



KENT  
CONSERVATION  
DISTRICT

*"Total Conservation Management"*

**2004**

**ANNUAL REPORT**

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## **MISSION STATEMENT**

Kent Conservation District's Mission is to put each acre of land to the use for which it is best suited and to economically develop and improve our environment to the highest potential according to sound planning and conservation practices.

# **KENT CONSERVATION DISTRICT**

## **BOARD OF SUPERVISORS**

Robert A. Killen  
Chairman

Edwin J. Alexander  
Vice-Chairman

Frederick T. Mott  
Treasurer

Gordon Johnson  
Secretary

Harold J. Peterman  
Levy Court Representative

Alfred M. Moor, III  
Member

Bruce Snow  
Member

Terry L. Pepper  
Member

Barbara M. Reed  
Member

Bruce L. Carlson  
Associate Member

Elesa Cottrell  
Associate Member

## **DISTRICT STAFF**

Timothy M. Riley  
District Coordinator

Michelle V. Jacobs  
Administrative Manager

Gayle R. Wills  
Accountant

Glenda L. Kohout  
Administrative Assistant

Beverly Brandt  
Receptionist

Jared C. Adkins  
S&S Program Manager/Engineer

David C. Cahill  
Engineering Inspector

Gene A. Mullen  
Engineering Inspector

Jim Elliott  
Engineering Inspector

Bill Tanner  
Engineering Inspector

Rodney L. Morehart  
Conservationist

Paula Long  
Conservationist

John Bushey  
Conservationist

Gene Vanderwende  
Survey Technician

Wayne Wheeler  
Drainage Technician

T. Townsend Yerkes  
Equipment Foreman/Operator

John W. Lucks  
Equipment Operator

Ronald S. Argo  
Equipment Operator

## **USDA NATURAL RESOURCES CONSERVATION SERVICE**

### **DOVER FIELD OFFICE STAFF**

Thomas A. Wiltbank  
District Conservationist

Douglas V. Mosley  
Soil Conservation Technician

Richard P. Gorlich  
Agricultural Engineer

Janice B. Pertruzzi  
Conservationist

Jayne Arthurs  
Conservationist



# NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

The District's cooperators were well represented in the form of Board Members in attendance at the National Association of Conservation Districts (NACD) Annual Meeting on the Big Island of Hawaii. Those in attendance included: Robert Killen, Edwin Alexander, Jack Peterman, Bruce Snow, Terry Pepper, and Barbara Reed. Also attending were Timothy Riley, District Coordinator, and Michelle Jacobs, Administrative Manager. Later in the year, Robert Killen, Edwin Alexander, Fred Mott, Jack Peterman and Michelle Jacobs represented the District at the NACD Northeastern Regional Meeting, which was held in Burlington, Vermont.

## KENT COUNTY STATISTICS

Kent County has a population of approximately 126,697. The land use of the county, as reported (Revised 1997) by the Delaware Office of State Planning Coordination, is documented below:

Category	Acres
Agriculture	187,152
Wetlands	97,602
Forest	39,386
Urban/Residential	34,710
Water	9,251
Transportation/ Government/Utility	5,637
Commercial	4,662
Unknown Use	4,533

## COOPERATING LANDOWNERS

2203 cooperators representing approximately 48% of the land area of Kent County, Delaware.

## ADMINISTRATIVE GUIDANCE

is received from the Delaware Department of Natural Resources and Environmental Control's Division of Soil and Water Conservation (DNREC-S&W).

## TECHNICAL SERVICES

are provided to our District by the United States Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS) and DNREC-S&W through respective working agreements.

## PROGRAM DIRECTION

and priorities are determined by the elected and appointed District Supervisors in conjunction with the District's Annual Plan of Work.

