A National View of Agricultural Easement Programs: How Programs Select Farmland to Fund — Report 2

June 2006

A Joint Project of
American Farmland Trust and
Agricultural Issues Center

Anita Zurbrugg, American Farmland Trust, Center for Agriculture in the Environment, DeKalb, Illinois
Alvin D. Sokolow, Universiry of California, Agricultural Issues Center, Davis, California

Publication supported by Farm Foundation

American Farmland Trust
Saving the Land that Sustains Us

A National View of Agricultural Easement Programs: How Programs Select Farmland to Fund — Report 2

June 2006

The National Assessment of Agricultural Easement Programs

A Joint Project of
American Farmland Trust and
Agricultural Issues Center

Anita Zurbrugg, American Farmland Trust, Center for Agriculture in the Environment, DeKalb, Illinois
Alvin D. Sokolow, Universiry of California, Agricultural Issues Center, Davis, California

Publication supported by Farm Foundation

American Farmland Trust
Saving the Land that Sustains Us

University of California
Agricultural Issues Center

Farm Foundation

ACKNOWLEDGEMENTS

The author expresses appreciation to the easement program directors and others who were more than generous in supplying detailed information about their programs and strategies and criteria for selecting parcels.

Suzanne Heflin, agricultural policy consultant in Virginia, provided valuable information for this report by conducting follow-up phone interviews with program managers and other knowledgeable persons.

Nicholas Alberts, Nicholas Alexander and Brad Walker assisted the author in analyzing data from transcribed interviews and other sources. Alberts and Alexander are former and present respectively, law students at Northern Illinois University College of Law. Walker, AFT consultant, Florida.

As consultants to the project, Deborah Bowers and Tom Daniels reviewed draft versions of this report and responded to the author's frequent questions about agricultural easement programs throughout the United States. Bowers is publisher and editor of *The Farmland Preservation Report.* Daniels is Professor of City and Regional Planning, University of Pennsylvania, Philadelphia.

American Farmland Trust colleagues Ann Sorensen, Bob Wagner and Julia Freedgood contributed information and reviewed draft versions of this report. Sorensen is director of the Center for Agriculture in the Environment, DeKalb, IL; Freedgood is director of Technical Assistance Services, Northampton, MA; and Wagner is managing director of programs, Northampton, MA.

NATIONAL ASSESSMENT OF AGRICULTURAL EASEMENT PROGRAMS

Project Director: Alvin D. Sokolow, Agricultural Issues Center, University of California, Davis, California, (530) 752-0979, ajsokolow@ucdavis.edu

Co-Director: Anita Zurbrugg, American Farmland Trust, Center for Agriculture in the Environment, DeKalb, Illinois, (815) 753-9347, azurbrugg@niu.edu

Technical and Editorial Support:
Teresa Bullock, American Farmland Trust, Illinois
Jeff Woled, Community Studies Extension, University of California, California

For publication information, please contact American Farmland Trust's, Center for Agriculture in the Environment at (815) 753-9347. This publication is available online for duplication at www.aftresearch.org and www.aic.ucdavis.edu.

TABLE OF CONTENTS

Executive Summary

Public and private organizations that acquire perpetual easements on agricultural lands usually face the challenge of deciding how and where to place their limited and sometimes scarce dollars. Using an effective set of acquisition strategies and criteria is one key to meeting the challenge. Examining the acquisition strategies and criteria of 46 programs in 15 states, this report is based on the perceptions of program managers and other knowledgeable persons collected in extensive phone interviews and on more objective information from other sources. The report is the second of four publications of *The National Assessment of Agricultural Easement Programs* study.

The programs studied vary in the specific criteria employed; in whether they use quantitative ranking formulae, more discretionary qualitative standards or a combination of both; and the relative emphases given such important factors as soil quality, strategic location, the accumulation of large blocks of preserved land and the quality of farm management.

The study finds that:

- Most of the programs use a set of minimum standards (which include such factors as farm size, location in a formally designated agricultural district and soil quality) that are used to sort parcels for future consideration through a quantitative or qualitative selection strategy.
- Overwhelmingly, the 34 quantitative programs studied prioritize parcel selections based upon the criterion of agricultural quality (which includes the measurement of soil quality) followed by contiguity (which includes placing new easements adjacent to or in close proximity to parcels already preserved, either for agricultural or other conservation purposes).
- The 12 qualitative programs studied focused first on selecting parcels based upon location or geographic targeting, followed closely by contiguity considerations along with the potential of parcels to be developed either in the near term or short term.
- Qualitative selection strategies are able to maximize the use of discretion in the selection process, relying to a great extent on the personal judgments and local knowledge of program managers and their boards.
- Programs usually use quantitative selection strategies based upon the presumption that objective standards will hold up to public scrutiny and in order to effectively process and access large numbers of applications often with limited funding.

Though a common goal and well-accepted standard for an effective easement program may be to protect large contiguous blocks of farmland, no one specific model or combination of standards can be appropriately applied across the board given the great differences throughout the nation in agricultural landscapes, commodity requirements, the rate and pattern of urbanization, and program resources. Rather, easement programs are best advised to customize their acquisition practices to local needs and circumstances based upon a clear set of preservation goals and priorities that emerge from the deliberations of elected officials, citizens, program managers and planners.

Suggestions for effective acquisition strategies include: setting clear purposes and goals for the program based upon thorough knowledge of local needs and considerations and creating a transparent, defensible process for selecting parcels based upon factors such as funding sources and availability, the nature of the local landscape, the type of agriculture in the area and associated parcel sizes and the type and extent of urban threat in the area.

1. INTRODUCTION

How do organizations that acquire perpetual easements on agricultural lands decide where to place their scarce dollars? This report, a product of *The National Assessment of Agricultural Easement Programs*, examines the acquisition strategies and criteria of 46 programs nationwide. Programs vary in the specific criteria employed; in whether they use quantitative ranking formulae, more discretionary qualitative standards or a combination of both; and the relative emphases given such important factors as soil quality, strategic location, the accumulation of large blocks of preserved land and the quality of farm management.

The stakes in spending easement funds wisely and effectively are enormous. Every year, several hundred governments and land trusts nationwide allocate about $248 million in local, state and federal tax funds and additional millions in private money to acquire easements to protect approximately 107,000 acres of agricultural land from urbanization. As impressive as this may be, it represents only a dent in the 434 million acres of crop and grazing land under private ownership in the nation. So the challenge to easement programs is to achieve the maximum degree of protection from their expenditures (NRCS, 2004, U.S. Census of Agriculture 2002).

Using an effective set of acquisition strategies and criteria is one key to meeting the challenge. No one specific model or combination of standards can be appropriately applied across the board, given the great differences throughout the nation in agricultural landscapes, commodity requirements, the rate and pattern of urbanization, and program resources. Rather, easement programs are best advised to customize their acquisition practices to local needs and circumstances. Ideally, acquisition standards should be based on a clear set of preservation goals and priorities that emerge from the deliberations of elected officials, citizens, program managers and planners. Even though a common goal and well-accepted standard for an effective easement program may be to protect large contiguous blocks of farmland, the acquisition strategy designed to best accomplish this still needs to reflect these unique considerations.

The National Assessment Project: Research Sample and Methods

This report is a product of *The National Assessment of Agricultural Easement Programs,* a broad review of the performance and effectiveness of such programs nationwide, jointly organized by American Farmland Trust and the Agricultural Issues Center of the University of California. It is the second in a series of four reports from the project initiated in 2002 and is accompanied in release by the third in the series, *Easements and Local Planning*. Our first report, issued in 2003, profiled the progress and experiences of 46 leading easement programs in 15 states (the project's research sample). The fourth and final report, scheduled for publication later this year, will assess the overall accomplishments of the sample programs according to several measures of effectiveness, including land market impacts, enhancements to local agricultural economies and influences on urban growth.

The 46 agricultural easement programs in the research sample are located in 15 states (Table 1, Figure 1). They include the 20 or so top programs in the nation in easement acres acquired and funds spent, but also a number of smaller programs to give the project a wider representation of regions and types of communities and program arrangements. Most of the sample programs are concentrated in the Northeast where the easement technique has been most extensively used. In their governance and management, the sample programs vary in

organizational types—county governments most commonly, but also state governments, municipalities and nonprofit land trusts.

At the base of our analysis is information from more than 270 open-ended phone interviews conducted with persons familiar with the individual programs. An initial 179 interviews, collected and transcribed in 2002 to 2004 and averaging more than 40 minutes each, dealt with respondents' perceptions of a wide range of program features and impacts. In this initial round we were able to interview four persons each for most of the 46 programs—typically the program manager, a local planner, a local agricultural leader, and a rural lands appraiser or other local real estate expert. In 2005 we supplemented the first set with a series of shorter phone interviews on more focused topics—easement acquisition standards, land market effects and easement impacts on local agricultural economies. Most of the detailed information on acquisition strategies employed by the 46 programs that forms the basis of this report comes directly from these follow-up interviews. Also, from time to time we contacted program managers and others about specific inquiries.

Most of the data collected for this research are perceptual from the comments volunteered by interviewees about different types of easement impacts in response to open-ended questions. The phone interviews were recorded and later transcribed for analysis. In addition, the analysis builds on objective and partly quantitative information. This includes information on program history, purposes, organization, easement activity, finances, acquisition criteria, etc., gathered from the interviews and from published sources and websites. We also tapped U.S. Census of Agriculture data, land market information and other sources.

FIGURE 1

RESEARCH SAMPLE
THE NATIONAL ASSESSMENT OF AGRICULTURAL EASEMENT PROGRAMS

CALIFORNIA
1. Marin Agricultural Land Trust
2. Monterey County Agricultural and Historical Land Conservancy
3. Napa County Land Trust
4. Sonoma County Agricultural Preservation and Open Space District
5. Tri-Valley Conservancy
6. Yolo Land Trust

COLORADO
7. Boulder County
8. Gunnison County
9. Routt County/Yampa Valley Land Trust

CONNECTICUT
10. State Program

DELAWARE
11. State Program

MARYLAND
12. Anne Arundel County
13. Baltimore County
14. Calvert County
15. Caroline County
16. Carroll County
17. Frederick County
18. Harford County
19. Howard County
20. Montgomery County
21. Washington County

MASSACHUSETTS
22. State Program

MICHIGAN
23. Peninsula Township

NEW JERSEY
24. Burlington County
25. Cumberland County
26. Hunterdon County
27. Monmouth County
28. Morris County
29. Sussex County

NEW YORK
30. Suffolk County
31. Town of Southold

NORTH CAROLINA
32. Forsyth County

PENNSYLVANIA
33. Adams County
34. Berks County
35. Buckingham Township
36. Bucks County
37. Chester County
38. Lancaster County
39. Lehigh County
40. York County

VERMONT
41. State Program

VIRGINIA
42. Virginia Beach City

WASHINGTON
43. King County
44. San Juan County
45. Skagit County

WISCONSIN
46. Dunn Township

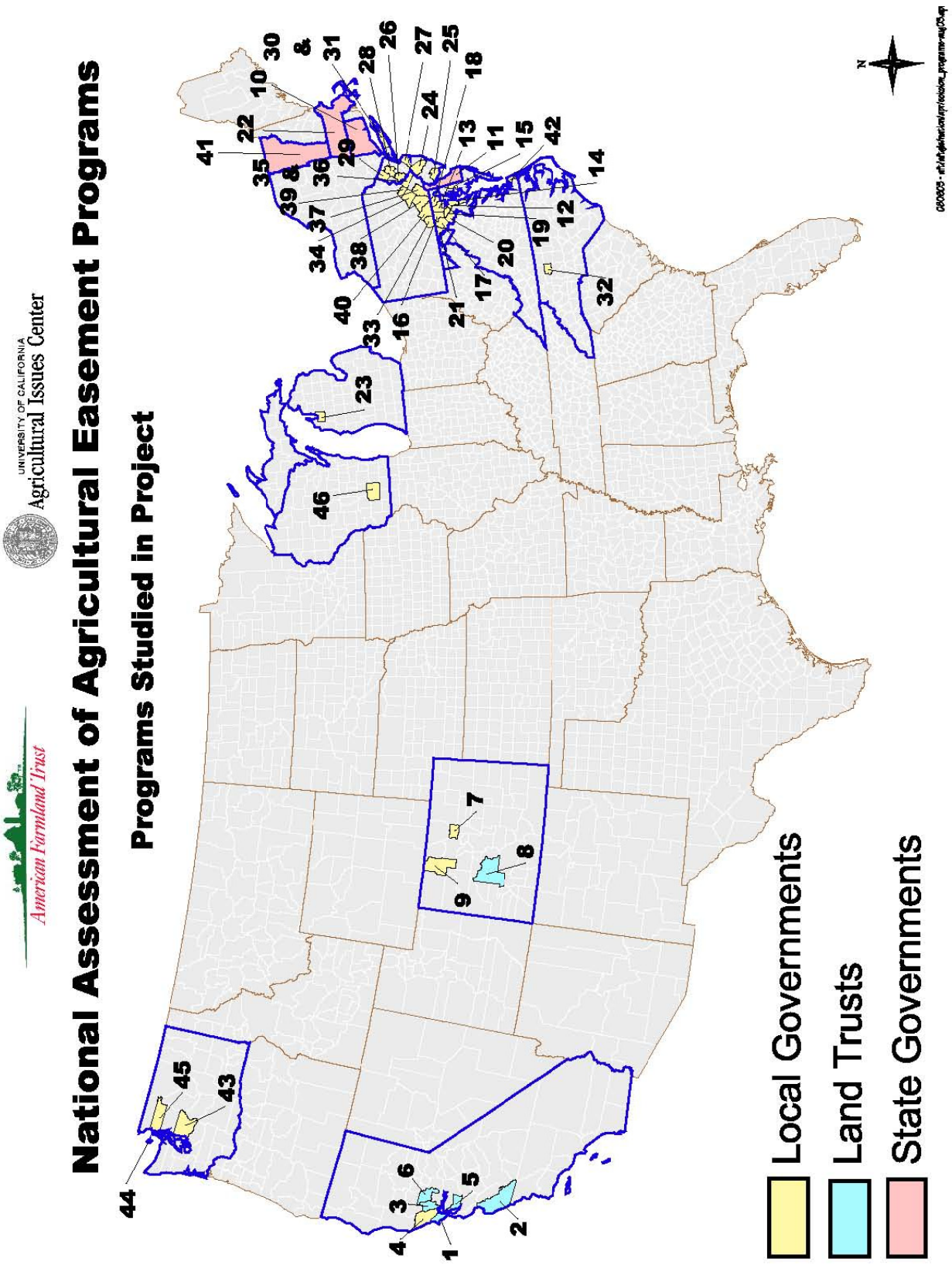

National Assessment of Agricultural Easement Programs
Programs Studied in Project
UNIVERSITY OF CALIFORNIA
Agricultural Issues Center
American Farmland Trust
Local Governments
Land Trusts
State Governments
N

TABLE 1
AGRICULTURAL EASEMENT PROGRAMS IN NATIONAL SAMPLE AND ACRES ACQUIRED, 2005

Program	Date of Origin	Easement Acres, 2005
CA – Marin Agricultural Land Trust	1980	38,000
CA – Monterey County Agricultural and Historical Land Conservancy	1985	13,481
CA – Napa County Land Trust	1976	6,648
CA – Sonoma County Agricultural & Open Space District	1980	31,082
CA – Tri-Valley Conservancy	1994	3,731
CA – Yolo Land Trust	1988	5,400
CO – Boulder County	1975	22,567
CO – Gunnison Ranchland Conservation Legacy	1996	14,034
CO – Routt County/Yampa Valley Land Trust	1992/ 1996*	36,300
CT – State Program	1978	30,157
DE – State Program	1991	79,747
MD – Anne Arundel County	1978	11,475
MD – Baltimore County	1979	27,083
MD – Calvert County	1978	21,565
MD – Caroline County	1979	28,428
MD – Carroll County	1979	44,841
MD – Frederick County	1980	31,893
MD – Harford County	1989	38,665
MD – Howard County	1978	24,683
MD – Montgomery County	1979	64,998
MD – Washington County	1978	18,500
MA – State Program	1977	55,516
MI – Peninsula Township	1994	2,265
NJ – Burlington County	1981	21,707
NJ – Cumberland County	1984	11,854
NJ – Hunterdon County	1980	18,093
NJ – Monmouth County	1981	9,350
NJ – Morris County	1983	5,334
NJ – Sussex County	1985	9,595
NY – Town of Southold	1984	1,684
NY – Suffolk County	1974	8,270
NC– Forsyth County	1984	1,255
PA – Adams County	1989	14,626
PA – Berks County	1989	42,597
PA – Buckingham Township	1995	2,758
PA – Bucks County	1989	8,402
PA – Chester County	1989	18,000
PA – Lancaster County	1980	48,558
PA – Lehigh County	1989	15,158
PA – York County	1989	27,974
VT – State Program	1987	110,000
VA – Virginia Beach City	1995	6,989
WA – King County	1979	13,000
WA – San Juan County	1990	1,117
WA – Skagit County	1997	4,236
WI – Town of Dunn	1996	2,131
TOTAL	**--**	**1,053,747**
AVERAGE	**--**	**22,908**

* Land Trust formed in 1992; County government program formed in 1996.

