DESCRIPTION OF THE
LAND EVALUATION AND SITE ASSESSMENT (LESA) ANALYSIS
OF FARMLANDS IN WASHINGTON COUNTY: 2007

INTRODUCTION AND PURPOSE

Washington County, working with the USDA – Natural Resources Conservation Service (NRCS), the Southeastern Wisconsin Regional Planning Commission (SEWRPC), and UW-Extension (UWEX), conducted an analysis of farmlands in Washington County in 2006 and 2007. The analysis was conducted as part of the multi-jurisdictional comprehensive planning process for Washington County, a joint cooperative planning process among the County; 11 towns and villages; SEWRPC; and UWEX. This document describes the LESA analysis and results.

The NRCS developed the Land Evaluation and Site Assessment (LESA) system in 1981. LESA is an analytical tool designed to provide a systematic and objective procedure for rating and ranking the agricultural importance of a parcel. The system combines soil science aspects (the land evaluation component) with non-soil factors relating to agricultural productivity, development pressure, and factors measuring other public values (collectively referred to as site assessment factors). The results of the Washington County LESA analysis were intended to be used by County and local governments to help identify areas that should be designated for farmland protection in County and local comprehensive plans. The analysis will also be used to help prepare an update to the Washington County Farmland Preservation Plan, which was initiated in 2010.

LESA is a system designed to aid elected officials, plan commissioners, and other County and local officials to make decisions about farmland protection. LESA is intended to be an objective tool to evaluate farm parcels as part of a larger decision-making process. It is not intended to be the only tool used to identify parcels that are most suitable for long-term agricultural use. Local land use decisions should be based on a combination of local knowledge and expertise, together with available technical data, including the results of the LESA analysis. Local and County officials should consult other information developed as part of the comprehensive planning and farmland preservation planning processes, particularly information related to existing land uses, environmentally sensitive areas, and natural limitations to building development, together with the results of the LESA analysis, when developing the Land Use and Agricultural, Natural, and Cultural Resources elements of the County and local comprehensive plans and the County Farmland Preservation Plan update.

LESA SYSTEM

A complete description of the LESA system is provided in the Land Evaluation and Site Assessment Guidebook1 (available at http://www.nrcs.usda.gov/programs/lesa/LESA%20Guidebook.pdf). The LESA system includes the following steps:

- Establishing a LESA committee
- Specifying one or more factors measuring soil quality for the Land Evaluation component
- Specifying another set of factors relating to non-soil site conditions for the Site Assessment component

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- Developing a rating scale for each factor
- Assigning a weight to each factor
- Tallying the weighted factor ratings to obtain a LESA score for each parcel
- Preparing score thresholds for decision making

WASHINGTON COUNTY LESA ANALYSIS

Preliminary Steps
The Washington County LESA analysis was conducted using the SEWRPC Geographic Information System (GIS). Data was developed for the LE component and for each of the site assessment (SA) factors, which were entered into the GIS. A computer program was then developed to score and weight each parcel, based on the LE and SA factors and weights developed by the Agricultural, Natural, and Cultural Resources (ANC) Workgroup and the LESA Subcommittee established by the Workgroup, to determine a final LESA score for each parcel.

The first step in the analysis was to identify the parcels to be analyzed. Parcels within a planned sewer service area were excluded from the analysis. The planned sewer service area refers to areas that are planned to be included in a sewer service area, and served with public sanitary sewers, by the year 2020, based on sewer service area plans approved as of June 2007. Parcels with less than 2 percent of the parcel in agricultural use in 2006 were also excluded from the analysis. A total of 8,147 parcels were analyzed. The analysis was based on County parcel data current as of October 2006. Parcels included in the analysis are shown on Map 1.

The LESA analysis included all parcels outside a planned sewer service area with at least 2 percent of the parcel in agricultural use. The analysis therefore included some parcels that have other uses on them, which may include natural resource features such as woodlands, wetlands, or surface water, or fallow lands. Farmhouses and other homes on agricultural parcels of 20 acres or more were considered part of the agricultural use, in order to avoid lowering the score of agricultural parcels with farmhouses due to what would otherwise have been considered an incompatible adjacent land use.

