation District has utilized several additional grant programs to assist with the implementation of Ag BMPs. These programs include EPA's Section 319 Grant program and Pennsylvania's Growing Greener program. These two programs combined have assisted 21 different agricultural operations to the tune of \$577,523.

Additionally, in 2004 the Conservation District was awarded a \$35,000 Growing Greener Grant to assist agricultural operations in the Yellow Breeches watershed with the installation of Ag BMPs.

The Conservation District, in partnership with the Shippensburg State University and the USDA Natural Resources Conservation Service also performed a stream restoration project in 2002-2003. This project was funded through a Growing Greener Grant and will serve as an educational project for both Shippensburg University and the citizens of Cumberland County. Approximate \$116,000 was utilized at this site.

### Chapter 102, Erosion and Sediment Control

The Chapter 102 program continues to be one of the District's busiest programs. Both residential and commercial development pressure in the County remains strong. Table 2 summarizes E&S Activities since 1995:

**TABLE 2**

| <b>E&amp;S Plan Reviews and Acres 1995-2004</b>  |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| <b>Plan Reviews</b>  | 130  | 161  | 177  | 196  | 189  | 181  | 182  | 147  | 153  | 152  |
| <b>*Total Project Acres</b>  | 739  | 1145 | 2973 | 2823 | 2631 | 3497 | 2799 | 3417 | 2836 | 3426 |
| <b>Average Acres per Plan</b>  | 5.7  | 7.1  | 16.8 | 14.4 | 13.9 | 19.3 | 15.4 | 23.2 | 18.5 | 22.5 |
| <b>Number of Inspections Performed</b>   | 185  | 222  | 299  | 289  | 276  | 330  | 201  | 367  | 394  | 306  |
| <b>Number of Complaints Handled</b>  | 64   | 78   | 59   | 31   | 74   | 66   | 49   | 49   | 43   | 50   |
| <b>Number of Enforcement Actions</b>   |      | 1    | 0    | 2    | 0    | 2    | 2    | 4    | 1    | 5    |
| <b>General Permits Issued</b>  | 17   | 28   | 24   | 47   | 23   | 34   | 25   | 35   | 30   | 56   |
| <b>Individual Permits Issued</b>   | 10   | 14   | 14   | 4    | 6    | 4    | 2    | 2    | 7    | 3    |
| <b>Total Permits</b>   | 27   | 42   | 38   | 51   | 29   | 38   | 27   | 37   | 37   | 59   |
| *Total Project Acres shown for 1995 and 1996 is actually Total Disturbed Acres. No tracking system was in place at the time for "Total Project Acres". |      |      |      |      |      |      |      |      |      |      |
| Shaded Block indicate an unknown value.  |      |      |      |      |      |      |      |      |      |      |

### The Dirt and Gravel Road Program

Pennsylvania's Dirt & Gravel Road Maintenance Program is a pollution prevention program based on local control. Signed into law in April 1997, as Section 9106 of the PA Vehicle Code, the programs purpose is to fund safe, efficient and environmentally sound maintenance of dirt & gravel roads which have been identified as sources of dust & sedimentation pollution.

