

Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1951-80 at Hart and Hesperia in Oceana County and at Montague in Muskegon County)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days*	2 years in 10 will have--			Average number of days with 0.10 inch or more	Snowfall
				Maximum temperature higher than--	Minimum temperature lower than--		Less than--	More than--	In		
				° F	° F		° F	° F			
HART:											
January----	29.4	15.6	22.5	49	-9	0	2.55	1.75	3.29	9	34.4
February----	31.9	15.4	23.7	51	-11	0	1.79	1.10	2.40	6	18.7
March-----	41.0	23.2	32.1	67	-3	5	2.26	1.28	3.14	6	10.7
April-----	55.8	34.6	45.2	79	16	63	3.25	2.08	4.31	7	2.1
May-----	68.0	44.0	56.0	86	25	234	2.63	1.49	3.63	6	.0
June-----	77.1	53.4	65.3	91	35	467	3.28	1.59	4.73	7	.0
July-----	81.4	58.1	69.8	93	42	619	2.91	1.67	4.00	6	.0
August-----	79.5	57.3	68.4	92	40	578	3.39	1.30	5.13	6	.0
September--	72.0	50.5	61.3	90	31	350	3.36	1.30	5.07	7	.0
October----	60.7	41.4	51.1	81	24	131	3.30	1.71	4.70	7	.7
November---	46.0	31.4	38.7	68	9	14	3.01	2.10	3.84	8	7.2
December---	34.3	21.2	27.8	57	-3	0	2.63	1.79	3.39	8	25.0
Yearly:											
Average----	56.4	37.2	46.8	---	---	---	---	---	---	---	---
Extreme----	---	---	---	94	-14	---	---	---	---	---	---
Total-----	---	---	---	---	---	2,461	34.36	29.92	38.64	83	98.8
HESPERIA:											
January----	28.6	12.7	20.7	50	-14	0	2.40	1.47	3.22	7	24.3
February----	31.6	12.5	22.1	50	-16	0	1.63	.91	2.26	5	14.3
March-----	41.2	21.3	31.3	69	-8	5	2.30	1.27	3.20	6	9.8
April-----	56.5	32.9	44.7	81	13	61	3.34	1.95	4.57	7	2.2
May-----	69.0	42.5	55.8	88	23	228	2.70	1.52	3.75	6	.0
June-----	78.2	51.8	65.0	93	32	459	3.05	1.58	4.33	6	.0
July-----	82.1	56.1	69.1	94	39	600	2.81	1.60	3.87	6	.0
August-----	80.1	54.7	67.4	93	36	547	3.79	1.57	5.66	6	.0
September--	72.2	47.6	59.9	90	28	314	3.22	1.43	4.80	6	.0
October----	60.7	38.3	49.5	82	18	111	3.05	1.31	4.53	7	.2
November---	45.7	29.0	37.4	70	6	11	2.78	1.80	3.66	8	6.7
December---	33.4	18.6	26.0	56	-8	0	2.50	1.38	3.49	7	18.0
Yearly:											
Average----	56.6	34.8	45.7	---	---	---	---	---	---	---	---
Extreme----	---	---	---	95	-20	---	---	---	---	---	---
Total-----	---	---	---	---	---	2,336	33.57	28.30	38.56	77	75.5

See footnote at end of table.

TABLE 1.--TEMPERATURE AND PRECIPITATION--Continued

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
	° F	° F	° F	° F	° F	Units	In	In	In		In
MONTAGUE:											
January----	30.5	16.0	23.3	51	-13	0	2.57	1.53	3.51	9	32.0
February----	33.4	15.8	24.6	52	-12	0	1.61	.79	2.32	6	16.4
March-----	42.5	23.1	32.8	68	-5	5	2.29	1.22	3.23	6	9.2
April-----	56.3	33.7	45.0	78	14	55	3.37	2.06	4.55	7	1.7
May-----	68.0	42.9	55.5	85	24	215	2.57	1.37	3.62	6	.0
June-----	76.7	51.7	64.2	90	32	436	2.67	1.45	3.75	6	.0
July-----	80.4	56.5	68.5	91	39	579	2.93	1.63	4.07	5	.0
August-----	79.1	55.7	67.4	90	37	548	3.62	1.44	5.43	6	.0
September---	72.0	49.1	60.6	88	29	330	3.22	1.17	4.92	6	.0
October----	61.3	40.2	50.8	79	21	120	3.14	1.55	4.51	7	.5
November---	46.8	31.3	39.1	68	10	13	3.00	1.88	4.01	8	7.2
December---	35.4	21.6	28.5	56	-2	0	2.56	1.51	3.50	8	22.5
Yearly:											
Average----	56.9	36.5	46.7	---	---	---	---	---	---	---	---
Extreme----	---	---	---	93	-17	---	---	---	---	---	---
Total-----	---	---	---	---	---	2,301	33.55	29.11	38.02	80	89.5

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

TABLE 2.--FREEZE DATES IN SPRING AND FALL

(Recorded in the period 1951-80 at Hart and Hesperia in Oceana County and at Montague in Muskegon County)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
HART:			
Last freezing temperature in spring:			
1 year in 10 later than--	Apr. 29	May 18	May 30
2 years in 10 later than--	Apr. 24	May 13	May 25
5 years in 10 later than--	Apr. 16	May 4	May 15
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 24	Oct. 4	Sept. 18
2 years in 10 earlier than--	Oct. 29	Oct. 10	Sept. 24
5 years in 10 earlier than--	Nov. 8	Oct. 21	Oct. 5
HESPERIA:			
Last freezing temperature in spring:			
1 year in 10 later than--	May 8	May 22	June 12
2 years in 10 later than--	May 3	May 18	June 6
5 years in 10 later than--	Apr. 23	May 9	May 26
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 8	Sept. 19	Sept. 12
2 years in 10 earlier than--	Oct. 13	Sept. 25	Sept. 16
5 years in 10 earlier than--	Oct. 24	Oct. 6	Sept. 25

TABLE 2.--FREEZE DATES IN SPRING AND FALL--Continued

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
MONTAGUE:			
Last freezing temperature in spring:			
1 year in 10 later than--	May 7	May 26	June 9
2 years in 10 later than--	May 1	May 19	June 3
5 years in 10 later than--	Apr. 21	May 7	May 23
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 12	Sept. 27	Sept. 10
2 years in 10 earlier than--	Oct. 18	Oct. 2	Sept. 16
5 years in 10 earlier than--	Oct. 29	Oct. 12	Sept. 28