Advisory Committees
The Agricultural, Natural, and Cultural Resources (ANC) Workgroup, which was established to guide work on the Agricultural, Natural, and Cultural Resources Element of the Multi-Jurisdictional Comprehensive Plan for Washington County, had the primary responsibility for developing the factors used for the LESA analysis. The workgroup appointed a subcommittee to review the initial results of the analysis and refine site assessment factors, scales, and weights. Members of the workgroup and subcommittee are listed in Figure 1.

Staff from the Washington County Planning and Parks Department, SEWRPC, NRCS, and UW-Extension worked together to develop a list of potential Site Assessment (SA) factors and rating scales to be used in the analysis. The SA factors and rating scales were reviewed by the ANC workgroup on November 1, 2006. The workgroup made several changes to the scales used to assign points for each SA factor. At its following meeting on December 6, 2006, the workgroup determined the weighting factors to be used for each LE and SA factor. Using this information, SEWRPC staff performed the analysis using its Geographic Information System.

The results of the analysis were reviewed by the ANC workgroup on January 10, 2007. At that meeting, the workgroup established a LESA subcommittee to review the results of the analysis in detail and make necessary refinements. The subcommittee met on January 26 and February 2, 2007. As a result of those meetings, one of the initial SA factors (compatibility of adjacent lands) was deleted and the rating scale used to assign points for compatibility of surrounding land uses within 0.5 miles was revised. The subcommittee also slightly adjusted the weights used for several LE and SA factors. The LESA analysis was re-run using the revised criteria.
Figure 1

OVERSIGHT COMMITTEES FOR THE
WASHINGTON COUNTY LESA ANALYSIS: 2007

Agricultural, Natural, and Cultural Resources Element Workgroup

David Baldus .................................................. Chairperson - Town of Polk Citizen
Rod Bartlow ................................................... Ice Age Trail Foundation
Richard Beine ................................................... Town of Hartford
Robert Bingen .................................................. Town of Addison
Ross Bishop ..................................................... Agribusiness Cluster Council
Norbert Dettmann .............................................. Landmarks Committee
Dale Dhein ....................................................... Town of Germantown
Kevin Dittmar ................................................ Metropolitan Builders Association
Melvin Ewert ..................................................... County Board Supervisor, Planning, Conservation, and Parks Committee
Michael Heili .................................................... Village of Newburg
Marilyn John ..................................................... Town of Trenton Citizen
Kethe Kriewaldt ................................................ Town of Wayne
Mary Krumbiegel ............................................. County Board Supervisor
Sue Millin ....................................................... Land Conservation Partnership
Andy Pesch ...................................................... Village of Kewaskum
Joe Peters ....................................................... Town of Barton
Ike Roell ......................................................... Town of Farmington
Daniel Schmidt ............................................... Town of Kewaskum
Albert Schulteis .............................................. Town of Polk
Helmut Wagner ............................................... Town of Erin
Roger Walsh ................................................... Big Cedar Lake Protection and Rehabilitation District

LESA Subcommittee

Mary Krumbiegel ............................................. Chairperson, Washington County Board Supervisor
Robert Bingen .................................................. Town of Addison
Kevin Dittmar ................................................ Metropolitan Builders Association of Greater Milwaukee
Kethe Kriewaldt ............................................... Town of Wayne
Sue Millin ....................................................... Land Conservation Partnership
Helmut Wagner ............................................... Town of Erin
Roger Walsh ................................................... Big Cedar Lake Protection and Rehabilitation District
The ANCR workgroup reviewed the results of the revised analysis at its meeting on February 7, 2007, and approved the results for inclusion in the multi-jurisdictional comprehensive plan. The workgroup also voted to provide the results of the LESA analysis to each local government for use in preparing local comprehensive plans, with each local government given discretion to determine how it would use the analysis. The Multi-Jurisdictional Comprehensive Plan Advisory Committee reviewed and approved the results of the analysis at a meeting on May 23, 2007, and voted to include the results in the multi-jurisdictional comprehensive plan for informational purposes.

