

605.4 McHenry County Agricultural Land Evaluation and Site Assessment System, Pilot Implementation Program

McHENRY COUNTY AGRICULTURAL LANDS EVALUATION AND SITE ASSESSMENT SYSTEM Pilot Implementation Program August 7, 1981

NOTE:

This exhibit is for information purposes only.

Each unit of government must choose its own site assessment factors and—

- (1) Determine the range of conditions under which points will be assigned for each factor
- (2) Determine the weight (level of importance) to be assigned to each factor
- (3) Test and implement its LESA system

Local units of government may elect to use only a few of the factors used by McHenry County, Illinois. Factors should be chosen based on State and local laws, policies, needs, and other conditions, most of which are not likely to be the same as those in McHenry County.

**Prepared by the
McHenry County Department of Planning
and the
McHenry County Soil and Water Conservation District
in cooperation with the
U.S. Department of Agriculture, Soil Conservation Service**

AGRICULTURAL LAND EVALUATION AND SITE ASSESSMENT SYSTEM

The U.S. Department of Agriculture (USDA) has created a pilot implementation program to evaluate the viability of land for agriculture. This program emphasizes both the physical characteristics of the land, such as soils and slope, and urban-growth factors, such as compatibility of surrounding uses and consistency with land use plans. The pilot program is designed to provide background information and guidance from USDA and allow considerable flexibility for local concerns.

McHenry County is proud to be one of the 12 counties selected by USDA to initiate this pilot program. It is hoped by the County Planning Staff that the program will facilitate decision making by local officials, ensure consistency from case to case, and be technically defensible.

The evaluation and assessment system is divided into two parts. First, the agricultural land evaluation system is determined by soil characteristics, capabilities, and productivity. The Soil Conservation Service (SCS), currently the Natural Resources Conservation Service (NRCS), has generated information to determine value groups that reflect agricultural viability. The second part of the system has been generated by the McHenry County Department of Planning in conjunction with SCS. This system assigns values to several determinants that affect decisions about land use conversions. The combination of these two parts results in a nonbiased evaluation and assessment system.

AGRICULTURAL LAND EVALUATION

Title 310 – National Agricultural Land Evaluation and Site Assessment Handbook

The process of evaluating the soil included a number of steps. (Refer to worksheets 1, 2, and 3 in this exhibit.)

First, the soils were grouped according to land capability classification and, at the same time, it was noted whether the unit was prime or not. The productivity was recorded as an index on a scale of 100. The size of each mapping unit was also recorded.

The soils were then regrouped to those having similar productivity and management characteristics. Three trials were run to determine a 10-group base before one was settled on. Group 1 is the best group with the highest productivity, and it contains only prime soils. Group 10 is the lowest category, has the lowest value for agriculture, and contains no prime soils.

The next step analyzed the relative value of each group based on a set list of conditions. The best group was assigned a value of one. The indicator crop for McHenry County was corn, which was multiplied by the selling price and divided into the dollars required, equaling the required acres. A ratio was set up between the minimum acres required and the required acres to determine the value factors.

Agricultural Evaluation Worksheet 1 List of Soils and Evaluations

County and State: **McHenry County, Illinois**

MLRA: **95B**

Indicator crop(s): **Corn**

Climatic C factor: **0.15**

Minimum required AWC without irrigation: **4 inches**

Temperature regime: Mesic

Minimum required AWC with irrigation: _____

Moisture regime: Udic

Irrigation water available: Yes ____ No X

Map sym- bol	Soil name	Slope	Land capability class and subclass	Important farmland deter- mination	Produc- tivity index of soil potentials (local)	Produc- tivity index of soil potentials (NASIS)	Map unit acres	Map unit percent	Agri- cultural group
1	2	3	4	5	6	7	8	9	10
23B	Blount	1 to 4	2e	Prime	68			0.32	1
25D2	Hennepin	5 to 12	4e	Not prime	35			0.04	1
25D3	Hennepin	5 to 12	6e	Not prime	29			0.03	1
25F3	Hennepin	12 to 30	7e	Not prime	23			1.41	1
27B	Miami	1 to 4	2e	Prime	77			2.58	2
27C2	Miami	4 to 7	2e	Not prime	74			0.76	2
27C3	Miami	4 to 7	3e	Not prime	68			0.65	2
27D2	Miami	7 to 12	3e	Not prime	71			<0.01	2
27D3	Miami	7 to 12	4e	Not prime	68			0.01	3
27E2	Miami	12 to 18	6e	Not prime	68			<0.01	3
55B	Sidell	1 to 4	2e	Prime	87			0.02	3
55C2	Sidell	4 to 7	2e	Prime	84			0.04	3
56B	Dana	1 to 4	2e	Prime	90			0.16	3
57B	Montmorenci	1 to 4	2e	Prime	81			0.48	3
57C2	Montmorenci	4 to 7	2e	Prime	77			0.11	3
57C3	Montmorenci	4 to 7	3e	Not prime	71			0.03	3
59	Lisbon		1	Prime	100			1.58	3
60B	LaRose	2 to 4	2e	Prime	81			0.05	3
60C2	LaRose	4 to 7	2e	Prime	77			0.50	3
60C3	LaRose	4 to 7	3e	Not prime	71			0.01	6
60D2	LaRose	7 to 12	3e	Not prime	74			0.10	7

