

Water Quality and the Pennsylvania Agricultural Conservation Easement Purchase Program

An Examination of Present Practices,
Challenges, and Opportunities

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EXECUTIVE SUMMARY

This report examines one of the nation's most successful farmland protection programs with respect to its role and potential role in contributing to water quality improvements in the Commonwealth of Pennsylvania. The Agricultural Conservation Easement Purchase Program (ACEPP) has enrolled more than 5000 farms totaling nearly 530,000 acres since its inception, and county administrators maintain relationships with each of these private landowners. This suggests an opportunity for influencing this population of farmers to consider additional watershed-friendly practices. How this might be accomplished within the existing program design was the focus of the research summarized here.

This report encapsulates perspectives from ACEPP administrators in 24 counties across Pennsylvania, as well as 8 additional experts affiliated with either NRCS¹ offices in Pennsylvania or farmland protection programs in other states. Telephone interviews were used to elicit information on current program operations as well as perceived opportunities and challenges to addressing water quality objectives through ACEPP. This research was undertaken to: (1) characterize how and to what extent county purchases of agricultural conservation easements and the subsequent monitoring and enforcement of the easements support water quality; and (2) identify reasonable opportunities to improve water quality outcomes related to county agricultural conservation easements—whether through improved management under the existing rules or through statutory and regulatory changes.

Findings from Interviews of County Personnel

The following emerged as key points based upon the feedback from county farmland preservation staff:

- The program is attractive to farmers; demand for easement purchases consistently exceeds available funding. In addition to preserving productive farmland, the program also increases the use of conservation planning within the agricultural community, a benefit valued by county staff but which may not be recognized more broadly.²
- County personnel prize their relationships with the farmers. Many of the staff are farmers or come from a farming family background and the county board members are also farmers with relationships in the community. There is a very strong preference in most county programs to work cooperatively with the farmers rather than adopting a more regulatory role.
- Funding levels are slowing program results. It is not uncommon for there to be a backlog of ten times as many farms as can be preserved in one year; locally the backlogs can be much higher. One county reported having a 50-60-fold acreage backlog.
- Manpower shortages are widespread and possibly the single biggest impediment to higher levels of program performance on water quality-related issues. Shortages of certified conservation planners are creating bottlenecks on enrollment; shortages of inspection personnel are constraining time spent at each farm, numbers of farms visited annually, and farmer education on stewardship practices. As the program continues to enroll more farms this understaffing problem becomes more severe.
- Before a farm may receive state easement purchase funds, it must have a conservation plan in place. In the experience of county farmland preservation staff, the requirement to have a conservation plan is not off-putting to most farmers, but in some places farmers

¹ US Department of Agriculture Natural Resources Conservation Service

² Conservation plans identify the best management practices (BMPs) appropriate to the farm that will benefit water quality in the watershed.

have been waiting two or three years for plans and so have neither applied for state funding nor begun implementation of a conservation plan. The barrier is not one of persuasion, it is a problem of getting plans in to the hands of the farmers.

- Some counties have planners on staff who can prepare conservation plans, some rely upon NRCS to prepare conservation plans, some see plans written by consultants hired by the farmers. The continued reliance upon NRCS offices to do plan writing may no longer be a tenable option as there may not be sufficient manpower in the NRCS offices to address the state and county programmatic needs.
- At the same time, some counties reported challenges to taking on more of the plan writing role. It can be difficult for county offices to get their staff enrolled in planner certification training courses in a timely fashion as the courses can fill up or are offered relatively infrequently.
- The lack of standardization in conservation plans is an issue. More than one program administrator indicated that plan quality depends upon the plan writer. Overall, the program is fostering more conservation plans but there remains a degree of unevenness in what is being created. This is no worse in the program than outside the program, but will affect progress toward water quality outcomes.
- A number of counties give preference to farms that have demonstrated a greater degree of progress on their conservation plans, so as to incentivize good on-farm practices in the applicant pool. This practice is fairly common although not universal from county to county and seems to be more prevalent where there is less concern about the ability to get conservation plans written in a timely fashion.
- Many county administrators of ACE are open to the idea of revising current farm ranking criteria by adding a scoring factor that would reflect the potential for water quality improvements. This may be a fruitful avenue to pursue for increasing water quality benefits from ACE.
- Additional monetary incentives may help spur more action on BMP installation, but there are some dissenting opinions on this among county program administrators. Based on the information gathered in this project, it seems very likely that there are different levels of need for additional incentives, reflecting differences among the target farms and farmers.
- Several respondents alluded to the synergistic impact of ACEPP and NRCS programs. NRCS program requirements tend to produce water quality improvements and farmers who apply for these federal incentives will improve their odds if the farm has been protected by easement.
- Farm size in itself does not appear to be a good predictor of adoption of water quality BMPs. County administrators report there are amenable farmers at both ends of the size scale.
- On the whole, farmers who have been enrolled in the program for decades, before state requirements were strengthened, are much less open to updating their conservation plans and undertaking additional conservation practices. Farmers enrolled in more recent years have always recognized that these requirements were part of the arrangement and are less resistant to such requirements.
- Crop farmers gain more from implementing recommended conservation practices than do livestock farmers and so it is easier to get their buy in. Good soil management and erosion control is good for the farm as well as for downstream water quality, but manure management practices return less benefit to the farmer while benefitting downstream water quality. This asymmetry between costs and benefits predictably slows adoption of better practices.

- Dairy farmer willingness to implement BMPs can rise and fall with commodity prices. In times when commodity prices are low, as has been the case recently, the farms are struggling to survive even before additional costs come in to the picture. Cost-sharing is likely crucial to address this farm segment.
- Education is also important and, where program manpower is adequate, the ACE program is a valuable vehicle for increased farmer education. This was especially remarked upon in relation to the monitoring visits that take place in years after the farm has enrolled. But it is not uncommon for a county's resources to be too limited to allow for these types of discussions.
- Compliance with program requirements is reported to be high. One issue that does come up with some frequency is the weakness of tracking systems and processes to record changes in ownership of preserved farms, which should trigger an update to the conservation plan. New owners of preserved farms often are not aware of the requirements of the easement and conservation plan, and there have been a handful of 'near misses' on serious violations during that turnover period when county farmland preservation offices had no knowledge of the change in ownership. This is a red flag; this issue deserves to be remedied before counties are placed in a difficult enforcement situation.
- When violations are found, the county staff strongly prefer to work one on one with the farmer first to address needed changes in on-farm practices. This approach has been able to address the large majority of issues that have been identified. Formal enforcement actions have typically been reserved for a small number of bad actors that have flagrantly ignored identified violations and/or have been the subject of multiple enforcement actions.
- In less egregious cases, county personnel may feel they have little enforcement recourse unless something is put in to the state farmland protection program requirements or the Clean Streams law. More than one person interviewed asked the question of what could they do in fact when it is not an unlawful practice, merely an undesirable action. Other administrators are averse to this enforcement role and do not view it as consistent with their larger role in working as a trusted partner with the farmers in their community.
- A number of model approaches to addressing water quality now being tried in some counties were identified which may be valuable to be put in to wider practice. These included:
 - Inclusion of a ranking criterion that gives additional points based on proximity to streams and wellhead protection areas.
 - One county tracks changes in numbers of impaired streams and numbers of clean water partnerships as part of the implementation of its county strategic plan. The requirements for preserved farms have been made more flexible to better match the clean water goals of the strategic plan allowing the county to pursue farmland protection on more parcels.
 - Farms that score poorly in the ACE program rankings due to non-productive land acreages (e.g., wetlands, and woodlands) should be evaluated as targets for water quality protection through non-ACEPP initiatives. These farmers are looking for some additional money, are unlikely to qualify for the incentives they have applied for, and may be good targets for water quality measure implementation such as riparian treatments. This type of approach is in use in some counties and is believed to hold promise for protecting farm tracts that perpetually score too low to receive ACEPP funds.

- A minority of counties have certified plan writers on staff, a situation which greatly eases the process of developing the requisite conservation plans for ACE applicants.
- Some counties are very deliberate in trying to use the monitoring visits as an opportunity for further farmer education, scheduling the visits to take place when it is possible to meet with the farmer and, in the case of a multi-generational family farm, when they can meet with the younger as well as the older farmers.
- One county changed its practices when recording the easement, attaching it to the deed rather than merely referencing it in the deed so as to avert future problems of the easement being separated from the deed of sale.
- Lastly, it is important not to lose sight of the fact that this program is the most valuable tool the state and counties have for protecting productive agricultural land. It is thus important to recognize the perspective that the program's primary mission needs to remain paramount as efforts are made to accelerate water quality improvements. Because this is the sole program addressing farmland protection at scale, any changes that might reduce its future ability to attract farmer applications or reduce the level of trust in county personnel is of great concern to those who run this program.

NRCS Perspectives

USDA personnel involved with the NRCS programs in Pennsylvania, and who work with the administrators of ACEPP, were also interviewed to gather further information on the program's implementation and issues that affect the agricultural community's level of interest. Key take aways from these interviews include:

- NRCS perspectives of ACEPP impacts on water quality are positive but nuanced. NRCS personnel credit ACEPP with improving on-farm practices beyond where they would have been absent the program. However, it was noted that farmer buy-in to conservation plan particulars is not a given, with farms enrolled earlier in the program resisting updates to bring their conservation plans into compliance with more recent regulations.
- Echoing the feedback from the county interviews, NRCS personnel see a need for more qualified plan writers to support program enrollment as well as more manpower on monitoring of preserved farms.
- Because counties may rely upon NRCS to write the requisite conservation plans, the pace of county farmland preservation is sometimes limited by NRCS capacity to write plans. This issue is of variable importance from one county to another, depending on the degree to which county personnel or private technical service providers (TSPs) were delivering the conservation plans to interested farmers.
- The information from these interviews suggest that close interagency coordination between USDA and the county farmland protection offices is possible and beneficial. The benefits of full collaboration are stymied somewhat by information release constraints on the part of NRCS and by some counties not providing sufficient lead-times on requests for conservation planning assistance.
- Writers of conservation plans need to be certified; NRCS conducts 'Bootcamp' training programs for this purpose. The training and certification process is demanding and, with other demands on county staff time, some concern was expressed over the ability of ACEPP personnel to meet these demands. There also appears to be a need for more training support on software tools used in conservation plan preparation.
- There is also concern that privately contracted plan writers don't always produce high-quality, comprehensive plans. This was attributed in part to the jobs being awarded to the lowest bidders.

- Views on the need for monetary incentives are somewhat mixed although incentives are more likely than not to be viewed as needed to spur BMP adoption. Funds to cover the costs of conservation plans are also viewed as a need.

Perspectives from Other States

State and county farmland preservation program administrators from other states were also interviewed to gather additional information on challenges and successful approaches to water quality protection through farmland protection programs.

- Respondents were asked their views of the merits of addressing land and water objectives in a single program versus through separate programs. There are two camps on this topic, much as was the case among Pennsylvania's county farmland preservation programs. The majority feel that water quality goals can be accommodated through farmland protection programs, and that it is appropriate to do so. However, even among the supporters of this concept, there were caveats about setting reasonable program requirements and offering reasonable compensation to the farmers who take the desired conservation actions.
- Programmatically, the approaches to farmland preservation and water quality protection varied a good deal from state to state; no single approach dominates. Program effectiveness was variously attributed to prescriptive requirements, attractive incentives, streamlined application reviews, and farm certification. Frequently there was a menu of programs available to farmers, rather than a single option for farmland preservation; the means by which water conservation fit in to the existing program matrix reflected those offerings.
- Paralleling the variety in farmland preservation program designs, there is considerable variation in how the programs in other states reflect water quality factors in the farm ranking process.
- It appears that Pennsylvania has tougher requirements for conservation plans than most of the other programs discussed in these interviews.
- All the respondents in other states felt that monetary incentivizes for good agricultural practices have been essential.

Conclusions and Recommendations

Based on the findings from all of these interviews, the following observations and recommendations are offered as potential steps for increasing water quality benefits achieved through ACEPP.

- While a small minority of program administrators expressed a belief that there must be a change in the state program requirements and/or statutory language to address water quality via ACEPP (less than 10% of respondents interviewed), larger numbers are opposed to changes which are mandatory in nature. Given the prevalent views that the program's voluntary nature is its strength, there appears to be more promise in focusing on program refinements that do not require statutory changes.
- County administrators of ACEPP should continue to share information on approaches they have implemented that achieve water quality improvements along with farmland protection.
- The counties and the state should consider potential modifications to the farm ranking criteria, specifically how to integrate one or more criteria that favor farms that have greater potential to improve water quality impacts. There is little in the farm selection process now in most counties that reflects water quality considerations.
- The counties and the state might also consider relaxing minimum farm size criteria for certified organic farming operations. These farmers are inclined toward good

management practices but may be unable to participate in ACEPP due to typically smaller farm sizes.

- Another opportunity is to create closer synergies between the ACEPP farm selection process and other programs focused on natural resource protection. Frequently there are low-ranking applicants who have properties with significant woodlands and/or wetlands, resources pertinent to water quality objectives. These farms are unlikely to be selected for ACEPP but could be good targets for other programs. Lessons learned from counties which have already initiated these types of efforts could be used to guide broader implementation across the state.
- Conservation plans play a central role in ACEPP and the program is accelerating conservation planning within the agricultural community. Unfortunately, the requirement for conservation plans is also slowing farmland preservation in some counties in Pennsylvania. This is due to uneven access to qualified conservation planners. Government staffing is insufficient to meet demand in a number of counties. In some areas this need is being filled by consultants or TSPs from the private sector but these services are not equally accessible in all parts of the state. This manpower problem deserves immediate attention – and funding – as both water quality and land preservation outcomes are slowed as a result in portions of the Commonwealth.
- Required updates to conservation plans triggered by a change in ownership are not always happening in a timely fashion due to breakdowns in that information being relayed back to the county's farmland protection staff. To address this vulnerability, procedures must be established to ensure that changes in ownership are reliably communicated to farmland preservation personnel at the time of sale.
- Greater standardization of conservation plans, by establishing minimum standards for plan content, would also likely contribute to additional water quality improvements. Several counties now use scoring approaches that give greater weight to farms that demonstrate a higher percentage of implementation of their conservation plans. However, this can lead to farms with less ambitious conservation plans outranking farms where more robust plans were developed.
- As the ranks of preserved farms swell over time, the amount of manpower needed for mandatory monitoring activities increases commensurately. These growing demands strain the capacity of many county offices. The change from annual to biennial inspection schedules provided short-term relief, but this is not a long-term solution.
- ACEPP monitoring visits are a valuable opportunity for on-site farmer education and can play a central role in fostering additional adoption of better water quality practices if used to engage the farmer in discussions of farm conditions, conservation options, and available incentive programs. Not all counties have adequate manpower to take advantage of this opportunity to discuss applicable conservation practices. Once again, there is a need for more personnel to realize this opportunity.
- While there are a number of cost-share incentives available today to farmers in Pennsylvania, there is more demand than money available in many counties and a likelihood that more financial support would yield more BMP installation. An assessment of the need for additional incentives for high cost, high impact measures and for cash-poor farm operations could be useful in identifying where additional incentive money would provide the greatest return on investment.
- There are varying levels of need for incentives for BMPs and conservation plan implementation. An assessment of this issue should be undertaken, looking at such factors as farm cash flow constraints, return on investment to the farmer versus the importance to programmatic clean water goals, total implementation costs (including costs for plans as well as hard costs) and the life cycle of associated costs to the farmer

when ongoing maintenance investments will be necessary. Gaps where desired BMP activity is impeded by a lack of adequate incentives should be prioritized for action. Additional education should be directed to those practices where the farmer's economic interests and the public interest in water quality are aligned.

INTRODUCTION

Water quality improvement is one of the most challenging environmental objectives of our time and one of the most important. Because land use is widely recognized as a driver of water quality and stream health, land protection, including farmland protection, can be viewed as an essential tool in comprehensive strategies to improve watershed health. In particular, the permanent protection of eased lands provides increased long-term certainty for investments in water quality best management practices (BMPs) relative to installations made on lands which remain vulnerable to future conversion to other uses. What is less clear is the propensity of owners and operators of protected farms to adopt voluntary BMPs in their operations and how to effectively support such additional action programmatically.