**Land Evaluation Component**

For the land evaluation (LE) component, soils in Wisconsin were rated by the NRCS and placed into groups ranging from the best to the least suited for cropland. Soils were rated based on soil type, slope, agricultural capability class, and soil productivity for producing corn and soybeans. A relative value was then determined for each soil type. The NRCS provided LE values for soils in Washington County based on LE values for all soil types in Wisconsin. The LE values were “normalized” for Washington County as part of the LESA analysis, meaning that the best soils in the County were assigned a value of 100, and all other soil types were assigned lower values. LE values for land in Washington County based on soil type are shown on Map 2. For the analysis, the average LE value was determined for each parcel to be analyzed. The average LE scores are shown on Map 3.

**Site Assessment Component**

The Site Assessment (SA) component rates non-soil factors affecting a parcel’s relative importance for agricultural use. SA factors are grouped into the following three categories by the NRCS:

- SA-1 factors measure non-soil characteristics related to potential agricultural productivity
- SA-2 factors measure development or conversion pressures on a parcel
- SA-3 factors measure other public values of a parcel, related to historic, cultural, scenic, or environmental values

The ANCR Workgroup selected the following ten SA factors from a larger list of potential data layers for site assessment factors to be used in the Washington County LESA analysis:

**SA-1 factors (agricultural productivity)**

A. Size of farm in contiguous management by one farm operation
B. Compatibility of adjacent land uses (*this factor was subsequently removed from the analysis*)
C. Compatibility of surrounding land uses within 0.5 mile
D. Percent of farm in agricultural use

**SA-2 factors (development pressures impacting a site’s continued agricultural use)**

A. Distance from sewer service area
B. Distance from selected hamlets
C. Distance from interchanges along US Highway (USH) 41 & USH 45

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2 The compatibility of adjacent land uses was removed from the analysis. The LESA subcommittee determined that the “compatibility of surrounding land uses within 0.5 mile” provided similar information and was a better indicator of suitability for long-term agricultural use.
SA-3 factors (other public values of a site supporting retention in agriculture)

A. Primary or secondary environmental corridors or isolated natural resource areas or natural areas/critical species habitat outside environmental corridors present on parcel
B. Floodplains present on parcel – using current 100 year floodplain
C. Proximity to permanently protected land greater than 20 acres in size (fee simple or easement; public or nonprofit conservation organization)

Rating Scale for SA Factors
Once the ANCR Workgroup determined the SA factors to be used, they developed a rating scale for each factor. A rating scale from 0 to 10 points was developed for each SA factor, with less desirable attributes or conditions receiving a lower score and more desirable attributes receiving a higher score. For example, for the SA-1B factor (compatibility of surrounding land uses), an agricultural parcel completely surrounded by residential or other urban uses received 0 points, and an agricultural parcel completely surrounded by farmland received 10 points.

Factor Weights
The LESA system recognizes that some of the factors used to rank agricultural parcels are more important than others. To account for this, the LE value and each SA factor were assigned a relative weight. The weights add up to one, in order to ensure that each factor is weighted in relation to other factors (in other words, if one factor is weighted high, another factor has to be given a lower weight to compensate).

The ANCR Workgroup originally assigned the weights for each factor, which were refined by the LESA subcommittee. The LE (soil productivity) component was assigned a weight of 0.34, or about one-third of the total weight. The remaining 0.66 weighting “points” were divided among the nine SA factors. Factors related to agricultural productivity (SA-1 factors) were given the highest weights. Factors relating to development pressure (SA-2) and factors relating to other public values (SA-3) were assigned relatively lower weights.

Final LESA Criteria and Weights
Appendix A sets forth the factors, rating scales, and weights used in the LESA analysis. The principle (rationale) and intent for using each factor and the source of the data used for the analysis is also provided. Maps 4 through 12 present the results of each factor analysis.

Test Parcels
The LESA guidebook recommends that the results of the LESA analysis be tested to ensure the results are reasonable. To accomplish this, staff from the Washington County Planning and Parks Department identified a number of farm parcels that they are familiar with and/or have conducted conservation projects on. County staff developed expected score ranges for each of the test parcels based on their personal knowledge, expertise, and experience with the parcels. The LESA result for each parcel was then compared to the result anticipated by County staff. The results were determined to be consistent with staff expectations.