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60C3	LaRose	7 to 12	4e	Not prime	68			0.03	7
60E3	LaRose	12 to 18	6e	Not prime	66			0.01	7
62	Herbert		1	Prime	87			0.45	7
67	Harpster		2w	Prime	87			1.00	7
W67	Harpster		5w	Not prime	0			0.54	7
76	Otter		2w	Prime	90			2.26	7
W76	Otter		5w	Not prime	0			0.06	7
79A	Dakota	0 to 2	2s	Prime	71			1.50	6
79B	Dakota	2 to 4	2e	Prime	71			0.50	6
79C2	Dakota	4 to 7	3e	Prime	68			0.10	7
79D2	Dakota	7 to 12	3e	Not prime	66			0.09	8
82	Millington		2w	Prime	84			0.50	4
W82	Millington		5w	Not prime	0			0.69	10
87B	Dickinson	1 to 4	3e	Prime	68			0.10	7
87C2	Dickinson	4 to 7	3e	Prime	66			0.16	7
87D2	Dickinson	7 to 12	3e	Not prime	66			0.10	7
93D2	Rodman	7 to 12	6s	Not prime	29			0.70	10
93F3	Rodman	12 to 30	7s	Not prime	23			1.41	10
97	Houghton		3w	Not prime	74			0.30	8

Agricultural Evaluation Worksheet 1—Continued

Map sym- bol	Soil name	Slope	Land capability class and subclass	Important farmland deter- mination	Produc- tivity index of soil potentials (local)	Produc- tivity index of soil potentials (NASIS)	Map unit acres	Map unit percent	Agri- cultural group
1	2	3	4	5	6	7	8	9	10
W97	Houghton		5w	Not prime	0			0.15	10
102	LaHogue		1	Prime	84			0.91	2
103	Houghton		3w	Not prime	81			2.00	8
W103	Houghton		5w	Not prime	0			1.93	10
104	Virgil		1	Prime	90			0.62	1
125	Selma		2w	Prime	87			0.40	3
W125	Selma		5w	Not prime	0			0.28	10
132	Starks		2w	Prime	81			0.52	4
134A	Camden	0 to 2	1	Prime	77			0.62	2
134B	Camden	2 to 4	2e	Prime	77			1.02	5
134C2	Camden	4 to 7	2e	Not prime	74			0.13	8
134C3	Camden	4 to 7	3e	Not prime	68			0.04	8
134D2	Camden	7 to 12	3e	Not prime	71			0.13	8
134D3	Camden	7 to 12	4e	Not prime	66			0.06	9
137B	Camden	2 to 4	2e	Prime	68			0.01	6
137C2	Camden	4 to 7	3e	Not prime	66			0.24	8
137D2	Camden	7 to 12	3e	Not prime	66			0.24	8
137E3	Camden	12 to 25	6e	Not prime	52			0.01	10
144B	Alvin	1 to 4	2e	Prime	68			0.01	6
144C2	Alvin	4 to 7	3e	Prime	66			0.06	7
144D2	Alvin	7 to 12	3e	Not prime	66			0.08	8
144E3	Alvin	12 to 25	6e	Not prime	52			0.01	10
145B	Saybrook	1 to 4	2e	Prime	87			3.00	3
145C2	Saybrook	4 to 7	2e	Prime	87			0.60	3
145D2	Saybrook	7 to 12	3e	Not prime	84			0.01	8
146B	Elliot	1 to 4	2e	Prime	84			0.70	4
146C	Elliot	4 to 7	2e	Prime	81			0.07	4
148A	Proctor	0 to 2	1	Prime	90			1.87	3
148B	Proctor	2 to 4	2e	Prime	90			1.87	3
148C2	Proctor	4 to 7	2e	Prime	87			0.14	3
148D3	Proctor	7 to 12	4e	Not prime	77			0.07	9