2. MAKING THE CASE FOR AN ACQUISITION STRATEGY

According to a 2001 report by Ralph Heimlich and William Anderson of the USDA Economic Research Service, "The chief obstacle to conserving more farm and forest land through PDR (Purchase of Development Right) programs is the high cost of purchasing easements." They estimate that protecting all of the U.S. cropland located near urban areas—approximately 94.7 million acres—would cost about $130 billion. It is improbable that sufficient funding, from both public and private sources, would ever be available for this purpose, so selectivity is essential. (A separate question is whether effective protection can be achieved short of putting all farmland in the critical areas under easement.)

A strong enough agricultural industrial base sufficient to support agriculture into the future is considered a prerequisite for a community considering establishing an effective agricultural easement program (American Farmland Trust, 2001; Daniels, 1997). At least three other conditions help to create and establish successful easement programs: 1) the politically established desire of a community to protect its agricultural land; 2) the financial capability to purchase the land outright or through easements; and 3) an acquisition strategy to direct both the community will and the funds most effectively. This report will discuss the third component—the acquisition strategy—in detail.

In several respects, an acquisition strategy is directly affected by the first two components and is designed according to their guidelines and requirements. Funding affects the program acquisition strategy in two general respects: 1) the available funding constrains the amount of land that can be protected; and 2) the funding source may include specific requirements for the use of the funds. Supply and demand enters into the picture, represented by the ratio between available dollars and the agricultural acres that landowners offer for easement purposes and that are desired by a program. An acquisition strategy obviously is imperative when demand exceeds supply, resulting in competition for funding among parcels. Funding sources can come from public and private sources including federal, state and/or local governments, private citizens and organizations. Often an easement for a single parcel is funded by multiple sources, including a partial donation from the landowner.

During the establishment of an easement program, private citizens and public officials within a community typically work together to determine the program's preservation goals. At least four different kinds of policy choices are possible: 1) open-space protection; 2) farmland protection; 3) compact urban growth; and 4) other indirect actions (Hellerstein, 2002). Specific goals can include the projected amount of land to be protected, location, type(s) of land uses to consider, soil quality, range of parcel sizes, environmental and historical aspects of properties, and land management practices. Not all goals and factors can be reasonably incorporated into a single set of acquisition criteria, so the task is to establish clear priorities. For example, there are choices to be made among protecting the best land, protecting the most land, controlling urban development, maintaining productive and profitable farms, and protecting natural resources.

The essence of an acquisition strategy lies in its ability to effectively and efficiently accomplish community and/or program goals with limited available funding. Most agricultural easement programs have some ability to customize their acquisition criteria. All of the selection systems of the programs covered by this report are unique in varying degrees and have been developed by the programs to cope with the local circumstances. In fact, it would be difficult to create, and unreasonable to expect, a single system to work for all programs because of the differences in the landscape, conservation goals, funding constraints and applicant demand between the

programs. This flexibility is also necessary because most programs do not have enough money to fund easements for all offered parcels.

Because conservation easements utilize large amounts of public funds, agricultural easement programs must operate in a transparent and accountable fashion. This means using fair, understandable and replicable criteria for selecting farms to fund for the purchase of easements. Most easement programs also must include in their selection systems state and federal government criteria, since funds from these two sources are widely used.

It is important to keep in mind that the acquisition ranking process simply determines the order in which parcels are appraised in preparation for purchase with available easement funds. There is no guarantee that the top ranked farms will be preserved since landowners may reject easement purchase offers. The ranking system itself also does not determine how much a landowner will be offered for the easement, since that is determined either by appraisals or in some cases an applied formula system.

The central purpose of this report is to help easement programs make effective choices in purchasing conservation easements. Key questions regarding acquisition strategies direct this report:

- How do programs vary in their acquisition choices?
- Why were different choices made in developing the programs?
- Do different choices result in different outcomes?
- What is an ideal strategy?

3. WHO DECIDES? THE ORGANIZATIONAL AND PROCEDURAL CONTEXT

How acquisition criteria are determined and applied varies between programs. Generally, acquisition criteria are established by the organization that acquires the easement. In several cases, programs apply local strategies through locally determined criteria. Some programs initially establish their criteria, apply it to parcel applications, and implement or carry out the acquisition criteria all at the same level, whether it is at the local or state level. In this study, all of the Colorado and Washington programs and most of the California programs, as well as Peninsula Township (Michigan), Town of Dunn (Wisconsin) and Virginia Beach City (Virginia) programs are examples of programs that operate in this manner at a local level. As previously noted, however, state and even federal standards may indirectly or directly influence the establishment of locally implemented criteria to some extent. In addition, minimum standards, as discussed below and in the next chapter, are often a determining factor of the local program's participation or a parcel's eligibility for state or federal funding.

A few programs are in contrast to this model. Alameda County in California, for example, established the acquisition criteria that the nonprofit Tri-Valley Conservancy (land trust) uses to rank its parcels. Across the board, Pennsylvania county programs apply the criteria that were essentially established by the state with some counties adding criteria subject to state approval.

County programs in Maryland, although highly influenced by state guidelines and minimum standards, still create significant components of the acquisition strategy used by each program. Similarly, counties in New Jersey use strategies based upon a state scoring system, but apply varying levels of local discretion, which will be discussed in greater detail in Chapter 4.

It is worth noting that regardless of the organizational structure, we found little evidence in our interviews with program managers and others citing problems with the organizational structure. Those few program managers (three) and funding recipients (two) who cited inflexibility, bureaucracy, long application processes and poor administration were all associated with programs that are administered on multiple levels.

Parcel Selection Process

Although each easement program has at least a partially unique acquisition system, programs generally follow a common set of steps for purchasing parcels:

1. Application. Since all conservation easement programs are voluntary, the only way a parcel can enter the process is with landowner initiative through a formal application. This may be in response to an announcement of a new application process or funding cycle or a program may invite ongoing applicants to the program. Usually following some informal discussion with program representatives, the landowner completes a standard application and provides whatever supporting documents are required.

2. Minimum Requirements. Most easement programs apply a set of minimum requirements to candidate parcels, including such factors as farm size, location in a formally designated agricultural district and soil quality. Parcels that pass this test then undergo the more extensive quantitative or qualitative review, ranking them for final selection and funding. Minimum standards discourage applications for parcels that clearly do not fit a program's agricultural preservation goals.

3. Parcel Quantitative or Qualitative Evaluation. The parcel is evaluated in detail in this step using ranking criteria as discussed in the following chapter. Programs vary in whether they employ quantitative or qualitative evaluations, as well as the degree of discretion used in selecting parcels for easement funding. Reviews in either case follow formal selection criteria.

4. Parcel Selection. The final selection of parcels is dependent upon available funding, which is one of the primary reasons for the parcel ranking established in Step 3. If funding is limited, the program will usually select as many parcels as possible starting with the highest ranked parcel, for conservation easement negotiation. Those parcels that are not funded are handled differently depending on program policy. Some programs allow parcels to be resubmitted during the next application cycle, others retain proposals in the queue for the next round of funding, while other programs reject applications outright.

Depending on the program's organization structure and size, a variety of volunteers, appointed and/or elected officials, and program staff may be involved in the acquisition process. Some programs involve minimal staff at a local level only. Staffs from two land trusts in our study from California, for example (Marin Agricultural Land Trust and Napa County Land Trust), each apply criteria established by the land trust to parcel applications that they then submit to the Land Trust Board for final approval. The sole staff person for the Yolo program submits recommendations to a 13-member land trust board, while the Napa land trust involves seven full-time staff and various volunteers and a 15-member board. For those programs that are publicly funded and administered through multiple levels of government, such as in New Jersey and Pennsylvania, a similar number of individuals may be involved, but across various departments at the county and state level. Usually county program staffs apply the ranking system to applied parcels and submit results with appropriate recommendations to elected and/or appointed local advisory boards. The resulting approved recommendations are sent to the state level for review and final selection for funding by the state appointed advisory boards or governing bodies. For those programs that involve federal funds, an additional level of approval is involved.

Even in programs that involve multiple levels of government before a program is selected for funding, there may be room for innovation to increase local control of parcel selection and improve efficiency. In Burlington County, New Jersey, where the program is housed in the county's Resource Conservation Department, the county ranks and submits applications to the state for statewide competition for funding. After a few years where only a minority of the county's submitted applications were accepted and funded by the state, the county recognized this as a serious impediment to the program and subsequently dedicated funds to purchase the easements on county-approved applications up front. The county then submits these applications to the state program in anticipation of being reimbursed.

> This approach is more efficient and removes the landowner from administrative delays that are a problem in the traditional county program. In New Jersey, the primary enemy is the clock. – *program manager, New Jersey*

4. STRATEGIES AND CRITERIA: COMPARING THE 46 PROGRAMS

With the exception of one program, the acquisition evaluation strategies used by the programs in our study utilize a combination of minimum criteria complimented by some type of selection process. The selection processes used by programs range from those using almost exclusively objective numeric rankings system to those using primarily discretionary guidelines with a few programs falling somewhere in between.

Selection Options

The programs analyzed in this report are generally divided into two distinct groups differentiated by their parcel evaluation and selection process:

1. Quantitative ranking programs use numerical rankings in all or a major part of their processes for selecting easement proposals to fund and acquire. Typically, parcel proposals are selected, or prioritized for funding, according to their relative final scores calculated from the weighting of individual criteria, providing a relatively objective selection of parcels.

2. Qualitative programs also use formal criteria, but rely primarily on the discretion of their program managers and boards to weigh these factors. In effect, they select acquisitions according to non-numerical judgments about how well properties fit conservation objectives. Some qualitative programs initially employ quantitative criteria to establish a short list, before applying more subjective guidelines in final determinations.

Even within some of the programs considered quantitative, however, decision makers exercise some discretion. To this end, some programs retain qualities of both types of programs. For example, the Sonoma County Agricultural and Open Space District (California) relies on qualitative measures in making final acquisition selections. However, the district's staff makes recommendations regarding properties based on a basic quantitative formula awarding points for proximity to other agricultural easements and/or open space. Several programs classified as quantitative also employ a substantial amount of qualitative discretion in awarding points. For example, the Marin Agricultural Land Trust (California) awards points to applicants based on a number of objective criteria as well as on a subjective analysis of the property by the program staff following a site visit.

In both quantitative and qualitative systems, physical and geographical attributes of the parcel are used to determine a ranking for the parcel for selection. The major criteria items include: soil quality, proximity to development, proximity to other protected land, parcel size, and natural resource or historic value. Among the quantitative programs covered by this report, soil quality is the most important ranking criterion. In qualitative programs, soil quality is not considered nearly as important as the location of the parcel (see Table 2).

TABLE 2
MOST FREQUENTLY USED CRITERIA IN AGRICULTURAL EASEMENT PROGRAMS

Qualitative	Quantitative
1. Location / Geographical Targeting	1. Agricultural Land Quality
2.-3. Contiguity to Other Protected Land	2. Contiguity to Other Protected Land
2.-3. Threat (Urgency) or Potential of Development	3. Farm Management
4.-5. Agricultural Land Quality	4. Parcel Size
4.-5. Active (Viable) Agricultural Use	5. Development Proximity
6.-7. Natural Resource / Historic Value	6. Natural Resource / Historic Value
6.-7. Parcel Size	7. Consistency with Local Planning

Sources: Interviews and program documents

Minimum Requirements

Minimum requirements function as an important initial filter, including or excluding parcels from the final sorting process, according to an established baseline of what properties are minimally worth consideration for easement acquisition.

While most programs independently establish their minimum standards, several also include the minimum state-required criteria, as in Maryland and Pennsylvania. Among all the sample programs with quantitative acquisition systems, only the program administered by the Town of Dunn (Wisconsin) does not impose formal minimum requirements.

In some cases, the minimum requirements are more decisive in determining which parcels will be finally selected for easement status than the later ranking procedures. At least 14 programs in our sample demonstrate that they rely primarily on the minimum standards for primary sorting or outright rejection of parcel applications. This occurs especially when rigorous minimums weed out more applications than are left for later consideration. Some landowners self-select reducing the volume of easement applications. They decide over time that their applications would be fruitless when they realize that the minimum standards are absolute and are consistently applied. In a few programs, the criteria rankings were not needed at all in certain years because sufficient funds were available to support all proposals that met the minimums. On the other hand, no program administrators said that minimum requirements were ineffective filters because of general and non-exclusive standards.

SIDEBAR - CORRELATION BETWEEN LESA, FRPP AND MINIMUM REQUIREMENTS

Another factor that may influence the minimum requirements of some programs comes from the same policy roots at least partially represented in the USDA Farm and Ranch Lands Protection Program (FRPP)—originally the Farmland Protection Program (FPP). The Natural Resources Conservation Service of USDA administers this program.

The FRPP is intended to supplement state and local farmland protection programs administered through existing delivery systems. NRCS is the agency responsible for administering the FRPP in the field. Federal funds are available through the Commodity Credit Corporation to purchase easements or other interests with States, Tribes or local agencies and land trusts for farmland protection (USDA, CCC 2003, 2004).

The Federal Register Vol. 69, No. 233 Federal Register FRPP Request for Proposals provides direction on the criteria for allocating these federal funds in the Ranking Considerations:

> When the NRCS State Office has assessed organization eligibility and the merits of each proposal, the NRCS State Conservationist will determine whether the farm or ranch land is eligible for financial assistance from FRPP. NRCS will use the National and State criteria, which may include a LESA system or other similar system, to evaluate the land and rank the parcels.
>
> NRCS will only consider enrolling eligible land in the program that is of sufficient size and has boundaries that allow for efficient management of the area. The land must have access to markets for its products and an infrastructure appropriate for agricultural production.

As defined in the 2004 notice of request for proposals:

> *Land Evaluation and Site Assessment System (LESA)*[1] is the land evaluation system approved by the NRCS state Conservationist used to rank land for farm and ranch land protection purposes, based on soil potential for agriculture, as well as social and economic factors, such as location, access to markets, and adjacent land use. (For additional information see the 1981 Farmland Protection Policy Act regulation at 7 CFR part 658.)

Further FRPP considerations include:

> NRCS may place a higher priority on lands and locations that help create a large tract of protected area for viable agricultural production and that are under increasing urban development pressure. NRCS may place a higher priority on lands and locations that correlate with the efforts of Federal, State, Tribal, local or nongovernmental organizations' efforts that have complementary farmland protection objectives (e.g., open space or watershed and wildlife habitat protection). NRCS may place a higher priority on lands that provide special social, economic and environmental benefits to the region. A higher priority may be given to certain geographic regions where the enrollment of particular lands may help achieve National, State and regional goals and objectives, or enhance existing government or private conservation projects.