WASHINGTON COUNTY LESA RESULTS

The results of the LESA analysis are shown on Map 13. Each parcel analyzed was scored on a scale of 1 to 10, with 10 being the best score. The average score of the parcels analyzed was 7.0, and the median score was 6.8 (half of all parcels received a higher score and half received a lower score than 6.8). The LESA subcommittee defined lands scoring 6.8 or higher as Tier I farmlands, which are the best suited for long-term protection. Lands scoring below 6.8 were defined as Tier II farmlands, which are areas that should be considered for long-term protection by County and local officials on a case-by-case basis. The LESA subcommittee agreed that setting the benchmark at 6.8 left adequate amounts of acreage for development in the next 25 to 30 years, yet also protected a suitable amount of land for future agricultural production.
Tier I and Tier II farmlands are shown on Map 14. Table 1 sets forth the number of parcels and number of acres in the Tier I and Tier II categories in each local government. Overall:

- 117,481 acres, or 42 percent of the County, were designated as Tier I farmlands, scoring 6.8 or higher in the LESA analysis. Of this, 94,709 acres were in agricultural use in 2006.
- 43,724 acres, or 16 percent of the County, were designated as Tier II farmlands, scoring less than 6.8 in the LESA analysis. Of this, 23,865 acres were in agricultural use in 2006.

### Table 1

**LESA RESULTS FOR WASHINGTON COUNTY COMMUNITIES: 2007**

<table>
<thead>
<tr>
<th></th>
<th>Tier I</th>
<th></th>
<th>Tier II</th>
<th></th>
<th>Totala</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of</td>
<td>Total</td>
<td>Acres in</td>
<td>No. of</td>
<td>Total</td>
<td>Acres in</td>
</tr>
<tr>
<td>Community</td>
<td>Parcels</td>
<td>Acres&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Agricultural</td>
<td>Parcels</td>
<td>Total</td>
<td>Agricultural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td>Use&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td>Use&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Towns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addison</td>
<td>618</td>
<td>15,714</td>
<td>13,514</td>
<td>185</td>
<td>2,617</td>
<td>1,487</td>
</tr>
<tr>
<td>Barton</td>
<td>185</td>
<td>4,501</td>
<td>3,616</td>
<td>236</td>
<td>3,724</td>
<td>2,279</td>
</tr>
<tr>
<td>Erin</td>
<td>497</td>
<td>10,379</td>
<td>7,095</td>
<td>293</td>
<td>3,903</td>
<td>1,762</td>
</tr>
<tr>
<td>Farmington</td>
<td>515</td>
<td>12,813</td>
<td>10,427</td>
<td>353</td>
<td>5,726</td>
<td>3,107</td>
</tr>
<tr>
<td>Germantown</td>
<td>43</td>
<td>774</td>
<td>638</td>
<td>11</td>
<td>91</td>
<td>43</td>
</tr>
<tr>
<td>Hartford</td>
<td>294</td>
<td>7,924</td>
<td>6,933</td>
<td>106</td>
<td>1,796</td>
<td>1,160</td>
</tr>
<tr>
<td>Jackson</td>
<td>629</td>
<td>12,286</td>
<td>10,055</td>
<td>194</td>
<td>2,702</td>
<td>1,433</td>
</tr>
<tr>
<td>Kewaskum</td>
<td>262</td>
<td>7,121</td>
<td>5,433</td>
<td>117</td>
<td>2,037</td>
<td>966</td>
</tr>
<tr>
<td>Polk</td>
<td>348</td>
<td>7,361</td>
<td>6,167</td>
<td>363</td>
<td>5,058</td>
<td>2,855</td>
</tr>
<tr>
<td>Richfield</td>
<td>317</td>
<td>6,348</td>
<td>5,229</td>
<td>344</td>
<td>4,419</td>
<td>2,495</td>
</tr>
<tr>
<td>Trenton</td>
<td>273</td>
<td>7,537</td>
<td>5,813</td>
<td>252</td>
<td>4,755</td>
<td>2,696</td>
</tr>
<tr>
<td>Wayne</td>
<td>682</td>
<td>15,615</td>
<td>12,293</td>
<td>142</td>
<td>2,107</td>
<td>1,022</td>
</tr>
<tr>
<td>West Bend</td>
<td>98</td>
<td>1,685</td>
<td>1,394</td>
<td>122</td>
<td>1,752</td>
<td>859</td>
</tr>
<tr>
<td>Village of Germantown</td>
<td>360</td>
<td>7,371</td>
<td>5,932</td>
<td>201</td>
<td>2,946</td>
<td>1,627</td>
</tr>
<tr>
<td>Total&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5,183</td>
<td>117,632</td>
<td>94,709</td>
<td>2,964</td>
<td>43,724</td>
<td>23,865</td>
</tr>
</tbody>
</table>