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149	Brenton		1e	Prime	98			3.80	1
150B	Onarga	1 to 4	2e	Prime	71			0.10	6
150C2	Onarga	4 to 7	3e	Prime	68			0.10	7
150D2	Onarga	7 to 15	3e	Not prime	66			0.04	8
152	Drummer		2w	Prime	98			10.92	2
W152	Drummer		5w	Not prime	0			<0.01	10
156	Ridgeville		2e	Prime	77			0.23	5
191	Knight		2w	Prime	77			0.10	5
W191	Knight		5w		0			<0.01	10
194B	Morley	2 to 4	2e	Prime	68			0.01	6
194C2	Morley	4 to 7	3e	Not prime	66			0.34	8
194D2	Morley	7 to 12	3e	Not prime	66			0.15	8
194D3	Morley	7 to 12	4e	Not prime	58			0.16	9
194E	Morley	12 to 25	4e	Not prime	58			<0.01	10
194E2	Morley	12 to 25	4e	Not prime	55			0.03	10
194E3	Morley	12 to 25	6e	Not prime	52			0.03	10
197	Troxel		1	Prime	90			0.48	1
198	Elburn		1	Prime	100			1.54	1

Agricultural Evaluation Worksheet 1—Continued

Map sym- bol	Soil name	Slope	Land capability class and subclass	Important farmland deter- mination	Produc- tivity index of soil potentials (local)	Produc- tivity index of soil potentials (NASIS)	Map unit acres	Map unit percent	Agri- cultural group
1	2	3	4	5	6	7	8	9	10
205B	Metea	1 to 4	2e	Prime	68			0.10	6
205C2	Metea	4 to 7	3e	Prime	66			0.07	7
205D2	Metea	7 to 12	3e	Prime	66			0.05	7
205E	Metea	12 to 18	4e	Not prime	61			0.05	9
206	Thorp		2w	Prime	81			0.38	4
W206	Thorp		5w	Not prime	0			<0.01	10
210	Lena		2w	Not prime	77			1.27	8
W210	Lena		5w	Not prime	0			<0.01	10
219	Millbrook	1 to 4	1	Prime	90			1.81	1
223B	Varma	1 to 4	2e	Prime	81			0.05	4
223C2	Varma	4 to 7	2e	Prime	77			0.15	5
223C3	Varma	4 to 7	3e	Not prime	71			0.50	8
223D2	Varma	7 to 12	3e	Not prime	74			0.15	8
224C2	Strawn	3 to 7	2e	Not prime	66			0.87	8
224C3	Strawn	4 to 7	3e	Not prime	58			0.32	9
224D2	Strawn	7 to 12	3e	Not prime	66			0.55	9
224D3	Strawn	7 to 12	4e	Not prime	58			0.55	9
224E2	Strawn	12 to 25	4e	Not prime	55			0.36	10
228B	Nappanee	2 to 4	3e	Not prime	58			0.03	9
228C2	Nappanee	4 to 7	3e	Not prime	55			0.02	9
228C3	Nappanee	4 to 7	4e	Not prime	45			0.02	9
228D2	Nappanee	7 to 12	4e	Not prime	52			0.01	9
228D3	Nappanee	7 to 12	6e	Not prime	42			0.01	10
228E3	Nappanee	12 to 25	7e	Not prime	39			0.01	10
232	Ashum		2w	Prime	87			0.60	3
W232	Ashum		5w	Not prime	0			<0.01	10
240B	Plattville	1 to 4	2e	Prime	77			<0.01	5
240C	Plattville	4 to 9	2e	Prime	77			<0.01	5
265B	Lomax	1 to 4	2e	Prime	71			1.00	6
265C2	Lomax	4 to 7	3e	Prime	68			0.03	7

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290A	Warsaw	0 to 2	2s	Prime	77			1.52	5
290B	Warsaw	2 to 4	2s	Prime	77			1.83	5
290C2	Warsaw	4 to 7	3e	Prime	74			0.12	7
290C3	Warsaw	4 to 7	4e	Not prime	68			0.08	9
290D2	Warsaw	7 to 12	3e	Not prime	71			0.03	8
290D3	Warsaw	7 to 12	4e	Not prime	68			0.03	9
290E2	Warsaw	12 to 18	6e	Not prime	68			0.03	10
291B	Xenia	1 to 4	2e	Prime	81			1.00	4
291C2	Xenia	4 to 7	2e	Prime	77			0.11	8
291C3	Xenia	4 to 7	3e	Not prime	71			0.10	8
292	Wallkill		3w	Prime	81			0.04	7
W292	Wallkill		5w	Not prime	0			<0.01	10
296	Washtenaw		2w	Prime	84			0.09	7
W296	Washtenaw		5w	Not prime				<0.01	10
297A	Ringwood	0 to 2	3w	Prime	84			0.82	1
297B	Ringwood	2 to 4	2e	Prime	84			3.88	4
297C2	Ringwood	4 to 7	2e	Prime	81			0.29	4
297C3	Ringwood	4 to 7	3e	Not prime	74			0.16	8
298B	Beecher	1 to 4	2w	Prime	74			0.11	5