This report examines one of the nation's most successful farmland protection programs with respect to its role and potential role of in contributing to water quality improvements in the Commonwealth of Pennsylvania. The Agricultural Conservation Easement Purchase Program (ACEPP) has enrolled more than 5000 farms totaling nearly 530,000 acres since its inception, and county administrators maintain relationships with each of these private landowners. This suggests an opportunity for influencing this population of farmers to consider additional watershed-friendly practices. How this might be accomplished within the existing program design was the focus of the research summarized here.

This report encapsulates perspectives from ACEPP administrators in 24 counties across Pennsylvania, as well as 8 additional experts affiliated with either NRCS³ offices in Pennsylvania or farmland protection programs in other states [including New Jersey, Delaware, Maryland and Virginia]. This research was undertaken to: (1) characterize how and to what extent county purchases of agricultural conservation easements, and the subsequent monitoring and enforcement of the easements, support water quality; and (2) identify reasonable opportunities to improve water quality outcomes related to county agricultural conservation easements—whether through improved management under the existing rules or through statutory and regulatory changes. Telephone interviews were used to elicit information on current program operations as well as perceived opportunities and challenges to addressing water quality objectives through ACEPP.

Specific program elements discussed in these interviews included farm selection and ranking, conservation plan development and implementation, inspection visits, education and outreach, incentives, and 'best practices' in program implementation that provide models of how to achieve greater water quality outcomes. Specific questions addressed in this work included:

- How and roughly to what extent do county purchases of agricultural conservation easements and the subsequent monitoring and enforcement of easements support water quality?
- State statute, regulations, and the easement document have requirements centered around conservation plans but how do these requirements play out in the actual

³ US Department of Agriculture Natural Resources Conservation Service

implementation of purchases, monitoring, enforcement, and other activities undertaken related to the easements?

- Are counties engaging in activities that go beyond their monitoring and enforcement obligations that serve to improve water quality? (e.g., education of or special programs for owners of eased lands)
- What key commonalities and differences exist between county programs?
- Are there policies or practices in particular counties that other counties can learn from to achieve improved water quality outcomes? Conversely, are there policies and practices to be avoided?
- Could adjustments be made to the statutory and regulatory framework that would substantially improve water quality outcomes?

The interview guides used in this research can be found in Appendices A through C.

Interviews were targeted to the counties that have protected larger numbers of farms and productive acreage. The information reported here synthesizes findings from the following counties:

Adams
Allegheny
Berks
Blair
Bucks
Centre
Chester
Columbia
Cumberland
Dauphin
Franklin
Lackawanna
Lebanon
Lehigh
Lycoming
Monroe
Montgomery
Northampton
Perry
Schuylkill
Union
Washington
Wayne
York

These counties represent 68% of the farms and 66% of the acreage protected under the program through October 2016, and contain 47% of the acreage designated in Agricultural Security Areas across the Commonwealth.⁴

⁴ Pennsylvania Department of Agriculture, *Bureau of Farmland Preservation 2015 Annual Report for Act 149 of 1988*, published May 2016 plus personal communications in December 2016.

Program Overview

The Agricultural Conservation Easement Purchase Program was created by statute in 1988, under Act 149. The purpose of this program is to ensure that the farmers in the Commonwealth of Pennsylvania have sufficient agricultural lands using conservation easements to restrict and limit the conversion of farmland to non-agricultural use. By statute, the counties implementing ACEPP must list the following among the purposes:

- Protect viable agricultural lands by acquiring agricultural conservation easements which prevent the development or improvement of the land for any purpose other than agricultural production
- Encourage landowners to make a long-term commitment to agriculture by offering them financial incentives and security of land use
- Protect normal farming operations in agricultural security areas from incompatible nonfarmland uses that may render farming impracticable
- Protect normal farming operations from complaints of public nuisance
- Assure the conservation of viable agricultural lands to protect the agricultural economy

The program is administered jointly by the Pennsylvania Department of Agriculture Bureau of Farmland Preservation and 57 county agricultural land protection boards; in some counties the conservation districts also play administrative roles.

State funds for easement purchases are distributed by the State Agricultural Land Preservation Board; all applications considered by the state have been reviewed, ranked and recommended for purchase by the counties. County agricultural land preservation boards rank each farm on the basis of its soil quality, stewardship, and development pressure, as well as any additional considerations which they have had approved by the state. To be eligible for the easement purchase funds, all farms must be enrolled in a designated agricultural security area (ASA) and be in active production. Farms are ranked and prioritized on the basis of defined criteria which include:

- Farm size and quality
 - Minimum size of 50 acres, or 30 acres if the county elects to reduce the minimum size
 - Parcels may be as small as 10 acres if either adjacent to other preserved agricultural lands or if producing a crop unique to the region
 - At least 50% of the tract must be productive cropland, pasture or grazing lands
 - At least half of the land must have soils ranked as capability classes I-IV
- Farm Stewardship
 - In addition to the statewide requirement for an ag erosion and sedimentation plan and/or a manure management plan, preserved farms must demonstrate that these plans are being implemented and allow monitoring of the farm at least once every two years to assess compliance
- Threat of conversion
 - The risk of non-agricultural development of the farm is assessed on the basis of:
 - Proximity to sewer and water lines
 - Extent and type of nearby non-farm land uses
 - Amount and type of agricultural use in the area
 - Proximity to other preserved farmland

Through the end of 2015, the program has purchased 5045 agricultural conservation easements protecting 528,656 acres of productive farmland. It has been hailed as one of the most successful farmland protection programs in the nation.

The program is administered in large part at the county level and organizationally this differs from one county to another, variously being run out of the farmland protection office, the county conservation district, the county planning department, the department of economic development, or some interagency arrangement involving two of the above. It is also common practice in many counties to rely on support from the US Department of Agriculture field offices personnel in the NRCS program. When roles are shared across agencies, the responsibilities for conservation plan preparation typically fall to the county conservation district or NRCS. Program outreach activities are not so predictably assigned. Farm monitoring may be done by the ag protection staff, or may involve the county conservation district. Less commonly, the tax office handles this role.

FINDINGS FROM COUNTY PROGRAM ADMINISTRATORS

Program Value and Impact

Program administrators see great value in ACEPP as a catalyst for the use of conservation planning within Pennsylvania's agricultural community. This impact is achieved because of the trust in the farmland preservation program, the channel it provides for meeting conservation planning obligations, and the funds it makes available. Illustrative comments made by administrators on these points include the following:

Conservation planning

- *The program has influenced how farmers look at their farms. It reinforces the expectation that they will do conservation planning. Even with our newsletters and other communications about the Pennsylvania Clean Streams law, there are farmers who were unaware of the requirements to have a conservation plan.*
- *Overall, it's a great program. We can only preserve 5 or 6 farms a year, but we have influenced fifty a year to do conservation plans [in the hopes of qualifying for ACEPP]. This is not widely recognized, but the program is a huge inducement to farmers to make plans to take conservation actions.*
- *While all farms are required by state law to have conservation plans, the fact of the matter is that there is far too little staff in the conservation districts to reach everybody who has not yet done this. Because conservation plans are a requirement of Ag Land Preservation programs, this allows the Conservation District to have a dialogue with the farmer or landowner that may not have happened otherwise.*
- *The program has done a great job advancing conservation plans further. It provides a carrot. We've found that many farmers remained unaware of the plan requirements even with the newsletters and other steps to build awareness. You have to reach both owners and operators.*
- *By the fact of there being this program, there are eyes on the farm a whole lot more. We are required to go out at least every two years. That ability to observe farm conditions and to work with the farmers is improved. There is a greater opportunity to get water quality actions taken on the farm that's in the program.*

- *For those farmers who may not be as inclined as their more progressive contemporaries, knowing that conservation plans and their implementation is a requirement of easements the likelihood of the plan being fully implemented is much higher.*
- *My preserved farms are my shining examples. I have a presence quite regularly on these farms. That goes far. They're the easiest ones to talk to. You see them enough and talk to them enough that you build up a relationship.*

Land protection

- *The purpose of this program is to create a resource base of agricultural lands for the long term. It's about economic development and open space protection. In the nearly 30 years since we started in 1989, we have created good size blocks of preserved land, not isolated farms.*
- *This is the single most important program we have. It works pretty well – better than other programs.*
- *The program is doing what it is intended to do.*

Relationship building

- *We have tons of farms in our county and we're trying to do as many as we can with this program. The farmers may feel more comfortable contacting us than other agencies. We see them every year and that helps build that trust. We're not just someone who will tell them what they're doing wrong, but help them on a path forward.*
- *We use this program to get them set up so that they are doing what the regulations will be requiring. Increased regulation will be coming. The people we're working with will be ready.*
- *The main benefit is that we can build a team and they have someone they can trust, that they can talk to. We get calls a lot from farmers saying, "We have this issue and we'd like some options to fix it." In this way, we're able to stop some things before they get worse. That's huge. They feel comfortable with us. I keep repeating myself about the trust and teamwork element, but that's huge.*
- *Farmers are so worried, they think the government wants to take their livestock away from them. They are skittish about talking to government people. We work hard to get past this fear.*
- *This is a great program, well received by farmers, and we look forward to continuing with it.*

Recent Trends

A variety of trends were noted during the interviews that are affecting the easement purchase program.

- There is a backlog of landowners wanting to sell agricultural conservation easements in every county. In most counties the number of applicants has remained fairly constant year over year.
- One county reported a recent doubling in applications, including strong, established farms. The suspicion is that some farmers are applying now for the first time as they start to think about an ownership transition.
- One county is starting to run out of high quality farms over 50 acres and will relax eligibility to include smaller farms.
- In some counties there are signs that the amount of money offered by the county through ACEPP is not sufficient to close deals in the face of rising appraised values. These counties may find it necessary to increase their caps on how much they will offer per acre.

- Dairy farms are going out of business. In some areas, preserved farms that had been in dairy have converted to crop farms, in others there is a conversion to beef cattle, or to larger, multi-farm dairy operations. Overall, the dairy segment is stressed and in decline; smaller dairy farms are disappearing.
- There is growth in locally-grown fruits and vegetables, farmers' markets, and CSAs.
- CSAs may be smaller on the whole than traditional farms. The interest in sustainable practices in this segment is strong.
- In some areas, especially eastern counties, there is a trend toward non-farmers purchasing farmland. As a result, increasing proportions of farmland preservation applicants are owners but not owner-operators.
- New farm owners are a growing share of the program participants. Different issues need to be addressed in the relationship with these 'second generation' preserved farms.

Farm Eligibility and Selection Criteria

General eligibility considerations

Most program eligibility and ranking criteria are set by the state, with some limited latitude available to the counties to adjust the emphasis given to particular selection factors. One of the research objectives for this project was to examine county willingness to consider further adjustments to these criteria for the purpose of adding more consideration of impacts to water quality. As a prelude to asking about adjusting the ranking criteria to reflect new water quality objectives, we first established some baseline information about county-level use of allowable adjustments to the scoring process. We found sufficient use of this discretion to suggest that such changes are viewed as a normal undertaking and not something that would be viewed as an extraordinary step. Several counties reported adjusting the scoring factors and eligibility criteria to make adjustments to encourage participation by smaller farms, prioritize owner-operators, give preference to farms offering to ease a larger proportion of their acreage, or to add emphasis to those farms clustered together in the agricultural security areas. The proportion of counties reporting making changes in selection criteria broke down as follows:⁵

- Degree of conservation plan implementation	21%
- Farm clustering	17%
- Owner-operator status of applicant	13%
- Farm size	13%
- Water-related site characteristics	13%
- Proportion of property offered	9%
- Price offered	9%
- Other site characteristics	4%
- Farm revenues	4%

Among the counties interviewed, very few had added criteria specifically related to water resources on or near the farm. One mentioned assigning points to reflect the presence of floodplains. Another, Adams County, includes a factor for Proximity to Wellhead Protection Areas and Major Streams. Under this criterion, the application may earn up to 10 points, as follows:

- Intersects a major stream or within ¼ mile of a wellhead protection area	10 points
- Within ¼ to ½ mile of a wellhead protection area	7 points
- Within ½ to 1 mile of a wellhead protection area	5 points
- 1 mile or more radius from a wellhead protection area	0 points

⁵ Some personnel reported they had not been in their current jobs long enough to provide an answer to this question. Other respondents mentioned more than one criteria change.

About one in five counties reported giving preference to farms that have implemented more of the actions in their conservation plans, which provides another means of looking at likely impacts on water quality. The comments on conservation plans are summarized below:

- *We give points based on degree of implementation of actions in the Conservation Plan. We wouldn't want to enroll a farm that's not on the right side of the law.*
- *We changed our criteria several years ago to cut out farms that hadn't made solid progress on meeting their plan. We won't rank a farm if there are ongoing resource concerns. A number of farms have been denied access to the ranking process because of this.*
- *Farmers must have at least 50% of the plan done to be considered. We go on the farm and discuss with the farmer what's done, what's not done. Later we notify them about eligibility for the easement purchase program. We send them a checklist on why they didn't qualify relative to their conservation plan.*
- *We have adjusted the criteria to give more emphasis on conservation plan implementation.*
- *We check conservation plan implementation for the farms that are ranking in our top third before including the points for degree of implementation. Then we add in the points on the basis of our field observations.*
- *We give points for implementation of the whole conservation plan, but it would be nice to get more detailed. If they have gotten grants from the Conservation District to make improvements on the property, we see that in the application, but there's no way for us to reflect that when we rank them. It would be nice if the state gave us more room to rank farms on this.*

Another county noted that failure to address resource concerns was grounds for being disqualified from consideration.

- *We won't rank a farm if there are ongoing resource concerns. A number of farms have been denied access to the ranking process.*

County requirements on plan status

Although a conservation plan is required before a farm is approved for state easement purchase funds, most counties do not require that a conservation plan has been written before an application is submitted. By almost a 5-to-1 ratio, most do not require a completed plan at the outset of the ACEPP application process. In several cases, this approach reflects concerns over the long timelines for getting conservation plans written; there are some counties where farmers have been unable to get a conservation plan done in a timely fashion and this has slowed enrollment. Other counties view ACEPP as leverage for influencing farmers to get conservation plans and use the application process as a means to allow the county to identify who to actively assist in this process.

- *We don't require a conservation plan be completed prior to an application being submitted to our office. I don't want anything to hold back that owner of a priority farm from enrolling. We'll work with them to get a plan in place so that they can receive the easement purchase money. It's a marketing consideration, about attracting as many farmers as possible.*
- *We take applications without a plan. We give higher scores for farms with a completed conservation plan. But we'll score farms without a plan. If they rank high and don't have a plan, we try to help the farmer get a conservation plan. I will start the process, but I can't write the plans.*

- *They need the plan by settlement. It takes a long time for a plan, that's why we don't require it be done before applying. The length of time that it takes to get a conservation plan to the farmers is frustrating to us. It is holding things back.*
- *They need the plan by settlement. We don't require it any earlier so that the requirement doesn't get in the way. Both processes take a while. Since preservation doesn't get done in two months, we're fine with the applicant not having a complete plan when they first contact us.*
- *We allow these to take place concurrently. Farmers don't like paperwork. The manure management paperwork is insane. And they do half the stuff on their own anyway.*
- *We allow them to work on it while they're on our books.*
- *We take their applications even if they don't have plans yet and by virtue of being in our queue, they are more likely to get a plan written.*
- *Looking at this year's applicants, about seven out of ten are farms that do not have a conservation plan. Those who we select for the preservation program will get conservation plans written by NRCS, but NRCS doesn't get to any farmers other than the ones we select.*

This last comment is noteworthy in that it indicates that it is the selection of the farm for preservation via ACEPP that gets the conservation plan written, not the other way around. Other counties (17%) also indicated they will help high scoring farms to get conservation plans written when none exist.

