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# ANNUAL REPORT FOR 2012

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Stoll Natural Resource Center, 200 Lake Road, Suite E, Towanda, PA 18848, 570/265-5539 X6

## Manager's Message

2012 was another challenging year for us all. On the Technical Team front, clean up from the fall floods of 2011 and assisting in stream work was a dominating workload for our technical team. Partnership on this front was, and continues to be, the real strength of the conservation program in Bradford County. The Natural Resources Conservation Service, through their technical oversight, funding and assistance, the DEP Bureau of Waterways Engineering with similar inputs, both worked hand in hand with the District to address critical stream needs. The PA Game Commission also signed a new agreement with the District to address streambank sites along the Schrader Creek.



Perhaps the project that is generating some of the most attention is the County's Stream Maintenance Pilot Project. Stimulated by our County Commissioners, along with the landowners and State Legislators of the County, the District is working in partnership with DEP, Army Corps and a host of other agencies and organizations to craft an innovative approach to some of our stream issues. Stay tuned to 2013 for the outcome of that one.

Other big news for the year is the completion of the Bentley Creek PL 566 study that has been on the books since 1965. If nothing else we can claim to be persistent.

On the Agricultural side we're excited about the kick off of an initiative to work with all agricultural interests in the County to look at the long term future of that industry in our Community. The possibilities of building on our past that includes the economic, social and cultural heritage of agriculture in the County have incredible potential if we can organize, develop and support the focus of such an initiative.

In 2012 we reached out to virtually every "farm" in the County to offer District assistance in getting basic resource management planning initiated on their farms. We conducted this outreach while at the same time developing an inventory of illegal dumps throughout the County making great use of a dedicated group of intern students. And we're very pleased that Jim VanBlarcom has taken a seat at the State Conservation Commission; a first for Bradford County and adding a significant local voice at discussions of conservation at the State level.

At a presentation at the 7<sup>th</sup> International Soil Conservation Organization Conference in Sydney, Australia in 1992, Douglas Helms, National Historian for the Soil Conservation Service, stated in relation to Districts, *"In a way, the system of district and state cooperation with the federal government could produce a service that was greater than the sum of its parts."* In looking over our 2012 Annual Report, I hope you'll agree that Bradford County has truly embraced Mr. Helms' statement in that we continue to serve our community through the strength of our partnerships at the state and federal level but also most importantly, through our local community partnerships.

*Mike Lovegreen - District Manager*

## WHO WE ARE:

Conservation Districts in Pennsylvania have their roots firmly planted in a rich past, and their eyes focused on a productive future.

Created under the Conservation District Law, Districts are the local unit of State government that provides the link between you, the citizens, and the multitude of local State and federal natural resource management programs. A Board of Directors, appointed by the County Commissioners from nominations received from County-wide organizations, serve as your voice. A staff of professionals provides information, technical assistance, financial assistance and educational programs and support at the direction of that Board.

## BRADFORD COUNTY CONSERVATION DISTRICT 2012 FINANCIAL REPORT

Balance On Hand January 1, 2012	\$1,904,985.78
<b>Income</b>	
State Conservation Commission	65,263.28
County Commissioners (Salaries)	193,361.71
Contracts & Grants	1,504,573.12
Contributions	4,775.00
Fees	48,070.75
Miscellaneous	6,006.75
Rent	50,064.00
Sales	22,847.10
<b>Total Income</b>	<b>\$1,894,961.71</b>
Accounts Receivable	303,094.96
<b>Expense</b>	
Administrative Costs	17,980.75
Building Maintenance & Utilities	30,810.68
Contract Agreements	1,087,394.37
Staff & Directors Expenses	40,232.54
Education & Public Relations	12,219.68
Office Supplies, Equipment	14,248.17
Sale Purchases	28,097.67
Salaries & Benefits	687,944.83
<b>Total Expense</b>	<b>\$1,918,928.69</b>
Accounts Payable	\$ 315,372.83
Balance On Hand January 1, 2013	\$1,826,472.18

## 2013 AFFILIATE MEMBERS

Strong Excavating, Sayre  
VanDusen Machinery, Sayre  
Century 21, Jackson Real Estate  
First Citizens Community Bank  
Joe's Marine, Inc., Sayre  
Canton Building Supply, Inc.  
Tom Root Construction, Gillett  
Wysox Sand and Gravel  
Bryan's Meat Cutting, Milan  
Towanda Country Club

Bradford Sullivan Forest Landowners Association  
Shaffer's Feed Service, Inc., Monroeton  
Bristol Excavating, Inc., Troy  
C A Thrush Insurance Agency, Inc.  
Glenn O. Hawbaker, Inc., Milan  
Navarro & Wright Consulting Engineers, Inc., Wysox  
Histand's Farm & Home Service, Rome  
Eastern Industries, Inc., East Towanda  
Insinger Excavating, Inc., Dushore  
Growmark FS LLC, Towanda

## MISSION STATEMENT

The mission of the Bradford County Conservation District is to provide leadership, technical, financial, and education resources to the people, municipalities, industries, and organizations of Bradford County to develop sound natural resource management through the implementation of soil, water, and air conservation best management practices.

## 2013 Committees

Ag. – Jim VanBlarcom (Ch), Keith Heimbach, Daryl Miller, Mike Hanawalt, Mark Madden, Ron Harris, Tom Elliott, Staff Advisors: Nate Dewing, Tony Liguori

Building & Grounds – Bruce Chase (Ch), Neal Halstead, John Sullivan, Mike Hanawalt, Staff Advisor: Mike Lovegreen

Dirt & Gravel Roads Program – Leslie Bresee (Ch), Mike Hanawalt, Jeremy Yohe, Tom Elliott, Staff Advisor: Joe Quatrini

District Operations/Employees – Keith Heimbach (Ch), Al Herman, Bruce Chase, Staff Advisor: Mike Lovegreen

Education & Youth – John Sullivan (Ch), John George, Leigh Twoey, Tom Maloney, Bob Hansen, Nancy Baker, Tom Hojnowski, Nicole Harris, Terry Lutz, Brian Zeidner, Karen Evangelisti, Chad Spencer, Rich Gulyas, Keith Slocum, Phil Swank, Staff Advisor: Mike Lovegreen, Dan Rhodes