Agricultural Evaluation Worksheet 1—Continued

Map symbol	Soil name	Slope	Land capability class and subclass	Important farmland determination	Productivity index of soil potentials (local)	Productivity index of soil potentials (NASIS)	Map unit acres	Map unit percent	Agricultural group
1	2	3	4	5	6	7	8	9	10
299B	McHenry	1 to 4	2e	Prime	74			0.71	5
299C2	McHenry	4 to 7	2e	Not prime	71			0.17	8
299D2	McHenry	7 to 12	3e	Not prime	68			0.01	8
310B	McHenry	1 to 4	2e	Prime	74			2.80	5
310C2	McHenry	4 to 7	2e	Not prime	71			0.75	8
310C3	McHenry	4 to 7	3e	Not prime	66			0.19	8
310D	McHenry	7 to 12	3e	Not prime	71			0.02	8
310D2	McHenry	7 to 12	3e	Not prime	68			0.10	8
310D3	McHenry	7 to 12	4e	Not prime	66			0.10	9
318B	Lorenzo	1 to 4	3s	Not prime	58			0.99	9
318C2	Lorenzo	4 to 7	3s	Not prime	55			0.49	9
318C3	Lorenzo	4 to 7	4e	Not prime	45			0.05	9
318D2	Lorenzo	7 to 12	4e	Not prime	52			0.02	9
318D3	Lorenzo	7 to 12	6e	Not prime	45			0.02	10
318E3	Lorenzo	12 to 25	7e	Not prime	39			0.02	10
322B	Russell	1 to 4	2e	Prime	81			0.03	4
322C2	Russell	4 to 7	2e	Prime	77			0.20	8
322C3	Russell	4 to 7	3e	Not prime	71			0.16	8
322D2	Russell	7 to 12	3e	Not prime	74			0.03	8
322D3	Russell	7 to 12	4e	Not prime	68			0.04	9
322E2	Russell	12 to 18	4e	Not prime	68			0.04	9
323B	Casco	1 to 4	3e	Prime	58			0.44	8
323C2	Casco	4 to 7	3e	Not prime	55			0.92	9
323C3	Casco	4 to 7	4e	Not prime	45			0.35	9
323D	Casco	7 to 12	4e	Not prime	55			0.12	9
323D2	Casco	7 to 12	4e	Not prime	52			0.13	9
323D3	Casco	7 to 12	6e	Not prime	45			0.50	10
323E2	Casco	12 to 25	7e	Not prime	39			0.15	10
325A	Dresden	0 to 2	2s	Prime	71			0.26	6

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325B	Dresden	2 to 4	2e	Prime	71			0.61	6
325C2	Dresden	4 to 7	3e	Prime	68			0.08	7
327A	Fox	0 to 2	2s	Prime	68			0.13	6
327B	Fox	2 to 4	2e	Prime	68			2.40	6
327C2	Fox	4 to 7	3e	Not prime	66			1.00	8
327D	Fox	7 to 12	3e	Not prime	66			0.04	8
327D2	Fox	7 to 12	3e	Not prime	66			0.30	8
327E3	Fox	12 to 25	6e	Not prime	52			0.17	10
329	Will		2w	Prime	77			0.92	5
W329	Will		5w	Not prime	0			<0.01	10
330	Peotone		3w	Prime	77			0.45	7
W330	Peotone		5w	Not prime	0			<0.01	10
342	Matherton		2s	Prime	77			0.12	5
343	Kane		2s	Prime	81			1.06	4
344A	Harvard	0 to 2	1	Prime	84			0.40	2
344B	Harvard	2 to 4	2e	Prime	84			0.40	4
344C2	Harvard	4 to 7	2e	Prime	81			0.19	4
346B	Dowagiac	1 to 4	2e	Prime	68			0.15	6
346C2	Dowagiac	4 to 7	3e	Prime	66			0.05	7
347	Canisteo		2w	Prime	84			1.92	4

Agricultural Evaluation Worksheet 1—Continued

Map symbol	Soil name	Slope	Land capability class and subclass	Important farmland determination	Productivity index of soil potentials (local)	Productivity index of soil potentials (NASIS)	Map unit acres	Map unit percent	Agricultural group
1	2	3	4	5	6	7	8	9	10
W347	Canisteo		5w	Not prime	0			<0.01	10
348B	Wingate	1 to 4	2e	Prime	84			0.16	4
348C2	Wingate	4 to 7	2e	Not prime	81			0.10	4
353	Toronto		1	Prime	97			0.18	2
358	Burned muck		3w	Not prime	0			0.03	10
W358	Burned muck		5w	Not prime	0			3.65	10
361B	Kidder	1 to 7	2e	Prime	68			0.05	6
361C2	Kidder	4 to 7	3e	Prime	66			2.59	7
361C3	Kidder	4 to 7	4e	Not prime	58			0.08	9
361D	Kidder	7 to 12	3e	Not prime	66			0.10	8
361D2	Kidder	7 to 12	3e	Not prime	66			0.69	8
361D3	Kidder	7 to 12	4e	Not prime	58			0.36	9
361E3	Kidder	12 to 25	6e	Not prime	52			0.70	10
363B	Griswold	2 to 4	2e	Prime	77			0.16	5
363C2	Griswold	4 to 7	3e	Prime	74			0.70	7
363C3	Griswold	4 to 7	4e	Not prime	68			0.10	9
363D2	Griswold	7 to 12	3e	Not prime	74			0.13	8
364	Orion		2w	Prime	84			1.79	4

