

Land Use Related Ag Programs

With efforts to divert agricultural land to other uses, the Planning Commission and an organized agri-culture community have asserted the importance of farming, an enterprise conducted almost entirely by family farmers.

In order to ensure the success of their farming operations and to maintain an adequate standard of living, many farmers in Penn Township and elsewhere have begun to look beyond the traditional farm with its rotated crops and small herds of dairy cattle.

Over the last four decades the size and scale of farm operations has increased. A dairy herd of 75 to 100, which was fairly large 15 years ago, is now small.

These farmers are considering more intensive animal-related operations that will increase farm income and help to assure continued use of the land for agriculture.

As farmers move to diversify their operations and increase the size of their farms -- either by lease or purchase -- they must be able to meet more stringent regulatory requirements and embrace a broad range of incentive programs designed to protect the environment and insure the productivity of agriculture.

It is fair to say that farming is the most regulated yet competitive industry in the country. It is also one with many sources of support at the State, County and national level.

Many farmers increasingly feel a need to develop CAO's (Concentrated Animal Operations) or CAFO's (Concentrated Animal Feedlot Operations) to bring in more revenue to offset a loss in traditional farm income and maintain an adequate standard of living. CAO's are highly regulated by the State under the Nutrient Management Act, provided they reach a certain size, in which case participating farmers must submit a nutrient management plan to the County Conservation Service.

Penn Township farmers have for the most part been able to establish a mix of farm operations that enable them to remain in farming. This diversity is best reflected by the Heimbach farm where field crops, dairy cows, and an active poultry operation all contribute to an increase in revenue per acre.

Growth of CAO's has been particularly strong in western Snyder County where 75 farms are now involved in large-scale hog production. However not many farms qualify for CAFO designation in Snyder County; in fact, as of 2002 there were only six.

National, Regional and Statewide Concerns

Concerns about the future of agriculture have become widespread. In Snyder County these concerns are driven by a desire to reduce pollution of the Chesapeake Bay watershed and to promote environmental practices that will assure the future quality of this important natural resource.

The Chesapeake Bay Program has promulgated a blend of regulatory measures, educational programs and monetary incentives to change the behavior of property owners along the Susquehanna River and its tributaries. It is an effort that has reached down to many levels of state government. Even the Game Commission, for example, participates.

Because most land adjacent to waterways is owned by farmers, they have the ability to literally change the quality and character of the stream as well as the stream bank. The lead role in conservation activities is carried out by Conservation Districts which are active in each county of Pennsylvania. The Snyder County Conservation District has proven itself effective in promoting better conservation practices on local farms.

Incentive Programs

Incentive programs have been developed to protect and encourage the practice of farming and to promote conservation.

These programs include:

- Agricultural Security Area
- Pennsylvania Conservation Easement program
- Conservation Reserve Enhancement program
- Fencing and Stream Releaf
- Chesapeake Bay Financial Assistance Funding

The implementation of these programs in Penn Township can best be described as mixed, with the exception of the highly successful Ag Security program.

Agriculture Security Area

The Agriculture Security Area has been widely accepted by the farming community primarily because it protects farmers from neighbor complaints and ordinances that limit their ability to farm.

Agriculture is prevalent not only in Penn Township, but in the immediate region. Even those townships near the developed commercial corridor of Routes 11/15 maintain a strong agriculture presence as show in the chart below. For example, in Monroe Township the Ag Security Area occupies 61% of total Township acreage.

Ag Security Percentage of Total Acreage			
Municipality	Acres in Ag Security	Total Land in Twp.	% of Township in Ag Security
Penn Township	4,908	17.9 sq. mi.	43%
Union Township	2,743	14.6 sq. mi.	29%
Monroe Township	6,083	15.6 sq. mi.	61%
Middlecreek Township	5,205	14.3 sq. mi.	57%
Jackson Township	6,629	15.1 sq. mi.	69%
Washington Township	5,816	24.5 sq. mi.	37%
TOTAL	30,394	102 sq. mi.	49%

Source: Consultant Analysis of Conservation District Data

Act 43 of 1981 allows any owner or owners of land used for agricultural production to submit a petition to their Township Supervisor for creation of Agricultural Security Area or "Ag Area." Two hundred fifty or more acres of viable agricultural land must be involved. Approval authority for the "Ag Area" petition is in the hands of the township supervisors.

