

11. Prioritizing Farmlands for Future Protection

Identification of Important Farmlands in Putnam County

In order to implement this Plan successfully, Putnam County decision-makers will have to take advantage of the many farmland protection techniques available to them. Some of these techniques include purchase of development rights programs (PDR), and land use and economic development and planning techniques applied at the local level. These tools should be targeted to those specific farmlands in the County that have important characteristics making them critical to support continuing agriculture. In order to identify those lands, a Land Evaluation and Site Assessment Tool has been developed. This tool is described below. Local and county-decision makers can use this technique to evaluate and rank farmland parcels in order to decide where the most appropriate locations for targeting protection measures are.

A Land Evaluation and Site Assessment Tool (LESA) for Putnam County

Land Evaluation and Site Assessment, also referred to as LESA, is a tool to help citizens and officials in Putnam County locate and prioritize those lands that should be protected from conversion to nonagricultural uses. LESA was developed by the United States Natural Resources Conservation Service, and is based on a technique developed in Orange County, New York in 1971 (the first place it was used in the United States.) LESA has a long history of use in New York, and throughout the United States. It is basically a rating system designed with local conditions and needs in mind. It is a tool that can help local officials identify farmlands needing protection by taking into account not only soil quality, but also other factors that affect agricultural practices. Thus, LESA is an analytical tool. It is not a regulatory program. LESA's role in Putnam County should be to provide a systematic and objective procedure to rate and rank sites in order to help people make decisions on where to target farmland protection programs. A LESA system can be useful to answer questions such as what lands are most appropriate to designate for long-term continuation in agricultural uses, and which farms should be given the highest priority for purchase of development rights monies. Putnam County's LESA has been designed based on existing knowledge of the county, local soils, and local land use and farming conditions.

How LESA Works

LESA is a rating system. The LESA system combines soil quality factors with other factors that affect the importance of the site for continued agriculture. Soil quality factors are grouped under Land Evaluation Factors (LE). The other factors are grouped under Site Assessment Factors (SA). The SA factors include non-soil factors that measure limitations on agricultural productivity or farm practices; factors that measure development pressure or land conversion; and factors that measure other public values such as scenic or historic values. Each factor is given a weighting to show their relative

- 1.) The Agriculture and Farmland Protection Board, together with local NRCS, SWCD, and Extension Staff, along with input from area farmers, should evaluate the suggested LE and SA factors and their ratings, and make adjustments as deemed necessary.
- 2.) Field-test the draft LESA system. It is recommended that one area, or township be selected to field test the system.
- 3.) As a result of the field-testing, further adjustments of the factors or weightings could be done.
- 4.) The Agriculture and Farmland Protection Board should establish thresholds.
- 5.) The LESA system should undergo periodic evaluation and revision, if necessary.

An Example:

The following example illustrates the recommended LESA system for Putnam County:

A 50 acre farm has three soil types on it. 10 acres are prime farmland in capability class II, 20 acres are soils of statewide importance in capability class III, and the rest are in capability class IV. The farm is in an agricultural district. Census figures show population and housing density increases that are average for the County, however the number of new homes within a half mile is higher than 75% of the other farm properties in the County. The farm is 1 and ½ miles from town water, and is not in a sewer district. In a half mile wide area around the farm, 10% of the land is also agricultural, 20% is public open space, and 30% is otherwise compatible with farm operations. 5% of the property is mapped as DEC regulated wetlands, and it is located in the NYC watershed. There is a farm business plan, but it is not enrolled in any conservation programs.

The actual calculation is made as follows:

Specific Factor	Score	Weight	Total Score
LE factors			
Soil Quality			
20% prime farmland soils	60		
40% soils of statewide importance	80		
60% capability class II or III	120		
40% capability class IV	40		
Soil Quality Total	200	.50	100
SA factors			

Stewardship of Farm

Farm Business Planning: Farms that have prepared business plans are usually more profitable and more likely to stay in business.

Implemented a farm business plan 100

Enrolled in Conservation Programs, or has completed a whole farm or conservation plan 100

Recommended Weighting of Factors

The LE factor should comprise 50% of the weight of the total score. Each of the five SA factors should comprise 10% of the total score. This means that the LESA weights the LE soil factors equally with all of the SA factors.

The Total LESA score for a parcel is calculated by:

1. Figuring LE and SA factor scores
2. Multiplying the LE and SA factor Scores by the Weight
3. Adding LE and SA Subtotals.