TABLE 3.--GROWING SEASON
 (Recorded in the period 1951-80 at Hart and
 Hesperia in Oceana County and at Montague
 in Muskegon County)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
HART:			
9 years in 10	186	145	120
8 years in 10	193	153	128
5 years in 10	206	169	142
2 years in 10	218	184	157
1 year in 10	225	193	165
HESPERIA:			
9 years in 10	160	128	102
8 years in 10	168	135	109
5 years in 10	184	149	121
2 years in 10	199	163	134
1 year in 10	207	171	140
MONTAGUE:			
9 years in 10	169	131	100
8 years in 10	176	140	110
5 years in 10	190	157	127
2 years in 10	204	175	145
1 year in 10	212	184	154

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
10B	Perrinton loam, 2 to 6 percent slopes-----	3,399	1.0
10C	Perrinton loam, 6 to 12 percent slopes-----	758	0.2
10D	Perrinton loam, 12 to 18 percent slopes-----	285	0.1
10E	Perrinton loam, 18 to 35 percent slopes-----	1,024	0.3
11A	Ithaca loam, 0 to 3 percent slopes-----	1,290	0.4
12	Bono silt loam-----	994	0.3
13B	Marlette fine sandy loam, 2 to 6 percent slopes-----	1,063	0.3
13C	Marlette fine sandy loam, 6 to 12 percent slopes-----	142	*
13D	Marlette fine sandy loam, 12 to 18 percent slopes-----	63	*
14B	Capac fine sandy loam, 0 to 4 percent slopes-----	324	0.1
16B	Remus fine sandy loam, 1 to 6 percent slopes-----	1,410	0.4
16C	Remus fine sandy loam, 6 to 12 percent slopes-----	795	0.2
16D	Remus fine sandy loam, 12 to 18 percent slopes-----	278	0.1
17B	Marlette-Fern complex, 0 to 6 percent slopes-----	798	0.2
17C	Marlette-Fern complex, 6 to 12 percent slopes-----	646	0.2
17D	Marlette-Fern complex, 12 to 18 percent slopes-----	122	*
18B	Spinks-Gowdy loamy fine sands, 0 to 6 percent slopes-----	876	0.3
18C	Spinks-Gowdy loamy fine sands, 6 to 12 percent slopes-----	486	0.1
18D	Spinks-Gowdy loamy fine sands, 12 to 18 percent slopes-----	109	*
20B	Arkport-Chelsea complex, 0 to 6 percent slopes-----	792	0.2
20C	Arkport-Chelsea complex, 6 to 12 percent slopes-----	389	0.1
20D	Arkport-Chelsea complex, 12 to 18 percent slopes-----	199	0.1
21A	Freesoil loamy very fine sand, 0 to 3 percent slopes-----	1,312	0.4
22B	Gowdy loamy fine sand, 1 to 6 percent slopes-----	670	0.2
22C	Gowdy loamy fine sand, 6 to 12 percent slopes-----	191	0.1
23A	Arkona loamy fine sand, 0 to 3 percent slopes-----	1,479	0.4
24	Sickles loamy sand-----	711	0.2
25B	Gowdy-Perrinton complex, 1 to 6 percent slopes-----	3,971	1.1
25C	Gowdy-Perrinton complex, 6 to 12 percent slopes-----	976	0.3
25D	Gowdy-Perrinton complex, 12 to 18 percent slopes-----	122	*
25E	Gowdy-Perrinton complex, 18 to 35 percent slopes-----	394	0.1
26A	Arkona-Ithaca complex, 0 to 3 percent slopes-----	2,768	0.8
27B	Arkona-Del Rey complex, 0 to 4 percent slopes-----	2,733	0.8
28B	Fern loamy fine sand, 0 to 6 percent slopes-----	833	0.2
28C	Fern loamy fine sand, 6 to 12 percent slopes-----	182	0.1
28D	Fern loamy fine sand, 12 to 18 percent slopes-----	43	*
29A	Dixboro loamy very fine sand, 0 to 3 percent slopes-----	1,037	0.3
30	Lamson muck-----	445	0.1
35B	Alvin-Spinks complex, 0 to 6 percent slopes-----	1,270	0.4
35C	Alvin-Spinks complex, 6 to 12 percent slopes-----	694	0.2
35D	Alvin-Spinks complex, 12 to 18 percent slopes-----	121	*
36A	Del Rey silt loam, 0 to 3 percent slopes-----	409	0.1
37A	Altmar loamy fine sand, 0 to 3 percent slopes-----	1,363	0.4
38B	Spinks-Okee complex, 0 to 6 percent slopes-----	1,859	0.5
38C	Spinks-Okee complex, 6 to 12 percent slopes-----	856	0.2
38D	Spinks-Okee complex, 12 to 18 percent slopes-----	265	0.1
38E	Spinks-Okee complex, 18 to 35 percent slopes-----	177	0.1
40B	Coloma-Toogood complex, 0 to 6 percent slopes-----	1,234	0.4
40C	Coloma-Toogood complex, 6 to 12 percent slopes-----	130	*
40D	Coloma-Toogood complex, 12 to 18 percent slopes-----	162	*
41	Granby mucky loamy sand, gravelly substratum-----	1,652	0.5
42B	Spinks-Remus-Fern complex, 0 to 6 percent slopes-----	6,181	1.8
42C	Spinks-Remus-Fern complex, 6 to 12 percent slopes-----	4,891	1.4
42D	Spinks-Remus-Fern complex, 12 to 18 percent slopes-----	1,467	0.4
42E	Spinks-Remus-Fern complex, 18 to 35 percent slopes-----	721	0.2
43B	Spinks loamy fine sand, 0 to 6 percent slopes-----	8,847	2.5
43C	Spinks loamy fine sand, 6 to 12 percent slopes-----	2,769	0.8
43D	Spinks loamy fine sand, 12 to 18 percent slopes-----	1,253	0.4
43E	Spinks loamy fine sand, 18 to 35 percent slopes-----	722	0.2
44B	Thetford loamy fine sand, 0 to 4 percent slopes-----	1,131	0.3
45B	Spinks-Benona complex, 0 to 6 percent slopes-----	10,059	2.9