<sup>a</sup>Total number of parcels and acres included in LESA analysis.

<sup>b</sup>Total number of acres included in LESA analysis. Includes all parcels outside planned sewer service areas with at least 2 percent of the parcel in agricultural use.

<sup>c</sup>Number of acres in agricultural use within parcels included in the LESA analysis. Lands occupied by woodlands, wetlands, surface waters, and other areas that were not used for agricultural purposes are not included. Farmhouses and farm buildings on parcels of 20 acres or more were considered agricultural uses and are included in the acres of agricultural use.

<sup>d</sup>Total includes 147 parcels located in the City of Hartford and Village of Slinger that are not included in the table. These 147 parcels encompassed 294 acres, of which 239 acres were in agricultural use.

Source: Washington County and SEWRPC.
Appendix A

FACTORS AND SCORING USED IN THE WASHINGTON COUNTY LESA ANALYSIS: 2007

NOTE: The higher the score, the greater the value of the agricultural area to consider for farmland preservation.

LE factor

Use score developed by the USDA- Natural Resources Conservation Service (NRCS), normalized to Washington County, divided by 10 (max score of 10, similar to all SA factors). (Weight = 0.34)

Results: See Map 3.

SA-1 factors (agricultural productivity)

A. Size of farm in contiguous management by one farm operator (Weight = 0.13)

Principle: Generally, it is less efficient to farm a small site than it is to farm a large one. Therefore, larger farms should be rated higher than smaller ones. Note that agricultural productivity can be high on small, intensively farmed operations such as nurseries.

Intent: To protect productive agricultural lands in large blocks that can support practical operations for the future.

Source of Data: Contiguous management by one farm operator – use County parcel data and USDA – Farm Service Agency (FSA) tract layer.

Scale: Size of Farm in Contiguous Management by One Farm Operator

<table>
<thead>
<tr>
<th>Acres</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 ac or more</td>
<td>10</td>
</tr>
<tr>
<td>80 - 119 ac</td>
<td>8</td>
</tr>
<tr>
<td>40 - 79 ac</td>
<td>6</td>
</tr>
<tr>
<td>20 - 39 ac</td>
<td>3</td>
</tr>
<tr>
<td>&lt;20 ac</td>
<td>0</td>
</tr>
</tbody>
</table>

Results: See Map 4.
B. Compatibility of surrounding land uses within 0.5 mile (Weight = 0.10)

**Principle:** The character of surrounding uses affects the ability of a farmer to change crops or conduct agricultural operations. A residential development within 0.5 mile of the farm could impede a farmer from certain livestock operations, spraying activities, night operations, or moving equipment on highways. Therefore, a farm with more surrounding compatible uses is rated higher.

**Intent:** To preserve farmland with the least amount of surrounding conflicting uses.

**Source of Data:** SEWRPC 2000 Land Use Inventory, generalized and updated to 2006 (see Map 80 in Multi-Jurisdictional Comprehensive Plan for 2006 land use inventory map).

**Scale:** Compatibility of surrounding land uses within 0.5 mile from farm (using percent of compatible surrounding land uses)

To determine the surrounding area, calculate the sum of all acreage 0.5 mile from the perimeter of the farm of contiguous ownership.

<table>
<thead>
<tr>
<th>Percent Compatible Surrounding Land Uses</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>86 – 100%</td>
<td>10</td>
</tr>
<tr>
<td>66 - 85%</td>
<td>7</td>
</tr>
<tr>
<td>46–65%</td>
<td>5</td>
</tr>
<tr>
<td>26 - 45%</td>
<td>2</td>
</tr>
<tr>
<td>0 – 25%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 5.