Under Act 43, local governments are not permitted to pass ordinances which unreasonably restrict farm structures or practices. It prevents local governments, for example, from defining or prohibiting as a "public nuisance" agriculture activities and operations conducted within the Ag Area.

While benefiting from participation in an Ag Area, a farm operator must none-

theless engage only in normal acceptable farming practices. The act does not take away a local government's right to control nuisances when they bear directly on public health and safety.

The Act also protects farm operators by discouraging condemnation of agricultural land through eminent domain. Participants receive the advantage of having additional reviews of the proposed condemnation. Also, only acreage in Security Areas can participate in Pennsylvania's \$100 million Agricultural Easement program (also referred to as Purchase of Development Rights program).

The addition of land to the Agricultural Security Area may occur at any time during the seven-year period provided that the petition and review requirements of Act 43 are followed. If within the seven-year period, 10% of the land with the Ag Area is diverted to non-agricultural use, the governing body may upon review terminate or modify the Ag Area.

Seventy-five farms in Penn Township were included in the Agriculture Security Area comprising a total of 4908 acres. As of July 2001, the participating farms were as follows:

Ag Security Area			
Participating Farms			
Farm/Farmer	Acres	Map. Ref.	Parcel Ref.
Shawn Andrulewicz	72	1	14
		1	23
Robert Underhill	10	4	30
Wayne Beaver	65	1	19

Kenneth Boyer	40	3	85
Barbara Rowe	12	4	1
Don Ernst		3	80
Alvie Cook	130	3	88
Furman Farms	250	5	25
NeLaLe Farms	116	5	17
		5	16
Rhoads Farms	300	9	37
		9	30
		9	29
		4	
		9	31
Sephares Gemberling	113	3	
Melvin Graybill	80	5	15
Clair Heimbach	260	3	168
		3	72
		3	166
	107	9	45
Clyde Holtzapple	75	4	2
Noah Hostettler	30	4	28
Rodney Kantz	17	2	49
Ammon Klingler	252	2	29
		2	24
Charles Klingler	95	2	71
		2	25
Gene Klingler	70	2	36
		2	8
Ray Klingler	106	2	80
Robert Klingler	97	9	67
		9	32
		9	
Roy Knause	82	1	1
Susan Martin	133	6	21
Mahmood Nasir		6	53
Frank Kratzer		6	29
Susan Martin		6	28
Marlin Kratzer	88	1	61
		1	22
Daniel Kuruna	54	1	26
Albie Cook	100	?	?
Arthur Musser	17	4	24
		4	44
Charles Musser	20	4	22
		4	24b
Ralph Musser	21	9	88
		9	35
Richard Riegel	148	3	73
Clair Ritter	140	1	10
		1	10a
		1	39
BJ&E Realty	145	2	3
(George Robinson)		3	
		2	
Richard Rowe	21	4	1
Robert Rowe	40	4	1b
George Sampsell	22	9	80
Donald Schrey	22	9	38
Brian Wolfe	19	6	35

William Schrey		9	41
Richard Smith	60	9	75
		9	40
Ernest Snook	125	6	55
Sam Stauffer	145	3	65
		3	63
Charles Strawser	13	4	12
James Wentzel	196	4	13
Bordner & Kardohely		3	91
		4	58
Jesse Yoder		8	3
Comm. Of PA	1000	5	4
TOTAL	4,908	75 Farms	

Total Acreage/# of Farms

100 acre-	26
100 acre+	15
250 acre+	4
300 acre+	1
1000 acre	1*

*Selinsgrove Center

Snyder County Ag Land Preservation

The new state Conservation Easement Program is also widely accepted by the farm community.

Over 160,000 acres on 1,295 farms have been preserved in Pennsylvania since the inception of the program in 1989. Second only to Maryland in the total acreage of preserved land, Pennsylvania has the distinction of having the fastest growing farmland preservation program in the nation.

State funding has grown by 200 percent from \$28 million to \$87 million since July 1, 1999.