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
45C	Spinks-Benona complex, 6 to 12 percent slopes-----	12,109	3.5
45D	Spinks-Benona complex, 12 to 18 percent slopes-----	6,068	1.8
45E	Spinks-Benona complex, 18 to 35 percent slopes-----	2,304	0.7
45F	Spinks-Benona complex, 35 to 70 percent slopes-----	226	0.1
46B	Grattan sand, dark subsoil, 0 to 6 percent slopes-----	407	0.1
48A	Saugatuck-Jebavy complex, 0 to 3 percent slopes-----	5,278	1.5
49B	Grattan sand, 0 to 6 percent slopes-----	23,231	6.7
49B3	Grattan sand, 0 to 6 percent slopes, severely eroded-----	880	0.3
49C	Grattan sand, 6 to 18 percent slopes-----	8,219	2.4
49C3	Grattan sand, 6 to 18 percent slopes, severely eroded-----	381	0.1
49E	Grattan sand, 18 to 35 percent slopes-----	1,474	0.4
49F	Grattan sand, 35 to 70 percent slopes-----	866	0.3
50B	Covert sand, 0 to 6 percent slopes-----	13,188	3.8
51B	Pipestone fine sand, 0 to 4 percent slopes-----	8,002	2.3
52	Granby sand-----	9,383	2.7
53B	Grattan sand, loamy substratum, 0 to 6 percent slopes-----	1,364	0.4
53C	Grattan sand, loamy substratum, 6 to 12 percent slopes-----	368	0.1
56B	Benona sand, deep banded, 0 to 6 percent slopes-----	2,913	0.8
56C	Benona sand, deep banded, 6 to 18 percent slopes-----	893	0.3
56E	Benona sand, deep banded, 18 to 35 percent slopes-----	559	0.2
57C	Nordhouse fine sand, 3 to 18 percent slopes-----	351	0.1
57F	Nordhouse fine sand, 18 to 75 percent slopes-----	1,237	0.4
58	Kingsville mucky sand-----	1,188	0.3
59B	Benona sand, 0 to 6 percent slopes-----	32,088	9.3
59C	Benona sand, 6 to 18 percent slopes-----	15,024	4.3
59E	Benona sand, 18 to 35 percent slopes-----	4,131	1.2
60B	Coloma sand, 0 to 6 percent slopes-----	3,045	0.9
60C	Coloma sand, 6 to 18 percent slopes-----	4,311	1.2
60E	Coloma sand, 18 to 35 percent slopes-----	414	0.1
61B	Epworth fine sand, 0 to 6 percent slopes-----	3,472	1.0
61C	Epworth fine sand, 6 to 18 percent slopes-----	1,612	0.5
61E	Epworth fine sand, 18 to 35 percent slopes-----	378	0.1
62B	Plainfield sand, 0 to 6 percent slopes-----	7,665	2.2
62C	Plainfield sand, 6 to 18 percent slopes-----	253	0.1
65	Sloan silt loam, frequently flooded-----	738	0.2
67	Cohoctah fine sandy loam, occasionally flooded-----	577	0.2
69	Alganssee loamy fine sand, occasionally flooded-----	182	0.1
70	Glendora mucky loamy fine sand, frequently flooded-----	3,797	1.1
71	Houghton and Carlisle soils-----	8,010	2.3
72	Adrian muck-----	6,015	1.7
73	Palms muck-----	507	0.1
75	Martisco muck-----	434	0.1
77	Napoleon muck-----	1,325	0.4
83	Histosols and Aquents, ponded-----	874	0.3
84F	Dune land-Quartzipsamments-Psammaquents complex, nearly level to steep-----	299	0.1
85F	Udorthents-Quartzipsamments complex, very steep-----	179	0.1
86F	Dune land-Quartzipsamments complex, rolling to very steep-----	1,732	0.5
87	Beaches-----	245	0.1
88A	Udipsamments, nearly level-----	243	0.1
89A	Udorthents, nearly level-----	14	*
91	Pits, sand and gravel-----	652	0.2
92B	Chelsea fine sand, 0 to 6 percent slopes-----	969	0.3
92C	Chelsea fine sand, 6 to 12 percent slopes-----	376	0.1
96B	Spinks-Tekenink loamy fine sands, 0 to 6 percent slopes-----	3,028	0.9
96C	Spinks-Tekenink loamy fine sands, 6 to 12 percent slopes-----	2,268	0.7
96D	Spinks-Tekenink loamy fine sands, 12 to 18 percent slopes-----	544	0.2
96E	Spinks-Tekenink loamy fine sands, 18 to 35 percent slopes-----	321	0.1
97	Kerston and Carlisle mucks, frequently flooded-----	3,473	1.0
98B	Spinks-Scalley complex, 0 to 6 percent slopes-----	415	0.1
98C	Spinks-Scalley complex, 6 to 12 percent slopes-----	473	0.1
98D	Spinks-Scalley complex, 12 to 18 percent slopes-----	143	*

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
99B	Nappanee-Hoytville silt loams, 0 to 4 percent slopes-----	1,180	0.3
100B	Nappanee silt loam, 0 to 4 percent slopes-----	521	0.2
101B	Claybanks silt loam, 1 to 6 percent slopes-----	1,003	0.3
101C	Claybanks silt loam, 6 to 12 percent slopes-----	142	*
210B	Typic Udipsamments, nearly level and undulating-----	5,853	1.7
210C	Typic Udipsamments, rolling-----	553	0.2
210D	Typic Udipsamments, hilly-----	2,002	0.6
211B	Typic Udipsamments, banded substratum, nearly level and undulating-----	322	0.1
211C	Typic Udipsamments, banded substratum, rolling-----	81	*
212B	Typic Udipsamments, very deep water table, nearly level and undulating-----	1,047	0.3
213B	Argic Udipsamments, nearly level and undulating-----	1,153	0.3
213C	Argic Udipsamments, rolling-----	72	*
213D	Argic Udipsamments, hilly-----	55	*
220B	Entic Haplorthods, sandy, nearly level and undulating-----	4,364	1.3
220C	Entic Haplorthods, sandy, rolling-----	1,014	0.3
220D	Entic Haplorthods, sandy, hilly-----	187	0.1
220E	Entic Haplorthods, sandy, steep and very steep-----	73	*
221B	Entic Haplorthods, sandy, coarse-loamy banded substratum, nearly level and undulating-----	2,129	0.6
221C	Entic Haplorthods, sandy, coarse-loamy banded substratum, rolling-----	2,269	0.7
221D	Entic Haplorthods, sandy, coarse-loamy banded substratum, hilly-----	637	0.2
221E	Entic Haplorthods, sandy, coarse-loamy banded substratum, steep and very steep-----	310	0.1
222B	Entic Haplorthods, sandy, very deep water table, nearly level and undulating-----	5,125	1.5
222C	Entic Haplorthods, sandy, very deep water table, rolling-----	129	*
223B	Entic Haplorthods, sandy, fine-loamy banded substratum, nearly level and undulating-----	630	0.2
223C	Entic Haplorthods, sandy, fine-loamy banded substratum, rolling-----	2,907	0.8
223D	Entic Haplorthods, sandy, fine-loamy banded substratum, hilly-----	1,859	0.5
223E	Entic Haplorthods, sandy, fine-loamy banded substratum, steep and very steep-----	156	*
224B	Entic Haplorthods, sandy, deep water table, nearly level and undulating-----	718	0.2
225B	Entic Haplorthods, sandy, loamy substratum, nearly level and undulating-----	345	0.1
225C	Entic Haplorthods, sandy, loamy substratum, rolling-----	31	*
225D	Entic Haplorthods, sandy, loamy substratum, hilly-----	34	*
230B	Entic Haplorthods, sandy, calcareous substratum, nearly level and undulating-----	352	0.1
230C	Entic Haplorthods, sandy, calcareous substratum, rolling-----	483	0.1
230D	Entic Haplorthods, sandy, calcareous substratum, hilly-----	84	*
230E	Entic Haplorthods, sandy, calcareous substratum, steep and very steep-----	89	*
231B	Entic Haplorthods, sandy-Alfic Haplorthods, sandy over loamy complex, nearly level and undulating-----	15	*
233B	Alfic Haplorthods, sandy over loamy-Entic Haplorthods, sandy complex, nearly level and undulating-----	217	0.1
233C	Alfic Haplorthods, sandy over loamy-Entic Haplorthods, sandy complex, rolling-----	1,617	0.5
233D	Alfic Haplorthods, sandy over loamy-Entic Haplorthods, sandy complex, hilly-----	764	0.2
233E	Alfic Haplorthods, sandy over loamy-Entic Haplorthods, sandy complex, steep and very steep-----	148	*
235B	Alfic Haplorthods, sandy over loamy-Alfic Haplorthods, sandy complex, nearly level and undulating-----	102	*
235C	Alfic Haplorthods, sandy over loamy-Alfic Haplorthods, sandy complex, rolling-----	119	*
240C	Entic Haplorthods, sandy, dark subsoil, rolling-----	17	*
241B	Entic Haplorthods, sandy, dark subsoil, banded substratum, nearly level and undulating-----	211	0.1
245B	Entic Haplorthods, sandy, dark subsoil, loamy substratum, nearly level and undulating-----	57	*
245C	Entic Haplorthods, sandy, dark subsoil, loamy substratum, rolling-----	127	*
245D	Entic Haplorthods, sandy, dark subsoil, loamy substratum, hilly-----	84	*
250	Mollic Psammaquents-Aquic Udipsamments-Medisaprists, euc complex, occasionally flooded-----	1,684	0.5
262A	Aeric Haplaquods, sandy, ortstein, nearly level-----	473	0.1
263A	Aquic Udipsamments, nearly level-----	96	*
272	Typic Haplaquods, sandy-----	324	0.1
273	Mollic Psammaquents-----	1,588	0.5
274	Typic Haplaquolls, sandy over loamy-----	2,093	0.6