Agricultural Evaluation Worksheet 2
Design of Land Evaluation
(McHenry County, Illinois)

Agri-cultural group	Land capability class and subclass	Important farmland determination	Soil potential or productivity index	Percent-age of total area	Acres	Quotient of relative yield
1	2	3	4	5	6	7
1	1	Prime	90-100	11.45	44,774	1.00
2	1	Prime	<89	14.10	55,137	0.94
	2	Prime	>95			
3	2	Prime	87-94	10.05	39,300	0.82
4	2	Prime	80-86	10.94	42,780	0.72
5	2	Prime	72-79	12.76	49,897	0.66
6	2	Prime	>71	7.15	27,959	0.65
7	3	Prime	58-64	4.89	19,122	0.56
8	2	Statewide importance	66-81	12.79	50,014	0.47
	3		≥66			
9	3	Statewide importance	≤65	5.13	20,060	0.41
	4		45-77			
10	4-7	None	0	11.05	43,210	0

Agricultural Evaluation Worksheet 3
Determining Relative Value
(McHenry County, Illinois)

Agri-cultural group	Adjusted yield for the group divided by the highest adjusted yield	Quotient of relative yield	Times 100	Relative value
1	2	3	4	5
1	160/160	1.00	x 100	100
2	150/160	0.94	x 100	94
3	130/160	0.81	x 100	81
4	115/160	0.72	x 100	72
5	105/160	0.66	x 100	66
6	100/160	0.65	x 100	65
7	90/160	0.56	x 100	56
8	75/160	0.47	x 100	47
9	65/160	0.41	x 100	41
10	0/160	0.00	x 100	0

SITE ASSESSMENT FACTORS
McHenry County, Illinois

The McHenry County Department of Planning determined the factors, their weights, and the point-value distribution which best reflected the goals and objectives for the county. (See the Site Assessment Factors table at the end of this exhibit.) These factors should be considered when a change to an urban land use is proposed in an existing agricultural area. The 16 site assessment factors are grouped into six major areas of consideration. These categories include:

- I. Agricultural Land Use
- II. Zoning
- III. Compatibility/Impact of Uses
- IV. Urban and Rural Infrastructure
- V. Land Use Feasibility
- VI. Adopted Plans

Following is a list of factors to be considered and an explanation of the rationale or intent behind each factor.

I. Agricultural Land Use

Factor A. Percent of Land in Agricultural Uses Within 1.5 Miles of Site (Weight 2.1)

Point Value	
90% or more	10
75% - 89%	9
50% - 74%	6
25% - 49%	3
Less than 25%	0

Explanation: This factor is a major indicator of the agricultural character of an area. It, therefore, has the maximum weight of 2.1. Areas in the county that are dominated by agricultural uses are generally more viable for farm purposes. The definition of "agricultural uses" should be interpreted to mean all agricultural and related uses that can be considered to be part of the farm operation. This would include farmlands, farm residences, barns, outbuildings, pasture lands, and drainage areas. The 1.5-mile area of consideration was selected for two reasons. First, in McHenry County, a 1.5-mile radius is a reasonable and manageable area when analyzing the land use and overall characteristics of the area. Second, the State of Illinois has set 1.5 miles as the jurisdictional boundary for municipal planning.

(Note: Explanations such as shown above should be drafted for each site assessment factor selected.)

Factor B. Percent of Land in Agricultural Uses Adjacent to Site (Weight 1.5)

Point Value	
90% or more	10
75% - 89%	9
50% - 74%	6
25% - 49%	3
Less than 25%	0

Explanation: Although this factor is similar to Factor A above, it is narrower in focus and, therefore, the weight is reduced. The term "agricultural land uses" is defined as all uses related to the farm operation, as in Factor A above.

Factor C. Percent of Site Under Consideration in Agricultural Uses (Weight 1.1)

Point Value	
75% - 100%	10
50% - 74%	7
25% - 49%	4
Less than 25%	0

Explanation: This factor is yet a narrower view of agricultural land uses than Factors A and B above; therefore, the weight is less than that of Factor B. However, this factor is necessary to determine current agricultural use of the property. Also, this factor may provide a clue to the site's suitability to sustain a farm operation. Again, the term "agricultural land uses" will mean the same as in Factors A and B.