The success of the program has led to increased interest on the part of farmers, as demonstrated by a backlog of nearly 1,600 applications for easement purchases in 50 counties. Matching funds available to Pennsylvania counties reached a record high of \$24.3 million in 2000, an increase of nearly 50% above the 1999 level.

In Snyder County, as of 2001, 13 farms with over 1,600 acres have recorded easements. In Penn Township, two farms totaling 392 acres have received a conservation easement and two other farms are in the process of review and approval.

Conservation Reserve Enhancement Program (CREP)

The CREP program helps to reduce erosion along stream banks and create and improve habitat for wildlife and fish. In fact, the program is funded in part by the Game Commission. Land dedicated to stream bank protection must be left idle for 10-15 years, and the farmer is paid a certain amount per acre.

In Snyder County, CREP is paying from \$55 to \$120 per acre for land taken out of production to improve stream quality, reduce erosion and create wildlife habitats. The better the quality of soil the higher the payment.

To date, however, only four farms in Penn Township out of a total of 100 participants in Snyder County have enrolled in the program. Farmers can

receive up to 100% of the cost for implementing conservation practices such as grass filter strips, wooded stream buffers, grass waterways and establishing permanent legumes and grasses.

There is a continuous sign-up program until 100,000 acres have been enrolled within the 20 county Chesapeake Bay area. At the present time, just over 50% of the total acreage has been accounted for.

Considering that many farms in Penn Township border waterways, the low participation rate is surprising in view of the fact that all improvements are paid for by the CREP program and farmers receive annual payments for land taken out of production.

Eligibility Requirements

- Land placed in CREP must have been in crop production for one of the previous eight years, or be considered marginal pastureland within 180 ft. of a stream
- Producers must enroll land in CREP for 10 or 15 years
- Eligible land located within 180 ft. of a stream does not need to meet a minimum Erodibility Index (EI) determined by the Natural Resources Conservation Service
- Farmland greater than 180 ft. from a stream must meet this criteria:
 - Land that is 180 to 1000 feet away must have an EI of 8 or more

- Land 1000 feet and beyond must have an EI of 12 or more
- Grassed waterways and contour grass strips may be enrolled regardless of the EI

Eligible Conservation Practices

There are many conservation practices that farmers can implement to meet CREP requirements. They include the following:

- Establishment of permanent warm and cool season grasses
- Hardwood tree planting
- Permanent wildlife habitat
- Grass waterways
- Shallow water areas for wildlife
- Vegetative grass cover already in existence
- Wildlife food plots
- Establishment of contour grass strips and grassed filter strips
- Riparian (wooded) stream buffers
- Wetland restoration

There are long-term advantages for both the farmer and the watershed due to the incremental nature of the improvements. Trees will mature, wildlife habitat improve, the vegetative cover increase, and wildlife food plots expand over time, thereby enhancing the environmental quality and richness of the stream and adjoining "greenway." (See discussion of Greenways)

Farmers naturally weigh these advantages against the land taken out of

production. But a brief analysis shows the impact on farm income may be quite limited. For example, a farmer with 300' stream frontage would need to take less than an acre out of production. (Assuming an existing 50' buffer, multiplied by the increased buffer of 130' by 300', results in 39,000 s.f., less than an acre.)

The Township should proactively work with farmers whose land is located along these major streams and the Susquehanna River to encourage participation in CREP and other programs intended to improve water quality, reduce erosion, and enhance wildlife habitat.

It's fair to say that farmers share with developers the opportunity -- and the obligation -- to improve and not degrade land and water quality and implement restorative land use practices. The farmer has the greatest stake in preserving the quality of land and water to insure the success of agriculture in the future.