## DELAWARE CONSERVATION PARTNERSHIP

USDA, Natural Resources Conservation Service

USDA, Farm Services Agency

DNREC, Division of Soil & Water Conservation

Delaware Department of Agriculture

Delaware Association of Conservation Districts

University of Delaware Cooperative Extension Service

*Assistance provided is available to all eligible applicants without discrimination.*



**PUBLIC FUNDS**

The USDA's Natural Resources Conservation Service and Farm Services Agency provided technical and financial assistance through a cost-sharing program to cooperating landowners for conservation practices. Cost-sharing through the Environmental Protection Agency (EPA) enabled the District to continue work toward the reduction of non-point source pollution (NPS). Funding from the State of Delaware and Kent County Levy Court allowed the continuation of the community drainage program and resource development.

**FINANCIAL ASSISTANCE**

**State Revolving Loan Fund Program**

The State Revolving Loan Fund (SRF) Program is designed to provide low-interest financing at 3% for the implementation of best management practices. Cooperators were assisted in the SRF application process on the following projects:

- 1 - Poultry Manure Structure
- 1 - Dead Bird Composter
- 2 - Front-End Loaders
- 2 - Manure Spreaders

**Environmental Quality Incentive Program (EQIP)**

This money was used for cost-share on water quality practices listed below:

Nutrient Management	5,674	Ac.
Pest Management	5,993	Ac.
Waste Utilization	1,487	Ac.
Waste Storage Facility	13	Ea.
Irrigation Systems	6	Ea.
Composters	3	Ea.

Total EQIP cost-share allocated for the year was \$1,324,567.

**Conservation Reserve Program (CRP)**

This money was used to install hardwood tree plantings, permanent wildlife habitats, shallow water areas for wildlife, and filter strips.

\*22 Contracts were signed on fifteen farms

\* \$100,144 in cost-share funds were obligated to cover the estimated costs for establishing the practices

\* The practices cover 138.5 acres and are broken down as follows:

Hardwood Tree Planting  
35.8 Acres

Wildlife Upland Habitat  
10.9 Acres

Shallow Water Area for Wildlife  
29.8 Acres

Filter Strips  
43.4 Acres

Wetland Restoration  
18.6 Acres

**Conservation Cost Share Program**

The General Assembly provided \$720,000 in cost share funds, which were utilized by different cooperating landowners. Projects implemented emphasized water quality, water management, and erosion/sediment control. Funds were allocated for the practices below:

*Poultry Manure Structures	5
*Horse Manure Structures	4
*Dead Bird Composters	6
*Horse Manure Dump Wagons	10
*Manure Spreaders	14
*Front-end Loaders	13
*Dairy Crossings	3
*Concrete Pads	35
*Controlled Inlet Pipes	4
*Cover Crops	5,712 Ac.
*Tile Drainage	9,562 Ft.
*Critical Area Stabilization	1,175 Ft.
*Farm Drainage	19,170 Ft.

\*Funds were also provided for one each of the following: ditch impoundment, beef manure waste system, manure spray irrigation system, dairy Slurrystore Tank, dairy manure waste system, and a CRP/ CREP demonstration site.

\*136 inspections were completed to ensure the practices are working properly and do not need any maintenance.

## **PHRAGMITES CONTROL PROGRAM**

*The District has continued to administer the Phragmites Control Program in cooperation with the Delaware Department of Natural Resources and Environmental Control's Division of Fish and Wildlife.*

*5,565 acres were sprayed last year*

## **EQUIPMENT PROGRAM**

### **Heavy Equipment**

Use of the District's equipment enables the equipment crew to work with our cooperating landowners to establish new conservation practices and/or enhance existing practices on their lands.

\*The heavy equipment was utilized for 2,740 hours

Heavy equipment includes the following:

\*one hydraulic track excavator

\*two bulldozers

\*a farm tractor with loader

\*four pickup trucks

\*one low-boy tractor trailer

\*one backhoe

\*one six-wheel truck with a dump body which pulls a trailer used to move equipment

\*one ATV for seeding

### **No-Till Equipment**

The District currently owns one Lilliston no-till drill and two Great Plains no-till drills, one of which can be used to plant native grasses. The drills are rented to our cooperators on a first-come-first-served basis. They are delivered to the farm, and our technician works with the cooperator to ensure that the equipment is functioning properly and to the satisfaction of the cooperator.