Equipment – Keith Heimbach (Ch), Bruce Chase, Staff Advisor: Mike Lovegreen

Erosion & Sedimentation Pollution Control – Bruce Chase (Ch), Les Bresee, Mike Hanawalt, Bill Kahler, Staff Advisors: Joe Quatrini, Brad Cummings

Executive Council – Al Herman (Delegate), Mike Lovegreen (Alternate), Bruce Chase (2<sup>nd</sup> Alternate)

RC&D – Bruce Chase, Mike Lovegreen (Alternate)

Watersheds, Waterways & Wetlands – Al Herman (Ch), Jim VanBlarcom, Warren Singer, Joe Santos, Mike Hanawalt, Staff Advisors: Mike Lovegreen, Joe Quatrini

### DISTRICT DIRECTORS

Keith Heimbach  
*Chairperson*

Alvin Herman  
*Vice Chairperson*

Bruce Chase  
*Secretary/Treasurer*

Daryl Miller  
*County Commissioner*

James VanBlarcom

John Sullivan

Leslie Bresee

DISTRICT MANAGER/EDITOR  
Michael Lovegreen

EDUCATION COORDINATOR  
Daniel Rhodes

DISTRICT ENGINEER  
Robert Sweppenheiser

AG TEAM LEADER  
Anthony Liguori

AG RESOURCE SPECIALIST  
Nathan Dewing

AG RESOURCE SPECIALIST  
Miranda Neville

AG RESOURCE SPECIALIST  
Kevin Brown

AG CONSERVATION TECH.  
Emily Bailey

TECH TEAM LEADER  
Joseph Quatrini

CONSERVATION TECH.  
Brad Cummings

NATURAL RESOURCE SPECIALIST  
Ian Lathrop

NATURAL RESOURCE SPECIALIST  
Theresa Flynn

NATURAL RESOURCE SPECIALIST  
Kristin Pepper

NATURAL RESOURCE SPECIALIST  
Jonathan VanNoy

ADMINISTRATIVE ASSISTANT  
Jane Carman

ACCOUNTS SUPERVISOR  
Janet MacWhinnie

SECRETARY  
Kyleen Dinelli

ASSOCIATE DIRECTORS  
William Eberhardt  
Ted Keir

Thomas Elliott  
Warren Singer  
Dean Bedford

James Lacey  
Joe Santos  
John Chapman  
Neal Halstead  
John C. George  
Roger Madigan

# 2012 OBJECTIVES

## **CRITICAL NATURAL RESOURCE ISSUES**

- 1) *Handle at least 50% of all farmer requests for assistance with Agricultural Best Management Practices within one year of their request.*
- 2) *Have a comprehensive plan to preserve Agricultural Communities in coalition with organizations of similar intent.*
- 3) *Provide evaluation, design and funding support to watershed groups for stream rehabilitation as requested.*
- 4) *Providing technical and organizational development assistance to Bradford County Watershed groups.*
- 5) *Develop an informational and educational strategic plan to increase public awareness by 50%.*
- 6) *Develop a comprehensive plan, with organizations of similar interest, to educate loggers and landowners on proper timber management.*
- 7) *Provide technical, informational, and educational assistance to protect the County's natural resources from impacts of natural gas resource development, by coordinating information and resources, and by developing cooperative relationships with gas industry representatives.*
- 8) *Develop and implement a plan to assure all agricultural operators are aware of environmental regulatory requirements.*

## **CRITICAL OPERATIONAL ISSUES**

- 1) *Complete and maintain exterior landscaping according to plan for Stoll Natural Resource Center with annual inspection, and begin planning Education Center.*
- 2) *Develop and maintain a stable, professional and adequate staff; hiring additional staff particularly for watershed technical assistance and environmental education.*
- 3) *Establish public evaluation system for all District services.*
- 4) *Find the financial resources to meet the identified critical needs, continue improving accounting system, and develop long term fiscal management objectives..*

## **EROSION AND SEDIMENT CONTROL**

- 1) *Close cooperation with the public, local officials, units of government and businesses.*
- 2) *Continue active involvement in, and inspection authority for, State Erosion and Sedimentation Program (Chap. 102).*
- 3) *Public Education of the importance of erosion control.*
- 4) *Encourage conservation on the land through Cooperator program and Cooperating Agencies.*
- 5) *Continue participation in Dirt and Gravel Roads Program.*

## **EDUCATION AND YOUTH**

- 1) *Education of youth in forestry conservation.*
- 2) *Conservation education in County schools through competitions, outdoor labs, field days, newsletter, committee guidance, etc.*
- 3) *Public education of conservation practices accomplished in Bradford County*
- 4) *Continue facilitation of an Environmental Education Grants Program.*
- 5) *Support youth groups dedicated to conserving natural resources.*
- 6) *Continue Manchester Memorial Scholarship.*
- 7) *Work to educate target groups as to availability of District resources in identification of environmentally sensitive areas and pertaining regulations.*
- 8) *Develop a reliable funding base for environmental education activities.*
- 9) *Continue plan and develop Beers Family Wetland Education Area.*
- 10) *Develop strategy to Tell the Story of Agriculture.*
- 11) *Increase energy conservation awareness and develop Volunteer Energy Corps.*
- 12) *Be a current source of agricultural odor issue information and assistance.*

## **DISTRICT IMAGE AND PUBLIC RELATIONS**

- 1) *Keep the public informed of the District's accomplishments.*
- 2) *Involve agencies, their families, and individuals interested in conservation in the District's activities.*

- 3) *Enter state and national contests for recognition of accomplishments.*
- 4) *Review District Awards/Recognition Program.*
- 5) *Maintain and expand District road sign coverage.*

### **LAND USE**

- 1) *Actively encourage sound land use management.*
- 2) *Conserve/Protect agricultural land.*
- 3) *Public awareness of the importance of forests to Bradford County.*
- 4) *Greater use of Soil Survey.*
- 5) *Support conservation measures and activities of Cooperating Agencies.*
- 6) *Work for solid waste management.*
- 7) *Assist and educate the public in the value and proper management of wetlands and provide input to State on local conditions.*
- 8) *Continue Chap. 105 delegation program.*
- 9) *Promote enhancement of wetland resources.*
- 10) *Participate in river conservation planning for watersheds.*
- 11) *Promote proper floodplain management through education of municipal officials and participation in DCED Floodplain Outreach Program.*
- 12) *Explore opportunities for agriculture's role in energy and energy conservation.*