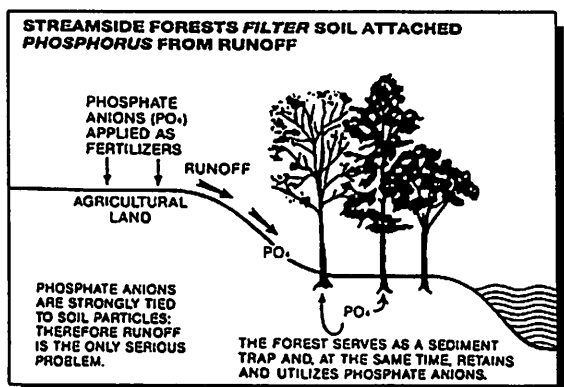
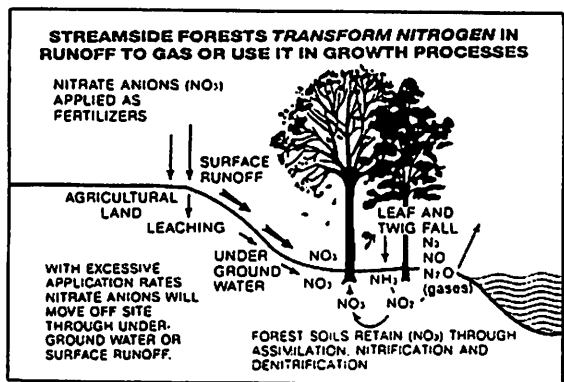
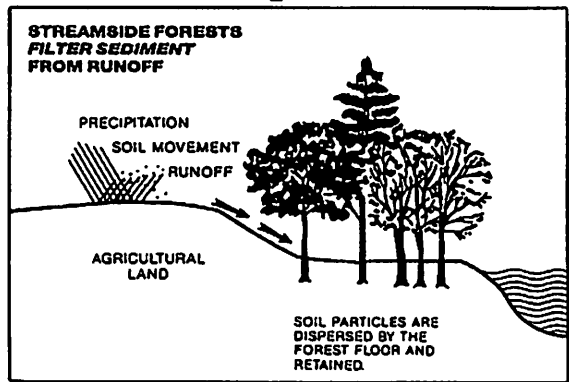
Riparian Buffers

Streamside forests, or riparian buffers, are crucial to the protection and enhancement of water resources. They remove excess nutrients and sediment from surface runoff and shallow groundwater. They also shade streams, creating light and temperature conditions for aquatic plants and animals. Streamside forests reduce the effects of some pesticides.

The greatest threat to these forests, or buffers, is the conversion of forest and agricultural lands to suburban development.

Ordinances can be enacted to require riparian buffers to be maintained as part of land development. At the same time, education and technical assistance can help landowners understand the importance of riparian forest buffers.

Benefits of Riparian Buffers



Reference: Maryland Department of Natural Resources

In Penn Township, Penns Creek and Middle Creek have lost some of their In Penn Township, Penns Creek and Middle Creek have lost some of their natural forest buffers due to creekside clearing for cabin and second home development. In other cases land has been cleared to maximize land available for agriculture.

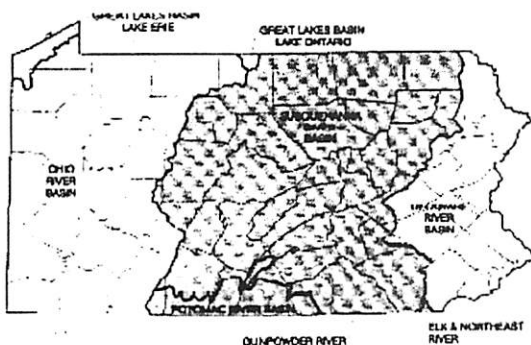
Stream ReLeaf Initiative

In 1996, the Chesapeake Bay Program adopted a goal to increase the use of riparian forests on 2010 miles of stream and shoreline in the Chesapeake Bay watershed by the year 2010.

Pennsylvania is committed to reaching its share of the total restoration goal, or 600 miles of buffer, within the Chesapeake Bay drainage area, which includes the basins of the Susquehanna, Potomac, Northeast and Gunpowder rivers, and the Elk creeks (Figure 1).

Under the leadership of Pennsylvania's Departments of Environmental Protection, and Conservation and Natural Resources, Pennsylvania's Stream ReLeaf Plan provides a framework for achieving this goal.

In Pennsylvania the plan promotes the use and conservation of all types of streamside buffers, not only forested.



The Chesapeake Bay drainage area in Pennsylvania appears in the shaded area.