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
280	Aquents and Histosols, ponded-----	421	0.1
281	Medisaprists, dysic-----	208	0.1
282	Medisaprists, euic-----	2,431	0.7
	Water areas less than 40 acres in size-----	2,001	0.6
	Total-----	349,163	100.0

* Less than 0.1 percent.

TABLE 5.--PRIME FARMLAND

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map symbol	Soil name
10B	Perrinton loam, 2 to 6 percent slopes
11A	Ithaca loam, 0 to 3 percent slopes (where drained)
12	Bono silt loam (where drained)
13B	Marlette fine sandy loam, 2 to 6 percent slopes
14B	Capac fine sandy loam, 0 to 4 percent slopes (where drained)
16B	Remus fine sandy loam, 1 to 6 percent slopes
17B	Marlette-Fern complex, 0 to 6 percent slopes
20B	Arkport-Chelsea complex, 0 to 6 percent slopes
21A	Freesoil loamy very fine sand, 0 to 3 percent slopes (where drained)
22B	Gowdy loamy fine sand, 1 to 6 percent slopes
25B	Gowdy-Perrinton complex, 1 to 6 percent slopes
29A	Dixboro loamy very fine sand, 0 to 3 percent slopes (where drained)
30	Lamson muck (where drained)
35B	Alvin-Spinks complex, 0 to 6 percent slopes
36A	Del Rey silt loam, 0 to 3 percent slopes (where drained)
65	Sloan silt loam, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
67	Cohoctah fine sandy loam, occasionally flooded (where drained)
99B	Nappanee-Hoytville silt loams, 0 to 4 percent slopes (where drained)
100B	Nappanee silt loam, 0 to 4 percent slopes (where drained)
101B	Claybanks silt loam, 1 to 6 percent slopes

TABLE 6.--YIELDS PER ACRE OF CROPS

(Yields in the N columns are for nonirrigated soils; those in the I columns are for irrigated soils. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil. Only those soils that are commonly used for crops are listed)

Soil name and map symbol	Corn		Corn silage		Winter wheat		Oats		Alfalfa hay	
	N	I	N	I	N	I	N	I	N	I
	Bu	Bu	Tons	Tons	Bu	Bu	Bu	Bu	Tons	Tons
10B----- Perrinton	110	---	18	---	55	---	85	---	5.0	---
10C----- Perrinton	95	---	16	---	45	---	80	---	4.5	---
10D----- Perrinton	80	---	14	---	38	---	70	---	3.6	---
11A----- Ithaca	105	---	16	---	46	---	85	---	4.0	---
12----- Bono	120	---	---	---	42	---	80	---	5.0	---
13B----- Marlette	120	150	19	27	60	---	95	---	4.8	---
13C----- Marlette	110	150	15	25	56	---	90	---	4.5	---
13D----- Marlette	85	---	13	20	48	---	65	---	3.8	---
14B----- Capac	110	155	17	26	62	---	95	---	5.5	6.8
16B----- Remus	95	155	16	26	40	60	80	---	3.8	7.0
16C----- Remus	90	145	15	24	37	57	75	---	3.6	6.5
16D----- Remus	85	---	12	---	34	---	65	---	3.4	---
17B----- Marlette-Fern	113	---	18	---	51	---	88	---	4.4	---
17C----- Marlette-Fern	103	---	16	---	47	---	82	---	4.1	---
17D----- Marlette-Fern	80	---	13	---	45	---	65	---	3.8	---
18B----- Spinks-Gowdy	77	---	13	---	---	---	60	---	---	---
18C----- Spinks-Gowdy	71	---	12	---	---	---	55	---	---	---
18D----- Spinks-Gowdy	---	---	---	---	24	---	50	---	---	---

TABLE 6.--YIELDS PER ACRE OF CROPS--Continued

Soil name and map symbol	Corn		Corn silage		Winter wheat		Oats		Alfalfa hay	
	N	I	N	I	N	I	N	I	N	I
	Bu	Bu	Tons	Tons	Bu	Bu	Bu	Bu	Tons	Tons
20B----- Arkport-Chelsea	88	---	21	---	50	---	64	---	5.0	---
20C----- Arkport-Chelsea	85	---	18	---	50	---	64	---	4.5	---
20D----- Arkport-Chelsea	70	---	14	---	45	---	60	---	4.0	---
21A----- Freesoil	115	---	19	---	50	---	95	---	4.8	---
22B----- Gowdy	80	---	13	---	---	---	60	---	4.6	---
22C----- Gowdy	75	---	12	---	---	---	55	---	4.4	---
23A----- Arkona	100	150	16	27	45	---	80	---	5.0	---
25B----- Gowdy-Perrinton	94	---	---	15	---	---	71	---	4.8	---
25C----- Gowdy-Perrinton	84	---	14	---	---	---	66	---	4.4	---
25D----- Gowdy-Perrinton	75	---	11	---	35	---	55	---	4.0	---
26A----- Arkona-Ithaca	109	148	18	26	50	---	85	---	5.0	---
27B----- Arkona-Del Rey	106	---	16	---	47	---	74	---	5.5	---
28B----- Fern	105	---	18	---	40	---	80	---	4.0	---
28C----- Fern	95	---	16	---	36	---	72	---	3.6	---
28D----- Fern	80	---	12	---	30	---	50	---	3.2	---
29A----- Dixboro	115	---	19	---	50	---	95	---	4.5	---
30----- Lamson	75	---	15	---	---	---	50	---	4.5	---
35B----- Alvin-Spinks	87	---	---	---	39	---	---	---	5.0	---
35C----- Alvin-Spinks	80	---	---	---	38	---	---	---	4.8	---
35D----- Alvin-Spinks	---	---	---	---	33	---	---	---	4.5	---