### **WATER RESOURCE MANAGEMENT**

- 1) *Better water quality through proper management.*
- 2) *Promote proper utilization of soil amendments.*
- 3) *Promote proper stormwater management.*
- 4) *Actively participate in Chesapeake Bay Project.*
- 5) *Promote proper management and development of water impoundments.*
- 6) *Work with homeowners on proper use and management of pesticides, herbicides, fertilizers and other household wastes.*
- 7) *Continue working with interested landowner to establish Bio-Solids site.*
- 8) *Seek solutions to water quality influences for Stephen Foster Lake.*
- 9) *Participate in Nutrient Management Delegation Program.*
- 10) *Achieve objectives of Bentley Creek Watershed sponsors.*

### **DISTRICT OPERATIONS AND PERSONNEL**

- 1) *Secure equipment necessary for the proper operation of the District.*
- 2) *Continue personnel training and evaluation for better management of the District Program and cooperating agencies offices.*
- 3) *Involve individuals and local businesses in the District's conservation program.*
- 4) *Enhance the professionalism and leadership skills of District Directors and staff.*
- 5) *Organize tours of local industries utilizing natural resources.*
- 6) *Evaluate potential for increased efficiency of District record keeping/data storage through GIS, etc.*
- 7) *Evaluate ongoing maintenance needs of Stoll Natural Resource Center.*
- 8) *Each District committee meet at least once a year.*
- 9) *Establish expectations and review job description for each staff position.*
- 10) *Develop funding contingency plan, including fees.*
- 11) *Explore and implement ways to make District "Greener".*
- 12) *Increase District's ability to assist with Energy Issues.*
- 13) *Formalize the structure for a Volunteer Corps.*
- 14) *Secure professional personnel as needed.*

### **LOCAL, REGIONAL, STATE, AND NATIONAL ACTION**

- 1) *Keep abreast of legislation, projects in conservation, and support the National and State Associations of Conservation Districts.*
- 2) *Work further to develop County Energy Policy.*



# 2012 ACCOMPLISHMENTS

## AGRICULTURE – 2012 Accomplishments

### Nutrient Management / Chesapeake Bay - Education and Outreach

The Conservation District began an ambitious outreach effort to help all its agricultural producers, operating an estimated 1,500 farms, become aware of applicable Pennsylvania water quality regulations. A Special Project grant totaling \$13,900 from the Chesapeake Bay Program was secured to help fund this outreach effort. In total, 1497 farms were reached after canvassing every road throughout the County. The survey was conducted by staff, Interns, contracted farmers and FFA members. Orientation, ride-along, and shadowing were provided for all non-staff members before conducting outreach on their own. An Intern (majoring in geology) tracked and mapped progress and information. Outreach materials were left at all operation located, and one-on-one discussion took place where an owner or operator was present. The compliance message and personnel were received with mixed reaction.

Lending to efficiency, BCCD and its partners, combined the mile-by-mile agricultural outreach survey with an assessment of illegal roadside dumps within the county; contracted through the Keep Pennsylvania Beautiful program (see “Illegal Dump Cleanup” for more details regarding that effort).

To further the agricultural compliance effort, using a Manure Management Mini Grant, District staff created a billboard that with the cooperation of landowners (on one instance, the Pennsylvania Game Commission) were posted at two, easily observed locations along prominent thoroughfares. Thus far, the public reaction to these has been positive.

Members of the District Agriculture Team again partnered with Troy and Canton High School teachers to facilitate the Pennsylvania Trout in the Classroom initiative. Students began rearing trout from eggs in the Fall and will release fry into local streams in the Spring of 2013. During the process participants learn about cold water fisheries, habitat, water quality parameters and testing, impacts of various land use, and the effects of point-source and non-point source pollution on aquatic ecosystems.



### Nutrient Management / Chesapeake Bay – Projects

- A Chesapeake Bay Special Projects grant was completed which helped with the cost of implementing agricultural Best Management Practices. This was slated toward farms that had relatively few practices to complete within their nutrient management plans and whose applications tended not to compete well for Farm Bill funds. Cost share funds totaling \$10,864.84, together with landowner contributions provided a total investment of \$13,257.61 in conservation practices on two farms. Best Management Practices installed included: 59 feet or

reinforced animal trail and walkway, 55 feet of reinforced access road, and one (1) reinforced stream crossing. In addition, \$572.91 provided 200 copies of a rotational grazing planning poster, and temporary fencing supplies to be used for grazing management education.

- Completing an agreement with USDA NRCS through the Cooperative Conservation Partnership Initiative, the Conservation District completed construction quality assurance on 1 additional farm project that was funded through the USDA Chesapeake Bay Watershed Initiative. 10 Conservation



Practices were completed on this farm including a concrete, roofed manure stacking area; concrete heavy use area protection for beef cows; roof runoff diversion; surface water diversion; cattle laneways; reinforced access road; stream and wetland buffers; fencing; and a vegetated filter area.

- Continuing collaboration with the 4 area FFA chapters (Troy, Canton, Northeast, and Athens), the Conservation District facilitated several Career Development Experiences including: Soils and Land Use Judging, Wildlife, Aquatics, and Agronomy, while also assisting with the annual speech competition.
- Construction quality assurance was provided by the Conservation District to NRCS for three additional farm projects funded by the USDA Chesapeake Bay Watershed Initiative. Twenty eight (28) conservation practices were completed on these three farms including concrete manure stacking areas, concrete heavy use area protection, a liquid manure storage facility, roof runoff diversion; surface water diversion; cattle laneways; reinforced access road; stream and wetland buffers; fencing; and vegetated filter areas.



- The Conservation District and Chesapeake Bay Foundation continued its partnership with a Conservation Innovation Grant (CIG) and Growing Greener grant totaling \$1,135,285.00. The primary emphasis of these grants is to secure riparian forest buffers in exchange for Best Management Practice (BMP) vouchers or credits which serve as cash incentives toward installing additional planned BMPs which further reduce nutrient and sediment run-off. Additionally, funds are being used for Animal Concentration Areas using traditional structural practices as well as exploring non-traditional or innovative methods. The grant also explores methods and means toward permanently protect riparian forest buffers on lands under Agricultural Conservation Easement within the Farmland Preservation Program. The grant is slated to be finalized in September of 2014, noting the following accomplishments as of this writing: 34 landowners agreements (all of which will have Comprehensive Nutrient Management Plans in place); approximately 180 Best Management Practices; 15 barnyards completed or under way; and 355 acres of riparian area established, stretching over 30 miles of stream through the Conservation Reserve Enhancement Program (CREP).