C. Percent of farm in agricultural use  (Weight = 0.13)

**Principle:** For a farm of any given acreage, the greater the percent of the site in agricultural use, the greater its agricultural productivity and economic importance to the farm economy. Therefore, a farm with a higher percentage of land in agricultural use is rated higher.

**Intent:** To preserve farms with the greatest economic impact for the County.

**Source of Data:** SEWRPC 2000 Land Use Inventory, generalized and updated to 2006 (see Map 80 in Multi-Jurisdictional Comprehensive Plan).

**Scale:** Percent of site in agricultural use

<table>
<thead>
<tr>
<th>Percent (%)</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 – 100%</td>
<td>10</td>
</tr>
<tr>
<td>21 – 50%</td>
<td>6</td>
</tr>
<tr>
<td>0 – 20%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 6.
SA-2 factors (development pressures impacting a site’s continued agricultural use)

D. Distance from sewer service area (Weight = 0.09)

**Principle:** Development pressure can cause conversion of agricultural land to urban uses. Therefore, farms closer to the planned sewer service areas are rated lower than sites further away. Although there may be greater development pressure closer to a sewer service area, this criteria does not consider the likelihood of farmland conversion that happens outside sewer service areas.

**Intent:** To preserve farms further away from sewer service areas, which have a greater chance of not being annexed and converted to a different land use. This also allows for future growth and economic vitality of the County’s cities and villages by encouraging a planned approach to urban growth and supporting the provision of public sewer services and infrastructure.

**Source of Data:** SEWRPC planned sewer service areas as adopted by community, SEWRPC, and DNR (see Map 50 in Multi-Jurisdictional Comprehensive Plan for map of adopted planned sewer service areas).

**Scale:** Distance from Planned Sewer Service Area (SSA)

<table>
<thead>
<tr>
<th>Distance from SSA</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 1 mile</td>
<td>10</td>
</tr>
<tr>
<td>0.5 to 1 mile</td>
<td>5</td>
</tr>
<tr>
<td>Less than 0.5 mile</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 7.

E. Distance from selected hamlets (Weight = 0.05)

**Principle:** Development pressure can cause conversion of agricultural sites to urban uses. Although most hamlets do not have a sewer service area (Allenton is the exception), residential and commercial development may likely occur closer to these areas. Some towns have adopted plans or ordinances encouraging urban development to occur adjacent to hamlets. Therefore, farmland closer to the hamlets will be rated lower than sites further away.

**Intent:** To preserve farmland further way from hamlets. This allows for urban development if a town wishes to accommodate such development. Clustering development around existing hamlets allows a Town to accommodate urban uses in identified areas, while preserving farmland in the remainder of the Town.

**Source of Data:** Mapped by SEWRPC, based on hamlets identified by each Town (hamlets identified by the Towns for the LESA analysis include the hamlets of Allenton and St. Lawrence in the Town of Addison; the hamlets of Boltonville, Fillmore, and St. Michaels and
three areas designated as County Estates Growth Areas by the Town of Farmington; and the hamlets of Kohlsville, St. Killian, and Wayne in the Town of Wayne. The then-Town of Richfield (now the Village of Richfield) identified Colgate, Hubertus, Plat, Pleasant Hill, Richfield, and the area around the Kettle Hills Golf Course as hamlets).

**Scale:** Distance from hamlets identified for additional urban development by each Town

<table>
<thead>
<tr>
<th>Distance from hamlet</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 0.5 mile</td>
<td>10</td>
</tr>
<tr>
<td>0.25 to 0.5 mile</td>
<td>5</td>
</tr>
<tr>
<td>Less than 0.25 mile</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 8.

**F. Distance from interchanges along US Highway (USH) 41 & USH 45 (Weight = 0.07)**

**Principle:** Development pressure can cause conversion of agricultural land to urban uses. Allow for commercial/industrial development to occur around US Highway interchanges. Therefore, farms closer to the interchanges will be rated lower than sites further away.