Required Conservation Plans

Farms are not eligible to receive state easement purchase funds unless a conservation plan has been written for the farm; farmers also will be monitored for compliance with their conservation plan on an ongoing basis. Because of the central role of the conservation plan in ACEPP, both for land and water protection, we examined to what degree this requirement created a barrier to participant recruitment, perspectives on the quality of the plans in use, and probed to identify any issues which might exist around the processes of creating and updating conservation plans.

Perceived effect of conservation plan requirement on enrollment

Respondents were asked to characterize the reactions of farmers to the program's requirement to have a conservation plan, specifically whether this requirement creates a barrier to enrollment. Overwhelmingly, the program administrators interviewed felt that this requirement does not create significant challenges by reducing farmer interest in the program.⁶

- *This is not a problem. Farmers here are well educated that by state law they are to have a plan, and it must be kept current when things change on the farm. They know it's on them.*
- *Our job has become a bit easier on this requirement. Farmers are not surprised that a conservation plan is required.*
- *There are not too many barriers there. We have had a few where we have to complete the ag plans, but otherwise no issues.*
- *No-one has been put off by the [conservation plan] requirement. They are very aware. We have a big waiting list.*
- *Is that requirement a barrier? Not at all. Most of our farms have old plans, so we tweak them before processing the applications. We bring them in to compliance with state regs. We really push manure management. No, we don't get pushback on the plan updates.*
- *They're fine with it [the requirement] because it's not just this program, it's state law. Some farmers were not aware of the requirement. But we can say to them 'We can guide*

⁶ Although, as noted later in this report, the inability to get a conservation plan written is a barrier in portions of the state.

you through the process.’ They ask more questions because they’re more comfortable in their relationship with us. The conversations are easier, even the difficult conversations.

- *We’ve had no negative reaction to the conservation plan requirement. Those farmers who show interest in this program may have worked with NRCS at some point, so they are already familiar with it.*
- *This is not a problem. The type of plans that come through from our NRCS office are not crazy. They recognize that these farmers are older. They are not writing in actions that the farmers cannot comply with.*
- *They’ve known about this. I haven’t had any people express qualms about it. It hasn’t been an issue.*
- *The requirement for a conservation plan is not much of a factor in farmers’ interest in this program. The people who want to be involved are very familiar with this requirement.*
- *The requirement for a conservation plan has not been a problem. We have had to make a few farmers aware of this requirement. This has provided the impetus for getting NRCS and CCD out on the farm, which is a benefit. It is building awareness.*
- *The plans that have been done in the last ten years are pretty good and these farmers are doing what they need to. The farmers who are enrolling now, we’re not having a lot of pushback.*
- *As we get more farmers with college degrees who understand that soil measures help them to not only help water quality but also increases productivity and their bottom line, this becomes less of an issue.*
- *About 60-70% understand the value of the conservation plan. And I explain that the program uses the public’s money and that the conservation plan helps ensure that it is a good investment.*
- *Many of our applicants don’t have a conservation plan. The requirement for a conservation plan is not a problem; the time it takes to get one written is an issue.*
- *Some farmers are reluctant to participate in the program because they perceive participating will bring an increased level of scrutiny on their operations – singling them out for more trouble than if they were not preserved. My way of thinking is that this attention is coming to all farmland owners whether their farm is preserved or not. We are offering additional resources and guidance to help keep them ahead of the curve . It is actually a benefit to be preserved relative to water quality and land management issues, not a burden.*
- *Most farmers are doing their best but may be unaware of all the different regulations within PA to protect water quality. Some farmers may balk at having to change their operations in order to meet regulations, but the vast majority of them are happy to be educated and find new ways to conserve their soil and protect their water. By explaining the laws, the Best Management Practices, and science of soil movement to landowners applying for easements, Conservation Districts are able to have contact with an audience that is on friendlier terms than many of the complaint-driven visits we make. The result of which are happy farmers that make positive changes on their own, instead of farmers that are complying due to mandate.*
- *People don’t like to be regulated, they are afraid. Sometimes they don’t realize that they’ll get better yields and things will be better for them in the future if they make these changes. I’d like to see us get these farmers past the point of being afraid to take care of their land.*

Plan writing

Conservation plans may be prepared by personnel at the County Conservation District, by USDA NRCS staff, or by a private contractor hired for this purpose. Most counties rely upon NRCS to

develop conservation plans for ACEPP applicants (over 63% of the counties we interviewed). The continued reliance upon NRCS offices to do plan writing may no longer be a tenable option as other priorities take precedence and there may not be sufficient manpower in the NRCS offices to address the state and county programmatic needs. The use of private contractors is not widespread except in a small number of counties. There is an unmet need for more plan writers in several parts of the state, frustrating several county farmland preservation offices as this shortage is creating bottlenecks in enrolling farms in the preservation program.

- *Right now we're using a NRCS person to handle the conservation plans. This had been handled in our county Conservation District office, but the person who was doing this took another job.*
- *USDA staffing is down. It's hard to get conservation plans. We'll probably see more use of private contractors in the future, but they aren't any local to this area. The contractors are based one or two counties away. We need more people to do the conservation plans.*
- *Our staff prepares conservation plans for farmers. We get money from the county to support the extra staff position, so we are not dependent on NRCS for the planning. If you're doing a complete plan it takes 2-3 weeks. We are just keeping up with the current pace. If the pace increases, it will be a challenge.*
- *We have a contract with the soil conservation service to prepare plans but they keep having turnover so there's still a problem getting them done.*
- *NRCS writes the plans for our program. Many farmers in our area don't have conservation plans. NRCS cannot make a dent in this, they can only prepare plans for those farms we are planning to place in the easement purchase program. They cannot get to the other farmers in our area.*
- *We rely on NRCS to write the conservation plans. They've been very good. Our workload is not too bad, only 1-2 farms a year.*
- *Where conservation plans need to be updated, USDA staff have been very willing to help. The timelines vary depending on their other workload, but it's never been an issue, it's been very good here.*
- *We will contact NRCS when a conservation plan is needed, comparing our timelines and their timelines. We have very little contact with them otherwise.*
- *NRCS works with them. We don't get involved with the plans.*
- *We have a good relationship with NRCS but they don't have the capacity to do all the plans. They target farms applying for their programs like EQIP. Other farmers may use a private consultant. In the past our County Conservation District obtained Chesapeake Bay funding to hire a consultant to prepare plans for a group of farms. We targeted preserved farms for this.*
- *The only way we can do this is we have a certified planner in our office.*
- *We have two people who work on the program part-time. It's a half FTE. If we didn't have the mapping and conservation planning resources that we have it would take more man-hours.*

The lack of standardization in conservation plans is an issue. More than one program administrator indicated that plan quality depends upon the plan writer. A few mentioned concerns that private sector plan writers may create plans that are less ambitious, omitting higher cost measures or actions that the farmer didn't want to implement. One respondent felt that federal plans could do more on impervious coverage. Others commented that plan quality is more closely linked to the individual writer than to whether they were a state or federal employee or private sector TSP. Overall, the program is fostering more conservation plans but there remains a degree of unevenness in what is being created.

- *In my experience, the quality of conservation plans is across the board, regardless of whether they're written by USDA or by private contractors hired by the farmers. They range from very good to pretty weak. It's all dependent on the planner who writes the plan, not whether it's an agency person or a private contractor.*
- *The quality of the plans we see is good. We have an issue with the timing. It takes 2-3 years to get a conservation plan. This is the biggest issue for us – the time lag for getting the plans written.*

Plan updates

Conservation plan requirements are not limited to the time when a farmer first applies for state funding. ACEPP requires that these conservation plans be updated every ten years or when there is a change in ownership or production. Multiple program administrators reported greater resistance to conservation plan updates among farmers whose farms were preserved more than ten years ago, compared to the response to conservation plan requirements among new enrollees.

- *Most of our farms [that have been in the program for a while] have out of date plans. Our biggest issue is getting these plans updated. That costs money. Even though they got a large amount of money at the outset, we're getting pushback on the cost for updating the plans. Farmers tell us "nothing has changed," but we're trying to be strict about making sure these get updated after ten years.*

Educational Outreach to Farmers

Where program manpower is adequate, the ACE program is a valuable vehicle for increased farmer education, especially during the monitoring visits that take place in years after the farm has enrolled. Of the counties interviewed, 58% report educational work embedded in the program activities and 25% of counties characterize this as something they do consistently with all farmers they contact. But it is not uncommon for a county's resources to be too limited to allow for these types of discussions. One third report that they cannot or do not perform this role; about one-third of these would like to do more than they are now able to manage. The following comments illustrate the considerable variations in this area [comments have been grouped by role of ACE in overall county educational efforts with farmers].

Preserved and non-preserved farms receive the same education

- *We don't segregate our educational outreach; all farmers are targeted, not just those enrolled in the easement program. That said, the long-term relationship that exists because of the easement, gives us more opportunities for conversations about good agricultural practices.*
- *We're always educating farmers about the state water quality requirements.*
- *Farmer education is something that we do on a daily basis. Whether you have a preserved farm or not, we have the resources to help get conservation plans written, to help get cost-share dollars.*
- *I do ALL the agricultural programs, so when I go to the farm it's a full on farm visit whether its covered by the easement purchase program or not. I do use those opportunities [that arise via the easement purchase program] for education and outreach. I schedule the visits to allow me to meet with the farmer; if I cannot schedule the visit for when he is there, I do a separate visit to have that conversation.*
- *All our conservation plans are done by NRCS. This is a good opportunity to make the introduction [to NRCS] and to make the farmers aware of all the USDA programs.*
- *We put the county Conservation District on our agenda on every annual meeting to educate farmers about conservation plans and related topics.*

Preservation program affords new opportunities

- *Because Ag Land Preservation programs require long term monitoring of properties, this gives the Conservation District an added chance to follow up with the progress of a conservation plan that otherwise may not happen.*
- *I take this program as an opportunity to work with them on conservation.*
- *We try to have a conversation about available resources through other programs such as EQIP. Programs that offer both technical and cost-share assistance. I schedule our site visits with NRCS so both of us are there to talk to the farmer.*
- *Manure management is a newer thing. I think it's wise to push that topic so farmers are better prepared to meet new requirements.*
- *We hope to always meet with the owner or farmer during our inspection visits.*
- *We can show them how to solve issues they know they have on their farm. For example, there are a bunch of apps to calculate soil loss based on what they're doing. We can show them how that would change by changing practices on the farm.*
- *I have a farming background. I can throw around ideas with them, they're receptive when it comes from someone who gained their knowledge first hand, not someone who read about it in some book.*

Little farmer education is done through this program

- *The education that is done now is reaching very few farmers. NRCS does great education but it only reaches about one percent. Farmers are asking very basic questions such as 'Why is a wetland important?' When they understand the importance of something it opens the door for taking more responsibility. We hope to have educational programs on good practices such as soil conservation but we don't have those available now.*
- *I can't do any educational work with the farmers now. When we had more staff, we did that. I used to have a staffer who was certified for soil plan development. You have to get training for that. I don't have time even to get the training.*
- *There's very little happening on education now. The tax assessment office is doing inspections and they are not able to have these conversations with the farmers. I'd be absolutely interested in being able to do more on ongoing education. We've had ongoing concerns that an investment in a farm where there isn't good stewardship is not a good investment of the public's money. I would be interested in being able to do more trainings, more opportunities to work with NRCS and the county conservation district, but they are pretty stretched too. They need more resources too.*
- *Typically, most of the time, I respond to their questions. The farmers around here are aware of what's out there for the most part. If I don't have the information they're looking for, I direct them to the right person at NRCS or the Conservation District. Our roles are pretty compartmentalized. Sometimes I think that make things easier.*
- *It's often not possible to meet with the farmer during the inspections.*
- *There's not much farmer education done in this program. At closing the attorney reviews the stipulations with the farmer to make sure they're clear on that. But I get paid by the hour and our program budget is very limited.*
- *We do not normally have that conversation now (but we did when we had a technician). NRCS handles it now. We'd like better support on training and certification so we can have these conversations.*
- *We're not doing much education right now. Currently we're just trying to ensure the conservation plan is up to date and if any revisions need to be made. We cannot spend an extra three hours on-site discussing more than that. We cannot do it without additional resources.*

- *We might talk about things they can do at the time they apply. We don't talk to them about conservation plans. We don't really see that as our bailiwick. We don't have that kind of discussion.*

Farm Monitoring and Inspection

Frequency of inspections

Farms preserved under ACEPP were required to undergo compliance monitoring on an annual basis until 2013 when the requirement was relaxed to once every two years.⁷ This change was championed by county program staff to address manpower shortfalls and a large majority of the counties have switched to the less demanding biennial schedule. As the number of preserved farms grows year by year, the easement monitoring workload has increased commensurately. While the shift to biennial monitoring has alleviated the problem in the short-term, there are signs that further program growth will once again outstrip staffing levels. Shortages of inspection personnel are today constraining the amount of time spent at each farm as well as the numbers of farms visited annually. Some counties are becoming overwhelmed by the growing workload.

- *I'm the only person running the program. I cannot do inspections annually. It's getting to be a real problem as we keep adding farms. I only really monitor for construction and change of ownership. I don't have the time to be as particular as other counties.*
- *We shifted to a biannual cycle in 2014. Split the farms 50-50. One thing that's fortunate for us: because we promote adjacency of protected farms, we can see the next farm over from the farm we're inspecting. We can identify some infractions that way. If we see something egregious, I will follow up.*
- *This is our first year of biannual inspections. We do 50% in one year and 50% in the next (FRPP easements still must be done annually). If there are any indications of problems, we'll schedule a visit. A complaint about the farm is the most likely way we'd hear about something.*
- *We're doing inspections biennially. We are out and about though, so if we see something, we'll follow up.*
- *We are changing to every two years. Just generating the letters is becoming a burden. We're looking at streamlining the process.*
- *We find that livestock easements tend to be more problematic, so we will continue to monitor these every year even though that's not required. The others we do every two years, half in one year, and half in the other.*
- *We inspect every two years now. But we have enough field presence that we can pursue things as they come to our attention.*
- *It's pretty much every two years for us, unless we have a complaint. And no-one has complained about the preserved farms.*

Another consideration, which was not addressed fully in this project, is the quality of the inspection visits and the interaction with the farmer, and the impact of workload on this. It would be worthwhile to assess the number of inspection visits relative to the number of inspectors in each county to identify areas where workloads are reaching the limits of what can be expected to be effective.

Inspector training and certification

While training is a high priority in some counties, in practice training levels vary dramatically, ranging from multi-day training USDA "Bootcamp" workshops to no training.

⁷ Farms receiving federal funding are still inspected annually per the requirements of those programs.