- A Growing Greener Grant was completed, including \$78,000.00 in cost-share toward agricultural Best Management Practices in North Branch Towanda Creek. The funds were applied to a farm near Canton, PA where a roofed Heavy Use Area, Animal Trails and Walkways, Milkhouse Waste System, Underground Outlets, and Roof Runoff Control Structures were implemented during the summer of 2012. This area represented a portion of an



- represented a portion of an impaired segment identified by the PA Department of Environmental Conservation and followed up with door-to-door visits by the Conservation District, seeking voluntary solutions to the concern.
- Stephen Foster Lake Treatment Wetland:  
Starting design in late 2011, establishment of a treatment wetland constructed was completed below Stephen Foster Lake at Mt Pisgah State Park. The wetland was constructed for treatment of Phosphorus rich water drawn from the lake bottom. The intent is to test the effectiveness of removing phosphorus by passing this nutrient rich water through a natural wetland. The lake suffers from summer algal blooms and low oxygen zones in its deeper sections from the nutrient cycling within the lake. This is an attempt to remove some of those excess nutrients. The wetland was replanted with native wetland plants in the spring of 2012 to enhance vegetation establishment. Water quality monitoring will continue through 2013 to evaluate the wetland's effectiveness. Look for some analysis of water quality data in 2014.



## **Agriculture Summit**

With continued collaboration between farmers, processors, citizens, businesses, public servants, and support organizations, an agricultural summit entitled “The Many Voices of Bradford County’s Agricultural Future” was organized. Over 90 participants flocked into the Wysox Fire Hall to weigh-in on the assembly of a comprehensive agriculture viability strategy; to protect and enhance area agriculture, and to build a coalition capable of moving the plan forward.



After multiple listening and brainstorming sessions, attendees heard Pennsylvania Secretary of Agriculture George Greig emphasize the importance of state and local agriculture and Jay Matteson, Agricultural Coordinator for the Jefferson County Industrial Development Agency in upstate New York, relay how such efforts have been undertaken in that area.

This effort resulted in a robust outline of topics and goals to be addressed, as well as a Steering Committee and three active working committees focusing on: profitability, education, and farm and farmland retention. Additional information and updates can be found on the web at

[www.agcoalitionbc.org](http://www.agcoalitionbc.org)

## **Browns Creek**

A fine example of cooperative pooling of resources went into an extensive agriculture and stream stabilization project on Browns Creek. The Sugar Creek Watershed Association, through a Growing Greener grant contributed \$37,380.00. Chesapeake Energy, among other stream initiatives, chipped in \$10,000.00. Through the Conservation Innovation Grant (noted independently herein) allocated \$16,440.00 in BMP vouchers. \$15,480.00 was cost-shared through the Conservation Reserve Enhancement Program, while \$73,500.00 came through the NRCS Chesapeake Bay Watershed Initiative. Combined with landowner contributions and decisions, the project greatly improved erosion control and nutrient management by: relocating animal groups; excluding animals from riparian areas and establishing over 14 acres of riparian buffer (encompassing more than 8000 feet of fence); stabilizing 1,300 feet of stream bank; providing stabilized stream crossings; installing roof run-off systems; creating pasture setbacks from ditches; constructing a milkhouse waste system; relocating manure and feed handling areas; and developing and following a Comprehensive Nutrient Management Plan.



Browns Creek Project- Before & After



### **Nutrient Management / Chesapeake Bay – Other activities & statistics**

- Twenty-Four (24) on-site nutrient management/Chesapeake Bay Program status reviews were conducted. Seventeen (17) of those reviews were for VAOs (Volunteer Animal Operations) and Seven (7) were for CAOs (Concentrated Animal Operations).
- Eighteen (18) education and outreach events were sponsored or participated in, reaching approximately 712 individuals.
- Outside of special events and programs, 522 individuals were provided nutrient management related information and/or service through one-on-one contacts.
- Eleven (11) engineering design packages were completed.
- Engineering planning evaluations were completed on 22 farms.
- Agricultural team members participated in nineteen (19) conferences and professional training sessions.
- Eight (8) nutrient management plans were written by District staff.
- Five (5) Act 38 nutrient management plans were approved for the following types of operations: (3) dairy, (2) swine.
- Five (5) manure management plans prepared by District staff.
- Four (4) conservation plans were written by District staff.
- Four (4) complaints were received, and investigated.
- Thirteen (13) requests for assistance were received, primarily for conservation and nutrient management planning.
- Agriculture Team staff participated in or helped facilitate 18 events including:

Manure Hauler Workshop	Envirothon
Nutrient Management Field Day	FFA Soils Judging
Trout In The Classroom	Youth WIP
FFA Nutrient Management Planning Competition	Penn State Agronomy Day
Soil Sampling Workshop	Penn State Pesticide Conference
Equipment Show	Manure Management Manual Workshops x seven(7)
Ag Summit	Ag Breakfast
Ag Forum	DEP Round Table meetings
Conservation Field Days (local area schools)	SCC Square Table meetings

### **Agricultural Land Preservation**

The Bradford County Agriculture Land Preservation Program continues to move forward toward the preservation of its 11<sup>th</sup> farm and milestone of over 3000 acres preserved. The years county and state allocation amounted to \$198,962.00.

### **2012 Outstanding Cooperator of the Year Award**

Each year, the Bradford County Conservation District selects a farm operator or owner that has demonstrated an outstanding record of conservation stewardship in cooperation with the District. This year the Conservation District presented Peck Hill Farm with the 2012 Outstanding Cooperator of the Year Award. Peck Hill Farm is operated by the Brown Family in Rome Township, Bradford County, Pennsylvania. The Browns long term commitment to a conservation stewardship ethic demonstrated by their record of installing and maintaining conservation practices on their farm were noted as the reason for their selection. Some of those outstanding accomplishments include: pesticide drift reduction technologies, continuous cover crops following all annual crops, continuous no-till with a high level of residue cover through critical erosion periods, application of slow release formulations of

nitrogen fertilizer making the nitrogen available to plants for a longer portion of the growing season, and creating a riparian area for upland wildlife habitat. The farm also has 15+ acres enrolled in the Conservation Reserve Enhancement Program.