---

[1] LESA—the Land Evaluation and Site Assessment program—was created by the Soil Conservation Service (now the Natural Resource Conservation Service) of the U.S. Department of Agriculture to help implement the 1981 Farmland Protection Policy Act. The system's primary purpose was to provide local decision-makers with an objective and consistent numerically based system of determining what farmland should be available for development and what should be protected for farming.

Appendix A, Table A1, provides a detailed comparison of the minimum requirements for each of the 34 quantitative programs. We have included information on the minimum requirements from three states—Maryland, New Jersey and Pennsylvania—which contain 24 of the 34 programs, to assist in determining the influence of state programs upon a local program's minimum requirements. As noted at the bottom of the table, two of the factors—LESA Score and Planning/Zoning Compatibility—represent requirements for funding through FRPP, the federal Farm and Ranch Lands Protection Program.

Agricultural Preservation District Enrollment and minimum Parcel Size were the two most utilized minimum requirements with 32 entities using them. Another key minimum requirement item is the allowance to reduce the minimum Parcel Size if the parcel is near land that is already protected—22 entities allowed this reduction. Next, minimum Soil Quality requirements were covered in 21 of the entities and 15 entities required Planning or Zoning Compatibility.

QUANTITATIVE SYSTEMS

Quantitative systems are based upon the numerical ranking of pertinent physical, geographical, financial and other attributes of a parcel. These become criteria for evaluation and are grouped in several categories, with a maximum number of possible points assigned to each category. Points vary within each category, according to how close a parcel approaches the desired value. A parcel's overall score for consideration as a possible easement acquisition is the total of the separate points.

In conducting this analysis, we faced a problem of comparability across programs. While most criteria have similar names (soil quality, contiguity, farm management, etc.) from program to program, their definitions and the specific measures included often differ. Likewise the numerical format varies, with some programs using a 100-point maximum total and others with different scales.

Accordingly, we developed a standard set of 12 major criteria, each defined by more specific measures, to compare programs. For example, the broad "Agricultural Quality" category includes measures dealing with soil quality and productivity, irrigation and active agricultural production. This involved a narrowing and simplification of the original program criteria measurements, cutting down from an average of 14 criteria per program with some using more than 20 such items. In assigning individual program criteria to one of our categories, we were guided by the implicit conservation purpose of the original criterion. This means that we may have assigned some of the individual program criteria measurement factors differently than originally organized in a program's ranking worksheet. It is also worth noting that this is an imperfect measurement because in the process of assigning the original program criteria and/or factors to our standard set of major criteria, we sometimes had to make value judgments for individual criterion factors. For example, "soil quality" as originally represented on a program ranking worksheet may contain several measurement factors with associated points, some of which we felt more appropriately belonged in another major criteria category other than "Agricultural Quality." As to numerical format, we calculated the relative importance of each program's individual criteria according to percentages of a total point scale.

Criteria Categories

Below are descriptions of the 12 criteria used in our comparative analysis, each defined by one or more specific measures. Some of the measures employed by individual programs, and picked up in our analysis, clearly have an objective basis that is easily quantifiable (such as

parcel size or soil quality). Other measures are more subjectively determined (such as strategic location or that quality of farm management).

Agricultural Quality. As many of the agricultural easement purchase programs' primary purpose is to preserve those parcels of farmland which are identified as highly productive and best suited for agricultural use, ranking criteria that measure agricultural quality are the most commonly employed and, on average, the most heavily weighted among all of the ranking criteria categories. This category is measured by qualities inherent in the land, relative to its productivity and its ability to be farmed. Of the pertinent measures, soil quality is the most frequently used, and, when used, often the most heavily weighted. Also grouped into this category are such measures as slope, drainage, percentage of tillable or non-woodland acres on the parcel, and duration of use as agricultural land. These indicators describe qualities that relate to how farmable a parcel is, in terms of accessibility, irrigation and related physical characteristics.

Contiguity. Second in selection criteria only to the emphasis on parcels of superior agricultural quality, contiguity refers to placing new easements adjacent to or in close proximity to parcels already preserved, either for agricultural or other conservation purposes. The intention is to form large blocks of preserved land. Programs refer to this as density, clustering or contiguity. The idea is that by creating large blocks of multiple and contiguous farms and other open space properties preserved in perpetuity, individual farms with easements are better protected from conflicting adjacent and nearby uses. This critical mass of protected farmland also helps to maintain the farm support infrastructure essential for the viability of agriculture. For a few programs, this approach also is intended to form continuous barriers to restrict the amount or direction of nearby urban development. Program measures covered by this criterion award points for parcels adjacent to or proximate to other lands preserved by easements or open space purposes and for land preserved through public ownership, such as parks and nature preserves.

Also included in the contiguity category are items that measure the proximity of a proposed easement to other agricultural land, in some cases awarding points for location within or proximity to agricultural districts or for parcels that are devoted to agriculture for at least a designated period of time. The purpose for including this measurement is the desire to protect parcels situated either in areas away from development or in areas in which agriculture is or historically has been the dominant use. Fewer programs use this measure of contiguity than those that rank proximity to already preserved parcels.

As applied in these two ways, the attention to contiguity in ranking systems seeks to preserve concentrations of agricultural land usually at some distance from existing urban development and in areas where farming historically has been the dominant land use.

Retire Development Potential. Programs that use this criterion award points according to how developable a parcel is, the extent to which it contains building entitlements, or the degree to which it is subject to development pressure. The general principle behind the use of criteria in this category is to eliminate the long-term (as opposed to *urgent*) development potential of a parcel.

Development Proximity. Programs measure this criterion by such conditions as a parcel's road frontage, proximity to existing or planned public water or sewer connections, closeness to an urban growth center or planned growth area and proximity to major roads or highways. While similar to the retire development and urgency categories, development proximity

emphasizes the relative availability of urban services as an indication of likely development in the near future. As contrasted to the contiguity category, which favors concentrating agriculture in large blocks removed from development, this criterion focuses on parcels close to existing or emerging urbanization. Interestingly, programs vary on whether they assign **positive** or **negative** points to this factor—whether close location to development is a preservation asset or liability for acquiring easements. A program's emphasis to protect farmland may be to focus on farmland that is located away from development and therefore more affordable to protect or conversely, closer to development and therefore more expensive, but more strategic to protect because it may provide some kind of urban growth barrier.

Parcel Size. For maximum preservation, many programs prefer to protect larger rather than smaller parcels. As well as absolute number of acres, programs rank parcels according to the size of a parcel relative to the average size of farms in the area, or the percentage of a parcel or amount of acreage that will be subject to an easement.

Farm Management. Unlike the physical, often inherent characteristics of a parcel measured by the agricultural quality criterion, farm management refers to a parcel's value in terms of human contributions towards its use for agriculture. The factors covered in this category include soil or water conservation plans or practices; the farm's economic viability; management of specified problems, such as erosion, pests and weeds; duration of family ownership and likelihood of continued generational transfer; amount and diversity of crops and animals produced; investments and capital improvements; unique or innovative farming practices; condition of farm buildings; and percentage of family income derived from agriculture. The goals behind the use of these measures all relate to the value of a parcel in terms of how well or how poorly the land is being managed, how it is maximized as an economic resource, and what conditions exist to secure its continuing viability.

Planning Compatibility. This criterion gives priority to easements in locations where local land use planning and regulations support continued agricultural productions. Measures include agricultural zoning, right-to-farm ordinances, local government financial contributions to easement purchases and urban growth boundaries. Programs apply this standard in one of two ways: (1) to reward local governments—usually municipalities—that have relatively strong farmland protection policies; or (2) to ensure that easements parcels are situated in agricultural zones or other regulated areas.

Strategic Location. The specific location of an easement is emphasized by this criterion—particularly its ability to enhance farmland preservation in a larger area. Programs use such measures as a parcel's potential for reducing development pressures on nearby farms; location within an agricultural-urban buffer zone; sited within a priority area on a strategic planning map; or the parcel's ability to create a new project area. Some discretion is involved in making these determinations, which often implement a program's past designations of priority areas for easement location.

Cost. Programs consider a number of criteria relative to cost, including percentage of landowner donation, discount or willingness to sell below fair market value; price per acre; percentage of contribution or matching funds from a municipality or other source; or the relative best buy among competing parcels or the particular bargain of purchasing a parcel. Indeed, some programs rank parcels solely on cost or percentage discounted, using what might otherwise look like a ranking formula to establish a purchase price, rather than a rank for purchase priority.

Natural Resource/Historic Values. This category recognizes that preserving certain parcels may also benefit resources besides agriculture—including plant or animal habitat, wetlands, watersheds, scenic views, other forms of open space, structures of historical value and archeological sites.

Urgency. The focus here is on awarding points to parcels that are in danger of immediate or near-term conversion to urban uses. Actions that may trigger such attention in a ranking system include preliminary subdivision approval, a parcel's subjection to probate, or a landowner's filing of a bankruptcy petition.

Other. Our analysis allowed room for ranking items unique to individual or a few programs. In some cases, these are parcel characteristics that, according to a program's goals, make preservation undesirable, resulting in assigning negative points to bring down the overall score.

Analyzing Ranking Criteria

It is important to note that a ranking criteria system usually has two parameters: the criteria measure (such as soil quality or parcel size) and a weight factor assigned for each of the criteria items. In other words, two programs may each have used the same measurement, but may have valued it differently. As explained above, for comparison purposes between programs, we have created a standardized set of 12 criteria, which we applied to all 46 programs. In addition, because there are so many variations on how criteria measures are weighted within a program, we have calculated the relative importance of each program's individual criteria on a percent basis.

What is the relative importance of these 12 criteria in the ranking systems of the 34 quantitative programs? Table 3 summarizes the criteria in order of importance according to two comparisons:

1. The number and percentage of the 34 programs that use each criterion.
2. The relative importance given to each criterion represented as an average of the percentages of total scores for individual programs.

We must note that the use analysis is based upon all 34 programs but the weight factor analysis is based upon 33 programs because the Carroll County (Maryland) program does not include specific points for each criteria category. See Table 4 for details concerning individual program criteria ranking.

TABLE 3
QUANTITATIVE PROGRAMS CRITERIA RANKINGS

Criteria	Used by	Used By % of Programs	Weighted % of Total	Rank by Weighted %
Agricultural Quality	34	100	34	1
Contiguity	31	91	16	2
Parcel Size	29	85	8	4
Development Proximity	25	73	7	5
Farm Management	22	64	9	3
Natural Resource /Historic Value	21	62	6	6
Planning Compatibility	20	59	4	7
Cost	12	35	3	8
Urgency	11	33	2	11
Retire Development Potential	9	26	2	12
Strategic Location	8	24	3	9

Sources: Interviews and program documents
Note: "Other" is a category that is not included in this table, but actually ranked 8th in the number of times it was used. "Other" contained measurements that did not fit by description in any of the assigned criteria categories.

From strictly a use viewpoint, ignoring weight factors, for general criteria categories the top five categories, along with the number of programs utilizing the category, are as follows:

1. Agricultural Quality – 34
2. Agricultural Contiguity – 31
3. Parcel Size – 29
4. Development Proximity – 25
5. Farm Management – 22

When weight factoring for all general criteria categories is considered the ranking for only the top two categories remains the same. Also the relative percentage proportion of the categories for the programs is significantly different than simply reviewing the categories based upon use in programs. For example, Agricultural Quality, which includes soil quality, at 34 percent is more than twice as influential as Agricultural Contiguity at 16 percent. By examining criteria in this manner, it provides another reality check for determining if appropriate emphasis and importance is being placed upon selected criteria. We will discuss this more in detail in Chapter 8.

1. Agricultural Quality – 34 percent
2. Agricultural Contiguity – 16 percent
3. Farm Management – 9 percent
4. Parcel Size – 8 percent
5. Development Proximity – 7 percent

These five general criteria categories account for 74 percent of the 12 criteria when considering weighted importance.

TABLE 4
RELATIVE IMPORTANCE OF CRITERIA USED BY QUANTITATIVE PROGRAMS
Weight Factor and Rankings (expressed in percentages)

Program	Agricultural Quality	Contiguity	Retire Development Potential	Development Proximity	Parcel Size	Farm Management	Planning Compatibility	Strategic Location	Cost	Natural Resource/ Historic Value	Urgency	Other
CA-Marin County	40					29		12		7	12	
CO-Routt County	10	16			10	20	6		19	19		
CT-State	50	12	8	(-10)[1]	20	8			(-5)[2]		2	
DE-State	20[7]	5				17	3	53[7]		3		
MD-Anne Arundel County	29	10		19	10		2		15			15
MD-Baltimore County	35	17	5	2	5	23		2	9	2		
MD-Calvert County	40	8		20	20		12					
MD-Caroline County	40	30		10	20							
MD-Carroll County	Note 3	Note 3		Note 3	Note 3							
MD-Frederick County	55	7	7	5	7	10	3	5				
MD-Harford County	42	6	7	6	5	22	7					5
MD-Howard County	40		10	10	25		10					5
MD-Montgomery County	48			32	Note 4	3						16
MD-Washington County	28	17	20		13	18						5
MI-Peninsula Township	33	28			6					33		
NJ-Burlington County	50	30		5	5		5					5

Program	Agricultural Quality	Contiguity	Retire Development Potential	Development Proximity	Parcel Size	Farm Management	Planning Compatibility	Strategic Location	Cost	Natural Resource/ Historic Value	Urgency	Other
NJ-Cumberland County	24	22	2	3	9	15	7	3	9	3	3	1
NJ-Hunterdon County	27	30		1	11	16	10				5	
NJ-Monmouth County	15	17	6		11	17	16		9	3	2	3
NJ-Morris County	40	20			4	8	13	4	2	1	5	2
NJ-Sussex County	27	27		3	9		15				9	9
NY-Suffolk County	19	37							19	7	19	(-7) [5]
NC-Forsyth County	59	3		9	6	15				3	6	
PA-Adams County	50	6		10	12	16	4			2		
PA-Berks County	47	24		10	8	3	6			2		
PA-Buckingham Township	25	25								50		
PA-Bucks County	44	18		10	2	15	5		3	2		3
PA-Chester County	45	20		10	2	7	5		7	2		
PA-Lancaster County	47	19		20	10	2	1			1		
PA-Lehigh County	48	14		10	11	9	6			3		
PA-York County	49	21		7	5	12				1		
VA-Virginia Beach	13	29		7	7	15				20	5	3
WA-Skagit County	10	5		29	10			19	10	10	10	
WI-Town of Dunn	13	15	8	15	9			8	15	17		(-4)[6]
No. of Uses:	**34**	**31**	**9**	**25**	**29**	**22**	**20**	**8**	**12**	**21**	**11**	**14**
Rank by Number:	**1**	**2**	**11**	**4**	**3**	**5**	**7**	**12**	**9**	**6**	**10**	**8**

Program	Agricultural Quality	Contiguity	Retire Development Potential	Development Proximity	Parcel Size	Farm Management	Planning Compatibility	Strategic Location	Cost	Natural Resource/ Historic Value	Urgency	Other
No. of Weighted Uses:	**33**	**30**	**9**	**23**	**28**	**22**	**20**	**8**	**11**	**21**	**11**	**13**
Mean Weighted Percent	**34**	**16**	**2**	**7**	**8**	**9**	**4**	**3**	**3**	**6**	**2**	**2**
Rank by Percentage:	**1**	**2**	**12**	**5**	**4**	**3**	**7**	**9**	**8**	**6**	**11**	**10**

[1] Surrounding properties intensely developed
[2] Cost of development right exceeds $10,000 per acre
[3] Only one maximum. Parcel Size, Contiguity, and Development Potential are area based
[4] Parcel Size points = farm acreage divided by 5
[5] Negative Adjustments
[6] Zero unless there are buildable sites on the property
[7] Criteria is based upon location on an Agricultural Lands Preservation Strategy Map which accounts for active cropland, therefore considering soils along with 20 points given for LESA score

Note: For comparison purposes we have calculated the relative importance of each programs' individual criteria on a percent basis to account for the significant variations on how individual criteria measures are weighted within a program. The number represented for each program and criteria category also is based upon assigning individual criteria measures to these categories. Therefore these numbers may be significantly different the raw values assigned on program ranking system worksheets.