II. Zoning

Factor D. Percent of Land Zoned for Agriculture Within 1.5 Miles of the Site (Weight 1.8)

Point Value	
90% or more	10
75% - 89%	9
50% - 74%	6
25% - 49%	3
Less than 25%	0

Explanation: The weight of this factor is high since zoning regulations carry police power and a larger area is considered. It should be noted that in McHenry County there exist rural residences and old subdivisions in the agricultural zone. Due to this situation, the factor did not justify the maximum weight of 1.8.

Factor E. Availability of Zoned Land for Proposed Use (Weight 1.3)

Point Value	
Undeveloped land zoned for proposed use is available and site is beyond the jurisdictional boundary for municipal planning and within sole jurisdiction of the county	10
No land is available which is zoned for proposed use (this value can only be assigned when site is within municipal 1.5-mile planning area)	0

Explanation: This factor addresses the question of need for a proposed zoning change. To ensure that the question of need for an urban land use is not considered in rural and agricultural areas, the 1.5-mile jurisdictional boundary for municipal planning was an added requirement to receive the zero point value (.00) in favor of urban development. The size and intensity of a proposed use will determine the area of consideration for this factor. For example, the area of consideration will be less for a proposed neighborhood store than for a proposed shopping center.

III. Compatibility/Impact of Uses

Factor F. Distance From City or Village (Weight 1.7)

Point Value	
More than 1.5 miles	10
1.5 miles or less	9
1 mile or less	8
0.5 mile or less	3
0.25 mile or less	0

Explanation: This factor is consistent with the growth strategy stated in the county's land use plan. The strategy encourages urban development closer to existing urban areas. Because urban uses are generally considered to be incompatible with agricultural pursuits, the impact on agricultural and rural areas will be minimized when development occurs near established urban areas.

Factor G. Environmental Impact of Proposed Use (Weight 1.7)

Point Value	
Negative impact	10
Little or no impact with special design or protective measures	5
Little or no impact	---

Explanation: Historically, in McHenry County, it has been shown that urban development is best suited to areas that have the least negative impact on the environment. This factor takes into account those engineering or design practices that reduce the impact. Environmentally sensitive areas such as flood plains, wetlands, open spaces, and ground-water recharge areas will be the major areas of concern in McHenry County.

Factor H. Compatibility of Proposed Use With Surrounding Area (Weight 1.5)

Point Value	
Not compatible	10
Somewhat compatible but not totally	3
Totally compatible	0

Explanation: As in any land use change, compatibility with surrounding land uses must be determined. It becomes difficult to determine whether some uses (e.g., industrial and commercial) are totally compatible. Also, the density or intensity of similar uses (e.g., 1-acre-lot residential and 3-acre-lot residential) become a gray area in terms of compatibility. For these reasons, a point value for "somewhat compatible" was included in this factor. The term "surrounding area" in this instance will depend on the size of the proposed land use change. The area that would be directly influenced by the proposed land use change will be considered the "surrounding area." Each land use change will have a different area of influence based on the size and intensity of the proposed use.

Factor I. Impact on Unique Historical or Cultural Features (Weight 0.2)

Point Value	
Negative impact	10
No impact	0

Explanation: Situations may arise when a land use change will adversely affect unique historical or cultural areas. It is for these instances that this factor should be considered. This factor is weighted low because it does not necessarily relate to the preservation of farmland.

IV. Urban and Rural Infrastructure

Factor J. Transportation Accessibility (Weight 1.3)

Point Value	
Limited transportation; access predominantly by rural township roads	10
Access to major highway beyond 1.5-mile jurisdictional boundary for municipal planning	7
Access to major highway within jurisdictional boundary for municipal planning	3
Access to full range of transportation modes (bus, rail, major highway)	0

Explanation: Access to transportation is a consideration in the location of all types of uses. The location of industrial, commercial, and residential uses around existing municipalities results in a more efficient movement of goods and people. The location of urban uses along rural roads may necessitate the upgrading and widening of rural roads, which results in a further loss of farmland. Traffic on rural roads leads to transportation-access problems for agricultural purposes. The intent of this factor is to recognize that different types of transportation access are required for different types of land use.

Factor K. Availability of Central Sanitary Sewer With Capacity (Weight 0.8)

Point Value	
No sewer line within 1.5 miles	10
Sewer line within 0.5 mile	5
Sewer line within 0.25 mile	0

Explanation: The availability of a public sewer system indicates a good possibility for development. In McHenry County, sewer systems are usually within incorporated areas. This factor increases the potential for development to these serviced areas and reduces the potential for development in rural areas with less facilities.

Factor L. Agricultural Support System or Service (Weight 0.6)

Point Value	
Support system present	10
Some limitations to the support system	6
Severe limitations to the support system	1

Explanation: McHenry County has a good distribution of agricultural support systems and services. This would include but not be limited to farm implement dealers, grain elevators, farm supplies, etc. This factor is weighted low because any farm in the county is relatively close to farm-support systems and services. No area in the county is so limited that farming becomes impossible.