- *Our main inspector previously worked at NRCS. We do train them. I accompany new staff on field visits, show them what we're looking for. We review aerial imagery back to the 1990s to see what has changed over time.*
- *Because we run the program out of the Conservation District, we have the technical expertise and sometimes can access funding.*
- *I have enough familiarity with the plans. I do the inspections.*
- *Our staff does all the inspections.*
- *I do the inspections. I don't have the expertise to interpret conservation plans; I can only catch egregious problems. I bring in the conservation district if I see something questionable.*
- *The Tax Assessment Office performs the inspections. Their inspections don't address conservation issues at all. They must do Clean and Green inspections anyway, so it's efficient to have them check the deed restriction elements for the easement purchase program. But they're not able to engage the farmer on conservation issues. If this topic comes up, they are instructed to refer it back to me. But the downside is, some conservation problems will be missed.*
- *I am a certified planner and we will have one more certified planner by the end of the year and another in 2017. We do all the inspections.*
- *Sometimes it's us, sometimes a contractor working for NRCS. This is a retired NRCS employee that is working for them on a contract basis, just to do the inspections. NRCS wants to be out there on the farms on a regular basis. Our offices coordinate farm visits; we target farms that NRCS is not going to reach.*
- *It is important to have experienced and well trained personnel handling the inspections, otherwise the more subtle issues likely get overlooked. Turnover is pretty high. Training is a very high priority.*
- *There's been absolutely no training for me. I would like some training on administration on some of the legal issues, and training on field practices. Something that takes us to sites and shows us the measures. I learn from the other administrators at PFPA meetings.*
- *Scheduling the training to get certified is too difficult. There are not enough classes. They need to make it more accessible.*
- *We attend the training offered by the Bureau of Farmland Protection, etc.*
- *There's not a whole lot of training. We follow the Department of Agriculture procedures and check the boxes. We don't do compliance for the Conservation District or for NRCS. We have made a decision that this is not our role.*

Inspection findings

The inspection process addresses two very different sets of considerations: the easement requirements limiting development and the operational practices addressed in the farm's conservation plan. Representative comments on each of these include:

Typical conservation issues

- *I can't think of any preserved farms with any glaring problems. They're our shining examples of what we want farmers to do.*
- *Generally, we've had pretty good compliance. There has never been anything significant: no new houses, restaurants, anything like that. We've seen minor issues: crops out of rotation. We talk with the farmer about what's in the plan.*
- *Most of these farms are in really good shape.*
- *Most violations are not intentional. For example, the cropping practices are not as they are written in the plan. If a field is wet one year, the farmer may plant hay when the plan*

says corn. Or if a field has gotten rutted, they may do traditional tilling that year on area designated as no till. I will discuss this with the farmer and check at the next inspection. We've not identified any compliance issues with structural measures.

- We find the farms are fairly consistently compliant. Part of this is reflecting the trend away from dairy farms. There are fewer conservation plan issues with the beef operations.
- We have farms that are rented out to larger ag enterprises. They're managing their farms well. Cover cropping and no till are in wide use. The big guys use continuous no-till.
- We have some dairy CAFOs that are home grown and have grown and preserved 2,3,4 farms. They all have nutrient management plans. They just work like clockwork. All of the fields are cover cropped.
- We hardly have any problem ones. A little bit of erosion, for example, the farm lanes are eroding. Or overuse of pasture areas, overcrowding on pastures.
- Our farmers get very frustrated with riparian areas and fencing because of the ratty appearance. We can get them to stick with it by allowing 'flash grazing': for one day the livestock are allowed to graze the overgrown area, then it's back to keeping them behind the fences.
- Sometimes we see some minor issues with overgrazing and erosion. Also, when there is a change in ownership, the new owners may not be following the spirit of the easement.
- There is a feedback loop because of our monitoring visits. The farmers know better than anyone when something is not working. They point it out when something is getting in to the stream. "They told us to do this here, but I don't think it's working out." They want it to work right. We relay what they tell us to the Conservation District or to the engineer that prepared their plan. If there's no-one to tell, they're not going to call. They don't know who's going to come out if they do. We have a relationship with them. We don't go in there with a hammer. We can show them how to solve the issue.
- We had one issue after some heavy rains. We spoke to the farmer and he fixed it up. There is some minor run-off from farm lanes. With the increased use of no-till farming, there aren't nearly the issues that there once was.
- Generally, most are in compliance. If they are out of compliance it is most often due to unusual weather events. Prolonged periods of snow on the ground and extreme rainfall events have led to resource conservation concerns for us. It is possible that as the weather changes we may need new BMPs; the current ones may not be sufficient for these more recent weather patterns.
- The majority of farms are compliant. Some older farmers with health issues are having difficulties with things like invasives removal. We are trying to work with these farmers with health issues.

Changes in ownership

One issue that came up with some frequency is the weakness of tracking systems and processes to record changes in ownership of preserved farms, which should trigger an update to the conservation plan. New owners of preserved farms often are not aware of the requirements of the easement and conservation plan, and there have been a handful of 'near misses' on serious violations during that turnover period when county farmland preservation offices had no knowledge of the change in ownership.

In some parts of the state, the farming community has transitioned, and patterns in property ownership have changed. One county reported that as much as 40% of their farms today are owned by non-farmers. The county office has found that these landowners were more likely to push back on abiding by the terms of the conservation plans written for their farms.

- *The biggest issue in our county is that the deeds are not being transferred when the farm is sold. We check every deed every year.*
- *We're seeing a lot of transitioning of farms to new ownership. It's hard to keep track of this. There is a protocol that's supposed to be followed by the farmers and by the title companies but it's not.*
- *I've never had any really big problems. The only time we see issues is when someone comes in from outside the area who thinks they will do what they want to do regardless of the deed.*
- *Generally the farms are in compliance. The major thing that we see is that the conservation plans are not current due to a change in ownership. Our county does not have a good system in place to track farm sales. We did have an issue with one family, Amish, who built a home before we learned of the change in ownership. Luckily the structure was built in the portion of the property where that was allowed in the easement. But that decision was made without them knowing about the easement requirements.*
- *The biggest issue is when the farm is sold and the language of the easement doesn't follow with the deed. It's a bigger problem as time goes along. The familiarity of the owners with the program people is less. It could be a problem. All you need is for one to slip through without the language in the deed. These are permanent restrictions ...*
- *A lot of the farms we are enrolling now come out of estate settlements and wind up with new owners after the farm was enrolled in the program. The original family protects the farm, then sells it, then there are new owners who were not part of the discussions about the easement and the conservation plan. When new farmers come in with new ideas for the farm, they may be unaware of the need for a new conservation plan.*
- *Each year there might be some minor compliance issues. We need to watch this where there is a change in ownership.*
- *The compliance issues we've seen are very, very minor issues. The deed restriction issues are the big ones. We've never had any development that's not allowed under the program.*
- *We really have not had any problems on either the deed restrictions or the conservation plan elements. The things that have come up have been temporary. Occasionally we see that a farm sale was not recorded. We get that taken care of. We've never received complaints about any of the preserved farms.*

Treatment of Impervious Cover Limits

One point to note with respect to the building of structures on the preserved land is the variation from one county to the next in the total allowed impervious area for ACEPP.⁸ Most commonly no more than 10% of the easement area can be covered by permanent impervious structures but there are exceptions both higher and lower than this. In one county this limit is the greater of 10% or 15 acres, in another the maximum allowable impervious area is 6%. One county encourages the farm owner to withhold the building areas from the easement area at the time the application is made. The definitions of what will be included in these calculations differs as well. In some cases yards, driveways, and parking areas are excluded, in other counties driveways and parking areas are excluded. Separate approval processes may also exist for rural enterprises, on-site energy generation facilities, and new homes as reflected in the comments below.

⁸ Federal programs have their own requirements on impervious coverage and easements which receive federal funding are subject to these caps.

- *Our Board has approved new structures on some of these farms, they've encouraged it. Farm stands for product sales, a facility for events. The view is that these facilities help to build public awareness of ag preservation.*
- *Our board would rather see the farmer have a cut-out or exclusion for any farm stands that they would want to build on preserved farms. This seems to be the best scenario for us and would prevent problems down the road. As far as other structures, they would be allowed as long as they are going to be used for strictly agricultural purposes. These structures would not require an exclusion.*
- *We do not require the landowner to withhold buildings from the easements, we do encourage them to think about it and talk it over with their children about holding out the area around the buildings, especially if there is already an existing minor rural enterprise on the farm. However, once the property is preserved, they may not carve out any areas because our program does not allow subdivision on the easements that took place after August 15, 1996. Buildings for agriculture use are allowed as long as they do not go above their prescribed permanent building coverage limit (ex. dairy expansion, poultry barns, greenhouses, etc.). However, if a landowner proposes a new minor rural enterprise to take place on their preserved property, they may NOT build a new building for that purpose. Each minor rural enterprise request is handled by the Board on a case-by-case basis.*
- *We have a very generous impervious surface coverage clause in our Guidelines...we allow 10% or 15 Acres whichever is greater. My board did not want to stop smaller farms from putting in things like poultry houses, etc. This includes any and all land taken out of production for any reason....driveways, grass areas surrounding the buildings, etc. We do not ask for a building envelope or anything like the feds do. We have a system in place for any Rural Enterprise or for the second house to be built. Basically they need to get our permission and we need to sign off on a plan if they are going to build the 2nd allowable house....The Rural Enterprise requests are looked at and approved on a case by case basis. We learned a long time ago that it's nearly impossible to have something that covers every situation*
- *The County generally supports eased landowners to expand their opportunities through rural enterprises. No more than ten percent (10%) of the total conservation easement area shall be covered by permanent buildings for any purpose.*
- *New agricultural buildings are okay with us and we don't really have any rules to govern this, outside of whatever regulations a municipality already has in place for new construction. We do, however, regulate the location of a new home. One new home is allowed per preserved farm – the placement of the new home has to be approved by the farm board.*
- *I do not know of a limit that exists in terms of how big a building can be. I do know that a farmer is allowed two acres of buffer room for home accessories (pool, patio, tennis court, driveway, etc.). From my understanding, our board encourages structures that promote and encourage farming and its practices. Farmers are also allowed to build structure/facilities for the production of energy for use principally on the farm including wind, solar, methane, wood, hydro, etc. Any structures that are put up must be approved by the Board before construction.*
- *As far as structures on the operation goes, we mirror the state guidelines in that as long as they are agricultural related, we are OK with them on our preserved farms. We do ask that operators inform us before the construction of any large structures for a soft "approval" by the board, but to my knowledge we have not prevented any agricultural structures on an operation since the inception of our program. We do not limit the size of any production facilities. However, we do have one clause in our program guidelines related to "farm stands". We limit the site coverage or footprint for any structure designed solely for*

the provision of services or production and sale related to agriculture to 0.5% of the property area. For example, if we have a 100-acre preserved farm, we would allow a “farm stand” of 0.5 acres or less without any further approvals required on behalf of the board. In the case that the operator proposed a plan that exceeded that footprint, it would be subject to board review to make a determination on the approval of that structure.

- *The Program allows for any structure that is for commercial ag production, or the processing or marketing of that ag product. We do allow one additional residential structure on each easement in PA, on no more than 2 acres.*
- *We would encourage farmers who wish to direct market their products. Our county has a 10% building coverage limitation for ag structural development.*

Enforcement

When violations are found, the county staff strongly prefer to work one-on-one with the farmer first to address needed changes in on-farm practices. There is a widespread view that farms in the easement purchase program are largely compliant on the operations, or intend to be so. In view of this, the program administrators lean toward working with the farmer to correct issues that have arisen and achieving the desired outcome through a role as partner, not enforcer. This approach has been able to address the large majority of issues that have been identified. Formal enforcement actions have typically been reserved for a small number of bad actors who have flagrantly ignored identified violations and/or have been the subject of multiple enforcement actions. Comments offered on compliance findings and actions included:

- *If it's not causing an issue, we're not going to make a big deal out of it. If there are conservation concerns then we will work with the farmer, we'll point out "This is something you need to get fixed." We're looking for voluntary compliance.*
- *If the farmer changes the operations, I contact NRCS to handle the plan update. But they are short-staffed. We looked at contracting out inspections, but it's really expensive, about \$600 for a farm over fifty acres. When I had a certified assistant, she did the inspections. That was great.*
- *Part of the compliance review process is identifying if they have a current conservation plan. I cannot get out to visit the farms regularly, but I review the program records looking for old plans. If the plans appear to be more than ten years old, I ask for an updated plan.*
- *Some of our farmers' plans are out of date in terms of how long they've been on the books but if the plan still relates to the current use and they are following it, it's not really concerning to us. We mostly have crop farms – corn, soy, other vegetables. We don't see a lot of needed changes in their farming practices so rewriting the plans doesn't seem an issue.*
- *A couple plans were out of date and I recommended updating them. In our county, NRCS does all the plan work, so that would go back to them. The conservation issues that I've seen I would not treat as a violation unless they are persistent. If I see something that needed to change quickly, a management item that is a compliance issue and an environmental concern, then I will work with the farmer to address that more quickly.*
- *I am not aware of our county ever writing up anyone as an official violation.*
- *We've only had one bad actor. They eventually got shut down, but they had multiple compliance issues, not just with our department. A company purchased the property and the operations they set up went well beyond the scope of the conservation plan. They were eventually forced out; there were lots of violations.*

- *Non-compliance doesn't usually come up. Except one time when there was a problem with trash dumping on the farm. The zoning board in the township got involved to resolve that case.*
- *The county doesn't have many options if there is a compliance problem other than to take the farmer to court or to report them to DEP. We are reluctant to go to court.*
- *When we find an issue, we mostly try to work through it with the farmer. In a case where we're not able to resolve it directly with the farmer we take it to our county Farmland Preservation Board. If a Board member has a personal relationship with that farmer, he is the one to follow up, to reach out and convey the importance of making changes. The Board may also know of special circumstances that have come up on that farm, so that can be considered in working things through with the farmer.*
- *Often the issues are management issues. This is a hard thing to enforce. We send them a letter outlining the problem and follow up in six to twelve months, to assess the progress that has been made.*
- *When there is a compliance issue, so far we are handling it by talking with the farmer. 99% of the time the farmer agrees to what we are recommending. But sometimes it can be a slow process. We check on the need for cost-share funds. And we do follow up inspections. If we see progress being made at those inspections, we are okay with it. The frequency of the follow-up inspections is situation dependent. Overall, we're trying to keep this a positive interaction.*
- *If we find something we call the farmer to discuss it. It might be something simple and temporary.*
- *We are very adamant about voluntary compliance as the first pathway. We let the farmer attempt to rectify it first. When we identify an issue we call, we return to the farm in 30 days. If not remedied, then we'll send a letter and follow up again in 30 days. If the problem is still not being addressed, then we'll issue a formal violation report.*

Resource Needs

County program administrators were asked to identify what additional resources, if any, were needed to operate the program as they would like. Manpower constraints are a widespread issue, perhaps the greatest impediment to greater program effectiveness and a likely impediment to doing more on water quality objectives in the future. Other resource concerns were also identified by the counties, including funding levels for the easements, software and training.