Another way to view each of the criteria categories is by using a frequency distribution histogram, which graphically shows the number of programs within a particular percentage range. See Appendix B, Figure 1 for frequency distribution histograms for the top three weight factored criteria categories. Maryland, New Jersey and Pennsylvania total 24 of the 34 quantitative programs sample, thus contributing significantly to the average weight factoring for the criteria categories. Pennsylvania, for example, requires a minimum of 40 percent of criteria should be allocated for protecting soils, which explains in part the overall ranking of soils as the number one criteria. See Appendix B, Figure 2 for a comparison of the average weight factoring between these three states for all of the criteria categories.

QUALITATIVE SYSTEMS

About a quarter of the agricultural easement programs in the national sample use acquisition processes that depend entirely, or almost entirely, on qualitative criteria. Instead of ranking the relative merits of proposed acquisitions according to numerical totals derived from scores for individual factors or groups of factors, the 12 programs rely primarily on the discretion of their staffs and governing bodies. This is not a purely subjective or arbitrary process. All but one of the quantitative programs are guided by lists of written factors—what we can call “formal” criteria. The discretion comes in the leeway the decision makers have in interpreting and applying the criteria to individual candidate parcels and the relative emphasis given to different criteria.

The 12 qualitative programs include two state governments, three county governments, one town, one special district and five non-governmental land trusts. Geographically they are far less concentrated in the Northeast, where the great majority of quantitative programs—and coincidentally the most active agricultural easement programs in the nation—are located. Indeed, nine of the 12 are found in the western states of California, Washington and Colorado.

What Criteria?

At first glance, the criteria employed in qualitative systems look very similar to those found in the quantitative scoring arrangements. The qualitative programs also examine the parcel-specific measures of soil and other agricultural characteristics, contiguity, size, management, location, cost, natural resource values and urgency—commonly used to varying degree by quantitative systems. But there are significant differences in the relative emphases given specific criteria and in their application.

Table 5 lists the acquisition criteria used by each of the 12 programs, as identified in written sources and in phone interviews with program managers. Fifteen formal criteria are ranked by frequency of use.

TABLE 5
QUALITATIVE PROGRAM CRITERIA, BY FREQUENCY OF USE

Criterion	Number of Programs	Program Location
1. Location/Geographical Targeting	8	Boulder, King, Monterey, Sonoma, Southold, Vermont, Tri-Valley, Yolo
2. Contiguity to Other Protected Land	6	Boulder, King, Massachusetts, Napa, Sonoma, Tri-Valley
2. Threat (Urgency) or Potential of Development	6	King, Massachusetts, Monterey, San Juan, Sonoma, Tri-Valley
4. Agricultural Quality	5	Massachusetts, Monterey, Sonoma, Vermont, Yolo
4. Active (Viable) Agricultural Use	5	King, Massachusetts, Napa, Sonoma, Vermont
6. Natural Resources/Historic Value	4	Monterey, Napa, Sonoma, Tri-Valley
6. Parcel Size	4	Massachusetts, Napa, Sonoma, Yolo
8. Funding, Probability/Leveraging	3	Massachusetts, Monterey, Vermont
8. Local Planning	3	Monterey, Vermont, Yolo
8. Cost	3	King, Sonoma, Vermont
11. Formation of Agricultural Belts	2	King, Sonoma
11. Monitoring/Enforcement	2	Napa, Sonoma
11. Effective Use of Funds	2	San Juan, Yolo
14. Farm Management	1	Vermont
14. Public Support	1	San Juan

Sources: Interviews and program documents

Comparison with Quantitative Programs

Location is the criterion most commonly used by the qualitative programs, followed by contiguity to other protected land and the threat or potential of development. While quantitative programs also rely on these criteria, they are usually prioritized as less important. By contrast, the quality of agricultural land or soil—the factor traditionally most important in the acquisition work of quantitative programs—is only tied for third in the frequency of use by the 12 qualitative programs.

Generally, the qualitative programs use fewer items to rank parcels than the quantitative programs. The 12 qualitative programs consider an average of five formal criteria each, while the quantitative programs consider an average of seven. One reason is that the ranking systems of quantitative programs frequently contain multiple subcategories or separate measures for individual criteria in which separate weights are assigned to different aspects of a category. Qualitative programs, on the other hand, employ single criteria that are more comprehensive.

More important is the difference in how selection criteria are applied—the relatively precise application of numerical totals as compared to a more general and discretionary interpretation of formal factors. The leaders of qualitative programs are not compelled to apply the acquisition criteria listed in their published program descriptions in a particular order. Rather, they have the leeway to ignore some factors and concentrate on one or two others in considering a proposal. The criteria are general guidelines, interpreted differently according to the decision makers' view of the critical characteristics of subject farms. At times they may concentrate on a parcel's intrinsic agricultural merits, at other times on its strategic location.

While all but one are guided by published criteria, one could say that the qualitative programs operate in a relatively informal manner. Indeed, at least two programs claim that they dispense with written applications from landowners, depending instead on personal contacts with potential easement sellers. Informality is also suggested in the tendency of some qualitative programs on occasion to bring in criteria not included on the published list. For example, two programs are open to the availability of properties that are in the path of urban development, requiring subjective and timely evaluations.

To summarize, quantitative and qualitative acquisition programs start their evaluations of proposed acquisitions from different places. From the very beginning, the written, numerical menus frame the approach of the former programs. The qualitative programs, on the other hand, begin by looking subjectively, holistically and in an open-ended fashion at the farms themselves, relying to a great extent on the personal judgments and local knowledge of program managers and their boards.

Geographical Targeting: The Emphasis on Strategic Location

Strategic location or geographic targeting, as mentioned above, is the most frequently cited acquisition criterion for the qualitative programs. Strategic location may include such things as a parcel's potential for reducing development pressures on nearby farms; location within an agricultural-urban buffer zone; sited within a priority area on a strategic planning map; or the parcel's ability to create a new project area. Some discretion is involved in making these determinations which often implement a program's past designations of priority areas for easement location. Eight out of the 12 qualitative programs consider this criterion.

Location as an acquisition criterion is largely used differently among the quantitative programs, where it also plays a less dominant role. In fact, only eight out of the 34 quantitative programs even use strategic location criteria and it amounts to only 3 percent in weighted importance as compared to other criteria (see Table 4). Often among quantitative programs, location in a designated agricultural district ("agricultural preserve district" in Maryland and Delaware, "agricultural development area" in New Jersey, "agricultural security area" in Pennsylvania and "agricultural preserve area" in Peninsula Township, Michigan) is a minimum requirement for considering an application. Such designated districts usually cover most or all of the viable agricultural landscape in a jurisdiction. One of the exceptions is Marin Agricultural Land Trust, which attributes about 12 percent of its acquisition importance to strategic location and considers such characteristics as whether the property is highly visible, at a critical road juncture, affect on nearby properties and location on urban fringe.

By contrast, location when used by qualitative programs usually refers to a more select part of a geographical area—narrowly confined to neighborhoods with top agricultural soils, the highest value crops, or the best prospects for continued farm productivity. For example (1) the King County program targets three agricultural production districts, with two others given less priority, (2) the Monterey County Agricultural and Historical Land Conservancy focuses on the high value vegetable farms of the Salinas Valley and (3) the Tri-Valley Conservancy concentrates on a 14,000 acre valley of vineyards and wineries.

Such targeting often results in the strategic use of easement acquisitions to influence the future path of urban expansion, much more directly than the location effects of the acquisitions of quantitative programs. In effect, several qualitative programs are creating de facto urban growth boundaries for their communities. Examples include (1) the emergence of easement greenbelts or community separators between nearby cities in the acquisitions of the Sonoma district and the Yolo Land Trust, (2) the blocking by the Monterey Conservancy of city expansion toward the best agricultural land and (3) the creation of hard urban growth boundaries by the Tri-Valley Conservancy and King County.

By contrast, when program managers of quantitative programs were asked whether the program's focus is upon creating growth boundaries or preserving identified agriculture areas, 28 of the 34 quantitative programs indicated a general emphasis on targeting easement selection within designated agricultural preservation areas. Five of the programs responded that they focused more upon limiting growth of municipalities into agricultural areas with their easement selections.

Why Qualitative Scoring? Origins and Rationale

Two related reasons, varying from case to case, are most apparent as to why these programs did not adopt quantitative formulae to assess easement prospects. For some programs, the landscape and other characteristics of the areas they serve make it illogical or impractical to rank applications quantitatively. This is best exemplified by the Tri-Valley Conservancy's initial focus on a small valley in which agricultural soil quality and productivity varies only slightly from parcel to parcel. Another example is Boulder County's concentration on acquiring "inholding" parcels in a targeted area where most rural land is already protected by easements or public ownership. The manager of another program noted that it didn't make sense to apply quantitative weights when revenues exceeded or were in balance with easement applications.

The second reason is the desire on the part of program managers and board members to exercise more discretion than would be allowed by numerical ranking systems. Such discretion

allows them to better accommodate local conditions. Program managers in our interviews cited the flexibility to respond to "targets of opportunity," the importance of "local knowledge" concerning individual farms and operators on the part of their board members and staff, and the belief that quantitative ranking inadequately measures the easement merits of individual farms. One program manager explained why a recent revision of the acquisition strategy did not result in adopting numerical weights:

> We thought about using a quantitative system, but our technical committee (including biologists, planners and GIS experts) really came down on the side of saying no matter what kind of ranking system you use, it's still going to be very subjective. – *program manager, California*

A major historical distinction can also be noted. The county-based easement programs in Maryland, New Jersey and Pennsylvania—collectively the most active programs in the nation—adopted quantitative systems in the process of forming. State government funding for easement acquisitions was the major stimulus for the local formations. And in establishing the methods for allocating funds to the local programs, these states adopted LESA-type formulae. The counties followed suit in establishing the criteria for evaluating easement applications from landowners. By contrast, the influence of LESA and state government funding incentives were not present in the organization of the qualitative programs.

5. HOW SELECTION SYSTEMS ARE APPLIED

Establishing an acquisition strategy, whether quantitative or qualitative, is only the beginning of the process in selecting parcels for easement protection. How programs apply these criteria and the ranking system may also affect what parcels are ultimately selected. Programs in our study vary in the degree to which they use minimum eligibility standards and rely upon the criteria for ranking and funding and setting easement prices. Some programs also have built in discretionary points within the easement selection process. Most programs have indicated the need to make some adjustments to their systems over the years.

Applicability of Minimum Criteria

Regardless of using quantitative and qualitative arrangements, most programs incorporate some form of minimum criteria to weed out properties that clearly do not meet preservation goals. The minimum criteria of the easement programs span a broad spectrum, from very extensive and detailed to general and inclusive. For example, applicants to the Delaware program are required to satisfy nine different criteria, including area, contiguity and viability requirements. Applicants to the Peninsula Township (Michigan) program, however, need simply be located within the preservation area adopted by the township.

Meeting the minimums is not a serious obstacle for most landowners who have genuine preservation interests and desire to continue farming. Indeed, the purpose of these criteria is to ensure that such landowners apply and are given proper consideration. Even where the minimum criteria are fairly extensive, a sufficient number of farms meet these criteria to usually exceed available funding. For example, the program in Berks County (Pennsylvania) has a list of four criteria that must be met before the land is fully assessed with all of the programs quantitative scoring criteria. In 2003, the county received 232 applications that met the minimum requirements and funded the top 52 ranked parcels. Thus, the purpose of these criteria is not to eliminate farms from eligibility, but to ensure that the administrators do not spend time evaluating properties that clearly would not pass final evaluation.

Varied Application of Selection Strategies

The vast majority of easement programs actively employs and relies upon established selection criteria. Especially in the case of quantitative programs, selection criteria truly guide acquisitions. Of those programs that have set forth selection criteria, none have outright abandoned those criteria. However, programs wherein funding is not a substantial roadblock to acquisition and which are geographically focused on a limited area may largely ignore their selection strategies once minimum standards are met.

The following programs are distinguished from others in that they do not strictly adhere to an established set of selection criteria in acquiring parcels for a variety of reasons.

- Tri-Valley Conservancy (California) (qualitative program) The program has a small list of criteria that are applied in an entirely discretionary manner. The program generally has sufficient funding to accommodate all “motivated” landowners; that is, those landowners who want to preserve their parcels.

- Boulder County, (Colorado) (qualitative program) The program has no explicit criteria. The program has identified those properties it desires to preserve (“inholdings”). When an owner of an inholding applies, the easement is generally accepted.

- Town of Southold, (New York) (qualitative program) Like Boulder County, there are no formal criteria. The program has identified those properties that it would like to acquire and will generally accept applications from owners thereof.

- Gunnison County (Colorado) (qualitative program) The program has no explicit criteria. Acquisition is entirely "first come-first served." Once funding is secured for an easement, the program seeks a land trust for holding of the easement.

- Anne Arundel County (Maryland) (quantitative program) The program has sufficient funding and has consistently been able to fund those easement parcels that satisfy minimum criteria.

- Hunterdon County, (Maryland) (quantitative program) The ranking program is described as not especially critical in acquiring parcels for protection because the program has consistently had plentiful funds for all qualified applicants.

Ranking for Annual Funding

Overall scores in some quantitative systems are used to prioritize/rank parcels for funding rather than for the final selection of some applications and the rejection of others. Eight of the programs use their acquisition criteria to help prioritize the parcels for local program funding. The program in Caroline County (Maryland) illustrates this pattern in which minimum criteria establish the basic eligibility for purchase. Minimum criteria in Caroline County include presence in an Agricultural Preservation District, 50-acre minimum size or contiguous with other parcels, and specific soil classification. Additionally, the easement applicant must have a Soil Conservation Plan and the easement must have some development potential and be consistent with applicable county and state land use plans. Once minimum requirements are met, parcels are eligible for funding if available. The parcel is further ranked using a typical scoring system that focuses on soils and parcel size and contiguity. This ranking simply establishes how the parcel will compete with other farms for local funding. Some farms habitually rank at the bottom of the list and may not get funded unless they rank high enough in a given year relative to other parcels. Six of the programs use their acquisition criteria in a similar manner to prioritize parcels for state funding.

Easement Value and Ranking Criteria

Some programs emphasize the relative cost or price of specific easements in their prioritization. The price is what is paid for an easement, and includes the combination of cash and donation value where applicable, after all negotiations are complete. Twelve of the 34 quantitative programs in our study consider cost of the easement when ranking parcels. Overall, this consideration amounts to only about 3 percent of weighted importance when compared to other criteria (see Table 4), but some programs emphasize cost specifically. Almost 19 percent of the total ranking points in Routt County (Colorado) for example, are allocated within the cost criterion. The county indicates leveraging county funds is important, and in doing so takes into account the percentage of the conservation easement value that the landowner will donate, what application partners (government agencies and other programs) will cover, and any other donation of conservation easements that may enhance the acquisition. In some cases, even though cost is not formally captured within criteria, programs put a cap on the amount per acre they are willing to spend to acquire an easement. Obviously this affects negotiations and a

landowner's willingness to sell an easement, even if the parcel ranks high in the overall acquisition ranking.

The cost or price of an easement is distinguished from its "value." Value is the result of land market appraisals or some kind of point-based analysis. Easement value is usually determined through professional appraisals, typically the difference between the appraised fair market value of the property before and after restrictions imposed by the easement. It is not unusual for programs to require more than one appraisal for comparison. Depending on the program, the easement value may or may not determine the parcel's ranking in whether it will be purchased or not, because the value is usually just the starting point for negotiations.