- Progress will be measured in number of streambank or shoreline miles along which buffers are restored and conserved.

Streambank Fencing Program

Implementation

A set of criteria has been developed to track progress towards Pennsylvania's 600-mile restoration goal for the Chesapeake Bay drainage:

- Buffers must average at least 35 feet wide from the top of the streambank to the buffer's uphill edge (a width of 50 to 100 feet should be strongly encouraged).
- Buffers must contain at least two species of trees or shrubs, or a combination of trees and shrubs.
- Natural regeneration is acceptable where nearby trees native to the area can provide a natural source of seeds and where invasive plant species can be controlled.
- Buffers established around wetlands, lake and pond shores may also count towards the goal.
- Conservation of existing forested streamside areas should occur within a corridor at least 100-feet wide.

The Pennsylvania Department of Environmental Protection (DEP), through the Chesapeake Bay Program, initiated the stream bank fencing and agricultural crossings program in 1994.

This program was intended to improve the water quality of Pennsylvania streams by reducing soil erosion and nutrient deposition caused by livestock.

Eligibility/Number of Crossings

Landowners with existing livestock operations along streams in the Susquehanna or Potomac River basins of Pennsylvania are eligible to participate.

There is no limit to the amount of fencing a landowner may receive, except that each landowner is limited to one agricultural crossing or ramp as defined in DEP's General Permit 6. However, this program can also provide the fencing necessary to accommodate additional crossings or ramps which are simultaneously installed and funded by other sources. All costs associated with installation of a high tensile fence and crossing or ramp are paid by DEP, including materials.

There is one participant in Snyder County.

What Does the Landowner Agree to Do?

- The landowner signs consent form for right of entry, allowing DEP to erect a fence and any necessary crossing or ramp on landowner's property.
- Landowner obtains permits and approvals to install agricultural crossings and ramps.
- Landowner designates location of any known underground utilities, and indicates property line boundary where proposed facilities would be close to adjoining properties.
- As required, landowner clears vegetation from proposed installation site.
- Landowner maintains fence for 10 years and the crossing or ramps in accordance with the permit.
- Landowner authorizes inspection of project area by authorized representatives of DEP and its agents.
- If landowner fails to maintain facilities according to program guidelines, he must refund all or an equitable part of the costs of installing the fence and any crossings and ramps to DEP.

Chesapeake Bay Funding Program

Beginning in 1985, the Chesapeake Bay Financial Assistance Funding Program (a cost share program) has committed about \$2 million dollars annually in direct financial grants to Pennsylvania farmers for the control of critical nonpoint source water pollution.

Sediment and nutrients carried by runoff from cropland and barnyards are examples of nonpoint source pollution which cannot be traced to a specific discharge point. As of 1996, 2,000 Pennsylvania landowners have participated in the cost share program and about 1,000 have signed agreements.

This voluntary program requires implementation of a nutrient management plan and associated best management practices (BMPs).

The Chesapeake Bay cost share program is currently open to farmers owning land in specific areas of 37 counties within Pennsylvania's Susquehanna or Potomac River Basins. Snyder County is one of these counties.

Landowners who enter into an agreement with a conservation district may be eligible to receive up to \$30,000 in cost-share funds and free technical assistance in the planning, design and installation of structural BMPs.

The landowner agrees to two requirements: (1) to implement a nutrient application plan for the life of the agreement, and (2) to maintain the

installed BMP's for their effective service life, usually ten years.

What Kind of Best Management Practices (BMP's) are Eligible?

While the program restricts payment to no more than 80 percent of the cost for a particular BMP, conservation districts are allowed to set their own cost share rate. The program provides specific systems to promote proper management of soil, water and nutrients including:

- Barnyard runoff management
- Composting
- Permanent vegetative cover

- Cropland protection
- Animal waste management
- Conservation tillage
- Strip cropping
- Stream protection
- Terraces & Diversions
- Sediment and erosion control
- Soil and manure analysis
- Grazing land protection
- Excess manure and fertilizer management

In Snyder County, there are 31 farms participating in this cost share program: One Penn Township farm has signed on and is using the program for manure storage, spring development and grass waterway.