TABLE 6.--YIELDS PER ACRE OF CROPS--Continued

Soil name and map symbol	Corn		Corn silage		Winter wheat		Oats		Alfalfa hay	
	N	I	N	I	N	I	N	I	N	I
	Bu	Bu	Tons	Tons	Bu	Bu	Bu	Bu	Tons	Tons
36A----- Del Rey	115	---	---	---	49	---	69	---	5.5	---
37A----- Altmar	65	---	12	---	30	---	60	---	3.5	---
38B----- Spinks-Okee	74	---	12	---	---	---	62	---	4.4	---
38C----- Spinks-Okee	67	---	12	---	---	---	55	---	3.8	---
38D----- Spinks-Okee	---	---	---	---	---	---	49	---	3.5	---
40B----- Coloma-Toogood	50	---	9	---	---	---	45	---	3.8	---
40C----- Coloma-Toogood	---	---	---	---	---	---	40	---	2.3	---
40D----- Coloma-Toogood	---	---	---	---	---	---	---	---	2.0	---
42B----- Spinks-Remus-Fern	89	160	15	25	36	---	72	---	3.9	---
42C----- Spinks-Remus-Fern	86	150	14	23	32	---	67	---	3.6	---
42D----- Spinks-Remus-Fern	---	---	---	---	24	---	---	---	3.0	---
43B----- Spinks	75	165	13	24	30	---	60	---	4.2	---
43C----- Spinks	68	155	12	23	30	---	55	---	3.6	---
43D----- Spinks	---	---	---	---	24	---	50	---	3.0	---
44B----- Thetford	85	148	14	22	35	---	65	---	3.8	---
45B----- Spinks-Benona	66	---	12	---	30	---	55	---	3.6	---
45C----- Spinks-Benona	59	---	11	---	30	---	50	---	3.4	---
45D----- Spinks-Benona	---	---	---	---	20	---	45	---	3.0	---
48A----- Saugatuck-Jebavy	55	---	---	---	---	---	40	---	---	---

TABLE 6.--YIELDS PER ACRE OF CROPS--Continued

Soil name and map symbol	Corn		Corn silage		Winter wheat		Oats		Alfalfa hay	
	N	I	N	I	N	I	N	I	N	I
	Bu	Bu	Tons	Tons	Bu	Bu	Bu	Bu	Tons	Tons
49B----- Grattan	---	---	---	---	---	---	---	---	2.0	---
50B----- Covert	80	---	13	---	40	---	60	---	3.5	---
51B----- Pipestone	65	130	12	22	30	45	60	---	3.5	5.5
52----- Granby	80	---	14	---	40	---	60	---	---	---
53B, 53C----- Grattan	---	---	---	---	---	---	---	---	2.0	---
56B----- Benona	55	---	11	---	---	---	---	---	3.0	---
56C----- Benona	---	---	---	---	---	---	---	---	2.5	---
59B----- Benona	55	---	11	---	---	---	---	---	3.0	---
59C----- Benona	---	---	---	---	---	---	---	---	2.5	---
60B----- Coloma	45	170	---	---	---	---	45	---	3.5	---
60C----- Coloma	---	---	---	---	---	---	---	---	3.0	---
92B----- Chelsea	68	---	---	---	---	---	41	---	3.0	---
92C----- Chelsea	---	---	---	---	---	---	---	---	2.8	---
96B----- Spinks-Tekenink	86	---	15	---	35	---	69	---	4.0	---
96C----- Spinks-Tekenink	78	---	14	---	33	---	62	---	3.6	---
96D----- Spinks-Tekenink	---	---	---	---	28	---	53	---	3.1	---
98B----- Spinks-Scalley	94	---	15	---	42	---	72	---	4.5	---
98C----- Spinks-Scalley	88	---	13	---	40	---	64	---	4.0	---
98D----- Spinks-Scalley	---	---	---	---	33	---	60	---	3.4	---
99B----- Nappanee-Hoytville	120	---	---	---	52	---	---	---	5.5	---

TABLE 6.--YIELDS PER ACRE OF CROPS--Continued

Soil name and map symbol	Corn		Corn silage		Winter wheat		Oats		Alfalfa hay	
	N	I	N	I	N	I	N	I	N	I
	Bu	Bu	Tons	Tons	Bu	Bu	Bu	Bu	Tons	Tons
100B----- Nappanee	110	---	17	---	52	---	85	---	5.5	---
101B----- Claybanks	110	---	18	---	55	---	85	---	5.0	---
101C----- Claybanks	95	---	16	---	45	---	80	---	4.5	---

TABLE 7.--CAPABILITY CLASSES AND SUBCLASSES

(Miscellaneous areas are excluded. Absence of an entry indicates no acreage)

Class	Total acreage	Major management concerns (Subclass)			
		Erosion (e)	Wetness (w)	Soil problem (s)	Climate (c)
		<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
I	---	---	---	---	---
II	11,792	10,346	1,446	---	---
III	82,612	35,774	11,782	35,056	---
IV	103,189	15,475	24,026	63,688	---
V	28,405	---	28,405	---	---
VI	81,607	1,264	5,867	74,476	---
VII	29,620	6,037	---	23,583	---
VIII	---	---	---	---	---

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY

(Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available)