The Formula

The LE score = (% Prime Soils x 2) + (% Soils of Statewide Importance) + (% Capability Class II and II soils x 2) + (% Capability Class IV soils)

The SA score = ((Ag District Participation + Ag Exemption Participation) x 0.1) + ((Rank of Census Tract Population Density Increase + Rank of Census Tract Housing Density Increase + Number of new homes within ½ mile + Distance from Town water + Location within a sewer district) x 0.1) + ((Percentage of land within ½ mile that is farmland x 3) + (Percentage of land within ½ mile that is preserved x 2) + (Percentage of land within ½ mile that is a compatible use) x 0.1) + ((Location in the NYC watershed + Location of a Historic Site + Percentage of land that is water, wetland, or flooded) x 0.1) + ((Farm business plan + Conservation program or plan) x 0.1)

Total LESA score = LE score + SA score

Next Steps

This Plan offers recommended LE and SA factors and weightings for a Putnam County LESA. However, in order to implement a full LESA system for Putnam County, the following further steps should be taken:

sewer district would be rated lower. Farms that are in zoning districts that do not allow agricultural use would also be rated lower for the same reason.

0-1/2 miles to water 80

1/2-2 miles to water 50

2+ miles to water 30

In a sewer district 0

In a zoning district that does not allow agricultural uses 0

Compatibility of Adjacent Uses:

Adjacent land uses affect the ability of a farmer to conduct normal farming practices without incurring complaints and lawsuits. The more compatible the adjacent uses are, the more ability the farmer has to continue active operations. Compatible uses include forestry, other agricultural-oriented operations such as greenhouses, pastureland, cropland, farm buildings, industrial sites, utility corridors, mines, and certain recreational and school uses. Incompatible adjacent uses are home sites, and certain kinds of commercial development. A half mile wide buffer is placed around each farm parcel, and the total area of adjacent uses is determined as to being compatible or incompatible. The SA factor is measured as the percent of the total area that has compatible uses.

The percentage of other farms and agricultural uses identified in the GIS database within a half mile of the farm multiplied by 3.

The percentage of public-owned preserved forest, parkland, or other open space in the area within a half mile of the farm multiplied by 2.

The percentage of other properties identified as not being incompatible with agriculture within a half mile of the farm.

Environmentally sensitive features:

Agricultural uses, if managed properly, are usually less damaging to environmentally sensitive areas than residential and commercial development. These are also important features to be protected as contributors to overall environmental health and rural character. Agricultural uses also help to preserve the historic rural working landscape.

If the farm is located in the NYC drinking water supply watershed 100.

If the farm contains a National Historic Register site, or is in a National Historic Register Historic District 100.

Also add the percentage of the total property acreage that is comprised of open water or stream, is frequently flooded according to the County Soil Survey Map, or is a DEC regulated wetland.

The initial score given to each parcel will be calculated as follows:

The percentage of the total acreage of the farm with Prime farmland soils multiplied by 2.

The percentage of the total acreage of the farm with soils of statewide importance.

The percentage of the total acreage of the farm with soils in capability class II or III multiplied by 2.

The percentage of the total acreage of the farm with soils in capability class IV.

SA Factors and Scores for Putnam County

Participation in Agricultural Programs: Being in an agricultural district or applying for Agricultural Tax Exemption indicates a longer term potential for continued agriculture.

Is parcel in an agricultural district?

Yes 100

No 0

Does the property owned participate in the Agricultural tax exemption program?

Yes 100

No 0

Development pressure:

Development pressure can be indicated and measured by a number of factors as follows:

Population and housing increase:

Comparing census figures at the tract level reveals areas that have seen greater increases in population density, and housing development. Real Property records from the County can also identify specific parcels that have been developed within the last ten years. Each farm can be evaluated as to how many new homes have been built within a half mile of the property.

The census tracts with the largest increase in housing and population density would receive 100. The lowest would receive 0

The farms with the greatest number of new residential building within a half mile would receive 100. The lowest would receive 0

Distance to Public Water and Sewer:

Generally, farmland closest to existing or potential public infrastructure facilities has a greater chance of being converted to non-farm uses. Those closer to this infrastructure would be rated higher. Since sewer districts indicate areas where Towns prefer that higher density development occur those farms that are within a

B) Locations are facing significant development pressure; and

C) Locations serve as a buffer for a significant natural public resource containing important ecosystem or habitat characteristics.