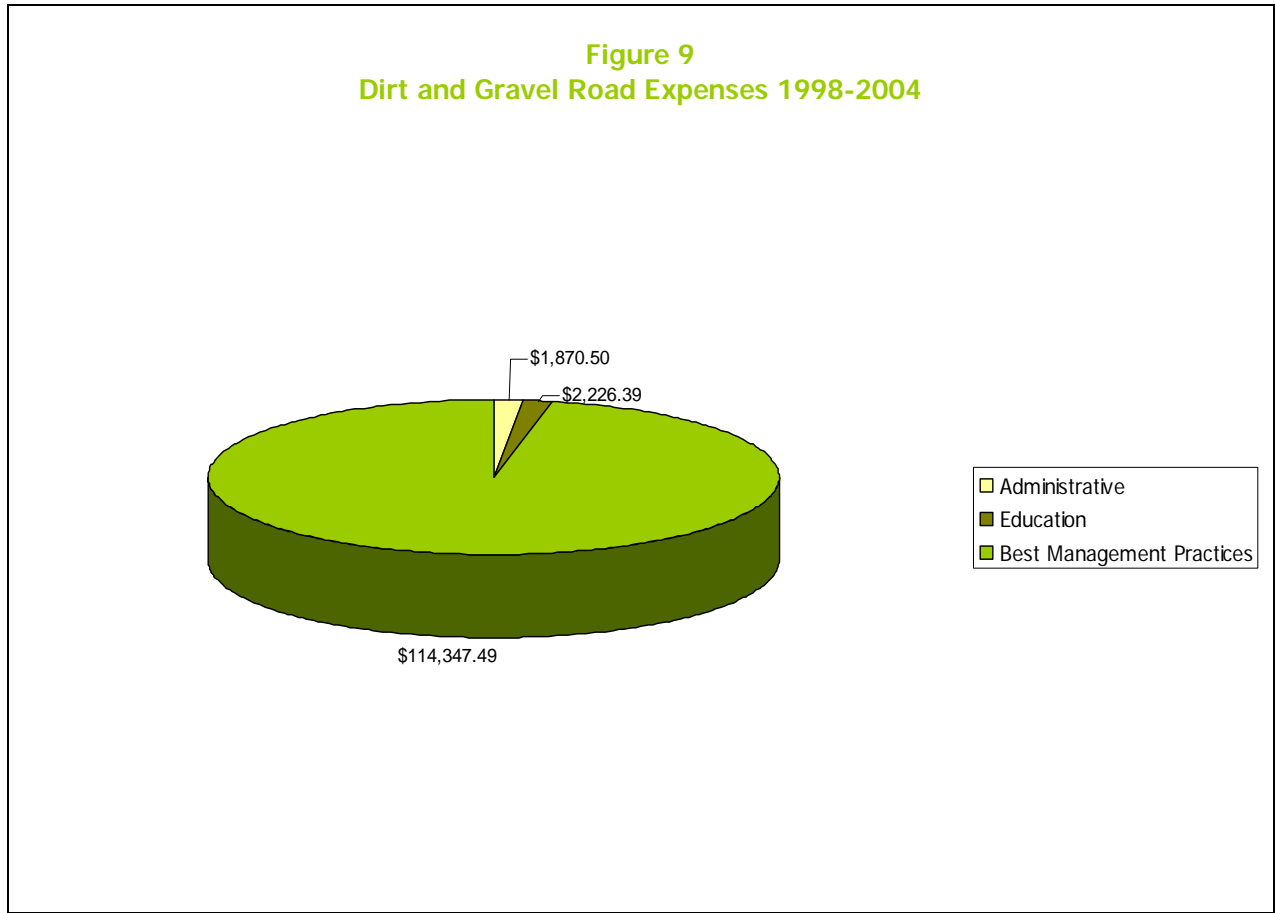
Relative to PA's northern counties, Cumberland County does not have a lot of Dirt and Gravel Roads. However, the Conservation District does actively participate in the program and assists municipalities with the implementation of the program.

Table 3 illustrates Dirt and Gravel Road Expenses from 1998-2004:

#### TABLE 3

| <b>Dirt and Gravel Road Program - Record of Expenditures and BMPs Installed</b> |             |                     |                    |                      |                      |                     |                    |                      |        |                 |            |                    |                      |                     |                  |       |
|---|-------------|---------------------|--------------------|----------------------|----------------------|---------------------|--------------------|----------------------|--------|-----------------|------------|--------------------|----------------------|---------------------|------------------|-------|
| Project Date  | Length (ft) | Municipality        | Total Expenditures | In Kind Contribution | Outlet Stabilization | Ditch Stabilization | Bank Stabilization | Stream Stabilization | Fabric | Stream Culverts | Cross Pipe | Road Stabilization | Vegetative Plantings | Culvert Length (ft) | Pipe Length (ft) | Base  |
| Oct-01  | 536.00      | UPPER FRANKFORD     | 4386.52            | 1471.00              | 0                    | 50                  | 0                  | 0                    | 0      | 0               | 2          | 0                  | 0                    | 0                   | 66               | 0     |
| Nov-01  | 439.00      | PENN                | 7870.75            | 874.53               | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 2          | 0                  | 0                    | 0                   | 40               | 0     |
| Nov-01  | 496.00      | COOKE               | 5500.00            | 566.45               | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 2          | 0                  | 0                    | 0                   | 40               | 0     |
| Nov-04  | 634.00      | COOKE               | 2398.62            | 842.00               | 200                  | 1000                | 0                  | 0                    | 0      | 0               | 3          | 0                  | 0                    | 0                   | 60               | 0     |
| Nov-99  | 270.00      | COOKE               | 1150.72            | 480.00               | 0                    | 0                   | 0                  | 500                  | 0      | 0               | 0          | 750                | 500                  | 0                   | 0                | 0     |
| Nov-00  | 844.00      | DICKINSON           | 4753.17            | 0.00                 | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 1          | 17000              | 0                    | 0                   | 40               | 0     |
| Nov-01  | 2074.00     | SOUTH NEWTON        | 9470.90            | 0.00                 | 0                    | 500                 | 400                | 0                    | 0      | 0               | 360        | 0                  | 0                    | 0                   | 0                | 0     |
| Oct-02  | 5269.00     | UPPER MIFFLIN       | 5642.14            | 1181.35              | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 4          | 84000              | 0                    | 0                   | 120              | 84000 |
| Nov-00  | 6105.00     | SOUTH MIDDLETON     | 7820.09            | 0.00                 | 500                  | 500                 | 0                  | 0                    | 800    | 0               | 2          | 0                  | 0                    | 0                   | 60               | 0     |
| Nov-00  | 437.00      | NEWVILLE            | 1049.22            | 0.00                 | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 1          | 5000               | 0                    | 0                   | 20               | 0     |
| Dec-01  | 1747.00     | MOUNT HOLLY SPRINGS | 4820.00            | 493.56               | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 9          | 0                  | 0                    | 0                   | 290              | 0     |
| May-01  | 3029.00     | SILVER SPRING       | 12029.25           | 0.00                 | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 0          | 0                  | 0                    | 0                   | 0                | 0     |
| Mar-01  | 2888.00     | SILVER SPRING       | 6926.75            | 0.00                 | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 0          | 26370              | 0                    | 0                   | 0                | 0     |
| Oct-02  | 3051.00     | UPPER FRANKFORD     | 789.36             | 0.00                 | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 1          | 0                  | 0                    | 0                   | 32               | 0     |
| Dec-02  | 2074.00     | SOUTH NEWTON        | 19500.00           | 1178.10              | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 0          | 30000              | 0                    | 0                   | 0                | 0     |
| Dec-03  | 3051.00     | UPPER FRANKFORD     | 15000.00           | 7791.16              | 0                    | 0                   | 0                  | 0                    | 0      | 0               | 0          | 38016              | 0                    | 0                   | 0                | 0     |
| Sep-04  | 1508.00     | PENN                | 3100.00            | 2768.73              | 50                   | 0                   | 0                  | 0                    | 0      | 0               | 9          | 0                  | 0                    | 0                   | 280              | 0     |
| Aug-04  | 496.00      | COOKE               | 2140.00            | 996.28               | 500                  | 2000                | 0                  | 0                    | 0      | 0               | 8          | 0                  | 0                    | 0                   | 160              | 0     |