Manpower

- *I would like to see consideration to allow the counties to use more funds for staff. I would like to have a dedicated staff person for the inspections, conservation plan follow up, tracking of property sales, etc. One FTE for inspections and plans and nothing else.*
- *Manpower is a stretch. As you add more farms, the responsibilities grow.*
- *I need help. I'm the only person running the whole program. Help with inspections especially. We grow by ten farms a year; we're up to 193 now. I've switched to a biennial inspection schedule but it's tough going.*
- *We need to get more help with soil plan development. This is a big deal. When you get a good plan, it addresses a lot of these [water quality] issues. There just isn't anyone left to do these plans in this part of the state.*
- *I am a certified planner and we will have one more certified planner by the end of the year and another in 2017. We do all the inspections. We're also lucky we have so many non-profits as well as NRCS and the Conservation District who help. We're able to network.*

- *We need more money for program administration, but asking for this is a double-edged sword. That money needs to be additional money, not money taken away from the easement funds. I'd hate to take away from preservation opportunities by moving funds around.*
- *The only obstacle to the program's performance is funding. I would love to hire a secretary to support this program.*
- *We have enough resources for our current level of activity, but if activity goes up – and we've gotten more applications recently – then manpower will become an issue. And each of us works in several programs. If we do more in farmland preservation, something else has to give.*
- *We are experiencing increased interest in the program and we have limited staff. We used to have three FTEs, now we're down to one. The county wants to avoid hiring FTEs, but it's hard to fill a specialized position like this on a part-time basis. We are so short-staffed now that we haven't done any inspections yet this year.*
- *The only concern is with the conservation plan work, manpower for conservation plans specifically. Farmland preservation is not the only thing my people work on. We need money for more manpower; otherwise we're good.*
- *If we get more money for easements this will increase the needed manpower for the inspections alone. We lack the manpower for this additional workload.*
- *We need someone full-time on farmland preservation. I would love to have a staff person who is writing plans or working with farmers on implementation of plans. Most counties don't have this. Or it could be a staff person from a partner agency like the county conservation district. I could see sharing staff with another county. We already share staff at NRCS with [adjacent] county. There is also a precedent for sharing personnel at ag extension.*
- *The last time we had a full time farm preservation person working on this program was 2009. We could do a lot more in a timely manner then. It can take a long time now.*

More funds for easement acquisitions

- *We need funds for easement purchases. Our backlog is in excess of 100 applications – this is about 17,000 – 20,000 acres. We only get funds for about 300 acres a year. We get calls on a regular basis from farmers who are interested, asking about the status of their application.*
- *We get an adequate amount of funding for the easements. We've been able to do a good amount and always have a useful amount of funding from year to year.*
- *Our funding has gone down. We're only preserving 3 or 4 farms a year now. But we've seen an uptick in applications in the last couple of years. Now we have a waiting list of 41 farms; in the past about 25 was typical in any given year.*
- *We don't get enough money to make this program very interesting to farmers. Appraised values are going up but our offers are not increasing commensurately. We had two farms we made offers to this year that rejected the offers. Our Board is trying to be frugal in how our money is used, but it's not keeping up with market values.*
- *The need is for money. If more money were to be available, the rest would fall in to place. We get less money for land preservation than other counties. If more were to flow in to our county, there would be more acres saved for the amount spent.*
- *We have the resources we need except that I'd like more funds for easement purchases. We're not expecting to get enough funding to address everyone who is on our list, but we'd like to do more than we currently have funds for.*

Software tools

- *We have the resources we need. Having a GIS-proficient staff and a strong GIS system helps a lot. It's huge. The inspection process is easier as a result of the ease of moving digital data.*
- *We don't have county GIS/mapping software. That would be helpful. I'd also like an electronic version of the ranking sheets. We sometimes have to change the information and it would be easier to do if it was computerized.*
- *The NRCS Toolkit software is a pain. The system just stinks. It is a big block for us. My staffer has really struggled with it. And it's the way it is for everyone. She was just at a workshop last week and everyone was saying the same thing. I find myself thinking in this day and age, why is this software so difficult to use? We want to cooperate with NRCS, we really do, but it's a balancing act between cooperating with NRCS and getting results. There is another county that has already made the decision not to use the Toolkit software because it is too cumbersome. They use a certified planner to prepare their plans.*

Training

- *There needs to be more training in the writing of conservation plans. More frequent courses, more slots available. NRCS gives the slots to their people first and the classes fill up. And they're only offered once a year in this part of the state. It took one of my staffers five years to get trained.*
- *I would like more training or technical assistance in interpreting plans. I am not trained in this area.*

Outreach

- *I'd like more outreach funds, so we could do more promotion. More effective and more efficient promotion. Money for events. Right now I bring up this program when I'm at someone else's event.*
- *Our office is large compared to other counties, but small compared to our needs. Non-profit partners help bring farms in to the program, they talk about the program. Then they will call us and provide the contact information and background so we can follow up.*

Support in proper recording of deed

- *We tell the attorneys in our area about the importance of recording the easement in the deed when the farm is sold. We're still having a problem with easements not being recorded at sale. It is hard for us to attract the attention of the attorneys. A training session is doable but it would be hard to draw them to it because there aren't that many preserved farms and there are a lot of attorneys.*

Reactions to Adding New Water Quality Elements to this Program

When asked about the concept of trying to achieve more water quality outcomes through ACEPP, a number of the county personnel interviewed felt that the program is already addressing water quality effectively through the conservation plan requirements. Data from the most recent annual report on ACEPP support this. The most frequently adopted practices on Pennsylvania's preserved farms are summarized in the following table.

Usage of conservation practices on farms with easements purchased in 2015 ⁹	
Practice	Proportion of farms using
Stripcropping	75%
Contour farming	70%
Conservation tillage	65%
Pasture/hayland management	65%
Crop rotation	60%
Cover crops	50%
Animal waste storage	50%
Nutrient management system	50%

Comments from the interviews included:

- *We are working to leverage our individual relationship with owners of preserved farms into improved land stewardship. With changing regulations and increasing scrutiny, I view this as a window of opportunity to leverage our site monitoring inspections with land management technical assistance and position ourselves as sort of a ‘concierge’ land management resource for preserved farmers.*
- *We don’t want to mix things [farmland preservation and water quality] further. The farms need to be in compliance regardless of whether or not they are in the easement purchase program.*

There is also some feeling that the land protection outcome is meaningful in its own right and that this should not be discounted.

- *With the farmland protected, we can still infiltrate stormwater, we can create vegetated buffers. We lose these opportunities if the land is developed in other ways.*

Resistance to increasing the emphasis on water quality also was expressed:

- *We have to be careful. The intent of this program – we’re after preservation of productive farmland. Even though it’s a good thing to protect water quality, there are some other things to consider if you’re trying to accomplish that through this program.*
- *We had a situation here a couple years ago. Someone came in with lots of money, but it was only available for part of the county. We cannot consider doing one thing for one part of the county and not for the rest. I’m not encouraging my Board to do this. It’s partly a matter of creating a manpower problem with administering what are essentially separate programs. I don’t want to open that can of worms.*
- *There are enough commissions telling farmers what they can and can’t do. It’s getting hard for them to farm. It’s a sore subject. We get a little leery of entities weighing in on water quality.*
- *Rather than changing the selection of farms in this program, there may be opportunities in the state and federal programs to put preserved farms at the top of the list.*

Some respondents commented that other programs were a better focus for stepping up a water quality emphasis:

- *We probably have more flexibility to address water quality through other programs. We have programs that are education-based and programs that have grant funding. People don’t want to spend their money on conservation all the time.*

⁹ Ibid, p. 12.

- *Our county has several other grant programs that allow for preservation of farmland and use the authority of the Open Lands Act (not the Ag Security Law). These provide much more flexibility than is available via the state farmland preservation program.*

Views on adding ranking criteria for water quality

There is a fair amount of interest in the potential of adding criteria that reflect water quality improvement potential.

- *This sounds okay. I think our Board would be open to it. We would like to have more flexibility in the scoring criteria, it's already something we'd like to see changed. We have farms we'd like to save that don't fit the state scoring criteria.*
- *That would be a good idea. We only have one item that considers this and it doesn't have a huge weight.*
- *I wouldn't have a problem with adding additional criteria intended to address water quality.*
- *It would be nice to do this. We're sort of limited on what we can rank people on.*
- *I would support this. I don't know how my board would feel about it. Some of our board feels that land with wetlands shouldn't be preserved in this program because it's not developable anyhow. I think it's still valuable to preserve, there are other important resources on this acreage.*
- *I'm probably not opposed to adding criteria specifically to address water quality. I don't think the Board would take issue with it either. They are pretty conservation minded. We have kicked around the idea of requiring a manure management plan as well as a conservation plan, where relevant. We may look at adding that when we do our program recertification.*
- *We could do something on criteria. Maybe something that is a bit different from some of the requirements of other programs. Requirements such as a 25 year easement and a 35' buffer width can be challenging for farmers. They are not willing to take that much land out of production. Maybe we could make a change to the ranking that would give priority to farms that have BMPs. I see no concern about trying to address water quality through the program.*
- *The federal programs are sometimes too generous on impervious coverage.*
- *I would be open to it but I'm not sure where it would fit in. We take having a plan and its implementation very seriously. If a farmer is not demonstrating effort in this area, the farm is not going to rank high enough to be selected.*
- *This conversation has got me thinking. This idea [adding points for willingness to implement water quality measures] is something I'm comfortable with. We could adjust our scoring to give points for willingness to install measures to keep cows out of the streams, stabilized feedlots, or applying for other programs that fund conservation measures. We'd have to follow up down the road, but if we select measures that are easy to assess, it would be something we could do. This is something I could bring up with our Board.*
- *That would be a positive thing to consider. I think we could consider giving extra points for buffers or fencing. Awarding points is a good way to go if farmers are willing to put up protections along streams.*
- *We have been talking about adding water quality to our scoring. The state mandate, unfortunately, doesn't give a lot of flexibility.*
- *In theory, you could give points for organic farming. But our board is all traditional farmers. They would not support that change.*

- *I would be open to the idea of adding a scoring criteria. I'm not sure what that would entail; I'd like to get some ideas from the other counties. I would be willing to bring it up to our board.*
- *Speaking personally, it would make sense to me to add something to the scoring. Bump up the score for stream frontage. Give higher point scores in EV and HQ watersheds.*
- *You could build these programs [ag programs writ large] to interact with one another so that programs that address the Chesapeake Bay program goals give more points for preserved farms. And vice versa, if a farmer is applying for the easement purchase, give more points for implementing Chesapeake Bay practices.*

At the same time, there is also some hesitancy about adding criteria meant to address water quality:

- *Possibly that would be okay, it depends. We rank farms higher based on completion of the conservation plan. When a farmer is in this program, they're getting a sum of money. If we were to emphasize farms where there is potential to do more to address water quality, rather than rewarding efforts made, that could be counterproductive.*
- *I'm not sure what I think about adding water quality-related criteria to the ranking. I'd want to think carefully about that.*
- *We don't want to lose sight of our mission, which is the protection of productive farmland. If we give points for some practice and a farm gets preserved ahead of another farm on that basis and then that practice gets removed down the road, that's a concern. How do we enforce the riparian buffer action through this program?*
- *I'm not sure because giving points for best practices, that gets in to riparian buffers. And that is an area where CREP is a good way to go.*
- *I guess it would be okay [to add criteria addressing water quality] but given all the EPA and other regulatory pressure, I'm not sure it's needed. There's plenty of regulatory pressure. I'm sure this will all become part of the conservation plan requirements. There have been an awful lot of improvements in how everybody farms over time. That's coming from somewhere – EPA, NRCS, even the seed companies who sell cover crop seeds. We don't see this as an issue that needs attention in this program.*
- *Impervious coverage is considered in federal programs. I'm not sure if the county would be willing to include impervious coverage in the selection criteria.*
- *Some farmers would not be willing to go for impervious cover limits. We are seeing Amish farmer immigration in to our county. Many Amish want to build greenhouses. Is this what we wanted when the program was developed? We wanted open land.*
- *We already address this through via consideration of the conservation plan's implementation.*

Perceived pitfalls of mandatory requirements

Strong concerns were voiced about any heavy-handed, regulatory-style approach to incorporating water quality outcomes in to the program. It is feared that burdening a voluntary, incentive-based program with a regulatory role may rapidly suppress target farmer willingness to engage in discussions on how to do more than they are already doing, depressing opportunities for productive stewardship conversations for years. Compounding this, any spoiled relationships with disenfranchised farmers can ripple out into the peer community. The closely networked agricultural communities which typify much of Pennsylvania create the kinds of conditions which amplify reputational damage through existing word of mouth channels. Great care should be exercised in altering positive relational marketing dynamics which are at the core of one of the state's successful programs.

- *How program changes are made is critical. We don't want to do enforcement. Our role is to be a resource to the agricultural community. We'd like to move forward as a partner, not an enforcer.*
- *These people came in the door voluntarily, in good faith, for farm preservation objectives. I'd be very cautious not to begin to use the program as a regulatory mechanism. That would be unethical.*
- *There is an opportunity to move this along very tactfully. We can say, "we value your contribution to farmland preservation. Along with preservation, stewardship is also important and here are some ideas."*
- *Hard requirements might eliminate some farmer interest. It probably also wouldn't be viewed favorably by our board.*
- *Farmers feel like victims a lot of the time. They get blamed for so much. Collectively we need to re-think how we look at agriculture, in my opinion.*
- *Our farmers are still open-minded. If you approach them by trying to help them instead of telling them what to do, they're open to that. If you give them options. When people are given options, they are more inclined to do something.*
- *We do try to do this [address water quality]. The approach we use is to identify the problem and help the farmer get resources to address it. We work with different grant programs: Growing Greener and EQIP.*
- *There are farmers who are antigovernment. I wouldn't want to see mandatory requirements placed on the program. If there are opportunities [that can be addressed in a non-mandatory manner], by all means.*
- *The easement purchase program is pretty popular here. It's pretty well received by the farmers and our commissioners are supportive. Our Board wouldn't want to be in the position of imposing new mandates on the farm selection process. But if Harrisburg puts a mandate in place, so be it. If it's a requirement, we'll follow the program requirements. But we might lose some interest from the ag community.*
- *Other than using the ranking system, it would be difficult to go further. It gets to be a touchy subject when you require optional actions in an easement program. We're already asking a lot of these farmers – giving up development rights forever, doing conservation plans. When you start asking them to do more things they're not comfortable with, some people will push back.*
- *The conservation stewardship criteria we have now is the most difficult part, it requires a qualitative analysis of the farm. This can be very challenging. The benchmarks are not uniform. Some plans are pretty simple, some are quite aggressive. It's almost penalizing a farm with an aggressive plan if we give consideration to % completion of plan where a farm with a simple plan that's 100% implemented would come out ahead of a farm with more aggressive plan that is not fully implemented.*
- *Every county has the ability to mold the program [criteria] as they see fit. To make statewide progress: the easiest thing is to address the ranking criteria. Add statewide criteria for stream buffers. This will trickle down.*
- *Leave the program alone. It's doing its job. Develop a whole new program [for water quality] to work side by side with this one, but keep it separate.*

Incentivizing Sound Practices

Monetary incentives

Respondents were also asked about how to incentivize desired practices, assuming a voluntary approach to changing on-farm practices. Opinions are split on the merits of additional monetary incentives to promote practices beneficial to water quality.

Skepticism about further monetary incentives

- *It sounds good to provide incentives for riparian buffers, etc., but I don't know what an impact that would have. There are lots of riparian buffer programs out there. So, if they're not participating in those, what's going to make this [new incentive] more effective?*
- *There are all these incentive programs out there that farmers have available. Why add another program to this? If they're not using what's already available, what would another incentive linked to this program accomplish?*
- *There are a lot of programs that offer money for conservation. If a farmer was interested in taking conservation steps, they've had opportunities to get something done through these programs for years. I'm not sure what monetary incentives could do that hasn't been tried. Although some of the programs aren't a fit for our farms.*
- *NRCS has abundant funding. The only thing is that Plain sect farmers are unwilling to take government money. Private money would be helpful here.*
- *It's important that there's some kind of match. Some ownership by the farmer is necessary. We've seen this play out in the past where the farmer didn't attend to measures he didn't pay for. In the past, we got some DEP funds that covered the full cost for conservation measures. We saw some instances where there was a lack of care for the installed measures. Equally important, it caused some hard feelings among the farmers who had taken these steps without the benefit of full-freight cost share. It was seen as rewarding the bad actors.*
- *There are already a lot of programs that offer monetary incentives to farmers. For this program, you probably would need to use the ranking system.*

Support for more monetary incentives

- *Our Conservation District does run into issues of farmers who cannot afford to make the needed improvements to their farms. Sometimes the money just isn't there.*
- *Money is the best thing, especially with dairy farms. They can do more BMPs when milk prices are up and they're happy to do it, but when prices are depressed they cannot address this stuff. So, funding helps.*
- *There are wonderful federal programs. There are good programs already. Maybe the farmers could be getting paid for things like streambank fencing. Money speaks to a farmer. Farmers want stream crossings, funds for stream crossings would be attractive. Don't propose to take acres out of forage. But for new measures, look at providing the total cost for installation and some money for maintenance.*
- *If there's a monetary incentive to do something, the farmers will do it. There will be a lot of takers.*
- *They always like money and that's what I hear from them.*
- *Money always seems to help. The REAP program is fairly popular here. A grant program is likely a good idea [to boost water quality practices].*
- *Cost-sharing is effective. The amount of incentive that's meaningful varies from person to person. Some people are never going to take that next step.*

- *Our county has money to help farmers with costs for things like streambank fencing and containment cisterns. Money from CREP is also helpful.*
- *The farmers we get applying to our program are either thinking about a future transition in ownership or they are desperate financially and need the money. More money is the answer [in promoting BMP implementation].*
- *These people receive only one-tenth of the value of the land in the preservation program. They're giving up a lot. There are young people who desperately want to farm. You cannot do it for the money the preservation program offers. It would be great to give these people the money they need for good measures. It would be great to give them the money to improve the land instead of letting it go fallow. They can get all the help they want with the planning, the planning is wonderful. But money is needed for the implementation.*
- *If it's a condition of the easement and there's money available, there's not a whole lot more you need to say.*
- *Once the farm is preserved, the dynamic changes. A big change in orientation [toward conservation actions] happens at the time they qualify for the easement purchase. They'll do almost anything before qualifying. After they qualify it's very different. It's more of 'What can you do for me now?'*
- *There are other programs that offer free equipment or seed to farmers. You could offer incentives like that for good behaviors. Maybe set up a program that operates like what the insurance industry does in offering discounts for safe drivers- offer incentives for good behavior.*

During the discussion of incentives programs, a couple county administrators mentioned that they have ceased to use the federal incentive programs.