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
10B, 10C, 10D--- Perrinton	4A	Slight	Slight	Slight	Slight	Northern red oak---- Sugar maple----- Red maple----- White ash----- American basswood---	69	64	Northern red oak, white spruce, eastern white pine.
10E----- Perrinton	4R	Moderate	Moderate	Slight	Slight	Northern red oak---- Sugar maple----- Red maple----- White ash----- American basswood---	69	64	Northern red oak, white spruce, eastern white pine.
11A----- Ithaca	4W	Slight	Severe	Slight	Slight	Northern red oak---- Sugar maple----- American basswood--- White ash----- Red maple-----	65	59	White spruce, eastern white pine.
12----- Bono	4W	Slight	Severe	Severe	Severe	Pin oak----- Swamp white oak---- Green ash----- Red maple----- Eastern cottonwood-- Black cherry-----	80	80	---
13B, 13C, 13D--- Marlette	3A	Slight	Slight	Slight	Slight	Sugar maple----- Northern red oak---- White ash----- Black walnut----- American basswood--- Black cherry----- White oak----- Black oak-----	65 69	40 64	Black walnut, eastern white pine, red pine, white spruce.
14B----- Capac	4W	Slight	Moderate	Slight	Slight	Northern red oak---- American basswood--- Pin oak----- White ash----- Red maple----- Bitternut hickory--- Sugar maple----- Black cherry----- American beech-----	65	59	Northern red oak, eastern white pine, white spruce.
16B, 16C, 16D--- Remus	3A	Slight	Slight	Slight	Slight	Sugar maple----- Northern red oak---- American basswood--- Eastern hemlock----- Quaking aspen----- White ash----- White oak----- Red maple----- Black cherry----- American beech----- Paper birch----- Bigtooth aspen-----	61	38	White spruce, eastern white pine, red pine.
							74	86	

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
17B**, 17C**, 17D**: Marlette-----	3A	Slight	Slight	Slight	Slight	Sugar maple----- Northern red oak---- White ash----- Black walnut----- American basswood--- Black cherry----- White oak----- Black oak-----	65 69 --- --- --- --- --- ---	40 64 --- --- --- --- --- ---	Black walnut, eastern white pine, red pine, white spruce.
Fern-----	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- Red maple----- Sugar maple----- American basswood--- Black cherry-----	66 --- --- --- ---	60 --- --- --- ---	White spruce, eastern white pine, red pine.
18B**, 18C**, 18D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Gowdy-----	3A	Slight	Slight	Slight	Slight	Black oak----- Red pine----- Eastern white pine-- Northern red oak----	55 --- --- ---	42 --- --- ---	Red pine, eastern white pine, Norway spruce.
20B**, 20C**, 20D**: Arkport-----	3A	Slight	Slight	Slight	Slight	Sugar maple----- Red pine----- Eastern white pine--	70 85 85	43 169 196	Norway spruce, red pine, eastern white pine.
Chelsea-----	5S	Slight	Slight	Moderate	Slight	White oak----- Red pine----- Eastern white pine-- Jack pine----- Quaking aspen----- Northern red oak----	70 72 83 70 72 70	65 134 190 128 84 66	Eastern white pine, red pine, jack pine.
21A----- Freesoil	3W	Slight	Severe	Moderate	Moderate	Red maple----- Paper birch----- Quaking aspen----- Eastern white pine--	67 --- --- ---	41 --- --- ---	Eastern white pine, jack pine, white spruce.
22B, 22C----- Gowdy	3A	Slight	Slight	Slight	Slight	Black oak----- Red pine----- Eastern white pine-- Northern red oak----	55 --- --- ---	42 --- --- ---	Red pine, eastern white pine, Norway spruce.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi-nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip-ment limita-tion	Seedling mortal-ity	Wind-throw hazard	Common trees	Site index	Volume*	
23A----- Arkona	2W	Slight	Moderate	Slight	Slight	Red maple----- Quaking aspen----- Paper birch----- Eastern cottonwood-- Swamp white oak----- Northern red oak----- Sugar maple-----	56 --- --- 91 --- --- ---	36 --- --- 105 --- --- ---	White spruce, Norway spruce, eastern white pine, Carolina poplar.
24----- Sickles	5W	Slight	Severe	Severe	Severe	Quaking aspen----- White ash----- Eastern cottonwood-- American basswood--- Red maple----- Swamp white oak-----	61 --- --- --- --- ---	66 --- --- --- --- ---	White spruce, eastern white pine.
25B**, 25C**, 25D**: Gowdy-----	3A	Slight	Slight	Slight	Slight	Black oak----- Red pine----- Eastern white pine-- Northern red oak----	55 --- --- ---	42 --- --- ---	Red pine, eastern white pine, Norway spruce.
Perrinton-----	4A	Slight	Slight	Slight	Slight	Northern red oak---- Sugar maple----- Red maple----- White ash----- American basswood---	69 --- --- --- ---	64 --- --- --- ---	Northern red oak, white spruce, eastern white pine.
25E**: Gowdy-----	3R	Moderate	Moderate	Slight	Slight	Black oak----- Red pine----- Eastern white pine-- Northern red oak----	55 --- --- ---	42 --- --- ---	Red pine, eastern white pine, Norway spruce.
Perrinton-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak---- Sugar maple----- Red maple----- White ash----- American basswood---	69 --- --- --- ---	64 --- --- --- ---	Northern red oak, white spruce, eastern white pine.
26A**: Arkona-----	2W	Slight	Moderate	Slight	Slight	Red maple----- Quaking aspen----- Paper birch----- Eastern cottonwood-- Swamp white oak----- Northern red oak---- Sugar maple-----	56 --- --- 91 --- --- ---	36 --- --- 105 --- --- ---	White spruce, Norway spruce, eastern white pine, Carolina poplar.
Ithaca-----	4W	Slight	Severe	Slight	Slight	Northern red oak---- Sugar maple----- American basswood--- White ash----- Northern pin oak---- Shagbark hickory---- Red maple----- Bitternut hickory---	65 --- --- --- --- --- --- ---	59 --- --- --- --- --- --- ---	White spruce, northern whitecedar, eastern white pine.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Wind-throw hazard	Common trees	Site index	Volume*	
27B**: Arkona-----	2W	Slight	Moderate	Slight	Slight	Red maple----- Quaking aspen----- Paper birch----- Eastern cottonwood-- Swamp white oak----- Northern red oak----- Sugar maple-----	56 --- --- 91 --- --- ---	36 --- --- 105 --- --- ---	White spruce, Norway spruce, eastern white pine, Carolina poplar.
Del Rey-----	3C	Slight	Moderate	Severe	Severe	Northern red oak---- White ash----- Red maple----- White oak----- American basswood---	56 56 56 56 56	44 44 36 44 44	Northern red oak, eastern cottonwood, northern whitecedar, white spruce, eastern white pine.
28B, 28C, 28D--- Fern	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- Red maple----- Sugar maple----- American basswood---	66 --- --- ---	60 --- --- ---	White spruce, eastern white pine, red pine.
29A----- Dixboro	4W	Slight	Moderate	Slight	Slight	Northern red oak---- White oak----- Pin oak----- Black oak----- Shagbark hickory--- Bitternut hickory--- American basswood---	65 --- --- --- --- --- ---	59 --- --- --- --- --- ---	Eastern white pine, white spruce, northern red oak.
30----- Lamson	8W	Slight	Severe	Severe	Severe	Eastern white pine-- Red maple----- Pin oak----- Swamp white oak----	65 65 60 ---	136 40 51 ---	Northern whitecedar, eastern white pine.
35B**, 35C**, 35D**: Alvin-----	5A	Slight	Slight	Slight	Slight	Northern red oak---- White oak----- Black walnut-----	70 70 ---	66 66 ---	Eastern white pine, black walnut, white oak, green ash, sugar maple.
Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
36A----- Del Rey	3C	Slight	Moderate	Severe	Severe	Northern red oak----	56	44	Northern red oak, eastern cottonwood, northern whitecedar, white spruce, eastern white pine.
						White ash-----	56	44	
						Red maple-----	56	36	
						White oak-----	56	44	
						American basswood---	56	44	
37A----- Altmar	3W	Slight	Severe	Slight	Slight	Red maple-----	65	40	Northern red oak, Norway spruce, white spruce, eastern white pine.
						Northern red oak----	---	---	
						Bigtooth aspen----	---	---	
						White ash-----	---	---	
						American elm-----	---	---	
38B**, 38C**, 38D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak----	66	60	Red pine, eastern white pine, Carolina poplar.
						White oak-----	---	---	
						Black oak-----	---	---	
						Black cherry-----	---	---	
Okee-----	2A	Slight	Slight	Slight	Slight	Northern pin oak----	45	27	Red pine, jack pine.
						Black oak-----	---	---	
38E**: Spinks-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak----	66	60	Red pine, eastern white pine, Carolina poplar.
						White oak-----	---	---	
						Black oak-----	---	---	
						Black cherry-----	---	---	
Okee-----	2R	Moderate	Moderate	Slight	Slight	Northern pin oak----	45	47	Red pine, jack pine.
						Black oak-----	---	---	
40B**, 40C**, 40D**: Coloma-----	2S	Slight	Moderate	Moderate	Slight	Northern pin oak----	49	32	Red pine, eastern white pine, jack pine.
						Jack pine-----	---	---	
						Eastern white pine--	---	---	
						Black oak-----	---	---	
Toogood-----	6A	Slight	Slight	Slight	Slight	Red pine-----	55	88	Red pine, eastern white pine, jack pine.
						White oak-----	---	---	
						Northern red oak----	---	---	
						Quaking aspen-----	---	---	
41----- Granby	2W	Slight	Severe	Severe	Severe	Silver maple-----	82	36	---
						Red maple-----	68	42	
						American basswood---	---	---	
						White ash-----	---	---	
						Quaking aspen-----	---	---	
						Eastern cottonwood--	---	---	