Most counties and states are required by law to secure appraisals before using public funds for these purchases. A few programs, however, have found it expedient or more efficient to move to a different system, typically one that is points based, to value properties for possible easement purchase. Points-based evaluations usually take less time and expense to conduct than conventional land market appraisals and are less subjective in nature (American Farmland Trust, 1997). In devising a point-based formula, program administrators assign points and dollar values for features considered important to the program's farmland preservation goals and strategy. Points are awarded for certain criteria, some of which are the same criteria included in the ranking system for parcel selection. The points system has the added advantage over appraisals in providing a quick-to-calculate estimate for the value of a landowner's development rights, avoiding up-front standard appraisal fees, and being amenable to modification to reflect changes in a county's farmland preservation and acquisition policy (Daniels, 1997).

At least five of the programs studied use some sort of a point system for pricing easements. Baltimore, Montgomery, Howard and Harford County programs in Maryland use point systems to establish a base price for easements and outline a list of conditions that may increase or decrease that price. Skagit County, Washington uses a combination ranking and pricing formula (see Sidebar).

SIDEBAR – Skagit County, Washington – A Unique Ranking/Pricing System

Skagit County, Washington's Farmland Legacy Program has acquired 4,236 easement acres as of 2005. The applications are reviewed and ranked by a Conservation Futures Program Advisory board with final decisions made by the Board of County Commissioners. Like many other programs, to assess and rank an applicant farm, the board applies a site selection formula composed of quantitative criteria assigning points based upon farmland quality, threat of conversion, scenic and environmental values and financial considerations.

Unlike most other programs, however, the Skagit County program does not rely on an appraisal of the land's value in determining the dollar amount to offer for the easement. Instead, the program acquisition strategy utilizes a separate ranking system that is market-based to establish a price for those easements it decides to purchase. Once all applicants have been ranked, those selected for acquisition (having met minimum requirements) are submitted to the following mathematical formula to determine the price to be offered the landowner:

(Number of development rights relinquished multiplied by $50,000) + (Number of acres in easement x $150)

This number is then multiplied by the point score, which is derived from the overall site selection formula and a scale factor (0.0167). The resulting dollar figure is used as a benchmark, and may be adjusted by the program committee during negotiation with the landowner. Applications are accepted year-round and are considered for funding first come-first served.

Thus, the program's acquisition criteria are used in two different phases: First, in ranking all applicants and determining which easements to pursue; and, second, in deciding how much to offer the owner for easement rights on the land. This particular use of the program's ranking criteria in combination with a pricing formula is not found in any other easement acquisition program in the sample.

Although the program's acquisition ranking system has not generated a rejection of any applicants, the program's minimum criteria requires location in an Agricultural or Natural Resource Land Zone before an application is accepted and processed. It is not unusual however, for the landowner to reject the county's easement offer price.

Applicability of Local Planning Policy

Although typically not one of the top selections for individual programs, the planning compatibility criterion is widely used in the ranking systems. Thirty of the 46 programs in our sample consider a parcel's connection to local planning or zoning, either through the program's minimum requirements or else through the formal ranking or scoring system. Linking easement acquisitions in this way to local plans and zoning is a way of integrating and strengthening compensatory and regulatory approaches to farmland protection. Fifteen programs consider such compatibility important enough to include it both as a minimum requirement and as one of the criteria areas employed by quantitative programs. Three of the 12 qualitative programs consider planning and zoning compatibility in selecting parcels (see Tables 2, 3, 4 and 5). To what degree these criteria should be given more weight is a significant question, and is covered in Report 3 in our publication series, *Easements and Local Planning.*

Discretion in Quantitative Systems

Interviews with the managers of quantitative programs indicate that they vary substantially in the degree of discretion used to select parcels. Among the 31 programs for which we have information on this point, 15 adhere rigorously to the scores generated by assigning numerical points with very little or no discretion involved. At the other end of the scale, nine managers say that discretion is of major importance in their processes, typically at the final decision stage, while seven others indicate a lesser use of subjective factors. Here we look more closely at the stated justifications for just following the numbers, on the one hand, and for tempering them with some attention to program subjectivity, on the other hand.

In defense of the first position, some program managers emphasize that selection processes require the unequivocal avoidance of subjectivity.

> When you are giving out hundreds of thousands of dollars to landowners, you need to be able to justify exactly why you are picking one farm over another. We are not here to protect individual landowners. We are here to protect farmland for future generations…it is cut and dry. We put all the docket numbers in order from highest to lowest score and the Board looks at final scores. We go down that list in order depending on how much money we have and that is it. It takes my staff about three months to rank all the farms and it will take the Board about five minutes to make the final decision. – *program manager, Pennsylvania*

The overriding consideration in following the numbers automatically is the need to show an objective, transparent and defensible process for spending public funds. The quantitative approach avoids charges that program administrators are being 'arbitrary and capricious' in their selections and in avoiding the appearance of favoring some landowners over others.

> Paying out large sums of money, you have to try to be objective as possible. There is always a fear of criticism about the fact that this guy shouldn't have gotten the money, and that happens anyway, but I just think that the more objective you are the less you'll have controversy. – *program manager, Maryland*

> It is really hard to have a system that picks one man's farm over another. You better have a system that is measurable, repeatable and objective. – *program manager, Pennsylvania*

On the other hand, the argument for not accepting the final scores automatically and completely emphasizes the value of intimate knowledge of the landscape to be preserved. Objective rankings are necessary, some note, but they are appropriately modified with more subjective criteria concerning particular parcels and their location.

> You need an 'eye on the land' and not just depend on mathematical formulas. – *program manager, Maryland*

> There is no need to use a more elaborate quantitative system. The area to be protected is a limited, discrete, contiguous region—120,000 acres. There are fewer than 200 property owners. The objective is to help the entire area to remain in agriculture, so there is no need to compare each parcel with all other parcels. – *program manager, California*

By no means, some program managers argue, does the use of discretionary factors imply a selection process that is not responsible and accountable.

> [The program acquisition strategy] combines hard data and discretion. The amount of discretion may seem loose ended, but it has worked well. The Board has made great decisions and they are accountable to the Commission for final approval of purchases. – *program manager, Colorado*

How Programs Have Changed

Based upon our interviews with program managers and others, most of the quantitative programs at minimum periodically review their acquisition ranking system and make changes to the system based upon this review or for other reasons. Only seven of the programs reported that no changes had been made to their ranking system, although one (Anne Arundel County, Maryland) had considered and subsequently rejected substantial changes. Of the quantitative programs, at least 14 indicate more than minor changes or evolution over time for a variety of reasons. Some of these local programs needed to make changes in order to comply with pertinent overarching state guidelines as in Maryland, Pennsylvania and New Jersey. Other programs made more specific changes to reflect the local conditions that may have included changes to funding sources, development pressure, the type of agriculture or other circumstances. For example, the program in Suffolk County (New York), switched from a qualitative program to a quantitative one to ensure the most farmland was being preserved in the fairest manner. The Buckingham Township (Pennsylvania) program made a similar shift from qualitative to quantitative ratings.

Some programs chose to narrowly tailor their acquisition criteria to the challenges they face or to changing local conditions. The program in Adams County (Pennsylvania) for example, had to completely alter its rating strategy because the criteria used originally stressed corn production, but Adams is now principally a fruit-producing county. Several programs that noted minor alterations, or "tweaks" in their system explained that they performed continuous evaluation of the criteria in order to make occasional revisions as needed.

6. ORIGINS, CHANGES AND RATIONALE

Our interviews indicate that at least 26 programs designed and implemented acquisition strategies near or at the time of the creation of the farmland preservation program. For other programs, the formal design of a ranking system came as an afterthought to the initial establishment of the preservation organization. While a small program may feel comfortable with running on subjective informal criteria and gut feelings, with increased activity the imperative to be guided by formal, more stringent criteria becomes pressing.

The ranking systems adopted in our study were influenced by local factors, such as type of agriculture, geography, land use priorities and other political considerations. The availability of the LESA system, as noted below, was also critical in many cases. Programs also look to other programs for guidance both in their general program design as well as in developing acquisition strategies. According to Bob Wagner, American Farmland Trust (AFT),

> The Delaware program looked to Maryland and Lancaster counties (Pennsylvania) for guidance when it started. Lancaster had a program that pre-dated the Pennsylvania state program.

The same goes for new and developing programs.

> If someone comes to AFT for advice, we expose the interested group to a whole array of program strategies used by programs around the country. So new programs pick and choose from existing programs and use whole or parts of existing strategies for their own program. They look to other programs to see what might fit for them. They take criteria from another state or county and modify it to their own particular situation. – *Bob Wagner, American Farmland Trust, interview*

Local and State Factors

Human or personal elements often were involved in the design of local acquisition criteria. Local decision-makers used their knowledge of the land market, the characteristics of unpreserved farmland, agricultural conditions and public views. Those involved in originally designing the program and its acquisition strategy often leave their mark.

> They [the committee] create a program to reflect what they already know." They might make assumptions about what the best farms are, based upon a personal bias, and through this a consensus is reached, so in this sense, they will go with that bias. They can do it this way because have they always known where the most productive farms are.

> Soils are the primary focus, because farmers respect soils. When you ask a crop farmer who has the best farm, he will tell you it is the one who has the best soils. Soils are something data is available for, and what an objective system could have been built. Therefore it was a natural evolution. Soil classification would have been what local committees would have looked at to determine priorities. – *Deborah Bowers, Editor, Farmland Preservation Report, interview*

Differences in strategies may also have to do with political or historical traditions in the states or localities. Some states or local programs with public funding may be more sensitive to the need for transparency and accountability, and therefore emphasize the need for objective standards.

> A point system is a more objective way to evaluate farms that eliminates bias. It is easier to say yes and no if there are thresholds and a concrete system to point to. – *New Jersey Program Manager*

Some states legislated strong guiding principles for local programs, in effect setting up minimum standards for local programs. The New Jersey, Pennsylvania and Maryland county programs are highly influenced by state guidelines, legislation or administrative rules creating funds for easement purchases. Similarities in the county programs in these three states in our study reflect this common history.

Influence of LESA on Selection Strategy

Most quantitative ranking systems were originally based, directly or indirectly, on a national ranking system developed in the 1980s. This is LESA—the Land Evaluation and Site Assessment program—created by the Soil Conservation Service (now the Natural Resource Conservation Service) of the U.S. Department of Agriculture.

Based on the numerical weighting of parcel-specific characteristics, the significance of LESA at the time it was developed was that it offered a unique, objective method for measuring and comparing the preservation values of different agricultural properties. The timing of the LESA system, when first released in the 1980s, was fortuitous, coinciding with the then newly emerging interest in parts of the nation in protecting farmland from urban pressures. It was therefore logical for the first major agricultural easement programs, organized during the same period, to turn to the readily available LESA system in place of inventing their own acquisition criteria.

LESA professes to take the process of determining the relative merits of preserving or converting farmland out of the realm of local politics. Decision makers compute a score for each considered property, derived in a set of transparent calculations that provide an objective basis for the selection of easement parcels. The LESA system is composed of two separate components: the Land Evaluation (LE) and the Site Assessment (SA). The LE portion is mainly an agricultural rating of local soils from best to worst that utilizes one or more approved rating systems. Typically the LE component ranges from 0 to 100 with 100 reflecting the best soil (Steiner 1994). The SA number relates to mainly location factors that affect agriculture productivity, including parcel size and shape, compatibility with adjacent or surrounding land uses, level of nearby agricultural support services, proximity to urban development, proximity to protected farmland and the historical, natural and/or educational value of the property.

Initially LESA was intended to be used by federal agencies to evaluate the impacts of federally funded projects on farmland loss and to consider alternatives to these impacts. Over time, it has been adopted by some state and local governments for a variety of farmland preservation purposes, including to help:

- Determine the applicability of parcels for the transfer of development rights (TDR) or the purchase of conservation easements.
- Determine the need for and the type of local farmland protection program.
- Designate applicable parcels for inclusion in Agricultural Districts.

- Determine which parcels might be converted from agricultural to non-agricultural uses.

Often the original LESA system is revised in these adoptive systems with changes in the specific criteria and numerical weights assigned them. Typically state and local governments have given more emphasis to SA factors than present in the federal model.

Some state governments that fund local easement purchases have LESA-type requirements that influence local programs to use such standards in their selections. New Jersey and Pennsylvania require parcels eligible for funding to meet requirements based to some degree on the LESA system. The Maryland Agricultural Land Preservation Foundation (MALPF), a state government program, recently adopted new state LESA-based guidelines for county application. Counties wishing to fund parcels with MALPF funds have an option to adopt either the existing federal LESA system or tailor their local acquisition system to the specific MALP LESA-based guidelines.

The 15 quantitative programs listed in Table 6 use the formal LESA system to a significant degree to rank applications. Other programs in our sample use elements of LESA without formally adopting the full methodology.

Lancaster County (Pennsylvania) is one of the leading local programs in the nation in the number of farm acres under easement. In 1984 it was one of the first programs to adopt a LESA–type system, which has been revised on several occasions by adjusting factors and the relative points assigned, most recently in 2004 (see Appendix C). Originally, instead of deducting points for farms close to urban areas, the Lancaster program chose to do the opposite and also placed more weight on development pressure (SA, site assessment) rather than land quality (LE, land evaluation). This strategy was designed in part to create an urban growth boundary to halt the spread of urban development into the countryside and to reflect the county's high quality farm soils (Daniels, 1990, 1994). The most recent changes in points assigned for the various SA and LE factors have put more emphasis on preserving farms that are contiguous to other preserved farms, while still complying with state regulations by assigning the minimum weight allowed in the development potential category (see Sidebar – Changing Criterion Weights: The Pennsylvania Story). Through these adjustments, the program intends for farms at risk of development to still be valued for preservation if the farm quality characteristics meet program goals.

TABLE 6
USE OF LESA IN PROGRAMS STUDIED

Program	Program Origin	Adoption of LESA-Based Quantitative Criteria
Delaware – Statewide Program	1991	1991
Baltimore County, MD*	1979	1989
Harford County, MD*	1989	1993
Howard County, MD*	1978	1993
Monmouth, NJ**	1981	1993
Sussex County NJ **	1985	1989
Forsyth County NC	1984	1986
Adams County PA	1989	1989
Berks County PA	1989	1989
Buckingham Township PA	1995	1999
Bucks County PA	1989	1989
Chester County PA	1989	1989
Lancaster County PA	1980	1984***
Lehigh County PA	1989	1989
York County, PA	1989	1989

* Maryland county programs are required to use a LESA-based acquisition criteria to be eligible for state funds as of 2005.

** The Sussex County, NJ, program adopted directly the New Jersey state criteria. While all of the programs in New Jersey accommodate the state criteria as required in their ranking and scoring system, Monmouth formally references LESA in their scoring system.

*** Lancaster County began using a modified LESA system in 1984.

Sources: Interviews and program documents

Sidebar – Evolving Use of LESA in Delaware Farmland Preservation

The Delaware state farmland preservation program has developed its system for selecting agricultural easements over time. Before the preservation program was adopted, Delaware was active in establishing and perfecting the LESA concept and system. When the preservation program was adopted in 1991, it incorporated the LESA system to evaluate and compare applications and to prioritize expenditures. A two-tiered system was developed:

Tier 1 imposes minimum criteria (including a minimum LESA score) at the Agricultural District level. State legislation required that all applicants meet the definition of a farm as written in the Farmland Assessment Act. A LESA quantitative system was established for each of the state's three counties by the Delaware Agricultural Lands Preservation Foundation (Foundation) incorporating the advice of stakeholders in each county. All applications were evaluated, not ranked, according to the LESA system established for that county. Factors and weighting were adjusted to meet the needs and circumstances of the individual county. Still in use, the systems allocate points on a scale for zoning and land use of the property, adjacent land and land within one mile, capital improvements, percent of property farmed in last five years, distance to sewer and urban areas (bias against proximity), impact of conversion on farmland and industry preservation efforts, availability of external support systems, compatibility with Comprehensive Development plan, existence of development limitations (favoring limitations), and density of development in the area.