The “Outstanding Cooperator” award has historically been, and continues to be, sponsored by the Bradford-Sullivan Bankers Association in recognition for the efforts of agricultural operations that make the investment of time and effort and good stewardship practices to assure a productive and sustainable operation.



From Left to Right : Outstanding Cooperators Kelly Brown, Sherry Brown, Bob Brown, Bobby Brown; and Keith Heimbach – Chairman of the Bradford County Conservation District Board of Directors

### **Green Career Day**

In partnership with the Sullivan and Tioga County Conservation Districts, Bradford/ Sullivan Forest Landowners and PA Bureau of Forestry, Green Career Day was enabled, allowing 140 eighth-grade students from 15 regional schools to try their hand at and gain exposure to outdoor careers, such as agriculture, forestry, horticulture, surveying, conservation law enforcement, wildland firefighting, and wildlife biology; to name a few of the 17 stations presented. The aim of the event is to help interest students toward studies and livelihoods that foster natural resource management and leadership.

### **Parks and Recreation**

The District provided technical assistance regarding natural resource management and development matters relating to Bradford County Parks. A study of Sunfish Pond was initiated in 2012, which will ultimately result in a pond management plan that takes into account water quality, environmental health, and various water uses and demands. Grant writing and survey assistance were also provided, resulting in the installation of two restroom facilities, furthering the parks Master Plan.

## **WATERSHEDS – 2012 Accomplishments**

The Bradford County Conservation District in cooperation with our partners completed construction of 27 stream rehabilitation projects in 2012. As a result, 2.9 miles of stream were stabilized, nearly 67 acres of riparian buffers were established, and approximately 5,776 tons of sediment, 14,444 lbs of N (nitrogen), and 5,776 lbs of P (phosphorous) were prevented from entering our streams. A variety of aquatic habitat improvement and stabilization practices were utilized including: rock rip-rap, rock stream barbs, rock weirs, and multi-log vane deflectors. The success of these projects was aided significantly by partnerships formed between BCCD, Federal, State, and County agencies. Funding sources included State grants, State special project funds, and Federal sources and can be categorized as follows:

As in previous years, the Pennsylvania Department of Environmental Protection contracted with BCCD to provide survey, design, bidding, and construction supervision for stream rehabilitation.

Three structures were protected from excessive streambank erosion, one along Parks Creek, one along a Tributary to Wyalusing Creek, and one along a Tributary to Satterlee Creek.



The Upper Susquehanna Coalition (NY and PA) has also continued to utilize the District's expertise to provide support to a number of its members' projects. Design assistance and construction supervision as well as training opportunities have taken place within two counties in New York State including: Tioga and Delaware. These projects involved installing rock rip-rap and log deflectors to stabilize the bank, reduce sediment into the stream, and improve in-stream habitat

Team members continued to participate in education and outreach events for high school and elementary students. Several elementary school trips were held at Mt. Pisgah State Park and students were educated on water quality, collecting and identifying macro-invertebrates, and stream habitat assessment. Several high school groups were also trained in collecting and identifying macro-invertebrates and conducting water quality testing.

Continued support of the following organizations was also provided in 2012:

**Penn York Bentley Creek Watershed Association –**

- Monitoring efforts continued throughout the year. Six stream gages and rain gages have aided in the collection of long term stream/watershed stability data.

**Schrader Creek Watershed Association –**

- Monitoring efforts continued throughout the year. Two stream gages have aided in the collection of long term stream/watershed stability data.
- BCCD contracted with the Pennsylvania Game Commission to provide survey, design, permitting, and construction oversight on 2 projects within the Schrader Creek watershed.
- BCCD and SCWA have begun a partnership with Trout Unlimited to assess fish populations and habitat on Schrader Creek and its tributaries. A pre-project meeting was held in the fall of 2012 on site with BCCD, SCWA, and TU to formulate a plan of action. A habitat assessment and fish population survey are scheduled for 2013.

**Wysox Creek Watershed Association –**

- 14 stream rehabilitation projects were constructed on Johnsons Creek which incorporated the use of rock rip-rap and rock barbs to provide bank stabilization and fish habitat. Approximately 1,400 ft of stream bank fencing was installed and 3 acres of riparian buffer were established. Funding sources included a DEP Growing Greener grant and over \$300K from USDA Natural Resources Conservation Service.



- Chesapeake Energy Corporation donated plant materials, tree tubes, and labor for an Arbor Day riparian tree planting event in coordination with BCCD and WCWA to establish approximately 1.5 acres of riparian vegetation at two sites within the Wysox Creek watershed.

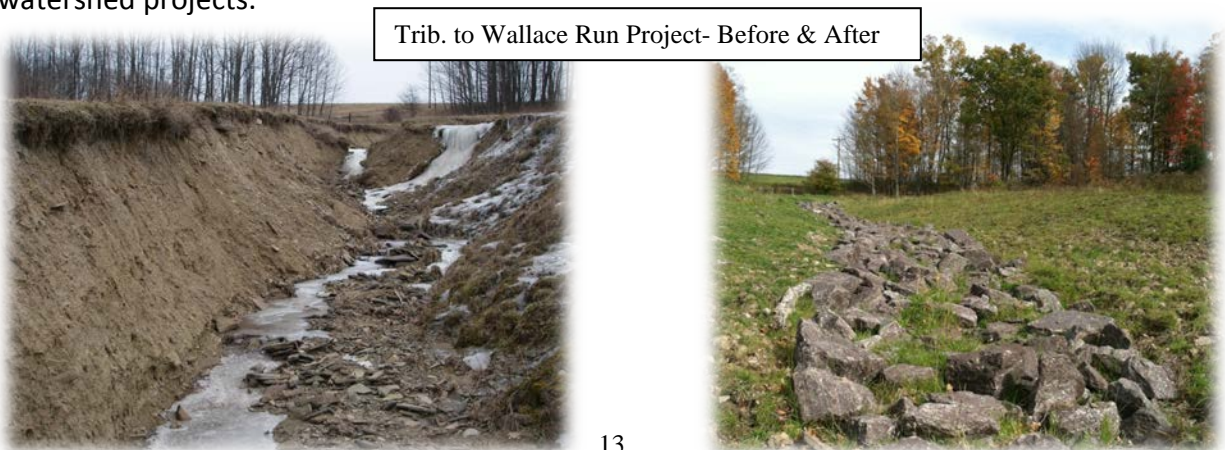
#### **Towanda Creek Watershed Association –**

- 1 stream rehabilitation project was constructed on Alba Creek which incorporated the use of rock rip-rap and log deflectors to provide bank stabilization and fish habitat. Additionally, approximately 29 acres of trees and shrubs were established through the Conservation Reserve Enhancement Program (CREP) to protect the riparian area through this reach. An additional 14,155 ft of fencing was also installed.
- Monitoring efforts continued by utilizing 4 stream and 4 rain gage stations in combination with 20 monumented cross-sections, 2 reference reaches and 2 USGS gage stations.