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi-nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip-ment limita-tion	Seedling mortal-ity	Wind-throw hazard	Common trees	Site index	Volume*	
42B**, 42C**, 42D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Remus-----	3A	Slight	Slight	Slight	Slight	Sugar maple----- Northern red oak----- American basswood----- Eastern hemlock----- Quaking aspen----- White ash----- White oak----- Red maple----- Black cherry----- American beech----- Paper birch----- Bigtooth aspen-----	61 --- --- --- --- --- --- --- --- --- --- 74	38 --- --- --- --- --- --- --- --- --- --- 86	White spruce, eastern white pine, red pine.
Fern-----	4S	Slight	Moderate	Moderate	Slight	Northern red oak----- Red maple----- Sugar maple----- American basswood----- Black cherry-----	66 --- --- --- ---	60 --- --- --- ---	White spruce, eastern white pine, red pine.
42E**: Spinks-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Remus-----	3R	Moderate	Moderate	Slight	Slight	Sugar maple----- Northern red oak----- American basswood----- Eastern hemlock----- Quaking aspen----- White ash----- White oak----- Red maple----- Black cherry----- American beech----- Paper birch----- Bigtooth aspen-----	61 --- --- --- --- --- --- --- --- --- --- 74	38 --- --- --- --- --- --- --- --- --- --- 86	White spruce, eastern white pine, red pine.
Fern-----	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----- Red maple----- Sugar maple----- American basswood----- Black cherry-----	66 --- --- --- ---	60 --- --- --- ---	White spruce, eastern white pine, red pine.
43B, 43C, 43D--- Spinks	4A	Slight	Slight	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
43E----- Spinks	4R	Moderate	Moderate	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
44B----- Thetford	3W	Slight	Moderate	Slight	Slight	Red maple----- White ash----- Quaking aspen----- Eastern cottonwood-- Northern red oak---- Swamp white oak---- Bitternut hickory---	65 --- --- --- --- --- ---	40 --- --- --- --- --- ---	White spruce, eastern white pine.
45B**, 45C**, 45D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Benona-----	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- American beech----- Black cherry----- Hemlock----- Quaking aspen----- Red maple----- Red pine-----	67 --- --- --- --- --- ---	61 --- --- --- --- --- ---	Red pine, eastern white pine, jack pine.
45E**: Spinks-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Benona-----	4R	Moderate	Moderate	Moderate	Slight	Northern red oak---- American beech----- Black cherry----- Hemlock----- Quaking aspen----- Red maple----- Red pine-----	67 --- --- --- --- --- ---	61 --- --- --- --- --- ---	Red pine, eastern white pine, jack pine.
45F**: Spinks-----	4R	Severe	Severe	Slight	Slight	Northern red oak---- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Benona-----	4R	Severe	Severe	Moderate	Slight	Northern red oak---- American beech----- Black cherry----- Hemlock----- Quaking aspen----- Red maple----- Red pine-----	67 --- --- --- --- --- ---	61 --- --- --- --- --- ---	Red pine, eastern white pine, jack pine.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
46B----- Grattan	3S	Slight	Moderate	Moderate	Slight	Sugar maple----- Northern red oak----	70 ---	43 ---	Red pine, eastern white pine.
48A**: Saugatuck-----	2W	Slight	Severe	Moderate	Severe	Red maple----- Eastern cottonwood-- Black spruce----- White ash----- Pin oak----- Paper birch-----	45 --- --- --- --- 56	32 --- --- --- --- 59	Eastern white pine, white spruce.
Jebavy-----	2W	Slight	Severe	Severe	Severe	Red maple----- Quaking aspen----- Jack pine----- Eastern hemlock----- Eastern white pine--	57 --- --- --- 66	36 --- --- --- 139	Jack pine, eastern white pine, white spruce.
49B, 49B3, 49C, 49C3----- Grattan	9S	Slight	Moderate	Moderate	Slight	Eastern white pine-- Quaking aspen----- White oak----- Black oak----- Sugar maple-----	62 --- --- --- 59	127 --- --- --- 37	Eastern white pine, red pine.
49E----- Grattan	9R	Moderate	Moderate	Moderate	Slight	Eastern white pine-- Quaking aspen----- White oak----- Black oak----- Sugar maple-----	62 --- --- --- 59	127 --- --- --- 37	Eastern white pine, red pine.
49F----- Grattan	9R	Severe	Severe	Moderate	Slight	Eastern white pine-- Quaking aspen----- White oak----- Black oak----- Sugar maple-----	62 --- --- --- 59	127 --- --- --- 37	Eastern white pine, red pine.
50B----- Covert	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- Red maple----- Black cherry----- Eastern cottonwood-- American basswood-- White oak----- Quaking aspen----- American beech----- Eastern white pine--	67 66 --- --- --- --- --- --- ---	61 41 --- --- --- --- --- --- ---	Eastern white pine, red pine.
51B----- Pipestone	3W	Slight	Severe	Moderate	Moderate	Red maple----- White ash----- Eastern cottonwood-- Bitternut hickory--- Eastern white pine-- American basswood---	65 --- --- --- 64 56	40 --- --- --- 133 44	Eastern white pine, white spruce.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
52----- Granby	2W	Slight	Severe	Severe	Severe	Silver maple----- Red maple----- American basswood--- White ash----- Quaking aspen----- Eastern cottonwood--	82 68 --- --- --- ---	36 42 --- --- --- ---	---
53B, 53C----- Grattan	9S	Slight	Moderate	Moderate	Slight	Eastern white pine-- Quaking aspen----- White oak-----	62 --- ---	127 --- ---	Eastern white pine, red pine.
56B, 56C----- Benona	3S	Slight	Moderate	Moderate	Slight	Sugar maple----- American beech----- Northern red oak---- Black cherry----- Quaking aspen----- Red pine----- Red maple-----	61 --- 67 --- --- --- ---	38 --- 61 --- --- --- ---	Red pine, eastern white pine, jack pine, Austrian pine.
56E----- Benona	3R	Moderate	Moderate	Moderate	Slight	Sugar maple----- American beech----- Northern red oak---- Black cherry----- Quaking aspen----- Red pine----- Red maple-----	61 --- 67 --- --- --- ---	38 --- 61 --- --- --- ---	Red pine, eastern white pine, jack pine, Austrian pine.
57C----- Nordhouse	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- Red maple----- American beech----- Paper birch----- Eastern white pine-- Eastern hemlock----	67 --- --- --- --- ---	61 --- --- --- --- ---	Red pine, eastern white pine.
57F----- Nordhouse	4R	Severe	Severe	Moderate	Slight	Northern red oak---- Red maple----- American beech----- Paper birch----- Eastern white pine-- Eastern hemlock----	67 --- --- --- --- ---	61 --- --- --- --- ---	Red pine, eastern white pine.
58----- Kingsville	5W	Slight	Severe	Severe	Severe	Bigtooth aspen----- Red maple----- Quaking aspen----- Swamp white oak---- Silver maple----- White ash----- Green ash-----	67 65 67 63 --- --- ---	76 40 76 56 --- --- ---	---
59B, 59C----- Benona	4S	Slight	Moderate	Moderate	Slight	Northern red oak---- American beech----- Black cherry----- Hemlock----- Quaking aspen----- Red maple----- Red pine----- Sugar maple-----	67 --- --- --- --- --- --- ---	61 --- --- --- --- --- --- ---	Red pine, eastern white pine, jack pine.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi-nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip-ment limita-tion	Seedling mortal-ity	Wind-throw hazard	Common trees	Site index	Volume*	
59E----- Benona	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----- American beech----- Black cherry----- Hemlock----- Quaking aspen----- Red maple----- Red pine----- Sugar maple-----	67 --- --- --- --- --- --- ---	61 --- --- --- --- --- --- ---	Red pine, eastern white pine, jack pine.
60B, 60C----- Coloma	2S	Slight	Moderate	Moderate	Slight	Northern pin oak----- Jack pine----- Eastern white pine-- Black oak-----	49 --- --- ---	32 --- --- ---	Red pine, eastern white pine, jack pine.
60E----- Coloma	2R	Moderate	Moderate	Moderate	Slight	Northern pin oak----- Jack pine----- Eastern white pine-- Black oak-----	49 --- --- ---	32 --- --- ---	Red pine, eastern white pine, jack pine.
61B, 61C----- Epworth	4S	Slight	Moderate	Moderate	Slight	Northern red oak----- White oak----- Red maple-----	67 --- ---	61 --- ---	Red pine, jack pine.
61E----- Epworth	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----- White oak----- Red maple-----	67 --- ---	61 --- ---	Red pine, jack pine.
62B, 62C----- Plainfield	8S	Slight	Moderate	Moderate	Slight	Eastern white pine-- Red pine----- Jack pine-----	58 55 49	115 88 52	Red pine, eastern white pine, jack pine.
65----- Sloan	3W	Slight	Severe	Moderate	Moderate	Red maple----- Swamp white oak----- White ash----- Green ash----- Eastern cottonwood--	66 --- 66 66 89	41 --- 60 60 100	---
67----- Cohoctah	2W	Slight	Severe	Moderate	Moderate	Red maple----- Eastern cottonwood-- Silver maple----- White ash----- Swamp white oak----- American sycamore-- Pin oak----- Bitternut hickory--	56 --- 80 --- --- --- --- ---	36 --- 34 --- --- --- --- ---	---
69----- Alganese	4W	Slight	Severe	Slight	Slight	Quaking aspen----- Silver maple----- Swamp white oak----- White ash----- Red maple----- American sycamore-- Green ash-----	60 78 --- --- --- --- ---	64 32 --- --- --- --- ---	---