\*1,327.0 acres of small grains were planted by 42 different landowners

\*27.9 acres of native grasses were planted by 2 different landowners



### **Poultry Litter Spreader**

The District's Barron Brothers pull-type manure spreader is rented to District cooperators on a first-come-first-served basis. Each cooperator had a manure management plan developed, which requires soil testing and manure testing. By applying the manure at the proper rate, the cooperator can maximize the available nutrients, and in turn minimize the costs for commercial fertilizer.

\*3 cooperators rented the manure spreader

\*Spreader was utilized for 10 days

Due to the lack of use the District sold the manure spreader.

## **DRAINAGE ASSISTANCE PROGRAM**

At times the District is called upon to assist landowners with drainage concerns that do not fall under the Sediment & Stormwater or Tax Ditch programs. These requests for assistance concerned flooding problems, ditches that need cleaning out, erosion problems, etc. The District handled 60 requests for drainage assistance last year.

## **TAX DITCH ASSISTANCE PROGRAM**

The District employs a survey technician whose main responsibility is to assist with the tax ditch program in Kent County. There are 73 tax ditches totaling 692.2 miles in the county.

The District's survey technician responded to 192 requests for assistance on the tax ditches. The requests for assistance concerned pipe sizing, flooding, ditch bank erosion, seeding, tax ditch maintenance, tax ditch construction, beaver control, and requests to stake, grade and survey ditches, etc.

The District's survey technician attended 27 annual meetings.

Assistance in tax ditch planning and organization is provided by DNREC-S&W.

### **3921 Matching Funds**

To maximize the efforts of providing a beneficial drainage system for county residents, the Kent County Levy Court and the State of Delaware again provided the District with a total of \$150,000 to be used for the construction of new tax ditches and the maintenance of existing tax ditches. These funds, combined with \$22,096 from FY03, were used in conjunction with tax ditch funds to perform the necessary work. After the work was completed, the projects were inspected by the District's surveying technician before any matching funds were released. During 2004, the 3921 funds were used as follows:

Ditch Dipouts	\$ 20,048
Pipe Installations	\$ 18,970
Ditch Mowing	\$ 33,975
Weed Wiper Bar	\$ 11,860
Technical & Admin. Assistance	\$ 58,923
Brought Forward to FY-05 3921 Funds	\$ 28,320
Total	\$172,096

### **Weed Wiper Bar**

The Kent Conservation District worked in cooperation with DNREC's Division of Fish and Wildlife, the First State Resource Conservation and Development Council, the Sussex Conservation District, and the University of Delaware's Bioresources Engineering Department in the development of a weed wiper bar. The bar is used to chemically control vegetation on tax ditch slopes and horizontal areas by environmentally friendly means. During 2004, the weed wiper bar was used on 19 different tax ditches. The treated area on these ditches totalled 98 miles, affecting 686 acres. The mileage reported is the total miles of the ditches. Each mile of ditch requires at least one swipe, maybe more.

# **NUTRIENT MANAGEMENT PROGRAM**

The District, in cooperation with the University of Delaware Cooperative Extension Service, continued to provide pre-sidedress soil nitrate tests (PSNT) to all interested corn growers in Kent County. Use of this test can result in economic savings and reduce the chance of groundwater contamination by nitrates. In 2004, a total of 86 samples were tested covering 2,850.6 acres. The District's conservationists also worked with cooperators in testing manure as well. Last year the following number of manure samples were tested: three - dairy; two - beef; ten - poultry; and seven - horse. The conservationists also completed nine animal waste plans and 47 nutrient management plans covering 5,974.7 acres.