To determine the minimum LESA score sufficient to establish an Agricultural Preservation District, the Foundation looked at a spectrum of properties of different scores. Based on a "reality check" (subjective ground-truthing parcels with program objectives) the Foundation determined the lowest score that represented properties worthy of preservation.

In Tier 2, Agricultural District-designated properties qualify to apply to the Foundation for purchase of preservation easements. A point system for comparing and choosing the best farms for preservation is used statewide. Initially, the Foundation took all applicants and ranked them on the following; location on an Agricultural Lands Preservation Strategy Map, LESA score compared to the highest scoring in the county, farm productivity (investment, management, yields, type of operation) and other factors (consistency with land use plans, contiguity to open space and preserved farmland, historic, cultural, archeological or socio-economic benefits, conservation measures and impact on preservation efforts in the area). The top ranked properties were appraised and the landowners were asked to make a bid to the state for purchase of the easement. Offers were made according to percentage discount until funds were extinguished.

This original system worked for a while, with huge numbers of applications. The applicant-ranking portion was abandoned around 1998 because it was clear that some landowners would never have the chance to bid. Now, once applicants meet the minimum criteria, like before, offers are made according to percentage discount until funds are extinguished.

Evaluating and Changing Acquisition Systems

Many agricultural easement programs conduct evaluations of their acquisition standards that sometimes lead to changes in how easement applications are ranked. This allows programs to adjust their systems over time to take account of changing local circumstances, evolving achievements and funding, and new information. Twenty-two of the 27 managers interviewed in 2005 about acquisition standards said that their programs changed the weighting or use of specific criteria since the programs were organized.

Programs change standards for any of these reasons:

- To formalize acquisition criteria after a few years of initially operating with loose standards. A California program manager explains it this way:

  > [Our] quantitative system has been in place for 10 -12 years [program is 21 years old]. Previously it was less rigorous, with no ranking of parcels. When I was the only staff person, we did things less formally–using three general factors to judge properties. It has become a little more formal with the scoring system. – *program manager, California*

- To adjust to program experiences that call for a shift in emphasis, such as the accumulation of a critical mass of easements in a designated area that no longer needs attention.

- To adjust to changes in local conditions, such as agricultural commodities or land use changes, that call for a different preservation emphasis than originally developed.

- To respond to a critique of the effectiveness of the existing ranking scheme to carry out stated preservation goals, sometimes by taking advantage of better data and technical ability—including GIS mapping—to analyze program impacts. For example, the program in Suffolk County (New York) switched from a qualitative program to a quantitative one to ensure the most farmland was being preserved in the fairest manner by eliminating arbitrary decisions and reducing political influence. The Buckingham Township (Pennsylvania) program made a similar shift from qualitative ratings to quantitative.

- To cope with revised state requirements on funding local programs, as was the case with programs in Maryland, Pennsylvania and New Jersey.

Some programs review their standards for possible change annually or after every round of acquisitions, while others revisit their standards only on occasion and when particular issues are brought to their attention. In many of the periodic reviews, program managers examine the possible effects on final acquisitions of alternative weights or criteria by conducting simulated rankings. These exercises usually subject parcels already ranked for easement acquisition or funding to the hypothetical changes.

> I run through scenarios all the time. Currently I am simulating doing away with the pricing formula and using a base price plus a value per development right remaining. I run models all the time. – *program manager, Maryland*

How extensive are these changes? Changes in numerical emphases are more common than adding or taking out entire categories of criteria. And most are relatively minor tweaks of the points allocated to particular criteria. Yet, depending on how many points are added or subtracted, as a proportion of total scores, the numerical revisions can substantially affect overall rankings and hence the location of easement acquisitions. Pennsylvania's experience in the 1990s illustrates this point (see sidebar).

Sidebar – Changing Criterion Weights: The Pennsylvania Story

Pennsylvania presents an example of a substantial change in acquisition numbers—perhaps the most controversial ever. In the mid 1990s the state government revised the numerical requirements for county programs participating in state funding. (Among all state governments that fund local easement programs, Pennsylvania has the most extensive requirements for local ranking systems including the use of quantitative measures.) Both the minimum standards for agricultural soil quality and proximity to urban developed were increased—to 40 percent and 10 percent of the total score, respectively. In part, these changes were a response to criticism of state-funded easements on poor farms in remote areas of Pennsylvania. The changes also reflected a desire to shift more funds to counties with the greatest urban pressures.

The state-imposed changes conflicted with priorities some counties had established, according to program managers in our follow-up interviews. The higher soil quality minimum was a concern for local programs where either soil quality was fairly equal countywide or where the dominance of relatively poor soils was not an impediment to local agricultural production. Top quality soils were not always essential, interviewees said, either because of improvements through conservation practices or because certain commodities such as tree fruit could be profitably grown on poorer soils. As to the 10 percent requirement for proximity to urban development, some program managers complained that this countered local priority given to protecting large blocks of contiguous farmland not immediately threatened by urbanization.

> As you preserve farms closer to development, easement costs and conflicts with other land uses increase. The land is less agriculturally productive, successor farm operators are harder to find, and agricultural infrastructure is minimal. – *program manager, Pennsylvania*

Some Pennsylvania county programs managed to minimize the effects of the changes in state requirements by adjusting other criteria or revising the way in which certain factors were measured. One program, for example, somewhat diluted the impact of the development proximity requirement by increasing the distance to urban services included in the definition of proximity.

As examples of adding or eliminating entire categories, including changing minimum requirements and definitions of criteria, programs have made these revisions in recent years:

- Lancaster County (Pennsylvania) and Dunn Township (Wisconsin) eliminated consideration of the longevity of applications on waiting lists.
- Bucks County (Pennsylvania) added longevity on waiting lists.
- Delaware expanded qualified uses for agricultural easements to include equestrian facilities and land application of wastewater.

- Suffolk County (New York) dropped the development proximity criterion.
- Baltimore County (Maryland) expanded the contiguity criterion to include natural resource lands adjacent to farms.

Generally these and other additions and deletions in criteria, and changes in definitions, have had no significant impact on the outcomes of application rankings, interviewees noted. No examples were given of the entire addition or removal of categories with the top numerical designations in individual programs.

7. DESIGNING A SELECTION SYSTEM: BASIC PRINCIPLES

Creating an acquisition strategy that will effectively and efficiently reflect the public desire for farmland protection often with limited funds is one of the biggest challenges a new program faces. Most programs, whether created at the state, county or municipal level, have the ability to create their own unique strategies and ranking systems. However, even the best acquisition strategy cannot overcome program limitations imposed by other land use issues, the lack of funding or landowners who are not willing to sell easements from their property for the price being offered. Although no one type of strategy or one set of criteria exists that fits all programs, we can recommend guidelines to develop a system based on the project's interviews and other information.

Agriculture quality and contiguity are the primary criteria used by programs in selecting parcels to fund, accounting for 50 percent of overall criteria categories among the quantitative programs we studied. Since agricultural quality is composed primarily of soil based criteria factors, it is not hard to understand its significance as a primary consideration for farmland preservation programs. Contiguity as an important and accepted criteria, on the other hand requires further explanation. Increasingly, experts recognize the value of protecting large blocks of contiguous parcels of land (Hellerstein, 2002). Tom Daniels, a former local farmland protection program manager and now a recognized planning professional, recommends contiguity because (among other reasons) "large blocks of preserved ground for farming are likely to help farm support businesses remain profitable." USDA's Farm and Ranch Lands Protection Program stresses the significance of contiguity within the language of its *Final Rule,* "NRCS may place a higher priority on land and locations that help create a large tract of protected area for viable agricultural production…" (USDA, 2003).

Fundamental to creating a sound and durable acquisition strategy that is implemented by any combination of ranking criteria, are an adequate knowledge base and clear and honest program goals. Here we outline a set of principles for selecting criteria and organizing an acquisition process.

Choosing Criteria

Central to the discussion of a selection strategy is which criteria to use in an agricultural easement program and how much emphasis to give each. We have no standard prescriptions to offer. Programs have to customize their acquisition standards according to local conditions and subject to the requirements of funding sources—a major theme of this report. Yet there are several general considerations that apply across the board and that can be profitably deliberated by programs, either in the design of new acquisition systems or in the evaluation of existing systems. Presented as questions, here is a list of pertinent choices:

1. How Many Criteria? A striking feature of most acquisition systems analyzed in this study is the large number of separate standards they employ to rank easement applications. On average, quantitative programs use 14 different criteria apiece, with some having more than 20 such categories, if multiple sub-categories or specific measures are included. Typically, two or three categories (agricultural quality, contiguity, parcel size) account for a majority of numerical points—although no one factor is dominant—while other criteria are given rather small recognition in parcel rankings. The possible consequence is a dilution of a program's principal preservation objective while not doing much for the lesser priorities (which in most cases include strategic location, natural resources, historic value and urgency). One solution is to confine

quantitative rankings to just a few major criteria, while allowing programs to consider lesser factors on a discretionary basis for the review of particular parcels with unique features that fall outside the major criteria.

2. How Much Discretion? This question is about the mix of quantitative and qualitative criteria in a program's acquisition system. When beginning operations, the great majority of existing programs had little difficulty (or choice, depending on state requirements) in selecting whether to adopt a generally quantitative or qualitative approach, and have kept to that basic decision. The fact that three-quarters of the acquisition programs studied in this project use exclusively or primarily quantitative criteria reflects the overriding importance of showing landowners and the public an objective, transparent and fair way of selecting easement applications for funding—one that avoids the pitfalls of perceived favoritism or backroom deals. However, there is a role for some discretion in quantitative systems. It allows decision makers and program managers to add to the numerical weights specific knowledge that is not easily quantifiable and gives them leeway to respond to unique parcel characteristics. In fact, a certain amount of discretion is already hidden in many quantitative systems, in that the measurement of certain types of criteria (farm management, strategic location, historic value, etc.) depends on the judgments of program managers or other experts.

3. Strict or Loose Minimums? For many programs, minimum requirements are the critical step in the selection process—weeding out a large number of applications so that the later, more extensive ranking step is less determinative of final easement choices. In other cases, applicants more easily meet less rigid minimum requirements. Much depends, in particular, on the scope of the agricultural districts in which landowner enrollment is usually required—how exclusive or broad they are in relation to a community's total agricultural land base. The advantage of strict minimums is that they allow programs to easily focus in on certain preservation priorities (location, farm size, conservation plan, etc.) without going through the more elaborate ranking procedures, saving staff time and facilitating final choices. The disadvantage is that they contain a hint of arbitrariness and that they may result in the loss of some meritorious applications that fail to receive a full evaluation.

4. How Much Variation Is Measured? Applying some criteria may not produce meaningful results in certain areas for the ranking of applicant parcels. Especially if the underlying conditions being measured show little variation in a program's geographical jurisdiction, using that standard does little to sort out the respective merits of competing parcels or to rank them for funding. Why emphasize development proximity, for example, in an area where the threat of urbanization is equally distributed among farms? Why emphasize soil quality or soil productivity in an area where there is very little variation in soil classification in the program's jurisdiction?

5. Is Soil Quality the Best Measure of Agricultural Productivity? This question challenges an almost sacred tradition in the agricultural easement world. Certainly the standard classifications of agricultural soil quality have provided the most prevalent standard for evaluating easement proposals, largely due to the widespread adoption of LESA systems. But expanded conservation practices, advances in other farm technologies, and the variety of agricultural commodities that do not require prime soils suggest that agricultural productivity and sustainability can be measured in other ways. Depending on local agricultural conditions, they can include tillable acreage, drainage, the availability of irrigation water and history of use. For some programs, an important issue is whether to enlarge the definition of "agriculture" to include nontraditional uses that have no relationship to soil quality—such as greenhouses and equestrian facilities. As stated in #4 for other programs located in areas where high soil quality

is pervasive on virtually all parcels, it becomes almost an irrelevant method for selecting parcels even if it is a highly valued resource.

6. How Much Emphasis on Development Proximity? Perhaps the most problematic use of specific criteria concerns whether or not to give priority to placing easements close to existing or emerging urbanization, as measured by such factors as road frontage and closeness to public sewer and water services. Some programs, in fact, give *negative* points to this factor, although the more common practice is to weigh proximity positively. The justification is that this emphasis saves farmland with the greatest potential for conversion and, in some cases, may help to create buffers or boundaries between urban and agricultural areas. The counterargument is that this represents a poor investment of public funds; protected farms in such locations are easily outflanked or leaped over by urban growth, there is limited ability to build large blocks of contiguous easements, and easement costs are relatively high.

Designing an Acquisition Strategy

Some of the same considerations that concern generally the organization of a farmland preservation program apply also to the more specific system for acquiring easements. Here are several suggestions for both kinds of processes.

(1) Carefully select individuals for designing and organizing the farmland preservation program and associated acquisition strategy. When a farmland preservation program is first organized, it almost always starts with a committee gathered together or appointed by elected officials. The committee makeup is critical as to whether or not they have the knowledge, leadership and courage to do what is best for their community. Often this committee includes farmers, agribusiness men and women, and agriculture vendors, real estate developers and planners, and those with community and environmental interests. A cross section of thorough knowledge is important, because the committee often creates an acquisition program to reflect what they already know and what they think is important.

(2) Make sure that a program has a clearly stated purpose and honest and clear objectives so that the acquisition strategies can be adequately designed to meet these goals. New and established programs almost all share the clearly stated or inherently understood goal to preserve agriculture for the future of their locality, but there may be other objectives that are key to developing a unique strategy that best meets this common goal. This requires a thorough knowledge of the agricultural landscape characteristics, conservation priorities, and local political and market realities. Is the goal primarily to protect agriculture or is it to direct the direction of growth, or both? This stage may require substantial groundwork consistent with establishing a farmland preservation program, such as the need for identifying unique issues and problems in the agricultural community and inventorying the community's physical infrastructure and agricultural, natural and human resources. It may involve using focus groups and land use studies to identify the political will to address the identified issues.

Using Bucks County (Pennsylvania) as an example,

> [T]he committee already had locally derived information, such as a natural resource plan, so that they knew where special soils were, which happened to be where the best farms were. Bucks does a better job in focusing in on their soil priorities because they put in extra points where farms laid in areas

> known to have better soils. This seems more statesman-like, doing what is better for the long-term future rather than presently politically popular. – *Deborah Bowers, Editor, Farmland Preservation Report, interview*

(3) Create a transparent, defensible process for selecting all parcels. Considering the extent to which a defensible selection process is needed and the associated level of discretion, select a subjective/qualitative or objective/quantitative selection or ranking system, or the appropriate combination of both. This may be determined to some extent, by the expected and potential level of funding sources and other political considerations. Generally, a public, highly scrutinized funded program with the potential for numerous applications may require more objective standards based upon an easy to apply scoring system. A quantitative approach holds up better in these circumstances than does a qualitative approach, while at the same time providing landowners a system to rate their farm parcels to determine how they would score.

(4) Incorporate all state, local and other legislative requirements and local planning and zoning considerations into the selection strategy. Depending on the state in which one is creating a program acquisition strategy, state guidelines may dictate minimum standards and other considerations and may even provide a selection system that can easily be adopted for local program use. As previously explained, the prevalence of the use of LESA within a state or program jurisdiction will influence how a program develops minimum standards and selection strategies.

