



FARMLAND INFORMATION CENTER

FACT SHEET

LAND EVALUATION AND SITE ASSESSMENT



American Farmland Trust
FARMLAND INFORMATION CENTER
One Short Street, Suite 2
Northampton, MA 01060
(800) 370-4879
www.farmlandinfo.org

NATIONAL OFFICE
1200 18th Street, NW, Suite 800
Washington, DC 20036
(202) 331-7300
www.farmland.org

DESCRIPTION

Land Evaluation and Site Assessment (LESA) is a numeric rating system created by the USDA Natural Resources Conservation Service (NRCS) to evaluate a parcel's relative agricultural importance. The land evaluation (LE) component of a LESA system measures soil quality.¹ It is usually based on land capability classes, important farmland classes, soil productivity ratings and/or soil potential ratings.² The site assessment (SA) component evaluates other factors that contribute to the site's agricultural importance, such as parcel size and on-farm investments. SA factors may also consider development pressure and public amenities like wildlife habitat or scenic views.³ LESA systems assign points and a relative weight to each of the LE and SA factors. The sum of the weighted ratings is the LESA score; the higher the LESA score, the more significant the site for agriculture. States and localities often adapt the federal LESA system to meet their needs. Once a local system is approved by NRCS, it supersedes the federal system: NRCS is required to use the local version to review federal projects.⁴

HISTORY

Farmland loss emerged as a national issue in the late 1970s. In 1978, the U.S. secretary of agriculture commissioned the National Agricultural Lands Study (NALS)—a two-year project to document the extent and causes of farmland loss. Findings from NALS spurred Congress to enact the Farmland Protection Policy Act (FPPA), as part of the Agriculture and Food Act of 1981, to reduce the unnecessary conversion of agricultural land by federal programs. At the same time, dozens of state and local governments were creating their own programs and policies to protect farmland from development.

Federal, state and local activity generated demand for an evaluation tool to help prioritize agricultural land for protection. In 1981, NRCS national land use staff revised and expanded a land classification system developed in Orange County, New York, a decade earlier to determine agricultural land values for property tax purposes.⁵ They changed the name from land classification to land evaluation and

developed site assessment criteria based on information from NALS and Compact Cities—a report that documented the impact of urban sprawl; LESA was born.⁶

Later the same year, NRCS tested the draft LESA system as a pilot project in 12 counties in six states. At the end of the pilot project, participants attended a national conference to share their experiences and make recommendations on a national LESA model. The model was presented to NRCS staff in 1982. In 1983, the first National Agricultural Land Evaluation and Site Assessment Handbook was produced and distributed.⁷

LESA received added visibility when the model system was included in the proposed rule for the FPPA in 1984.⁸ It required federal agencies to review the impact of their programs on agricultural land using LESA. However, a 10-year delay in the adoption of the final rule discouraged widespread application.

Interest in LESA revived in the early 1990s. A research project headed by Frederick Steiner in cooperation with James Pease and Robert Coughlin found that 212 LESA systems had been developed in 26 states. The study's findings were presented at a national LESA conference in 1992. The current LESA guidebook, published in 1996, grew out of the research project and conference.⁹

LESA attracted national attention again around its 20-year anniversary. NRCS held a LESA workshop in 2003 to discuss ways to improve the effectiveness of LESA. Invited experts recommended increased support for potential and current LESA users by increasing awareness of LESA, developing a Web-based support network, advancing LESA training and encouraging continued national dialogue and scholarship. The group also recommended making technical improvements to LESA. Ideas included the addition of environmental factors for conducting environmental benefits assessments, integration with geographic information system capabilities, enhancement for use as a land use planning tool. These recommendations are set forth in the 2003 publication, *Enhancing LESA: Ideas for Improving the Use and Capabilities of the Land Evaluation and Site Assessment System*.

FUNCTIONS AND PURPOSES

LESA was developed to provide a consistent, technically defensible system for evaluating the relative agricultural importance of parcels. It can determine which sites, if converted, would be least disruptive to local agriculture. LESA scores also can be used to create thresholds for decision-making.¹⁰

Federal agencies use LESA to implement the FPPA. State and local governments use LESA systems to:

- Assess the impact of proposed projects on agricultural land;
- Assess property taxes on agricultural land;
- Delineate agricultural districts;
- Designate zoning districts;
- Decide whether to grant zoning permits and/or requests for zoning changes;
- Plan sewer, water and transportation projects; and
- Rank applications for a purchase of agricultural conservation program.

A handful of state and local governments have automated their LESA systems by entering key data into a geographic information system.

GETTING STARTED

Contact NRCS

Individuals interested in developing LESA systems should contact NRCS. NRCS field staff may serve on the local LESA committee or act as technical advisors. Their expertise is especially important in the development of the LE component. In some cases, NRCS has already created an LE component for a given county. Existing LE systems are included in NRCS Field Office Technical Guides. NRCS field staff have received training in the development of LESA systems and can help guide the LESA process. They also have access to the agency's technical guides. The current LESA handbook, *Land*

Evaluation and Site Assessment: A Guidebook for Rating Agricultural Lands, provides step-by-step instructions on creating LESA systems. NRCS

service centers are usually located in county-seat towns. They are listed under U.S. Government in the phone book.

Form a Committee

Local LESA systems typically are developed by a diverse group of community members. Broad-based working groups help establish credibility and ensure political acceptability of the system.¹¹ Committee members may include state or local officials, planners, extension service staff, local farmers and ranchers, concerned citizens and NRCS field staff. The committee selects factors and assigns weights, field tests the draft system and establishes thresholds based upon the intended use of the LESA system. Once the system has been developed, the committee may play a role in its adoption.

BENEFITS

- LESA is the best agricultural land suitability assessment tool available in the United States.
- LESA allows users to evaluate the relative agricultural importance of different parcels of land.
- LESA is a flexible tool and can be adapted to address local conditions and concerns.
- Developing a LESA system encourages a diverse group of community members to talk about and plan for agriculture

DRAWBACKS

- LESA systems take time to develop and field-test, and require a significant time commitment from the community members who participate in the process.
- LESA systems can result in inconsistent scores if the guidelines for scoring parcels are unclear or the individuals scoring parcels haven't received adequate training.
- LESA systems must be re-evaluated periodically to ensure that they apply under changing conditions.

ENDNOTES

- ¹ James R. Pease and Robert E. Coughlin, *Land Evaluation and Site Assessment: A Guidebook for Rating Agricultural Lands*, second ed. (Ankeny, Iowa: Soil and Water Conservation Society, 1996), 41.
- ² Ibid.
- ³ Ibid., 61.
- ⁴ James R. Pease, "State and Local LESA Systems: Status and Evaluation" in Frederick R. Steiner, James R. Pease and Robert E. Coughlin, eds., *A Decade with LESA: The Evolution of Land Evaluation and Site Assessment* (n.p.: Soil and Water Conservation Society, 1994), 62.
- ⁵ Lloyd E. Wright, "The Development and Status of LESA" in Frederick R. Steiner et al., 32.
- ⁶ Lloyd E. Wright, Introduction to Pease and Coughlin, xv.
- ⁷ Ibid., xvi.
- ⁸ Ibid.
- ⁹ Ibid., xvii.
- ¹⁰ Pease and Coughlin, 16.
- ¹¹ Ibid., 31.

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For additional information on farmland protection and stewardship contact the Farmland Information Center. The FIC offers a staffed answer service, online library, program monitoring, fact sheets and other educational materials.

www.farmlandinfo.org

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