- *We have not gone after Farm Bill funding since 2012. The delay in Congress delayed getting the [necessary] Cooperative Agreement in place here. More recently, our Board is not comfortable with some of the new federal program requirements. We're sitting it out this year to see how it goes.*

But, more commonly, these respondents would mention the synergistic impact of ACEPP and NRCS programs. NRCS program requirements tend to produce water quality improvements and farmers who apply for these federal incentives will improve their odds if the farm has been protected by easement.

Best Practices

Recognizing that there are differences in program implementation from one county to the next, respondents were asked to identify any examples of approaches to integrating water protection in to ACEPP that might serve as models for other counties to replicate. The responses touched on everything from outreach practices to the recording of the deed to helping identify ways to fund BMPs on preserved farms.

- *On family farms, it's important to speak to more than one person in the family. Not just the patriarch. The younger members of the family may be more receptive. Their response may be "Why aren't we doing this?"*
- *Some counties work with farmers to set aside a portion of the easement money to use toward the cost of conservation practices. Things like barnyard improvements to catch run-off.*
- *The conservation plan has to be completed before settlement. Farmers know the amount of money they will get for the easement. Some farmers will set aside some of this money for the implementation cost. They do financial planning and may use the money for mortgage payments, estate planning, and other farm operations as well. We get calls*

from their accountants. We're not financial planners, but we'll work with the farmers and their accountants on ideas.

- *We have worked with the banks in some cases (although they won't always work with us). We've been able to help a farm where we had significant resource curbs and really wanted to see major curbing work go in. We worked with the bank, who had an interest in seeing the farmer get the easement purchase money. We insisted on putting money in escrow for the needed BMPs as a condition of approval for requesting the state money. Other counties would never have considered this farm because there was not a completed implementation plan at the outset and no cost-share money for the measures. Our attitude is this program gives us another reason to get things done. It's an opportunity and we want to find a way that makes things work.*
- *The synergy with the EQIP program helps and we value the cooperation with NRCS. Because the preserved farms get extra points in EQIP, it's one more motivator for the farmer.*
- *We will be piloting the use of a drone in our inspections next year.*
- *We found it was very helpful to create a map of our priority areas. We were spending a lot of time justifying our choices of farms to our county commissioners and others. To better answer these questions we spent some time creating a Preservation Priorities map with all protected lands and valuable resources in the county. This has made a big difference in helping convey why certain farms make more sense to target.*
- *I know some counties won't talk to farmers unless they're already enrolled in an ASA. The program is 'friendlier' if it allows them to enroll in the ASA concurrently with submitting the application paperwork. Because they just didn't know about that requirement. Why would we wait a whole year? We might lose that farm.*
- *We require that the original easement deed be attached to the new deed, not just referenced in the deed. We learned this lesson the hard way and put this in to practice after a bad experience.*

Other Ideas

Lastly, all county personnel interviewed in the course of this project were encouraged to suggest additional recommendations not specifically addressed by the prepared interview questions. A variety of additional ideas were captured, addressing target markets, additional on-farm measures to incentivize, and linkages across [agricultural] programs.

Targeting smaller farms and younger farmers

Two respondents suggested targeting additional farmer populations. One suggestion was to focus on farms too small to meet the eligibility criteria for ACEPP. This respondent believed that the smaller farmers have greater numbers who are inclined toward environmental stewardship. This is the population that has a lot of organic farms and CSAs. Another respondent touched on similar themes, with a focus on younger farmers because of their interest in organic practices.

- *Smaller farmers tend to be more progressive. We could get more farms and more water quality outcomes if we worked with the smaller farms.*
- *Younger farmers are more supportive of organic farming. There are limits to being able to influence the older, traditional farmers. They want to use their herbicides and pesticides. As the farming community turns over and new farmers come in, that's where there may be an opportunity.*

Enrolling other farms

- *We have a county strategic plan which includes goals for clean water. We'll be measuring our outcomes in terms of decreasing numbers of impaired streams and increasing*

numbers of clean water partnerships. We have no minimum size requirements and no minimum agricultural use requirements for our county-funded efforts. This allows us to capture farms that are important to our strategic goals, farms that would not be ranked highly enough under the state easement purchase program.

- *The scoring criteria tend to give lower ranks to farms that may be important targets for forest and wetland protection. Usually the lower scoring properties have a mix of resources. These can be the best ones for resource protections. They might have wet soils, forests, slopes, a lower percentage of the property in productive use. They won't get in to the preservation program but they would make a good target for other conservation actions. Two NGOs are now looking at these farms and targeting them for outreach outside the farmland preservation program.*

Addressing specific measures

A couple respondents mentioned specific measures that should either be given more emphasis in ACEPP or, conversely, should be addressed through a separate program. For example, the state dirt and gravel roads program¹⁰ achieves important outcomes for water quality but it is only available to public roads.

- *We see a lot of beaten up dirt and gravel roads on a number of farms. If we had better crossover between the roads program and the agricultural protection program we could see some good outcomes. Helping farmers with small fixes like water bars. Right now farmers do the cheap option of dumping limestone on their roads.*
- *Require vegetative buffers. Vegetative buffers are always a good thing.*
- *It is pretty hard to get farmers to change their practices when it comes to pesticides and herbicides. These are not a great fit with the ACEPP program. Another approach is needed.*

Need for Complementary programs

Other ideas reflected a view that ACEPP is not the only means by which additional water quality benefits might be achieved. For example:

- *There is a need for a program that provides farmer education on pesticides and herbicides. So there's not so much run-off. I don't think this program can handle this issue. There are some very resistant opinions on changing these practices.*
- *I'm working with NRCS and one of our municipalities on a source water protection ordinance. Our program was asked to help make sure the township's proposed ordinance would not violate the right to farm law, a problem with their earlier version and its buffer requirements. The public outcry from both the residential community and later from the farming community created a heightened level of interest in water quality among the township supervisors. I am proposing that farms that have conservation plans in place would be exempted from the buffer requirements which can be so difficult here due to the large number of sinkholes. If this moves ahead, the default buffer requirement will remain the same if a farm has problems with that they can get a conservation plan in place. We wanted to replace an approach based on penalties with something else.*
- *Inspections provide a great opportunity to discuss things with the farmer. If other programs (for example programs of PDA or DEP) prioritized funding for preserved farm, if some cost-share or technical assistance was available, the inspections could be used to discuss these with the farmer. If preserved farms could be moved to the front of the line for assistance from other programs, that would help.*

¹⁰ A state program that provides funding for improvements to public roads to eliminate run-off and sedimentation problems.

- *Some counties' farmland preservation programs are working really closely with the County Conservation District and NRCS and that's huge. They have access to funds. We know what needs to be done on the farm because we're out there on the farm.*
- *We're starting a municipal partners program, urging the municipalities to put in money. We plan to use a memorandum of understanding with the townships. Another county already has this. I believe all their townships have an earned income tax provision. Having more money available and using our county funds will give us more flexibility to preserve farms that have been on the waiting list for state funds for years.*

Fixes to the accounting

Knowing that a lot of the interest in water quality derives from Pennsylvania's failure to meet its Chesapeake Bay program obligations, a few comments were offered addressing that point.

- *The Chesapeake Bay Reboot is gleaning information from the Toolkit software. If we opted not to use Toolkit – as we have been thinking about – those measures won't get counted. That situation won't help anybody.*
- *My frustration is in how the Chesapeake Bay program counts practices. They're not getting a clear picture of what's out there because they only count measures if they're paid for by certain programs. I'm tired of going to the Chesapeake Bay Program meetings and having them never listen to me about this. We're not as low in our TMDLs as they say we are. They are only counting the actions that were federally subsidized; non-subsidized actions are not being looked at. That's a major gap. I've told them that we can be giving updates on these actions. They don't hear me. Hopefully the Penn State survey results when they come out will have some effect. This has been an issue for years.*

Other sources of funding

- *We're working really hard at leveraging everyone's money. We're going in to funding agreements with townships. We have townships that want to partner. Farmers are excited to find out the township wants to partner too.*
- *It would certainly help if private funders were supportive. Sometimes we need to approach things in a way that's not the standard boilerplate, and requires more and different funding streams than traditional farmland preservation.*
- *Program funds peaked in '07 or '08 and have been in decline ever since. There is a need for a dedicated funding source.*

Clean Streams Law changes

- *Conservation planning is an area where there are big needs. It would also make a big difference if there were more teeth in the Clean Streams law regarding riparian buffers. Plans should identify all resource concerns but enforcement is difficult under current state law.*
- *When we get pushback about new recommendations that appear when a plan is updated, when the farmers say 'no', we don't have any teeth in the current law to enforce the recommendation. Right now we're getting by on the basis of the impression I've created that this is something that needs to get done. 'It's a thing because I made it a thing.' But in Pennsylvania it's not a law that the cattle have to stay out of the waterways. I have spoken with program administrators in other states and they are amazed that Pennsylvania doesn't have this requirement.*

Amending the program

- *The statute calls for a conservation plan approved by the county conservation district. That's all it says in the statute. There are no standards for what that conservation plan*

should be. Nothing specific as to what measures or standards should be met. That language is so ambiguous it is difficult to follow up on enforcement.

- We have no qualms about farmers putting up 1 barn or 1 shed. But there should be some threshold [to cap the amount of allowed construction]. There is no threshold now. Also, this program prioritizes farms with good soils but then allows that land to be taken out of production by putting in swine or poultry farms. And greenhouses – each one puts ten acres under glass. How much of this do we do? How far do we go? These can be elsewhere rather than on productive soil.*
- The state deed language is so old. The part on subdivision is a bit sketchy and all the counties have different subdivision processes. The state language is a little vague. We use an addendum on our deeds that is more detailed. But instead of adding an addendum, there should be a place in the state deed to insert the needed language. It's easier to get lost when it's an addendum. By not having it in the actual deed, people make assumptions. The state used to have us put our language on the very last page, after the signatures. Because it was after the signature, that got a negative comment from a judge in an adjudicated case where we had a dispute. It matters how the deed is recorded.*

FINDINGS FROM NRCS

To complement the views of county personnel, three interviews were completed by USDA NRCS personnel based in Pennsylvania. NRCS works closely with the same agricultural community, providing education as well as technical and financial incentives for water quality and farm management best management practices. The federal staff also work collaboratively with the state farmland preservation program and the county conservation districts. Interviews with two field offices and the state office in Harrisburg were used to examine perspectives on ACEPP, the audience it addresses, what challenges exist to achieving more water quality outcomes through this program, and what steps might be taken to address these adoption barriers.

Influencing Farm Practices

NRCS perspectives of ACEPP impacts on water quality are positive but nuanced. ACEPP is credited with improving on-farm practices beyond where they would have been absent the program. However, it was noted that farmer buy-in to conservation plan particulars is not a given, with farms enrolled earlier in the program resisting updates to bring their conservation plans into compliance with more recent regulations.

- The program does produce water quality benefits. If there's a federal cost-share, there's an impervious cover limit. This limit is really important for the preservation of water quality.*
- They all must have a plan that addresses tolerable soil loss, so they're doing that. The state is requiring RMS (Resources Management Systems) plans, so they're already doing a lot, decreasing soil loss. They could do more on buffers and wetland restoration.*
- Here's what we run in to. We can work with farmers very well before the farms are preserved. They're motivated because they want to enroll in the easement purchase program. The challenge is more with the farmers who have been in the program for years. There was less emphasis on water quality at the time they enrolled. It's hard to go back to those farmers now saying you have to come in to compliance with the new regulations.*
- Farmers who purchased the farm after it was preserved, who didn't get the benefit of the purchase money are also a challenge. Staff can make recommendations, but ...*

- *We need landowner involvement in the planning process, we need them to make it their project. This is the best way to get long term implementation and water quality improvements. Otherwise you're just throwing money at the problem and you're not going to get the outcomes.*

Interactions Between NRCS and County Agencies

The information from these interviews suggest that close interagency coordination between USDA and the county farmland protection offices is possible and beneficial. The benefits of full collaboration are stymied somewhat by information release constraints on the part of NRCS and by short lead-times on requests from the counties to NRCS.

- *It would be nice to do more with the counties, to have more collaboration with the ag pres folks. We work with county offices but it's not always with the ag pres people. There would be a benefit in working together more closely. One area where more collaboration would be good is in education on soil health.*
- *NRCS and the conservation districts are so wrapped up in their own programs that our time for assisting people who are not in our programs is minimal. It's tough.*
- *Our Field Office started getting together with the County Farmland Preservation Office and the County Conservation District Office ten years ago. We have monthly meetings to make sure we're all on the same page, that there's no duplication of effort, and that we keep things moving forward. Now when we get together, the county will identify the farms for which they need plans and ask if we want to address them. We typically allocate work based on which agency has the strongest working relationship with that farmer. We also talk about what funds are available.*
- *Information sharing [among partners] has been an issue. We have to have a standard release form signed by the farmer. We try to get a release form signed early in the process so that we can work with the county conservation district and farmland preservation board as we move forward. At one time we considered bringing in a land trust and a water institution as partners. This hasn't happened. We would need to address the information sharing restrictions if we did this.*
- *Partners would like to prepopulate our forms with the release language. This has not been allowed. We may revise or simplify our release form or look for ways to modify the paperwork to attach the release.*
- *It's a good idea to keep some separation between the plan author and the plan enforcer. It's better if it's not the same person, you need the impartiality. It can be a little close in that way when the same person writes the plan and then does the follow up.*
- *I used to work in another county. There they created a list of prioritized farms and shared these priorities with NRCS. This allowed NRCS to get a head start. It gave us more time to accomplish the planning.*

Manpower Issues

Echoing the feedback from the county interviews, NRCS personnel see a need for more qualified plan writers to support program enrollment as well as more manpower on monitoring of preserved farms.

- *There is a need for more certified planners.*
- *There aren't enough people doing good quality planning. There's more demand than supply for conservation plans. We need conservation plans and conservation planners to get good projects on the ground.*
- *The hardest thing is to get more government employees. Manpower is a real problem.*

- *In this county, the county agencies also are facing a manpower shortfall. This was the reason for the state moving to biennial inspections. Inspections could not be done as well as they should be given the mismatch between the numbers and the staffing. It was to a point that the ratio of inspections to inspectors here was about 700 to 1. How much time could they spend on the farm? It's better now that the inspections have moved to once every two years.*
- *[If program activity levels increase] you then need more staff to design the practices, to be part of the installation process, to write the conservation plans. The quality can deteriorate if staffing gets stretched too thin.*

Conservation Planning

Because counties may rely upon NRCS to write the conservation plans that ACEPP farmers must have in order to receive state funds, it is possible that the pace of county farmland preservation is limited by NRCS capacity to write plans. This was an issue for one of the field offices interviewed but less of a problem in the other, where more of the demand for conservation plans was addressed by technical service providers (TSPs).