Figure 9 Summarizes Expenses in the program from 1998 through 2004:



### **Environmental Education and Events**

The Cumberland County Conservation District also oversees several other events to promote environmental education and awareness throughout the County. "Education" is mentioned in the District's mission statement and will continue to be emphasized in all of the District programs. Some of these events include:

- Annual District Tree Sale – The Conservation District holds an annual tree sale for the citizens of Cumberland County. Currently, approximately 20,000 trees are being sold each year at discounted prices. This event helps promote environmental awareness, improves landscape aesthetics throughout the County, and helps to raise funds for Environmental Education and programs.
- Rain Barrel Project – The Conservation District received a PACD Chesapeake Bay Education Mini Grant which enabled a Rain Barrel Project to be initiated. The District partnered with a local school to help assemble the rain barrels and to promote water conservation. The barrels were then offered at a discounted price to local citizens in order to promote water conservation. To date, approximately 175 barrels have been distributed. Due to the success of the program, the Conservation District hopes to continue it for several years to come.

- County Envirothon – Each year, approximately 115 high school students participate in the County Envirothon, an environmental competition designed to promote environmental awareness.
- Farmer Field Days – The District attempts to host a Farmer Field Day on an annual or semi-annual basis dependent upon funding. The field day is intended to educate area producers on the latest environmental issues facing the Ag community. Common topics include regulatory issues, nutrient management, conservation planning, and best management practice technology. This event serves as a great forum for farmer education and a great way to build relationships in the Ag Community.

The previous list does not include all the education outreach events, visits, and programs conducted by the Conservation District. District staff speaks at workshops, county meetings, partnering agency and organization meetings, and general public meetings. The Conservation District is continually searching for new ways to educate the farming community, contractors, and the general public. Educational outreach will play a vital role in the County's Bay Strategy. Due to the promotion of new BMPs and the decrease of cost share dollars, District Bay Technicians can expect the scope of their work to change to some extent, with greater emphasis placed on educational outreach!

**Chesapeake Bay Program 2002 Credited Practices**  
**Cumulative Total of Practices Reported from 1985 – 2002**

Table 4 details Cumberland Counties BMP accomplishments as reported to the Department from 1985 through 2002. This table includes only those practices for which a reporting system existed. The table does not include all accomplishments and may not include partnering agency or private party accomplishments for the time period.

**TABLE 4**

| <b>Practice</b>                         | <b>Units</b> | <b>Cumberland</b> |
|---|--------------|-------------------|
| Abandoned Mine Reclamation              | Acres        | 218               |
| Animal Waste Management                 | AEUs         | 22,297            |
| Conservation Plans                      | Acres        | 50,132            |
| Conservation Tillage                    | Acres        | 34,305            |
| Erosion and Sediment Control            | Acres        | 1,344             |
| Forest Buffers                          | Acres        | 119               |
| Grass Buffers                           | Acres        | 6                 |
| Land Retirement                         | Acres        | 3,556             |
| Nutrient Management                     | Acres        | 56,771            |
| Off-stream Watering With Stream Fencing | Acres        | 560               |
| Off-stream Watering Without Fencing     | Acres        | 57                |
| Rotational Grazing                      | Acres        | 266               |
| Septic Connections                      | EDUs         | 2,002             |
| Tree Planting                           | Acres        | 629               |
| Wetland Restoration                     | Acres        | 26                |