V. Land Use Feasibility

Factor M. Suitability of Soils for Onsite Waste Disposal (Weight 1.1)

	Point Value
Soil limitations restrict the use of septic system	10
Limitations to the soil can be overcome by special management or design	7
Few or no limitations	0

Explanation: Development in unincorporated McHenry County will generally utilize onsite waste disposal systems. If soil conditions will not support a septic system or if special design is necessary to overcome problems associated with the parcel, the suitability of the site for urban development is reduced. A weight of 1.1 was assigned to this factor because it does not directly relate to agriculture.

Factor N. Size of Site for a Feasible Farm Operation (Weight 0.4)

	Point Value
100 or more acres	10
40-99 acres	9
20-39 acres	5
5-19 acres	3
Less than 5 acres	0

Explanation: This factor acknowledges that large parcels are necessary for efficient farming practices. The weight, however, is low because of other agricultural pursuits, such as truck farming, which may require considerably less land. Smaller parcels of land with prime agricultural soils may be leased to larger farm operations adjacent to the parcel, thereby preventing an "entering wedge" of incompatible land uses.

VI. Adopted Plans

Factor O. Consistency of Proposed Use With County Land Use Plan (Weight 2.1)

	Point Value
Incompatible with plan	10
Compatible with intent of plan but not with plan map	2
Totally compatible	0

Explanation: This factor is one of the most important considerations because it is the one factor which involves a comprehensive analysis of the entire county. The adopted plan has both a text that states official policy and a map that interprets the policy in graphic form. Consistency with the intent of the plan should be determined when a land use change is proposed. The land use map does not always reflect every possible use that would be consistent with the policy in the plan.

Factor P. Consistency With Municipal Plan (Weight 0.8)

	Point Value
Inconsistent with municipal plan, or parcel is beyond 1.5-mile jurisdictional boundary for municipal planning	10
Within 1.5-mile municipal planning area, but no plan recorded	5
Consistent with municipal plan	0

Explanation: To ensure the cooperation between municipalities and McHenry County, the county's land use plan considered the municipal plan recorded at that time. A continuation of this cooperation is reflected in this factor. The weight is relatively low because municipal plans, for the most part, do not include agricultural areas. If the parcel is within two municipal planning areas, the plan from the nearest municipality shall be considered.

INSTRUCTIONS FOR CALCULATIONS

The following are instructions for calculating the total agricultural land evaluation and site assessment for the property in question. The calculations will be recorded on the Site Assessment Factors table located at the end of this exhibit.

Weight. The weights of both the agricultural land evaluation and the site assessment factors have been predetermined and are shown in column 2 of the table.

Agricultural Evaluation Factors. To establish the agricultural point value (APV) of the given parcel, there are seven steps to be followed. They are as follows:

- (1) Determine the soils by mapping unit on the parcel.
- (2) Locate the value group of each soil in worksheet 1, column 10, of this exhibit.
- (3) Total the number of acres in each value group.
- (4) Determine the percentage of each value group:

Number of Acres in Value Group
Total Number of Acres in Parcel
- (5) The percentages for each value group found in step 4 are then multiplied by the agricultural point value found on worksheet 2, column 7, of this exhibit.
Example: Value Group 5 = APV 66 x (%)
- (6) Total all figures established in step 5.
Example: Value Group 3 = APV 82 x (%) = Y
Value Group 5 = APV 66 x (%) = Z
TOTAL = Y + Z
7. The sum total of all figures established in step 6 is then multiplied by a weight of 5.

NOTE: Although the weight for the agricultural evaluation factor is less than several site assessment factors, the maximum agricultural point value is greater than the maximum point values possible under the site assessment factors.

Site Assessment Factors. The site assessment factor values are determined by multiplying the weight of each factor in column 2 of the Site Assessment Factors table by the point value assigned to each factor in column 1. The point value is determined by analyzing each site assessment factor and establishing the category that best suits the property in question.

Total Points Accrued. Add all factor values established in column 3 to arrive at the site assessment subtotal. Then add to that the agricultural evaluation subtotal to arrive at the total points accrued. The higher the total points accrued for a parcel, the more agriculturally viable the given parcel will be.

Total Points Possible. The total points possible for any given parcel is determined by multiplying the weight of each factor, including agricultural evaluation and site assessment factors, by the maximum point value of each factor. The total points possible for any given parcel is 200 and has been noted in the table.