**Intent:** To preserve farms further way from interchanges where there is less likelihood for commercial development.

**Source of Data:** SEWRPC base map.

**Scale:** Distance from USH 41 & USH 45 interchanges

<table>
<thead>
<tr>
<th>Distance from interchange</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 1 mile</td>
<td>10</td>
</tr>
<tr>
<td>0.50 to 1 mile</td>
<td>5</td>
</tr>
<tr>
<td>Less than 0.50 mile</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 9.

**SA-3 factors (other public values of a site supporting retention in agriculture)**

**D. Primary or secondary environmental corridors or isolated natural resource areas or natural areas/critical species habitat outside environmental corridors present on farm (Weight = 0.01)**

**Principle:** Often, land-use policies for farmland include open space, scenic, or wildlife habitat objectives, as well as protection of agriculture as an economic sector. While not a measure of a site’s productive value for farmland, these other factors do reflect a broader view of farmland in the landscape. Environmentally sensitive land complements agriculture. Therefore, the more environmentally sensitive land there is on a farm, the higher the score.
**Intent:** Preserving environmentally sensitive areas while protecting agricultural land.

**Source of Data:** SEWRPC (see Map 27 in the Multi-Jurisdictional Comprehensive Plan for the location of primary environmental corridors, secondary environmental corridors, isolated natural resource areas; Map 25 for the location of natural areas; and Map 26 for the location of critical species habitat sites).

**Scale:** Percent of Environmentally Sensitive Land Present on Farm, including primary environmental corridor, secondary environmental corridor, isolated natural resource area, natural area, or critical species habitat site. Use year 2000 corridors, including surface waters within the corridors.

<table>
<thead>
<tr>
<th>Percent (%)</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 19%</td>
<td>10</td>
</tr>
<tr>
<td>5 – 19%</td>
<td>5</td>
</tr>
<tr>
<td>Less than 5%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 10.

---

**E. Floodplains present on farm – using current 100 year floodplain (Weight = 0.01)**

**Principle:** While a farm located in a floodplain usually has productive soils, it may provide the public benefit of floodplain protection as well as agricultural benefits. Farming is one of the few uses that may be compatible with retention of floodplain capacity to absorb and convey flood waters. Therefore, the higher the percent of floodplain there is on a farm, the higher the score.

**Intent:** Preserving land that has capacity to absorb and convey floodwaters.

**Source of Data:** FEMA/SEWRPC/County (see Map 21 in the Multi-Jurisdictional Comprehensive Plan for location of floodplains used for the analysis).

**Scale:** Percent of farm within 100 year floodplain

<table>
<thead>
<tr>
<th>Percent (%)</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 50%</td>
<td>10</td>
</tr>
<tr>
<td>20 – 50%</td>
<td>5</td>
</tr>
<tr>
<td>Less than 19%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 11.
F. Proximity to permanently protected land 20 acres or more in size (see simple or easement; public or nonprofit conservation organization) (Weight = 0.07)

**Principle:** Preserving large blocks of farms may be easier in areas that are closer to permanently protected lands. Therefore, a higher score is given for farms that are located adjacent or near permanently protected lands.

**Intent:** To preserve large blocks of farmland and open space.

**Source of Data:** County and SEWRPC regional park and open space inventory (see Maps 29 through 33 in the Multi-Jurisdictional Comprehensive Plan for the location of protected lands).

**Scale:** Proximity to permanently protected lands

<table>
<thead>
<tr>
<th>Distance (miles)</th>
<th>Factor Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjacent</td>
<td>10</td>
</tr>
<tr>
<td>Not adjacent but within 1/2 mi</td>
<td>5</td>
</tr>
<tr>
<td>½ to 1 mile</td>
<td>2</td>
</tr>
<tr>
<td>More than 1 mile</td>
<td>0</td>
</tr>
</tbody>
</table>

**Results:** See Map 12.

**Definitions:**

**Adjacent:** Touching at any point.

**Hamlet:** Unincorporated concentrations of urban development within a town. Each town determined which hamlets are considered suitable for additional urban development and included in the LESA analysis.
Map 2

LAND EVALUATION RATINGS BY SOIL TYPE IN WASHINGTON COUNTY

SOURCE: USDA - NATURAL RESOURCES CONSERVATION SERVICE AND SEWRPC.