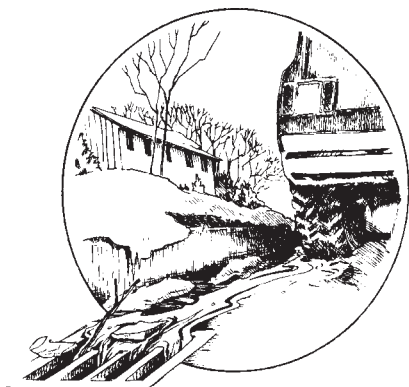
# **SEDIMENT & STORMWATER PROGRAM**

The Kent Conservation District has been the delegated agency in Kent County for the State's Sediment and Stormwater (S&S) Program since its inception in July 1991. The District is responsible for plan review and approval, construction inspection, and maintenance inspection for all construction projects within the County. The Stormwater staff included the program manager, four engineering inspectors, a part-time engineer, an administrative assistant, and a summer intern.

During the year 2004, the staff performed the following:

## Plan Review

65 - Development Advisory Committee Reviews



57 - City of Dover  
3 - Kent County  
5 - City of Milford

337 - Detailed Plans

98 - Plans Approved

129 - Minor Subdivisions

## Inspections Completed

1,799 - Regular

20 - Annual Maintenance

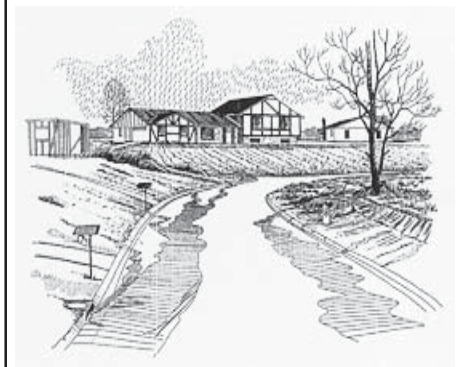
## General Permits

836 - Permits Issued

1,921 - Final Inspections for Certificate of Occupancy

437 - Temporary Final Inspections

The average number of plans reviewed per month was 28 and the average number of inspections performed per month was 151.



During 2004 the S&S Program made a few changes to alleviate the inordinate amount of time the staff was spending on sub-standard plan submittals and help the program run more efficiently. At the beginning of the year, the program began requiring that all plans and design reports submitted for review be signed and sealed by the design professional. The District had always offered informal, preliminary review for concept on plans submitted; however that preliminary review for concept became mandatory. Also, the program's checklist was updated to give consultants a clearer understanding of what items are to be contained on the plan for approval.



## EDUCATION INITIATIVES

### Delaware Envirothon

The District again supported the Envirothon, a problem-solving, natural resource education program for high school students. The competitive nature of the program motivates students to expand their knowledge of natural resources and realize their responsibility as stewards of our natural resources. The students answer written questions and conduct hands-on investigations of environmental issues in five categories: aquatics, soils, forestry, wildlife, and a current environmental issue. Fourteen teams competed in the competition. Kent County was represented by Caesar Rodney, Dover, Kent County 4-H and two Polytech teams. Honors for the Kent County teams included the following:

Polytech High School (Team A)  
2nd Place - Overall  
1st Place - Kent County  
1st Place - Urban Environment  
2nd Place - Forestry  
2nd Place - Wildlife  
3rd Place - Public Speaking

Polytech High School (Team B)  
2nd Place - Kent County  
3rd Place - Wildlife

Kent County 4-H  
3rd Place - Kent County  
3rd Place - Aquatics

### 7th Annual Barn Dance

The 7th Annual Barn Dance was held on September 17th at The Exhibit Hall at the Delaware State Fair. Guests enjoyed a fantastic barbecue pork and chicken dinner cooked by Ron & Kay Argo. Other activities included a silent auction, a live auction by Herb Kenton, and dancing to Just Kidding Around Entertainment. Approximately 277 people attended the event and they helped to raise \$9,723 for the Delaware Envirothon.