- *I don't get involved with the ag pres program very much but I do sign off on conservation plans. Some plans are very old – from the late 80s and early 90s. I hate to sign off on these plans but we are bogged down and can't get to the plans. I struggle greatly with this. This needs to be addressed. We need funding for TSPs, to fully cover the cost, so there is no cost to the farmer. The plans need to reflect current conditions. The county is in a tough position. They want to get the land protected.*
- *I don't want to hold up farmland preservation. All we are doing now is related to NRCS programs (like EQIP). It eats up all our time. We don't ever get to the farm preservation.*
- *We don't write conservation plans for the farmland preservation program. We haven't done any for 2 ½ years.*
- *We work on water and soil quality on nearly all farms. We write conservation plans for any farmer that wants a plan.*
- *We work closely with county staff in the conservation districts who write the conservation plans.*
- *The quality of the conservation plans written by private consultants shouldn't differ from the quality of the plans written by us. They must have NRCS certified planner status. There is a concern though about the impartiality of the plans when the farmers are paying, that the consultants may avoid putting in more expensive options. We've heard this concern voiced by county staff.*
- *NRCS plans are very detailed and written to a certain standard. Plans from the private sector – some are detail-oriented, some are sloppy. They may have wrong or incomplete information in the paperwork, they may be superficial. About 1 in 4 are like this. It's a result of the jobs being given to the least cost bidder. Not all the TSP plans are like this. Other folks give me really nice plans. But there's an issue with a lack of comprehensiveness in some private consultant plans.*
- *We encourage our staff to address wildlife and forest area issues with landowners as well.*
- *We've seen situations where the farmer did not realize all the things that were in the conservation plan that was done for them [by a consultant]. There was a farmer who did not realize that creek fencing was in the plan, and he didn't want to do it. We work to make sure that the farmers know what's in the conservation plans we prepare. If they don't want to go along with that, that's their choice, but we won't write a plan to match their objections. We write a plan that's our view of a good plan.*

- *Whatever plans are written, make sure they address soil and water resource concerns, that livestock practices and manure practices are scheduled and properly specified. A lot of that isn't addressed. Plans are just written for the cropland portion of the farm. This is something I'm seeing with farms outside the farmland preservation program. It's something to watch out for.*

Training and Certification of Conservation Planners

Writers of conservation plans need to be certified by the NRCS as qualified to do so. NRCS conducts "Bootcamp" training programs for this purpose. The training and certification process is demanding and with other demands on county staff time, there is concern over these demands. There may also be a need for more training support on software tools used in conservation plan preparation.

- *We offer Bootcamp [certified planner] training to all counties. If there is a desire for more training, they should put in requests to the state office. We're happy to have them take advantage of this.*
- *No planner certification training is offered here at this time. Our priorities in the field are NRCS programs. The Harrisburg office does the planner training. It's intense: eight or nine trainings plus writing a conservation plan.*
- *New planners tell us they need time to learn the software tools. Getting more training on software tools is their biggest concern. There should be more training support on the use of these tools.*
- *A lot of training happens in the field. More training on the software tools is needed. There's not a lot of software training now. There's a lack of support. People need to use the tools to gain mastery of them.*
- *New people cannot learn conservation planning if they only have a few hours a week. There is software to learn, soil science concepts to learn. It requires practice to get good at it. I don't have a problem working with new people to train them, but they have to have the time to devote to this.*
- *Do County staff have the time to do planning? If so, then training can be useful. We'd be more than willing to bring on new partners in setting up training events. We try to work with partners.*

Incentivizing Conservation Practices

Views on the need for monetary incentives are somewhat mixed although incentives are more likely than not to be viewed as needed to spur BMP adoption. Funds for the costs of conservation plans are also viewed as a need.

- *I don't know what additional incentives could be offered. There are rules and regulations in place that these things shouldn't be a problem, but they are. The farmers have been hearing about the funding available for years. They will come get the funds when they want to.*
- *Make it a requirement that the measures that best address water quality – riparian buffers, cover crops, etc. – are required for farms in the program.*
- *We've been pretty blessed here in terms of federal and state funds.*
- *More education and outreach is needed. That's a big thing.*
- *We do give extra points to preserved farms when scoring applications for our programs [which provide incentives for conservation practices].*
- *There's always benefit to producers receiving financial assistance. Farmstead practices for dairy/swine/poultry operations are very expensive. Costs for these average \$120,000 - \$140,000. They need help with these costs.*

- *We have a six-to-one demand for funds. There are always people who need assistance.*
- *You need money for the plans too. The average TSP costs for a comprehensive plan for nutrient management is about \$7500. This doesn't even cover the measures themselves.*
- *Dairies especially need the financial assistance. Commodity prices are down. The certainty provided by our cost-share helps.*
- *Farmers need both financial assistance and technical assistance.*

FINDINGS FROM OTHER STATES

Five interviews were conducted with personnel working in state and county farmland preservation programs outside Pennsylvania [including New Jersey, Delaware, Maryland and Virginia]. These respondents had years of experience in farmland preservation and were able to draw not only from knowledge of their current programs, but also experiences in at least ten farmland preservation positions; three had previously worked in Pennsylvania and so had direct knowledge of differences between the Pennsylvania ACEPP and other farmland preservation programs. Discussions with these respondents addressed key opportunities and challenges for achieving water quality through farmland preservation programs, program design considerations, the pros and cons of addressing land and water objectives through a single program versus multiple programs, lessons learned, and recommendations.

Opportunities and Challenges

The farmland preservation personnel in other states highlighted the following points when asked to identify key opportunities and challenges to addressing water quality protection through farmland preservation programs:

- *You can do it. We have done it. [saving farmland and protecting the environment]. Ask for reasonable protections, give reasonable compensation. You can get environmental outcomes.*
- *How do you create a program to support these outcomes without spoiling the farmers?*
- *It's important not just to require a conservation plan but to require implementation of the plan. That's not always the case. Outside of our preservation program, conservation plans are voluntary, but in our program, it is required that they implement a conservation plan.*
- *The important thing is the program coordinates with the local soil conservation district.*
- *In our experience, about twenty percent of the applicants each year will have a problem with our buffer requirement. There are a variety of reasons – aesthetics, cultural reasons (hunting), worries about nuisance wildlife, etc.*
- *A key challenge is explaining water quality in a non-confrontational way, that doesn't blame the farmer. A 'getting to yes' approach that farmers can buy in to. There need to continue to be improvements in the outreach, with a focus on the benefits to the farmers' bottom line.*
- *Our state avoids mandatory approaches, relying on voluntary, incentivized approaches. Over time, this may not be enough.*
- *While our state doesn't mandate the water protections yet, people are expecting it. It makes sense to operate the programs to address both farmland protection and water quality protections.*

- *Our state program just makes grants; it does not have a lot of requirements like the Pennsylvania program. There is no requirement for conservation plans. There are some guidelines but this is very much a locally-driven program.*
- *Keeping farmland as farmland is good for water quality. Certainly water quality benefits are realized from ag preservation.*
- *There are opportunities on water quality. There's never enough money to do what you want. Giving preference to preserved farms for any incentives is an option. The rationale being the persistence of the installations.*

Views on Bundling Land and Water Objectives

Respondents were asked their views of the merits of addressing land and water objectives in a single program versus through separate programs. There are two camps on this topic as reflected in the following comments:

- *Water quality should be part of the farmland protection program focus. Taxpayers are paying for this. They have a right to expect water quality along with the land preservation, especially when the science confirms this.*
- *If you design it right, you can get it done. If the program stipulations don't include water quality, you won't get it.*
- *It makes sense to bundle it. A lot of folks who are doing farmland preservation are already going to be conservation-minded. They are already doing things to keep livestock out of streams. It makes sense to do it all at the same time. It's easier.*
- *I think there are possibilities but I would be wary of trying to achieve too many goals with one program. Our ag lands program has preserved almost one-quarter of our farmland in twenty years. We stay out of trouble by not expanding the goals. The program has excelled by staying focused on the preservation of core farmland and a viable farm industry. Water quality is certainly worthwhile. Just don't lose sight of the main goal.*
- *Water quality issues here are mostly addressed through county conservation districts, not the farmland preservation programs. The conservation districts have access to the cost share programs and to NRCS staff. We don't get involved very much.*

Most Effective Programs

Programmatically, the approaches to farmland preservation and water quality protection varied a good deal from state to state. Program effectiveness was variously attributed to stipulated requirements, attractive incentives, streamlined application reviews, and farm certification. Frequently there was a set of programs available to farmers, rather than a single program option. Sometimes state and county programs complemented one another, other times the programs were all state-sponsored.

- *Our program used a well thought out easement and voluntary use of better practices.*
- *We required a forest management plan as well as a conservation plan.*
- *We used a point system both for ranking the farms and for determining the value we would pay. This looked at acreage of farmland, length of stream frontage, acres of groundwater recharge, etc. This facilitated faster valuations rather than using appraisals. The farmers had a choice, get the quicker application processing in our program versus apply to another state program which took a long time to process applications.*
- *We moved away from a sole focus on tillable land, we created a special grant program and set aside money above and beyond the farmland preservation funds. Money for natural resource conservation and good farmland preservation. If you offer enough incentives you can get water quality.*

- *We set requirements above those of NRCS because we were paying good money. They had to have a forested buffer. We also required a forest management plan for any forested acreage.*
- *We didn't want to back off water quality in our farmland preservation program. But we didn't ask for an excessive amount of buffer width. The environmental community gets too greedy. They got 50 foot buffers, then they asked for 100 feet, then 300 feet. The greediness of the environmental community drives farmers up the wall.*
- *We have multiple farmland preservation programs in our state. One important program to keep farmland in agricultural use provides loans to young farmers and family farms for fee simple acquisition. This is a very fast turnover program that focuses on development rights. The farmer is under contract to put an easement on the land within five years and prevent future development.*
- *We have a local option that allows for a use of a portion of the state money for plan writing. This helps address the fact that the state program has no requirements for conservation plans.*
- *We have a cost-share program for nutrient management. Also a certification program, not regulation. There is good buy-in from farmers.*

Eligibility Criteria

Paralleling the variety in program designs, there is considerable variation in how programs in other states reflect water quality factors in the farm ranking process.

- *One of our scoring factors looks at water quality issues. I don't think the cost-share programs here look at whether the farm is preserved or not.*
- *We consider implementation of water quality measures as an eligibility requirement because we require it as part of our program. We may give extra points in the ranking of the farms on this.*
- *There are no requirements for BMPs in our program, nor are those farms scored higher in our farmland preservation program.*
- *To add a criterion on water quality to our program would not fit well with how the program is run. Our process for preservation uses a reverse auction. Whoever discounts their rights the most gets ranked higher. The percent discount is the criterion.*
- *We have a state requirement that all farms greater than 10 acres must have a nutrient management plan. This is a separate requirement, not part of the program.*
- *Our state does not prioritize farmlands like Pennsylvania does. Leadership involved with land conservation in the state is now asking to review the ranking criteria; they want to better understand the review process.*

Conservation Plan Requirements

It appears that Pennsylvania has tougher requirements for conservation plans than most of the other programs discussed in these interviews.

- *People will keep on doing what they've been doing if you don't push them to do more.*
- *We have multiple programs here, some requiring conservation plans, others do not. The program that has more funding does require a conservation plan. There is a task force that reviews and ranks applications; they have increased the importance given to the presence of a conservation plan and steps to protect water quality and sensitive features. Our purchase of development rights program does not require a conservation plan.*
- *Our deeds of easement have some general language on best management practices, but no requirement for conservation plans. The language does bring up some interesting issues with respect to enforcement. Pennsylvania has a conservation plan requirement but*

down the road it's questionable on enforcement. It's always a tricky area. Cooperative arrangements with conservation districts may help.

Incentives

All the respondents in other states felt that incentivizing good agricultural practices is or has been essential.

- *It comes down to money. It's got to either put more money in their pockets or save them money in the end. For example, buffers take acres out of production, so what's the tradeoff for the farmer? Once you've picked off the low-hanging fruit ... folks forget that the farmers cannot make up that percent loss of production somewhere else. Prices are down, it's more of a pinch. Show how farmers can generate income they didn't have before. It needs to come out at a point where they don't lose money.*
- *Money does help because sometimes getting buffers installed requires a change in farm operations, changing the pasture layout, what crops are put in. It requires involving the Conservation District. Buffers can be a big change for the farm.*
- *There's a cost to some of these measures that needs to be addressed. It's not just a matter of a one-time payment. There would be value in setting up long-term funding for things that will need to be maintained.*
- *Our state put a lot of money in to BMP incentives for the Chesapeake. Some of this was for stream fencing, watering systems. The incentives were very good, they covered 75% or more of the costs. They were effective. Now I think the important thing is just more education on what is being offered.*
- *Find opportunities to reward the farmers for doing the right things: cost-share, technical assistance, higher rankings for program benefits.*

Farmer Audiences

Insights into the agricultural community and farmer attitudes toward conservation included the following:

- *It has been harder to reach more traditional farmers, communities with religious affiliations who are distrustful of what the government will do. They just don't participate. This has held back protection of some of the most productive land. They don't see the benefit to them.*
- *There is a need for education on soil management. Some of the farmers just don't think about it. The Amish cleared everything from their lands, stumps, everything. They wanted to put all the land in to production. They overlooked the losses from not managing the soil loss.*
- *We get less resistance from farmers without livestock.*
- *Compared to grain farms, there's more bang for the buck when you can control nutrients from manure. Make sure these farms have the right BMPs.*
- *While most dairy farms here are participating, some are not. We also have a lot of horse farms. Perhaps not as many as we might like in the preservation programs. Many of our dairies are multigenerational. They can see the effects of conservation on the farm over time. They can see it's beneficial.*

Lessons Learned

Each respondent was asked for lessons learned in relation to addressing water quality objectives through farmland preservation programs. The feedback covered a wide range of subjects, ranging from program design to implementation to funding.

- *When the Pennsylvania program began there was a thought that should see that expenditure of public money try to encourage good practices. But it was never worked out in great detail on enforcement, It's a good goal, but making it happen was a bit more difficult than expected.*
- *One of the biggest things is the long-term stewardship of thousands of easements [and the growing manpower requirements they entail].*
- *There is a need for both a holistic vision and the financial wherewithal to accomplish objectives at a state scale. In my experience, government programs have all the financial wherewithal but they historically don't have the whole systems view. Land trusts have the broader view but not the money.*
- *For a new program you have more options to design a program to address both objectives.*
- *Statistics show that farmers who are more serious about conservation will put more practices on the farms. This includes hard core farmers, not just the farmers with pretty pastures. Environmental protection is not some rich person's game, it's part and parcel of mainstream farming.*
- *Don't accept excuses. It's not a big hurdle to pay for a plan. Find a technical service provider. Pennsylvania has quite a few of them. The cost is small compared to the remuneration they get from the preservation program.*
- *There should be some benefit to the farm owner who has made the commitment to preservation.*
- *Our state program requires a one-to-one match from localities. This is both good and bad. They have skin in the game that way and some have figured out how to raise the money. But only six localities are in now. A number dropped out at the time of the recession because of this requirement and they haven't come back. The requirement for a public co-holder of the easement is limiting results in the northern part of the state where few public bodies are willing.*
- *Our state developed a more farming friendly easement with some allowances near the farm headquarters. We have not seen this used as much as we expected. We are trying to revise it so it will be used more.*
- *There is a need for more money for land conservation. The easy land conservation has been done. How do we continue to preserve lands in areas where the purchase of development rights don't work particularly well?*

Recommendations

Finally, the following concluding thoughts were offered for how Pennsylvania might move forward to accomplish more water quality benefits through ACEPP:

- *In my mind, it's not a matter of if, it's a matter of how. It's a matter of good design.*
- *It's very important that it's voluntary. Farmers will chafe at regulatory approaches.*
- *Design a program within the normal parameters for farmland preservation then add funds for environmental protections.*
- *Pennsylvania does need to do more. There needs to be a joint effort of the counties and the state on soil erosion and nutrient pollution, cooperation between the counties and the state. It's an investment of public money. I don't think the public wants to be just extinguishing development rights.*
- *The biggest thing Pennsylvania could do is require buffers or something in order to be eligible. The program is a big incentive.*
- *See if the local ag boards can develop better relationships with the county conservation districts. Cooperative arrangements between them.*

- *The Pennsylvania program started as a voluntary program without the water requirements in its early years. For retrofitting an existing program you have to tread lightly. You have to incentivize the outcomes you want. One way to do this is to compensate at higher dollar values when natural resources are protected along with agricultural lands. Include properties that have environmental values, protect the environmental values, and provide greater compensation for doing so.*

CONCLUSIONS

ACEPP's strong record of success in achieving voluntary conservation outcomes, and the continuing relationships program personnel have with the farmers of Pennsylvania, position this program favorably as a platform for future conservation successes. The program is already beneficial to water quality by preventing land conversion and limiting increases in impervious cover, as well as by accelerating the use of conservation planning within the agricultural community. However, it is clear from these interviews that many farmers need both technical and financial assistance to fully implement the recommended practices that are well matched to their farms. It is also clear that this program lacks sufficient resources in many counties to fully meet current goals, let alone additional objectives. Against this backdrop, several ideas have emerged from this research for how the ACEPP might contribute to further water quality improvements, including steps addressing farm selection and ranking, conservation plan development and updating, support to farmers for implementation, and education. Some of the most promising ideas are summarized below.