NOTE: HIGHER RATINGS ARE ASSOCIATED WITH GREATER SOIL PRODUCTIVITY FOR CORN AND SOYBEANS.
LAND EVALUATION RATINGS FOR PARCELS INCLUDED IN THE LESA ANALYSIS FOR WASHINGTON COUNTY

SOURCE: USDA - NATURAL RESOURCES CONSERVATION SERVICE AND SEWRPC.
Map 4
SIZE OF FARM IN CONTIGUOUS MANAGEMENT BY ONE FARM OPERATOR
Washington County LESA Analysis: SA - 1A Factor

SOURCE: USDA - FARM SERVICE AGENCY, WASHINGTON COUNTY, AND SEWRPC.
Map 5
COMPATABILITY OF LAND USES WITHIN 0.5 MILE OF AGRICULTURAL PARCELS
Washington County LESA Analysis: SA - 1B Factor

Source: SEWRPC.
Map 8
DISTANCE OF PARCEL FROM SELECTED HAMLETS
Washington County LESA Analysis: SA - 2B Factor

SCORE | DISTANCE FROM HAMLET
0     | LESS THAN 0.25 MILE
5     | 0.25 TO 0.5 MILE
10    | 0.5 MILE OR MORE

SOURCE: SEWRPC.
Map 9
DISTANCE OF PARCEL FROM INTERCHANGES ALONG U.S. HIGHWAYS 41 AND 45
Washington County LESA Analysis: SA - 2C Factor

0     0.5     1               2               3 MILES

DISTANCE OF PARCEL FROM INTERCHANGES ALONG U.S. HIGHWAYS 41 AND 45
Washington County LESA Analysis: SA - 2C Factor

SCORE   DISTANCE FROM INTERCHANGE
0       LESS THAN 0.5 MILE
5       0.5 TO 1 MILE
10      MORE THAN 1 MILE

SOURCE: SEWRPC.
Map 10
PRESENCE OF PRIMARY OR SECONDARY ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, NATURAL AREAS, OR CRITICAL SPECIES HABITAT ON PARCELS
Washington County LESA Analysis: 5A - 3A Factor

PRESENCE OF PRIMARY OR SECONDARY ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS, NATURAL AREAS, OR CRITICAL SPECIES HABITAT ON PARCELS

SCORE
0 LESS THAN 5%
5 5% - 19%
10 MORE THAN 19%

SOURCE: SEWRPC.
PROXIMITY OF PARCEL TO PERMANENTLY PROTECTED LAND OF 20 ACRES OR MORE

Washington County LESA Analysis: SA - 3C Factor

Map 12

Score

0  MORE THAN 1 MILE
2  0.5 TO 1 MILE
5  NOT ADJACENT BUT WITHIN 0.5 MILE
10 ADJACENT

Proximity to Permanently Protected Lands

Permanently Protected Lands
Parcel Boundary
Sewer Service Area

Source: Washington County and SEWRPC.
Map 14
FARMLAND PRESERVATION AREAS IN WASHINGTON COUNTY IDENTIFIED THROUGH THE LESA ANALYSIS: 2007

SOURCE: WASHINGTON COUNTY AND SEWRPC.

NOTE: LESA (LAND EVALUATION AND SITE ASSESSMENT) IS A SYSTEM USED BY THE USDA - NATURAL RESOURCES CONSERVATION SERVICE AS A WAY TO DETERMINE THE IMPORTANCE OF A PARCEL FOR CONTINUED AGRICULTURAL USE. THE SYSTEM COMBINES SOIL QUALITY FACTORS WITH NON-SOIL FACTORS RELATING TO FARMING PRACTICES, DEVELOPMENT PRESSURE, AND FACTORS MEASURING OTHER PUBLIC VALUES (SUCH AS ENVIRONMENTAL RESOURCES). FACTORS INCLUDED IN THE ANALYSIS WERE SELECTED AND WEIGHTED BY THE LESA SUBCOMMITTEE OF THE WASHINGTON COUNTY COMPREHENSIVE PLANNING AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES WORK GROUP.