#### **Sugar Creek Watershed Association –**

- Rock rip-rap, rock barbs, and rock weirs were utilized to complete 5 stream rehabilitation projects throughout the watershed. In addition, approximately 34.7 acres of trees and shrubs were established through the Conservation Reserve Enhancement Program (CREP). Also, 6,657 ft of stream bank fencing was installed. Next year we hope to establish an additional 11.9 acres of CREP and install 8,000 ft of stream bank fencing.
- Monitoring efforts continued by utilizing 4 stream and 4 rain gage stations in combination with 24 monumented cross-sections and 2 reference reaches.
- Chesapeake Energy Corporation donated plant materials, tree tubes, and labor for an Arbor Day riparian tree planting event in coordination with BCCD and SCWA to establish approximately 1.5 acres of riparian vegetation along a completed stream rehabilitation project within the watershed.
- In addition, funds totaling \$10,000 were donated by Chesapeake Energy Corporation for watershed projects.



The following tables are a breakdown of stream/watershed related accomplishments for 2012:

**Accomplishments for Wysox Creek Watershed Association**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Johnsons Creek 01	510	39	98	39
Johnsons Creek 02	460	154	385	154
Johnsons Creek 03	300	126	315	126
Johnsons Creek 04	620	154	385	154
Johnsons Creek 05	580	18	45	18
Johnsons Creek 06	240	27	68	27
Johnsons Creek 07	810	820	2050	820
Johnsons Creek 08	275	64	160	64
Johnsons Creek 09	330	1040	2600	1040
Johnsons Creek 10	745	242	605	242
Johnsons Creek 11	285	14	35	14
Johnsons Creek 12	435	17	43	17
Johnsons Creek 13	340	1080	2700	1080
Johnsons Creek 14	160	76	190	76

**Accomplishments for Towanda Creek Watershed Association**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Alba Creek (ALB 10)	610	71	178	71

**Accomplishments for Sugar Creek Watershed Association**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Browns Creek- Reach #1	2382	206	515	206
Browns Creek (BRC-02)	1255	435	1088	435
Wallace Run	820	700	1750	700
Mill Creek (MC-6A)	300	39	98	39
Mill Creek (MC-6B)	260	45	113	45
Mill Creek (MC-1)	2000	288	720	288

**Accomplishments for DEP**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Parks Creek	245	64	160	64
Trib. to Wyalusing Creek	60	2	5	2
Trib. to Satterlee Creek	90	3	7.5	3

**Accomplishments for USC**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Dry Brook	120	6	15	6
Cars Creek	550	15	37.5	15

**Accomplishments for EWP**

Site Name	Length (ft)	Sediment Savings (Tons/yr)	Lbs. Nitrogen Saved	Lbs. Phosphorus Saved
Bullard Creek	345	31	78	31

<b>Totals</b>	<b>15,127</b>	<b>5,776</b>	<b>14,444</b>	<b>5,776</b>
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### **Stream Maintenance Pilot**

The flooding in 2011 generated an overwhelming demand from landowners and legislators to simplify the stream permitting process and aid landowners in addressing critical stream issues. In response to this demand, BCCD developed a stream maintenance pilot program which would educate municipal officials and contractors on proper stream maintenance techniques in critical areas. This program combines previous efforts developed by BCCD and an approach utilized by Delaware County Soil and Water Conservation district in the NY city watershed.

A number of meetings were held between BCCD staff, legislators, and state and federal regulators to discuss permitting and feasibility. Preliminary data collection was begun in 2012 and it is anticipated that training events will begin to take place in May or June of this year. This program has received funding for data collection and training from the PA Department of Agriculture and has been supported by the Bradford County Commissioners.

## **STATEWIDE LAKE ASSESSMENT PROGRAM Bradford/Susquehanna Counties, PA – 2012 Accomplishments**

In addition to stream activities, BCCD was also involved in the DEP Statewide Lake Monitoring Program in 2012. Lake assessment was completed on two lakes in Bradford County; Sunfish Pond and Saxe Pond, and on one lake in Susquehanna County; Minkler Lake (aka: Reflection Lake). In-situ field data was collected at two stations on each lake three times throughout the year: Spring, Summer, and Fall. A maximum depth was attained and temperature, pH, DO, and conductivity were recorded at one meter intervals throughout the profile at each station. Water samples for lab analysis (TP, TN, TSS, TDS, and Alkalinity) were collected one meter from the surface and one meter from the bottom. Additional samples were analyzed to gather background information on metals and organics in the event impacts from the Marcellus gas industry are seen. Also, Secchi depth was recorded, and plankton and chlorophyll A samples were collected.



Sunfish Pond, Bradford County

As in previous years, data was also collected from Stephen Foster Lake and its source Mill Creek. Again, samples were collected monthly from April to October, for analyses similar to those previously stated and in-situ data was recorded. Additionally, a constructed wetland cell was used to begin to treat anoxic, nutrient-laden hypolimnetic water from the lake. The goal of the wetland cell (constructed in August of 2011) is to reduce downstream impacts to Mill Creek by removing nutrients from the lake water prior to it re-entering the stream. Samples were collected from the inlet pipe and the spillway of the wetland in Spring and Fall for analyses similar to those previously stated; in-situ data was also gathered. Results are not currently available.

In the summer of 2012, lake assessment was completed on three additional lakes in Susquehanna County; Page Lake, Silver Lake, and Meeker Lake. In-situ data was collected for analyses similar to those previously stated.