*Thanks to all who helped make this event a big success!!!!*

**The 8th Annual Barn Dance will be held at the Delaware State Fairgrounds on August 19, 2005.**

**Mark your calendars!**



### Outreach Efforts

In our continuing effort to promote environmental awareness, the District participated in the following activities:

\*distributed Soil and Water Stewardship Week materials to local churches and schools

\*staffed the Delaware Association of Conservation Districts' display at the Delaware State Fair

\*provided news releases announcing the National Association of Conservation Districts' Annual Photo Contest

\*participated in Science Alliance presentations for three middle schools and seven elementary schools

\*sponsored an environmental poster contest

\*participated on the planning committee and provided volunteers for the annual Make-a-Splash event sponsored by DNREC

CONGRATULATIONS!



## AWARDS & RECOGNITION

### **Outreach Efforts** - *continued*

\*staffed the District's informational display at Lake Forest South Elementary School's Science Night

\*provided conservation book-marks for local libraries

\*participated in North Dover Elementary School's Career Fair

### **Cooperator of the Year**

G&S Dairy of Harrington was chosen as the Cooperator of the Year for their outstanding conservation efforts during the past year. Gregg Knutsen with the help of his wife, Stephanie, and his father-in-law, James Cannon, have resurrected a family dairy that had been shuttered for more than 30 years. During the renovation, Gregg strived to make the system as environmentally friendly as possible. Gregg applied for cost-share to the Beginning Farmer Program through EQIP and for cost-share through the Kent Conservation District, and used this cost-share, and technical assistance from the Natural Resources Conservation Service, to build a state-of-the-art small dairy. Gregg

constructed a bed-pac system which utilizes recycled horse bedding, a "dry" manure storage shed to hold the used bed-pac, a reception pit and "Slurrystore" tank to hold the liquid waste, and roof gutters and downspouts to keep the "clean water clean." Gregg is pleased with the system, the cows are happy, and the environment has been protected, a true win-win situation.

### **Governor's Conservation Awards**

Governor Ruth Ann Minner presented the 10th Annual Governor's Conservation Awards to winners from all three counties during a ceremony proclaiming Soil & Water Stewardship Week in Delaware. The recipient of this prestigious award, representing agricultural conservation in Kent County, was Thomas & Charmaine Pardee. The Pardees operate three chicken houses in the Harrington area. They constructed a poultry manure structure and an exterior channel composter. They have also installed 3.8 acres of upland wildlife habitat, 1.1 acres of filter strips and 19 acres of hardwood tree plantings under the Conservation Reserve Enhancement Program.

The Governor's Conservation Award representing urban conservation in Kent County was presented to the City of Dover Department of Public Works for their Schutte Park Ball Field Parking Lot project. The project consisted of the construction of a 94-space paved parking lot and storm-water management facility. The facility was designed and oversized to exceed the discharge and water quality requirements of the State of Delaware due to the project's location in the Puncheon Run watershed. A swale directs the initial parking lot runoff into an offline bioretention area. Stormwater flows over 6" deep are conveyed to a stormwater basin. Runoff enters the basin by way of a forebay for sediment removal that overflows to a 6 foot wide meandering channel that leads to a modified sand filter with an underdrain. This treatment approach allows for the maximum groundwater recharge and removal of pollutants before discharge to the Puncheon Run. By incorporating numerous different best management practices into the design, this project will serve as a practical demonstration of ways to reduce impacts from stormwater runoff.

As most of you already know the District and its federal partners finally moved into their new office on July 1, 2004. The office is located on the first floor of the new addition on the north end of DELDOT's Administration Building. If you haven't already done so, please make note of our new address listed below. Our new phone number is 741-2600, ext. 3 and our new fax number is 741-0347.



**KENT CONSERVATION DISTRICT**  
**800 BAY ROAD, SUITE 2**  
**DOVER, DELAWARE 19901**

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