HOW TO ASSESS SITE WHERE PROPOSED FARMLANDS ARE TO BE CONVERTED

- (1) Determine the average relative value of the land from the land evaluation part of the LESA system.
- (2) Based on local plans, land use information, and site inspections, assess the site for each factor shown in the site assessment part of the LESA system.
- (3) Multiply the assigned value of the site for each factor by the assigned weight for the factor (columns 1 and 2).
- (4) Add the totals for column 5 (site #1) and column 7 (site #2). This is the site assessment subtotal.
- (5) Add the agricultural land value to the site assessment subtotal for the total points for each site.
- (6) The total maximum points for any site is 300. The land evaluation is assigned a maximum of 100 points, and the site assessment is assigned a maximum of 200 points.
- (7) In most cases, the site should be protected for agriculture when the points exceed 200. The following can be used:
 - 0 - 200 = Low rating for protection
 - 200 - 225 = Medium rating for protection
 - 225 - 250 = High rating for protection
 - 250 - 300 = Very high rating for protection

The higher the total points accrued for a site, the more agriculturally viable the given site will be.

Note: Local officials can use the system to guide and support decisions to protect farmland.

8. When considering a number of sites for a nonagricultural use, selection of the site with the lowest total points will usually protect the best farmland located in the most viable areas.

Examples

Site Number One

A 75-acre grain farm located 6 miles from a city with a population of 25,000 is proposed for 75 1-acre lots. Eighty percent of the area within 1.5 miles of the site is in agriculture. One side of the site is in urban use. Seventy percent of the 75-acre site is in agricultural use at the present time. This site and 80 percent of the area within 1.5 miles of the site is zoned agricultural. Only one-half of the approved lots within the area have been developed. Development of this site will impact the other farms in the area. One farm next to this site is used for dairy. The agricultural infrastructure is strong in the area, and no urban infrastructure exists. Forty percent of the soils on this site are rated as not suitable for onsite septic disposal. Both the county and the local municipal plans indicate that this area should remain in agriculture. The relative value of this site for cropland production is 92.

Site Number Two

A 75-acre grain farm located next to a city with a population of 25,000 is proposed for a 200-lot subdivision. Twenty-five percent of the area within 1.5 miles of the site is in agriculture, and urban development exists on three sides of this site. Seventy percent of the 75-acre site is used for agriculture at the present time. This site and 75 percent of the area within 1.5 miles is zoned for nonagricultural use. The county plan and the municipal plan indicate this to be an urban growth area. Central water and sanitary sewer systems exist at the edge of this site, and the local municipality will extend services to the site. There are a number of undeveloped, approved lots in the area, but most of them are 4 to 6 miles away from the city. The development of this site will impact one other grain farm. Most of the agricultural infrastructure has been lost or changed to support the urban landowner. The relative value of this site for cropland production is 92.

**Site Assessment Factors
(McHenry County, Illinois)**

Site assessment factors			Max. points	Assigned weight	Total max. points x weight	Site #1 points assigned	Points x weight	Site #2 points assigned	Points x weight
			1*	2**	3	4***	5	6***	7
I.		Agricultural Land Use							
	A.	Percent of land in agricultural uses (within 1½ miles)	10	2.1	21	9	18.9	3	6.3
	B.	Percent of land in agricultural uses adjacent to site	10	1.5	15	8	12	3	4.5
	C.	Percent of site in agricultural uses	10	1.1	11	7	7.7	7	7.7
II.		Zoning							
	D.	Percentage of land zoned for agriculture (within 1½ miles)	10	1.8	18	8	14.4	3	5.4
	E.	Availability of zoned land	10	1.3	13	10	13.0	3	
III.		Compatibility/Impact of Uses							
	F.	Distance from city or village	10	1.7	17	10	17.0	0	0
	G.	Environmental impact	10	1.7	17	10	17.0	4	6.8
	H.	Compatibility with surrounding area	10	1.5	15	10	15.0	0	0
	I.	Impact on historical or cultural features	10	0.2	2	10	2.0	0	0
IV.		Urban and Rural Infrastructure							
	J.	Transportation accessibility	10	1.3	13	10	13.0	0	0
	K.	Availability of central sewage	10	0.8	8	10	8.0	0	0
	L.	Agricultural support system	10	0.6	6	10	6.0	2	1.2
V.		Land Use Feasibility							
	M.	Soil suitability for onsite disposal	10	1.1	11	5	5.5	0	0
	N.	Size of site	10	0.4	4	9	3.2	9	3.6
VI.		Adopted Plans							
	O.	Consistency with county plan	10	2.1	21	10	21	0	0
	P.	Consistency with municipal plan	10	0.8	8	10	8	0	0
SITE ASSESSMENT SUBTOTAL					200		181		39.4
AGRICULTURE EVALUATION SUBTOTAL					100		92		92
TOTAL POINTS ACCRUED							273.7		131.4
TOTAL POSSIBLE POINTS					300		300		300
* This column indicates the maximum points per factor.									
** The weights adjusted represent the relative importance of that factor as compared with all other factors. The weights are adjusted to produce a maximum of 200 points for the site assessment part of LESA.									
*** This column indicates the points assigned for the site being considered.									