## ILLEGAL DUMP CLEAN UP – 2012 Accomplishments

Keep Pennsylvania Beautiful contracted with BCCD to begin survey and assessment of illegal roadside dumps throughout Bradford County. Every mile of road within the county was inventoried and 74 illegal road side dumps were found and reported to Keep PA Beautiful. The full Bradford County report can be viewed at: [http://www.keppabeautiful.org/Portals/0/PDFs/IDS/Master\\_bradfordIDS.pdf](http://www.keppabeautiful.org/Portals/0/PDFs/IDS/Master_bradfordIDS.pdf).

Before clean up



After clean up



Clean up volunteers



Funding was made available in 2012 to remediate 2 of these sites and prevent further illegal dumping. The Pennsylvania Environmental Council Community Illegal Dumpsite Cleanup Program, sponsored by USDA, along with BCCD staff and

29 volunteers cleaned up illegal dumpsites in Stevens Township and Athens Township this year. Together, approximately 250 tires were recycled and 18.5 tons of trash was removed. The 29 volunteers contributed approximately 80 hours to the two cleanup events.

## CHAPTER 102/105 PROGRAM – 2012 Accomplishments

2012 was another exceptionally productive year for our delegated Chapter 102 and 105 programs.

Related to the Chapter 102, Erosion and Sediment Pollution Control and Stormwater Management Program, erosion and sediment pollution control plans involving **61** separate projects and **510** disturbed acres were reviewed and processed, **38** National Pollutant Discharge Elimination System (NPDES) General Permits were issued, **371** inspections of **153** non-complaint sites were conducted, **22**



complaints were handled, **3** educational outreach events involving **280** participants were held and **705** individuals received personal technical assistance.

Concerning the Chapter 105, Dam Safety and Waterway Management Program, **297** general permits were authorized, **18** complaints were handled, **67** non-complaint inspections were performed, **624** people were trained through **18** educational events and **582** people were offered personal technical assistance.

The entire staff of the Bradford County Conservation District looks forward to continuing our good relationship with you during 2013 as we seek to meet your Chapter 102 and 105 permitting needs.



## DIRT & GRAVEL ROADS PROGRAM – 2012 Accomplishments

The Dirt and Gravel Roads program continues to provide significant funding to municipalities within Bradford County in order to achieve county and statewide environmental milestones. In 2012 there were 7 applications submitted from 4 municipalities. These funding requests approached \$510,000 and applicants pledged nearly \$115,000 in in-kind equipment, materials and labor – that’s roughly 23% of the funds requested.

With the FY2011 funding allocation, 6 sites were completed in 2012 addressing approximately 3.5 miles of road which in turn provided significant environmental improvements to local water resources. Techniques or Best Management Practices (BMPs) installed to achieve program goals included: raising the existing road profile to promote sheet flow and prevent water from concentrating on the road surface; establishing vegetative ditch linings to reduce scour and filter sediment and nutrients; addition of cross culverts to reduce volume of water treated in ditches; and addition of headwalls and endwalls to prevent excessive erosion at culvert inlets and outlets, to name a few. The following table is a breakdown of dirt and gravel road related accomplishments for 2012:

Activity	2012	Total To Date
Number of Completed Projects	6	95
Number of New Contracts	1	
Total Grant \$\$ in Completed Contracts	\$ 367,486.42	\$ 3,031,695.29
Total \$\$ Provided by Townships	\$ 249,992.79	\$ 1,355,098.04
Project Statistics		
Sq. Ft. Road Surface Stabilized	326,030	2,931,160
Sq. Ft. Road Ditch Stabilized	121,246	763,942
Sq. Ft. Ditch Outlet Stabilized	8,930	68,804
Sq. Ft. Road Bank Stabilized	20,310	204,841
Sq. Ft. Stream Stabilized	3,210	29,680
Number of Stream Culverts Added	4	29
Ft. of Stream Culverts	150	1,055
Number of Cross Pipes Added	31	315
Ft. of Cross Pipes	1,507	13,005
Sq. Ft. Vegetative Management	131,547	677,082
Sq. Ft. Geotextile Fabric	14,300	415,805

2012 also marked the second maintenance evaluation of current completed dirt and gravel road program projects less than 10 years old. In all, 87 projects were reviewed to determine adequacy of maintenance activities and evaluate longevity of best management practices and their continued success to improve water quality. Overall, projects are still meeting program goals and requirements even as Bradford County's landscape and traffic patterns continue to change.

Education and outreach is another aspect of the dirt and gravel road program. Bradford County hosted a 2-day Environmentally Sensitive Maintenance (ESM) training presented to District staff, municipal officials, and others participating in the Dirt and Gravel Road program. The Center for Dirt and Gravel Road Studies staff developed and presented this program. Other local educational activities included: Published local program's newsletter – *"Down & Dirty"*, Provided updates at the Township Association Meeting, Provided one-on-one assistance with many individuals, Attended State's Annual Training, Representation on the State Program's Marcellus Gas Impacts Committee, Representation on the State Program's Quality Assurance Committee, Continued meeting of the local Quality Assurance Board (QAB).

The following before and after photos are from a project in Stevens Township where additional cross-pipes were added to improve drainage and the road profile was restored to promote sheet flow and prevent water from remaining on the driving surface.



Before



After





## **EDUCATION – 2012 Accomplishments**

- Approximately 1000 students participated in 9 Conservation Field Day events held for area schools.
- 58 general conservation related programs were presented to over 2,500 students and members of the general public on a variety of topics including Wetlands, Forestry, Soils, Wildlife, Birds of Prey, Bald Eagles, Natural Gas Drilling, macro-invertebrates, spiders, turkeys, reptiles & amphibians, integrated Pest Management, Predators, Watersheds, Threatened & Endangered Species, Outdoor Careers, Conservation, wilderness survival, Animal Tracking and a variety of other natural resource topics.
- Conservation District manager facilitated 9 Natural Gas Impact education programs to an estimate 283 local, state, national and international environmental professionals, lawmakers, and members of the general public.
- Conservation District manager facilitated a Broome County, NY flood summit presentation to well over 100 attendees on issues related to stream channel management.
- Conservation District Manager facilitated a training and meeting with the Upper Susquehanna coalition concerning emergency stream intervention/regional stream curves to roughly 50 people.
- Conservation District Manager facilitated an education program within Canton Eco series public education to roughly 25 people pertaining to watershed management.
- Conservation District Manager facilitated a major education presentation to members of the EPA concerning the successes of the Mill Creek watershed restoration project.
- Conservation District Education Coordinator organized the Bradford County Envirothon competition as well as assisting with the state Envirothon. 14 teams from 4 school districts attended the local County Envirothon for a total of 75 students and advisors.