(5) Select acquisition minimum standards and criteria that will best direct those administering the program to meet the identified goals and objectives. A common theme of this report, this may be one of the most challenging steps in the process because poorly chosen criteria may not result in ranking the best parcels for funding. Some of the critical considerations unique to each area that need to be addressed by including appropriate criteria within the minimum standards and specific ranking strategy include:

- The nature and sources of and amount of funding available. Although the exception rather than the rule, if funding sources are apt to consistently meet the demand for applications, minimum standards, rather than the actual ranking criteria may be more important for selecting parcels to fund.
- The nature of the local landscape, including type of soil and wildlife habitat and size of preservation area. An area that encompasses a variety of landscape characteristics will require including criteria that facilitates selecting those characteristics desired.
- Parcel size in relation to the area's agriculture. Field crops typically require larger parcels of land than do specialty crops
- Type and extent of the urban threat in the area. Scattered rural residential subdivisions will require a different strategy for protecting farmland than concentrated larger subdivisions.
- Type and extent of local planning program. Coordinating criteria and minimum standards to complement existing comprehensive plans and zoning ordinances, for instance, can be crucial to maximizing the tools available to best address the overall goals of a farmland preservation program. As stated previously, companion Report 3, *Easements and Local Planning,* addresses this issue in much greater detail.

(6) Test the selection criteria and strategy. Regardless of the selection strategy and criteria chosen, test it with a wide variety of potential parcels within the program's jurisdiction to see if the result meets the selection strategy and overall program purpose and objectives. The acquisition strategies, when tested against a variety of parcels and conditions, should be designed so that most, if not all farms in a targeted area for protection, will be eligible to receive acceptable per-acre offers if unlimited funding in any one year. Periodic ground testing of the system should continue with the growth and changes of the program.

> One good way to do this is to identify three or four farms that are poster children for the goal of the program. Then run these farm parcels through the draft acquisition system and tweak the program criteria to reflect accommodating those farms. This in effect provides an effective manner to ground truth the scoring system. – *Bob Wagner, American Farmland Trust*

(7) Design a flexible system that can be adjusted as needed. As has been discussed in this report, circumstances change with the age of a program. The support system and policy surrounding the design and implementation of the system should be able to adapt to these changes in circumstances. Similarly the criteria ranking system, whether qualitative or quantitative, needs to be able to incorporate such things as changes in funding sources and the need to incorporate strategic selections if necessary. The degree of flexibility needed may direct the degree of discretion built into the system.

(8) And finally, look to existing programs for parcel selection models and acquisition strategies that reflect the common and unique characteristics of your program's jurisdiction. The LESA system, in whole or in part, may provide an appropriate starting point for programs looking for more objective standards. As previously explained, the prevalence of the use of LESA within a state or program jurisdiction will influence how a program develops minimum standards and selection strategies. Refer to farmland preservation resources for assistance, such as other local farmland preservation programs that share common purposes or other key characteristics. American Farmland Trust, USDA NRCS and state NRCS offices, and other agencies affiliated with farmland preservation programs may be a valuable resource. Keep in mind, however, that while outside sources of expertise may be useful, there is no substitute for focused analysis of local conditions that direct appropriate strategies.

Existing Programs

Shifting local conditions mean that easement programs should regularly monitor their progress and be open to periodic changes in ranking criteria and procedures. The standards appropriate or effective at the time of a program's origins may become less salient as the program matures, because of the accumulation of easements, the character of unprotected farmland, shifts in agricultural commodities and practices, or changes in the rate and direction of local urbanization. Underlying this premise is the need for programs to understand their systems, knowing specifically how the combinations of criteria work for their unique situations. All of this requires the need to have access to reliable and comprehensive data. Established programs could profitably take the following steps:

- Analyze easement results to date in relation to desired objectives—are the easements previously acquired the types of parcels or in the locations desired? Are they in sync with preservation objectives?
- Analyze local changes in urbanization patterns and the character of local agriculture that suggest criteria revisions.
- Periodically run simulated alternative acquisition scenarios to test different criteria variations.
- Question the use of the proximity criteria. Some systems gave greater weight to parcels close to urbanization (proximity to services, roads, etc.), some downgrade (negative scores) such parcels. Does it make sense to try to protect parcels very close to urbanization, especially when considering the costs involved? Consider the possibility of such easements being outflanked by urban growth.
- Examine the system with the understanding that different sets of criteria may contradict each other—producing a neutral outcome. For example, soil quality and strategic location are common criteria that may produce these results.

REFERENCES

American Farmland Trust. 1997. *Saving American Farmland: What Works.* Washington, D.C.

American Farmland Trust. April 2001. *Using Resources Wisely: How Much is Enough?* Volume IV, Issue 1, LandWorks Connection.

Daniels, Thomas L. 1990. *Using the LESA System in a Purchase of Development Rights Program,* Journal of Soil and Water Conservation 45(6): 617-621.

Daniels, Thomas L. 1994. "Using LESA in a Purchase of Development Rights Program: The Lancaster County, PA Case," in Steiner et al. *A Decade with LESA: The Evolution of Land Evaluation and Site Assessment*. Ankeny, IA: Soil and Water Conservation Society.

Daniels, Thomas L. 1997. *Holding Our Ground: Protecting America's Farms and Farmland.* Island Press.

Federal Highway Administration (FHWA). 1989. *Guidelines for Implementing the Final Rule of the Farmland Protection Policy Act for Highway Projects*. Environmental Analysis Division, Office of Environmental Policy. Washington, DC: US Department of Transportation.

Heimlich, Ralph and William D. Anderson. 2001. *Development at the Urban Fringe and Beyond: Impacts on Agriculture and Rural Land*. Report No. 803. Washington: Economic Research Service, U. S. Department of Agriculture.

Hellerstein, Daniel, Cynthis Nickerson, Joseph Cooper, Peter Feather, Dwight Gadsby, Daniel Mullarkey, Abebayehu Tegene and Charles Barnard. 2002. *Farmland Protection: The Role of Public Preferences for Rural Amenities.* Report No. 815. Washington: Economic Research Service, U. S. Department of Agriculture.

Pease, James and Robert Coughlin. 1996. *Land Evaluation and Site Assessment: A Guidebook for Rating Agricultural Lands, Second Edition*. Ankeny, IA: Soil and Water Conservation Society.

Soil Conservation Service (SCS). 1983. *National Agricultural Land Evaluation and Site Assessment Handbook*. Washington DC: United States Department of Agriculture.

Steiner, Frederick, James Pease and Robert Coughlin, editors. 1994. *A Decade with LESA: The Evolution of Land Evaluation and Site Assessment*. Ankeny, IA: Soil and Water Conservation Society.

United States Department of Agriculture (USDA). 1989. Responses to FHWA Comments. Online: http://www.fhwa.dot.gov/environment/guidebook/vol1/doc5b.pdf

United States Department of Agriculture (USDA), 1996. Farmland Protection Program, Farmland Protection Program Request for Proposals

United States Department of Agriculture (USDA), 2000. Farmland Protection Program, Farmland Protection Program Request for Proposals

United States Department of Agriculture (USDA), 2002, Census of Agriculture

United States Department of Agriculture (USDA), 2003. Commodity Credit Corporation. *Farm and Ranch Lands Protection Program: Final Rule,* 7 CFR Part 1491, introduction

United States Department of Agriculture (USDA), 2004, Commodity Credit Corporation. *Farm and Ranch Lands Protection Program Notice of request of proposals:* Federal Register Vol. 69, No 233, Monday, December 6, 2004

United States Department of Agriculture (USDA), Farm and Ranchlands Protection Program (FRPP), 2004 Allocation Information http://www.nrcs.usda.gov/programs/frpp/

APPENDIX A — TABLE A1 MINIMUM REQUIREMENTS

TABLE A1
MINIMUM REQUIREMENTS

Program	Geographical Extent	Ag Preservation District Enrollment	Minimum Acres	Minimum Acres Reduction-Contiguity
CA-Marin County	County			
CO-Routt County	County		100	Yes
CT-State	State		30	
DE-State	State		200	Yes
MD-State Requirements	State	Yes	50	Yes
MD-Anne Arundel County	County	Yes	50	Yes
MD-Baltimore County	County	Yes	50	Yes
MD-Calvert County	County	Yes	50	Yes
MD-Caroline County	County	Yes	50	
MD-Carroll County	County	Yes	75	Yes
MD-Frederick County	County	Yes/No-IPA	50	Yes
MD-Hartford County	County	Yes/No-County	50	Yes
MD-Howard County	County	Yes	50	Yes
MD-Montgomery County	County	Yes	50/10 County	Yes
MD-Washington County	County	Yes	50	Yes
MI-Peninsula Township	Township	Yes		
NJ-State Requirements	State	Yes		
NJ-Burlington County	County	Yes	20	
NJ-Cumberland County	County	Yes	5	
NJ-Hunterdon County	County	Yes	40	Yes
NJ-Monmouth County	County	Yes		
NJ-Morris County	County	Yes	10	
NJ-Sussex County	County	Yes	40	
NY-Suffolk County	County	Yes	7	
NC-Forsyth County	County	Yes	10	
PA-State Requirements	State	Yes	50	Yes
PA-Adams County	County	Yes	50	Yes
PA-Berks County	County	Yes	50	Yes
PA-Buckingham Township	Township	Yes	25	Yes
PA-Bucks County	County	Yes	50	Yes
PA-Chester County	County	Yes	50	Yes
PA-Lancaster County	County	Yes	50	Yes
PA-Lehigh County	County	Yes	50	Yes
PA-York County	County	Yes	50	Yes
VA-Virginia Beach	City	Yes	10	
WA-Skagit County	County			
WI-Town of Dunn	Town			
Factors Considered in FRPP	**National**	**Yes[1]**	**Yes[2]**	**Yes[3]**
No. of Uses:		**32**	**32**	**22**
Rank:		**1**	**1**	**3**

1 "NRCS may place a higher priority for lands and locations that help create a large tract of protected area for viable agricultural production."

2 The size of the particle is required to be identified. Parcel Size is typically included in a LESA system and since NRCS states a LESA system will be used to analyze rankings, it can be construed that Parcel Size is important.

3 "To be eligible, farms and ranches must… and contain at least 50% of prime, unique, or statewide or locally important soil."

TABLE A1
MINIMUM REQUIREMENTS (CONTINUED)

Program	Minimum Class I-III(IV) Soil Quality	Soil Conservation Plan Required	Woodlands Allowed	Right to Farm Ordinance
CA-Marin County				
CO-Routt County				
CT-State				
DE-State				
MD-State Requirements		Yes	Yes	
MD-Anne Arundel County	Yes	Yes	Yes	Yes
MD-Baltimore County	50%	Yes		
MD-Calvert County	50%	Yes	Yes	Yes
MD-Caroline County	50%	Yes	Yes	
MD-Carroll County	50%	Yes		
MD-Frederick County	50%			
MD-Hartford County	50%	Yes		
MD-Howard County	50%	Yes		
MD-Montgomery County	50%	Yes		
MD-Washington County	50%		Yes	
MI-Peninsula Township	50%			
NJ-State Requirements	50%			
NJ-Burlington County				
NJ-Cumberland County				
NJ-Hunterdon County			Yes	
NJ-Monmouth County				
NJ-Morris County			Yes	Yes
NJ-Sussex County	Yes			
NY-Suffolk County				
NC-Forsyth County				
PA-State Requirements				
PA-Adams County		Yes		
PA-Berks County	50%			
PA-Buckingham Township	50%			Yes
PA-Bucks County	50%			
PA-Chester County				
PA-Lancaster County	50%			
PA-Lehigh County	50%			
PA-York County	50%	Yes		
VA-Virginia Beach	50%			
WA-Skagit County	50%			
WI-Town of Dunn				
Factors Considered in FRPP				
No. of Uses:	**21**	**11**	**7**	**4**
Rank:	**4**	**6**	**8**	**10**

TABLE A1
MINIMUM REQUIREMENTS (CONTINUED)

Program	Minimum % in Agriculture	LESA System Minimum Score	Farming Minimum Duration/Revenue	Planning or Zoning Compatibility
CA-Marin County				
CO-Routt County				Yes
CT-State				
DE-State			Yes-Both	Yes
MD-State Requirements				
MD-Anne Arundel County				Yes
MD-Baltimore County				Yes
MD-Calvert County				Yes
MD-Caroline County				Yes
MD-Carroll County				Yes
MD-Frederick County				
MD-Hartford County				Yes
MD-Howard County				Yes
MD-Montgomery County				Yes
MD-Washington County				Yes
MI-Peninsula Township				
NJ-State Requirements				
NJ-Burlington County				Yes
NJ-Cumberland County			Revenue	
NJ-Hunterdon County				
NJ-Monmouth County		Yes		
NJ-Morris County			Revenue	
NJ-Sussex County				
NY-Suffolk County				
NC-Forsyth County				
PA-State Requirements	50%			
PA-Adams County		Yes (50-LE)		
PA-Berks County	50%			
PA-Buckingham Township				
PA-Bucks County	50%			
PA-Chester County	50%			
PA-Lancaster County	50%			Yes
PA-Lehigh County	51%			
PA-York County				
VA-Virginia Beach				Yes
WA-Skagit County				Yes
WI-Town of Dunn				
Factors Considered in FRPP		**Yes[4]**		**Yes[5]**
No. of Uses:	**6**	**3**	**3**	**15**
Rank:	**9**	**11**	**11**	**5**

[4] "NRCS will use the National and State criteria and/or a LESA system or similar system to evaluate and rank parcels.

[5] "The parcel's isolation from other farms and the local government's position, expressed in either its land use plan or zoning, may cause NRCS to determine that the use of FPP funds is not appropriate."

TABLE A1
MINIMUM REQUIREMENTS (CONTINUED)

Program	Development Potential Required	Easement Price Restriction	Land Trust Requirement
CA-Marin County			
CO-Routt County		Yes	Yes
CT-State			
DE-State			
MD-Anne Arundel County	Yes		
MD-Baltimore County	Yes		
MD-Calvert County	Yes	Yes	
MD-Caroline County	Yes		
MD-Carroll County	Yes		
MD-Frederick County			
MD-Hartford County			
MD-Howard County	Yes		
MD-Montgomery County	Yes		
MD-Washington County			
MI-Peninsula Township			
NJ-Burlington County			
NJ-Cumberland County			
NJ-Hunterdon County			
NJ-Monmouth County	Yes		
NJ-Morris County			
NJ-Sussex County			
NY-Suffolk County			
NC-Forsyth County			
PA-Adams County			
PA-Berks County			
PA-Buckingham Township	Yes		
PA-Bucks County			
PA-Chester County			
PA-Lancaster County			
PA-Lehigh County			
PA-York County			
VA-Virginia Beach	Yes		
WA-Skagit County			
WI-Town of Dunn			
Factors Considered in FRPP			
No. of Uses:	**10**	**2**	**1**
Rank:	**7**	**13**	**14**

APPENDIX B — FREQUENCY DISTRIBUTION AND OTHER COMPARISONS

Another way to view each of the criteria categories is by using a frequency distribution histogram, which graphically shows the number of programs within a particular percentage range. Figure 1 shows frequency distribution histograms for the top three weight factored criteria categories.