Consideration is also given to:

- a) The number of acres that will be protected;
- b) The quality of the soil resources involved;
- c) The percentage of the total farm acreage available for agricultural production;
- d) The extent to which the property is bordered by or proximate to other farms which are already protected by a conservation easement or which might reasonably be expected to enter into a farmland preservation agreement in the future;
- e) The level of farm management that is demonstrated by the current landowner;
- f) The likelihood of the property's succession as a farm if the present ownership changes; and
- g) Federal Program Eligibility.

In order to be eligible for federal funding for conservation easements, the property must have:

A) Prime, unique, statewide, or locally important soil or contain historical or archaeological resources. Farms must contain at least 50% of prime, unique, statewide, or locally important soils. Eligible historical or archaeological parcels must be on a farm listed on the National Register of Historic Places, or formally determined eligible for listing by the State Historic Preservation Officer, or formally designated by the State or Tribal Historic Preservation Officer.

B) Cropland, grassland, pastures land, and incidental forestland and wetlands that are part of an agricultural operation. Farms must be in compliance with federal wetland conservation and highly erodable land provisions.

LE factors for Putnam County

A good deal of soil information is available from the Putnam County Soil Survey. Prime farmland and soils of statewide importance have been identified. The land capability classifications for all soil types have also been identified in the soil survey. The LE factor for the County should take into consideration these two soil features.

importance. Each factor has a numerical scale (usually on a scale of 1 to 100). For example, if there are 5 soil types, and type A is a prime farmland soil that has the best ability to support agriculture, it gets a rating of 100. Soil Type B may not be as good a soil, and may get a rating of 85. Soil Type C is on very steep slopes, is shallow and susceptible to erosion and gets a rating of 50. The same system is used for the SA factors. For example, one SA factor may be “adjacent uses” where farms that have other farms adjacent to it could receive a rating of 100. However, a farm that has fewer farms within a given distance may get a rating of 20. These illustrate the scaling portion of LESA. All the LE and SA factors are then combined and each is given a weight to show the relative importance of that whole factor. For example, it may be determined that the soil characteristics are much more important than the SA factor “adjacent land uses.” The LA factor would then be weighted much higher than the SA factor. The Guidebook for Land Evaluation and Site Assessment, prepared by the USDA’s Natural Resources Conservation Service has recommended that several steps be taken to develop a LESA system.

The steps are:

- 1) Specify LE factors
 - 2) Specify SA factors
 - 3) Develop a rating scale for each factor
 - 4) Assign weights to each factor
 - 5) Tally the weighted ratings to result in a LESA score
 - 6) Prepare score “thresholds” to be used in decision-making
 - 7) Test the LESA model
- Steps 1 through 6 are presented in this plan.
Step 7 should be completed as the County proceeds with implementation of this Plan.

A Basis for LE and SA Factors for Putnam County

Most of the funding that is available for implementing PDR and other farmland protection programs comes from State and Federal programs. Both the State and Federal programs have established specific criteria for funding eligibility. These criteria have been incorporated into the LE and SA factors for Putnam County, (outlined below.) In this way, farmland in the county that is highly ranked by the LESA system will also be identified as meeting those important funding criteria.

State Funding Criteria

Priority is given for funding under the State program when

A) Viable agricultural land is preserved (viable defined as “land highly suitable for agricultural production and which will continue to be economically feasible for such use if real property taxes, farm use restrictions, and speculative activities are limited to levels approximating those in commercial agricultural areas not influenced by the proximity of non-agricultural development”.)

Agricultural District Participation			
Is in an agricultural district?	100		
Participates in Agricultural Tax Exemption	0		
Agricultural District Participation Total	100	.1	10
Development Pressure			
Population density increase rank 50%	50		
Housing density increase rank 50%	50		
New Homes within ½ mile rank 75%	75		
Distance to Town water 50	50		
Is in a sewer district?	0		
Development Pressure Total	225	.1	22.5
Compatibility of Adjacent Uses			
Percent of land within ½ mile that is farmland – 10%	30		
Percent of land within ½ mile that is open space – 20%	40		
Percent of land within ½ mile that is compatible – 30%	30		
Compatibility of Adjacent Uses Total	100	.1	10
Environmental Sensitivities			
Percent of the farm that has environmentally sensitive features – 5%	5		
Is in the NYC watershed?	100		
Is in a NR Historic District or contains a NR Site	0		
Environmental Sensitivities Total	105	.1	10.5
Stewardship of Farm			
Has a farm business plan?	100		
Has a conservation plan or program?	0		
Stewardship Total	100	.1	10
Total LE and SA Score for this Farm			163

The resulting score for this farm is then compared to the scores for other farms. Those farms with the highest ranking would be the priority lands to apply farmland protection techniques to.