Farm Selection

Water protection potential is very seldom used as a farm ranking criteria today (only 4% of interviewed counties reported doing so), but there is a good level of support for this concept among county personnel who administer ACEPP (62% support the general concept to some degree). This concept seems ripe for development, so much so that some of the county personnel reported that they would be looking in to implementing this at the county level as a result of these telephone conversations. To scale this up, it would be worthwhile to identify specifically what factors are viewed as most acceptable and most meaningful to integrate in to the current ranking system.

Two respondents also felt that smaller farms, including CSAs, are more likely to adopt organic and sustainable farming practices and would be easier to persuade to adopt the types of practices recommended in conservation plans. While some counties have already relaxed the farm size criterion in their ranking processes, this criterion also deserves revisiting at the state level by amending the statutory eligibility requirements, especially with a linkage to points given for the use of organic or sustainable on-farm practices.

It was noted that the selection criteria in use today tend to give lower rankings to farms that have more acreage in woodlands and wetlands, features which are important to conserve for water quality objectives but which lower the relative rank when screening for productive farmland. In this case, it would be valuable to direct these farm owners in to other programs and initiatives which offer support for the conservation of these natural resources. To foster synergy across programs, when these farms appear in the ACEPP queue, rather than just leaving them in the queue, they should be proactively identified as targets for water conservation and appropriate

follow up outreach should be scheduled. Counties where this is already underway can advise other counties around the state on the use of this approach.

Identification of Conservation Practices

ACEPP is falling short of its potential to foster better on-farm practices due to a serious shortage of conservation plan writers in many parts of the state. This is creating bottlenecks which hold back both farmland protection and broader adoption of better stewardship practices. The program is an excellent vehicle for helping advance wider use of conservation plans except for the inadequacy of manpower available to do the job. Where manpower is not a constraint, it was reported that the program contributed to five times as many farms getting conservation plans as were protected. Where there is no-one to do the conservation plans, no plans are written and no new farms are enrolled. For those interested in amplifying the water quality benefits achieved through the state's farmland preservation program, this manpower shortage would have to be one of the first priorities identified for action.

Better water quality outcomes could also be achieved by establishing greater definition in what is included in the conservation plans for ACEPP farms. Developing a set of minimum requirements for the conservation plans used by applicants would be a useful step toward that end. Greater standardization of conservation plans would also benefit the farm ranking process now used by several counties which gives preference to farms based on the progress in implementing their conservation plans (measured as percent complete). An unintended consequence of this well-intended metric is the favoring of farms that have made a lot of progress on less ambitious conservation plans over farms that have made lower percentage progress on more robust plans. More standardization in plan elements would alleviate this issue.

Another opportunity for fostering increased conservation practices occurs later in the process. Once a farm is enrolled in ACEPP, it is possible to continue working with the farmer to identify beneficial practices that would further improve the stewardship of the farm's resources. The regular monitoring visits provide a natural opportunity to do so, and some counties are able to capitalize on this opportunity. However, not all counties have the manpower available to take the time for these educational discussions. We see an important opportunity to piggyback educational discussions with the required monitoring visits; manpower must be provided for this to be feasible.

Keeping Conservation Plans Current

Conservation plan updates at the time of a change in ownership are not always happening in a timely fashion due to breakdowns in that information being relayed back to the county's farmland protection staff. New owners who were not the beneficiaries of the easement purchase funds are often unenthusiastic about preparing a fresh conservation plan. Other conservation plans become outdated simply due to the passage of time and inadequate resources for follow up. It was reported that some farms have conservation plans that were well over ten years old and do not reflect current state regulations. In both situations, farmers are not particularly motivated to do the update plans. County personnel are very mindful of this need for plan updates and are conscientiously striving to keep on top of the issue. There may be utility in directing some type of assistance to a subset of these plan updates. For example, because plans for farms with livestock can be more expensive, and because farmers with livestock are more worried about government oversight, cost-share incentives might be useful to address the desired plan updates as well as the BMP implementation. Additional trained personnel who can work with the farmers on plan updates will also help in resolving some of the plan writing constraints noted in this research.

Risk of Easement Violation When Ownership Changes

The notification failures at the time of title transfer leave county ag preservation offices vulnerable to needless easement violations that occur when new owners make changes to the farm without knowledge of the easement stipulations. To date, this situation can still be characterized as ‘we’ve been lucky’ that nothing egregious has been implemented during these lapses, but it seems clear it is only a matter of time until this luck runs out. To address this vulnerability, procedures must be established to ensure that changes in ownership are reliably communicated to farmland preservation personnel at the time of sale.

Fostering Implementation of BMPs

While there are a number of incentives available today, there is more demand than money available and a likelihood that more financial support would yield more BMP installation. An assessment of the need for additional incentives for high cost, high impact measures and for cash-poor farm operations could be useful in identifying where additional incentive money would provide the greatest return on investment.

A number of respondents mentioned that a lack of awareness still holds back farmer utilization of the incentive programs that are available for BMPs. In such cases increased outreach to work with farmers in applying for available incentives would be valuable. Again, there appears to be a need for additional manpower to devote to increased outreach and educational activities.

Recommendations

Based on the findings from all of these interviews, the following observations and recommendations are offered as potential steps for increasing water quality benefits achieved through ACEPP.

- While a small minority of program administrators expressed a belief that there must be a change in the state program requirements and/or statutory language to address water quality via ACEPP (less than 10% of respondents interviewed), larger numbers are opposed to changes which are mandatory in nature. Given the prevalent views that the program’s voluntary nature is its strength, there appears to be more promise in focusing on program refinements that do not require statutory changes.
- County administrators of ACEPP should continue to share information on approaches they have implemented that achieve water quality improvements along with farmland protection.
- The counties and the state should consider potential modifications to the farm ranking criteria, specifically how to integrate one or more criteria that favor farms that have greater potential to improve water quality impacts. There is little in the farm selection process now in most counties that reflects water quality considerations.
- The counties and the state might also consider relaxing minimum farm size criteria for certified organic farming operations. These farmers are inclined toward good management practices but may be unable to participate in ACEPP due to typically smaller farm sizes.
- Another opportunity is to create closer synergies between the ACEPP farm selection process and other programs focused on natural resource protection. Frequently there are low-ranking applicants who have properties with significant woodlands and/or wetlands, resources pertinent to water quality objectives. These farms are unlikely to be selected for ACEPP but could be good targets for other programs. Lessons learned from counties which have already initiated these types of efforts could be used to guide broader implementation across the state.

- Conservation plans play a central role in ACEPP and the program is accelerating conservation planning within the agricultural community. Unfortunately, the requirement for conservation plans is also slowing farmland preservation in some counties in Pennsylvania. This is due to uneven access to qualified conservation planners. Government staffing is insufficient to meet demand in a number of counties. In some areas this need is being filled by consultants or TSPs from the private sector but these services are not equally accessible in all parts of the state. This manpower problem deserves immediate attention – and funding - as both water quality and land preservation outcomes are slowed as a result in parts of the Commonwealth.
- Required updates to conservation plans triggered by a change in ownership are not always happening in a timely fashion due to breakdowns in that information being relayed back to the county’s farmland protection staff. To address this vulnerability, procedures must be established to ensure that changes in ownership are reliably communicated to farmland preservation personnel at the time of sale.
- Greater standardization of conservation plans, by establishing minimum standards for plan contents, would also likely contribute to additional water quality improvements. Several counties now use scoring approaches that give greater weight to farms that demonstrate a higher percentage of implementation of their conservation plans. However, this can lead to farms with less ambitious conservation plans outranking farms where more robust plans were developed.
- As the ranks of preserved farms swell over time, the amount of manpower needed for mandatory monitoring activities increases commensurately. These growing demands strain the capacity of many county offices. The change from annual to biennial inspection schedules provided short-term relief, but this is not a long-term solution.
- ACEPP monitoring visits are a valuable opportunity for on-site farmer education and can play a central role in fostering additional adoption of better water quality practices if used to engage the farmer in discussions of farm conditions, conservation options, and available incentive programs. Not all counties have adequate manpower to take advantage of this opportunity to discuss applicable conservation practices. Once again, there is a need for more manpower to realize this opportunity.
- While there are a number of cost-share incentives available today to farmers in Pennsylvania, there is more demand than money available in many counties and a likelihood that more financial support would yield more BMP installation. An assessment of the need for additional incentives for high cost, high impact measures and for cash-poor farm operations could be useful in identifying where additional incentive money would provide the greatest return on investment.
- There are varying levels of need for incentives for BMPs and conservation plan implementation. An assessment of this issue should be undertaken, looking at such factors as farm cash flow constraints, return on investment to the farmer versus the importance to programmatic clean water goals, total implementation costs (including costs for plans as well as hard costs) and the life cycle of associated costs to the farmer when ongoing maintenance investments will be necessary. Gaps where desired BMP activity is impeded by a lack of adequate incentives should be prioritized for action. Additional education should be directed to those practices where the farmer’s economic interests and the public interest in water quality are aligned.

APPENDIX A: INTERVIEW GUIDE FOR COUNTY AGRICULTURAL LAND PRESERVATION BOARD ADMINISTRATORS

1. Thinking of the ACEPP program overall, what are its major strong points? What are its major challenges?
2. Have you noticed any trends over time in farmer applications or inquiries?
3. What are typical farmer perspectives on the program? On the requirements that they must have a conservation plan? On requirements that they will be monitored on a long-term basis and will be evaluated for whether they are in compliance with their conservation plan?
4. Is a conservation plan a pre-requisite required before applying for the easement purchase program or is it just required to be completed before the easement purchase transaction is completed? Does the county ag pres board stipulate or encourage any particular elements be in the conservation plan?
5. What effect, if any, do NRCS programs have on the easement purchase program?
6. How frequently do you monitor farms in the easement purchase program: biennially/annually? [*capture nuances driven by type of farm operation*] Is a farm's conservation plans reviewed before the site visit? Is the farm evaluated for progress on conservation plan/conformance?
7. What are your inspectors finding when they monitor enrolled farms? Do your inspection visits include any discussions of farm operations improvements that go above and beyond what is required by this program?
8. How do you determine whether the farm is in compliance with the conservation plan? What is the post-inspection process when a determination is made that a farm is not compliant with its conservation plan?
9. Does your office contract out any of the inspections? How do you prepare new inspectors for their work?
10. Does your office have the resources you need to carry out this program as well as you would like? If not, what types of additional resources would be useful?
11. Either during the application process or during the inspection visits, do your staff discuss conservation practices with the farmer? Is this something you would like to see your office do more of? Would you be interested in having those discussions address water quality topics to a greater degree? Would you be willing to send me the inspection form that is used during the monitoring visits?

12. The state program sets farm eligibility and scoring criteria to be used by the county ag boards, but allows for some flexibility, if approved by the state program. Did your county add any additional considerations in to the farm selection process? Please describe.
13. What would you think about the idea of adding criteria that focus on a water quality improvement contribution? For example, bonus points being awarded for riparian protections such as through a riparian easement or tree plantings in the riparian zone? Or a program to purchase riparian easements? Or adding a criterion that would limit the amount of impervious cover?
14. Do you have any other ideas for possible ways to achieve better water quality outcomes through this program? Overall, what would you say are the pluses and minuses of making program changes to incorporate water quality objectives?
15. Do you have other programs where addressing water quality would be a good fit? Does the county purchase any easements with county money outside the state ACEPP?
16. What if monetary incentives were offered for water quality measures – what would be needed to be effective?
17. As I'm talking to county ag preservation boards across the state, I'm looking to identify best practices in place at one ag preservation program that might be useful to others. Is there anything that you're aware of that you think I should look at as I research the issues we've talked about?
18. Do you have any other thoughts you'd like to share before we wrap up?

APPENDIX B: INTERVIEW GUIDE FOR NRCS PERSONNEL

1. Do you work with county farmland protection personnel who administer the state agricultural easement purchase program? Does your role in the state easement purchase program vary from one county to another?
2. The agricultural easement purchase program was established to protect productive farmland in Pennsylvania. There is interest in whether this program can be made to help increase the water quality improvements on participating farms above and beyond what occurs today. Do you have any thoughts on how this program might be implemented differently to accomplish this?
3. Do you prepare conservation plans for farms that are enrolling in the Pennsylvania agricultural easement purchase program? Does your office prepare all these plans or do others, such as the county conservation district or private consultants, prepare some of the conservation plans used by farms that apply for easement purchase funding?
4. Do the conservation plans you prepare differ from the plans prepared by others? (if yes) Please describe.
5. Do the plans you prepare for the easement purchase program differ from plans you prepare for other farms? Please describe.
6. Are there areas where you see room for improvement in the conservation plans being prepared for farms in the easement purchase program? Please describe.
7. Do you inspect farms in the easement purchase program for compliance with their conservation plans? (If yes) Can you characterize what you are finding from these inspections? Are the farms generally in compliance with their plans? If not, what types of compliance issues are typical?
8. What do you find to be the farmers' awareness of program requirements and sound conservation practices? Are there particular topics where you think additional farmer education would be useful?
9. Is there a need for additional incentives? What type of incentives do you see a need for?
10. Do you see a need for additional training for personnel who implement the easement purchase program and, if so, what type of training do you think would be valuable?
11. One issue that has come up repeatedly in the calls I've been making is a shortage of manpower, both at the state and USDA levels. One element that has been identified is a need for more certified planners and, associated with that, a need for more frequent training opportunities. Do you have any thoughts on how this might be addressed? Could training courses be made available on-line? Could the state farmland preservation program play a role? What might that role be?

12. Are there other states with programs that you think we should look at as providing models of how to integrate farmland preservation and water quality protection? What elements of this program do you recommend that I look in to? Strengths/weaknesses? Do you have a contact person you can refer me to?

13. Is there anything else that we haven't discussed that you would like to bring up in relation to increasing the emphasis on water quality through the state agricultural easement program?

APPENDIX C: INTERVIEW GUIDE FOR FARMLAND PRESERVATION PROGRAM ADMINISTRATORS IN OTHER STATES

1. In your experience, what are some of the best opportunities for achieving water quality outcomes through farmland preservation programs? What are some of the key challenges?
2. What is your most effective program for addressing water quality on farm lands and why is this program your most effective? What program elements would you recommend to other states?
3. What are your thoughts on the pros and cons of bundling together farmland preservation and water quality objectives in a single program vs. addressing them through separate programs?
4. Do the eligibility criteria for farms that want to participate in your ag lands protection programs consider water quality factors? Conversely, do your restoration/BMP funding programs consider whether the parcel is permanently protected or not?
5. Does your farmland protection program require a conservation plan? What barriers to developing and implementing these conservation plans do you encounter and how do you address these issues?
6. What type of incentives, if any, do you think are needed to spur more water quality actions by farmers?
7. Are there any specific farmer groups that you see as especially promising targets for water quality programs?
8. What recommendations would you offer to other states that are trying to accomplish more on water quality through farmland preservation program?
9. Do you have any other lessons learned you'd like to share?
10. Is there anyone else that you would recommend I speak to on this subject, either in your state or in another state?