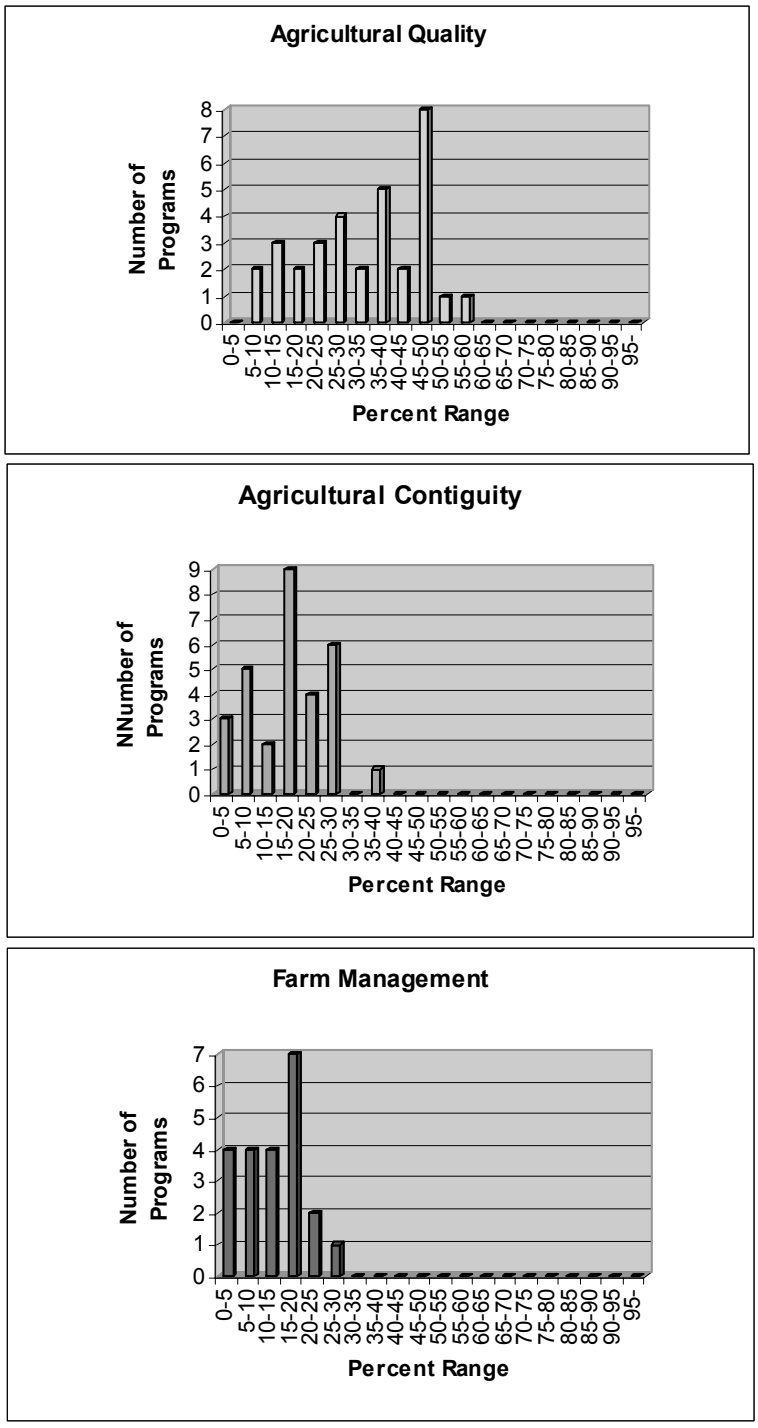
The Agricultural Quality category, which is the most frequently used and most influential by weight factor, has a large distribution spread throughout the weight factor percentage spans from the 5 percent to 10 percent to the 55 percent to 60 percent range. The distribution is skewed to the higher ranges with the largest number of programs being within the 45 percent to 50 percent range resulting in the 34.53 percent proportion for this category.

The Agricultural Contiguity category is used just three times fewer than Agricultural Quality but the weight factors used by programs are significantly less than those used for Agricultural Quality. The distribution spread throughout the weight factor percentage spans from the 0 percent to 5 percent to the 35 percent to 40 percent ranges. The distribution is more normally distributed around the 15 percent to 20 percent range.

Finally, the Farm Management category, at a little more than half of the weight factor value of Agricultural Contiguity, spans from the 0 percent to 5 percent to the 25 percent to 30 percent ranges. The most programs utilizing this category were in the 15 percent to 20 percent range.

FREQUENCY DISTRIBUTION AND OTHER COMPARISONS (CONTINUED)

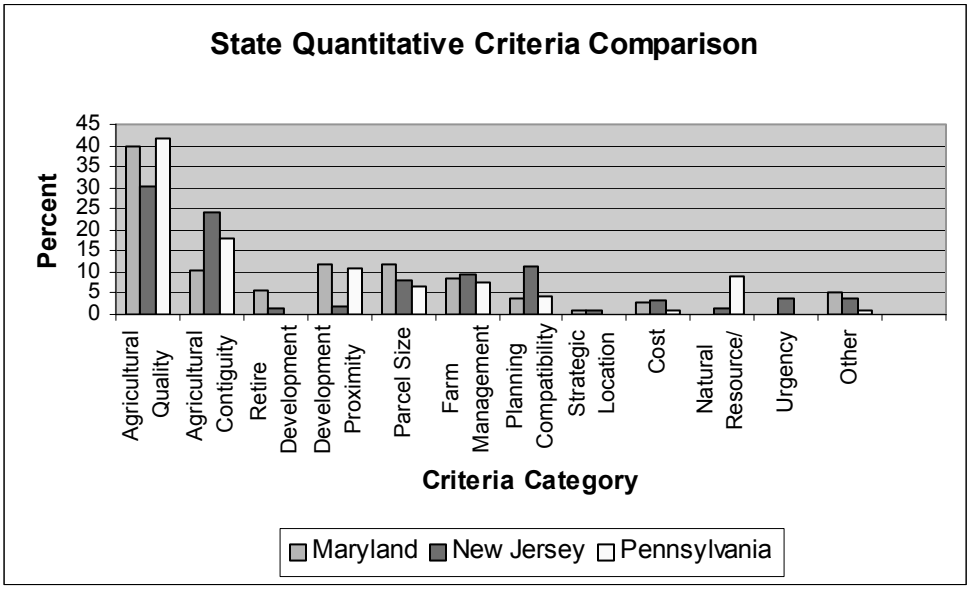
Figure 1: Frequency Distribution Histograms of top Three Weight Factored Criteria Categories



FREQUENCY DISTRIBUTION AND OTHER COMPARISONS (CONTINUED)

Maryland, New Jersey and Pennsylvania total 24 of the 34 quantitative programs sample, thus contributing significantly to the average weight factoring for the criteria categories. Because of the overall influence by these three states it is informative to compare the average weight factoring between them for all the criteria categories. This is shown in Figure 2. The influence of the Agricultural Quality criteria category is very apparent with it being the highest average percentage for all three states. This is especially true for Maryland and Pennsylvania at approximately 40 percent and 42 percent respectively. Agricultural Contiguity is considered more important in New Jersey at 24 percent than in Maryland and Pennsylvania at 11 percent and 18 percent. Beyond these two criteria categories no category by any of the three states exceeds 12 percent nor is there any apparent consistency between all three of the states except in the Farm Management Category. One interesting approach distinction is in comparing the Development Proximity and the Planning Compatibility categories. Maryland and Pennsylvania favor using Development Proximity nearly equally and at about the same level as New Jersey uses Planning Compatibility.

Figure 2: State Quantitative Criteria Comparison



APPENDIX C — LANCASTER COUNTY, PENNSYLVANIA FARMLAND RANKING SYSTEM

FARMLAND RANKING SYSTEM

LANCASTER COUNTY AGRICULTURAL PRESERVE BOARD

I. INTRODUCTION

In 1988 the Lancaster County Agricultural Preserve Board began using the Farmland Ranking System to rank and prioritize applications for conservation easement sale. The purpose and the goals of the Farmland Ranking System are to:

- Preserve farms that are composed of the most productive soils.
- Preserve farms that follow an NRCS conservation plan.
- Preserve farms in contiguous blocks to help achieve critical mass.
- Preserve farms most likely to be converted to non-agricultural uses

According to the guidelines established in Act 43, the Farmland Ranking System must be a "Land Evaluation and Site Assessment" (LESA) system. The LESA system addresses various factors on a property in order to determine what priority order the County may appraise and subsequently preserve farms. This system is designed to be objective, fair and easily substantiated. Points are awarded for meeting specific criteria, with the maximum an application may receive totaling 100 points. The ranking is completed annually by the Geographic Information Systems Department in order to ensure consistency and accuracy. The points are distributed as follows:

Land Evaluation	40% of Total Score	40 points possible
Soils:	40% of Total Score	40 points possible
Site Assessment	60% of Total Score	60 points possible
Development Potential:	10% of Total Score	10 points possible
Farmland Potential:	25% of Total Score	25 points possible
Clustering Potential:	25% of Total Score	25 points possible
	100%	100 total points

II. FACTORS

LAND EVALUATION (40% of Total Score)

Soils, 40% of the total score – this is an evaluation of the potential productivity of each soil type. The Land Capability Class, Slope Range, Depth, Drainage and Gross Corn Yield are considered to determine the Relative Value of each soil type. Soils that have the highest Relative Value obtain the most points. This data is obtained from USDA, Natural Resources Conservation Service (NRCS).

Farms that follow an NRCS approved RMS conservation plan that is 100% implemented may be evaluated with alternative "bonus" Relative Values. Alternative Relative Values will result in a higher soil score.

Scoring reflects the potential productivity of a farm's soils, rated on a scale of 100.

Factor	Maximum Points
Soils	100

SITE ASSESSMENT (60% of Total Score, divided into three categories)

Development Potential, 10% of the total score – this category addresses factors that determine the likelihood of conversion to non-agricultural uses.

Factors		Maximum Points
A.	Extent of Non-Agricultural Use in Area	40
B.	Proximity to Public Sewer and Water Service	30
C.	Amount of Road Frontage	30

Farmland Potential, 25% of the total score – this category addresses factors that may help distinguish the likelihood of the farm to continue as a successful farming operation.

Factors		Maximum Points
A.	Size of Farm	35
B.	Stewardship	25
C.	Tiered Pricing	20
D.	Percentage of Harvested Cropland, Pasture and Grazing Land	10
E.	Percentage of Farm offered for Easement	5
F.	Historic, Scenic, Environmental Qualities	5

Clustering Potential, 25% of the total score – this category addresses factors indicating the long-term commitment to agriculture in an area and the potential to build contiguous blocks of preserved farmland.

Factors		Maximum Points
A.	Proximity to a Farm with a Conservation Easement	60
B.	Percentage of Land Adjacent to the Farm in Ag. Zoning	20
C.	Proximity to a Farm with an Easement Sale Application	10
D.	Consistent with County Future Land Use Map	5
E.	Percentage of Land Adjacent to the Farm in an Agricultural Security Area	5

Following is the Farmland Ranking System adopted by the Lancaster County Agricultural Preserve Board on _____, 2004 and effective as of September 1, 2004.

DEVELOPMENT POTENTIAL
10% of Total Score

A.	Extent of Non-Agricultural Use in Area (1 Mile Radius)	
	- Intensive development adjacent or in the immediate vicinity (10 lots or more/commercial, industrial or residential uses)	40
	- Intensive or extensive scattered development within ½ mile radius (20 lots or more/commercial, industrial, and residential uses)	30
	- Scattered non-agricultural development within 1 mile radius (20 lots or more)	20
	- No significant non-agricultural development in area	0
B.	Proximity to Public Sewer and Water Services (Existing and Planned)	
	- Existing service area adjacent or within ½ mile	30
	- Existing or planned service area within 1 mile	20
	- Existing or planned service area within 2 miles	10
	- No existing or planned service within 2 miles	0
C.	Amount of Road Frontage	
	- Extensive developable road frontage (more than ½ mile)	30
	- Developable road frontage (1/4 mile –½ mile)	20
	- Developable road frontage (1/8 mile – 1/4 mile)	10
	- Limited by lack of road frontage (less than 1/8 mile)	0

FARMLAND POTENTIAL
25% of Total score

A.	Size of Farm Offered for Easement Purchase	
	- 100 acres or more	35
	- 75 to 99 acres	30
	- 40 to 74 acres	20
	- Less than 40 acres	0
B.	Stewardship of the Land	
	- NRCS conservation plan implemented 100%*	25
	- NRCS conservation plan implemented 50-75%	15
	- NRCS conservation plan implemented less than 50%	0
	- No NRCS conservation plan	0

**use alternative Relative Values in Land Evaluation*

C.	Tiered Pricing	
	- Tier 4: will accept 60% of easement value	20
	- Tier 3: will accept 70% of easement value	15
	- Tier 2: will accept 80% of easement value	10
	- Tier 1: will accept 90% of easement value	5
	- Tier 0: will accept 100% of easement value	0

** Easement value is the appraised value of the easement, not to exceed $4,000/acre.*
*** Applicants offering to accept 50% or less of the easement value will be evaluated according to the criteria established in the Program Guidelines, Section XI, Special Considerations.*

D.	Percentage of Harvested Cropland, Pasture and Grazing land	
	- Over 75%	10
	- 50% - 74%	5
	- Less than 50%	0
E.	Percentage of Farm Offered for Easement Purchase	
	- 100% of Deeded acreage	5
	- less than 100% of Deeded acreage	0
D.	Historic, Scenic, Environmental Qualities	
	- Features favorable to preservation (significant but undocumented historic features, moderate localized scenic contributions, and/or limited but recognized environmental features favorable to preservation)	5
	- No significant features	0

CLUSTERING POTENTIAL

25% of Total Score

A.	Proximity to a Farm with a Conservation Easement	
	- Adjacent to two or more easements	60
	- Adjacent to one easement	50
	- Within 1/2 mile of one easement	40
	- Within 1 mile of one easement	20
	- More than 1 mile	0
B.	Percent of Land Adjacent to the Farm in Agricultural Zoning	
	- 50% or more in Effective Ag. Zoning	20
	- 50% or more in Non-Effective Ag. Zoning	10
	- Under 50%	0
C.	Proximity to a Farm with an Easement Sale Application	
	- Adjacent	10
	- Within 1 mile	5
	- More than 1 mile	0
D.	Consistent with County Future Land Use Map	
	- Within Area planned for Agricultural	5
	- Not in Area planned for Agricultural	0
E.	Percent of Land Adjacent to the Farm in an Agricultural Security Area	
	- 50% or more	5
	- Under 50%	0

File Number: _____ Ranking Cycle: _____

Primary Contact/Landowner: _____

Application Acres: _____ Number of Land Parcels: _____

2004 RANKING: FARMLAND POTENTIAL WORKSHEET

Farm

100 acres or more	35	☐
75-99 acres	30	☐
40-74 acres	20	☐
Less than 40 acres	0	☐

Percentage of Farm Applied

100% of Deeded acreage	5	☐
Less than 100% of Deeded acreage	0	☐

Tiered Pricing

Will accept 60% or less of easement value*	20	☐
Will accept 70% of easement value	15	☐
Will accept 80% of easement value	10	☐
Will accept 90% of easement value	5	☐
Will accept 100% of easement value	0	☐

**Easement Value is the appraised value of the easement, not to exceed $4,000*

Stewardship

NRCS Conservation Plan implemented 100%*	25	☐
NRCS Conservation Plan implemented 50-75%	15	☐
NRCS Conservation Plan implemented less 50%	0	☐
No NRCS Conservation Plan	0	☐

**Use alternative Relative Values in Land Evaluation*

Historic, Scenic and Environmental Qualities

Features favorable to preservation *(significant but undocumented historic features, moderate localized scenic contributions, and/or limited but recognized environmental features favorable to preservation)*	5	☐
No significant features	0	☐

Staff Notes:

Evaluated by: _____ Date _____

_____
Signature/Initials

American Farmland Trust (AFT) is the only nationwide nonprofit organization dedicated to protecting agricultural resources. Founded by a group of concerned farmers in 1980, AFT's mission is to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. AFT's action-oriented programs include public education, technical assistance in policy development and direct farmland protection projects. Basic annual membership is $20. For membership information, contact the National Office.

National Office
1200 18th Street, NW, Suite 800
Washington, DC 20036
phone: (202) 331-7300 - fax: (202) 659-8339
www.farmland.org

Center for Agriculture in the Environment
P.O. Box 987
148 N. Third Street
DeKalb, IL 60115
phone: (815) 753-9347 - fax: (815) 753-9348
www.aftresearch.org

For publication information, please contact the American Farmland Trust's, Center for Agriculture in the Environment at (815) 753-9347. This publication is available online for duplication at www.aftresearch.org and www.aic.ucdavis.edu.