Bradford County Envirothon 1st Place Team - Canton High School (left to right – Bradford County Conservation District education coordinator Dan Rhodes, Advisor Tom Hojnowski, Trever Hartford, Caleb Jackson, Vanessa Bonnell, Matt Jennings, Seth Martin, and Bradford County Commissioner Daryl Miller.

- Conservation District Manager presented a program to DEP in Williamsport involving our County stream management regional curve management plan.
- Conservation District Manager facilitated a stream maintenance workshop to roughly 100 Resource Conservation and Development Council members.
- District Manager facilitated a presentation to 35 people at the National Association of Conservation Districts concerning the development of technical capabilities within Districts.
- Conservation District Manager facilitated a program at the New Jersey Association of Conservation Districts to roughly 75 attendees concerning building the technical capabilities of Conservation Districts.
- Conservation District Manager submitted news releases available to every resident of Bradford County and spoke with County township officials concerning the Keep PA Beautiful dump survey accomplishments.
- District Manager met with 200 County township supervisors for their annual spring/fall chapter 105 meeting on lake/pond management, dirt and gravel roads, flooding, regional curves, and stream maintenance.
- District Manager and staff facilitated and provided technical support within nine pond workshops and numerous on-site visits for members of the general public concerning pond management and construction issues; reaching an estimated 100 people.
- Conservation District Education Coordinator along with District staff members, coordinated and facilitated fall 2012 F.F.A. Wildlife, Aquatics, and Soils competition. Roughly 100 students participated in this event.
- BCCD Ag. team planned and facilitated the FFA agronomy CDE with County School districts.
- BCCD Ag. team planned, coordinated and facilitated seven educational programs reaching roughly 225 members of the general public and highlighting manure management, pesticide usage, and soil conservation.
- Two Bradford County college students were each awarded Ernest Manchester Memorial scholarships by the Bradford County Conservation District. Holly Ulmer and Anthony Ventello were each on hand to receive a \$500.00 check presented by Richard and Stephanie Manchester, who represented the family.
- One issue of the Environmental Educators Network newsletter was sent to over 800 teachers and school administrators.
- Education Coordinator facilitated a station at the Bradford County Youth field days on wildlife, serving roughly 500 kids and parents.
- Education Coordinator facilitated an educational program on wood products of aboriginal peoples at the annual Open Forest Event at Satterlee Creek environmental education center in Sayre serving 100 general public people.



Ernest Manchester Memorial Scholarship Awarded  
(l to r) Richard Manchester, Holly Ulmer,  
Stephanie Manchester, Anthony Ventello

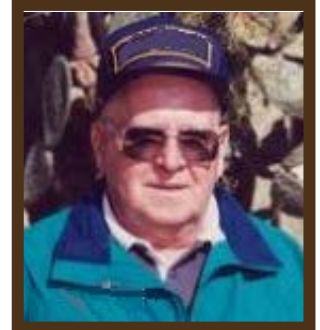


- Education Coordinator facilitated wildlife education programming at Camp Bruhle, and local Cub Scout summer camp at Roundtop Park, serving an estimated 400 youth.
- BCCD Education Coordinator and District Manager wrote three environmental education grant proposals in 2012; including “Conservation Jeopardy”, “On-Site Indoor and Outdoor stream studies laboratories” and “PA Envirothon mini-grant proposal”.
- BCCD Education Coordinator and colleagues facilitated, developed and finished the production of the PACD mini-grant involving soil profile posters.
- BCCD Education Coordinator and BCCD staff finished the coordination, production and installation of the Beers Family Wetland Area interpretive signs.
- BCCD Education Coordinator, District Manager and staff coordinated and facilitated programming and completion of the Youth Watershed Implementation Plan grant.
- Education Coordinator and District Manager organized and administered the Bradford County Education Fund grant process and completed Bradford County education fund grants final report summary.
- BCCD District Manager, Education Coordinator and staff participated in, hosted and facilitated the 2012 Army Corps of Engineers wetland delineation training at Stoll Natural Resource Center.
- BCCD staff participated as judges in the Canton High School FFA student public speaking day contest.
- BCCD interns and staff provided technical, administrative, group and individual assistance to an estimated 1700 farmers and County residents concerning agricultural nutrient management regulations, planning and assistance.
- BCCD staff planned, assisted with, and facilitated a 2012 County Agricultural Summit meeting held at the Wysox fire hall with roughly 75 people in attendance.
- BCCD staff organized and facilitated the Ag breakfast at the Wysox fire hall, where 60 attendees were given information and assistance with agricultural compliance issues.
- BCCD staff planned and facilitated an estimated 15 public workshops geared toward highlighting the impacts of natural gas on Agriculture in Bradford County.
- BCCD staff reached 200 attendees at the annual Troy equipment show highlighting the District’s stream stabilization work, and agricultural nutrient management planning information.



- Conservation District Education Coordinator gave 7 presentations to well over 600 students on the 2012 poster contest theme “soil to spoon.”
- Education Coordinator organized and facilitated one poster contest award presentation to County contest winners.
- Over the past three years including 2012, BCCD stream/tech team staff has averaged a whopping 175 educational contacts per month related to Chapter 102/105 advisement through in-office assistance, meetings, phone calls, emails and educational programs to County residents.
- The BCCD stream-tech team staff provided educational, administrative and technical assistance involved with 297 total General Permits and their corresponding applicants in 2012.

A memorial service was held at the Stoll Natural Resource Center in Wysox on June 4<sup>th</sup>, where a Legacy Sugar Maple was planted in memory of Max Dewing. During Max’s 27 years of faithful service on the Bradford County Conservation District’s Board of Directors he rarely missed a Board Meeting from 1972 to 1999. His contributions helped to grow the Conservation District over the



years to what it is today.



Max played a key part in the construction of the Stoll Natural Resource Center in Wysox, and introduced many students to maple syrup production through the Conservation District’s Environmental Field Days.

We can better afford to continue keeping you informed by utilizing electronic mail. If you want to receive notices and this newsletter via e-mail, contact Bradford County Conservation District at [jane.carman@pa.nacdnet.net](mailto:jane.carman@pa.nacdnet.net).

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