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Wind-throw hazard	Common trees	Site index	Volume*	
70----- Glendora	3W	Slight	Severe	Moderate	Moderate	Silver maple----- Red maple----- Swamp white oak----- Quaking aspen----- Black ash----- Eastern cottonwood-- White ash-----	90 65 --- --- --- --- 65	42 40 --- --- --- --- 59	---
71**: Houghton-----	2W	Slight	Severe	Severe	Severe	Silver maple----- Red maple----- White ash----- Quaking aspen----- Tamarack----- Green ash----- Northern whitecedar-	82 56 56 60 52 --- 37	36 36 44 64 45 --- 55	---
Carlisle-----	2W	Slight	Severe	Severe	Severe	Red maple----- White ash----- Green ash----- Quaking aspen----- Swamp white oak----- Silver maple-----	56 --- --- --- --- 82	36 --- --- --- --- 36	---
72----- Adrian	2W	Slight	Severe	Severe	Severe	Silver maple----- Red maple----- White ash----- Quaking aspen----- Tamarack----- Green ash-----	78 53 69 60 45 69	32 34 64 64 35 64	---
73----- Palms	2W	Slight	Severe	Severe	Severe	Red maple----- Silver maple----- White ash----- Quaking aspen----- Northern whitecedar- Tamarack----- Black ash-----	55 80 --- --- --- 61 ---	35 34 --- --- --- 61 ---	---
75----- Martisco	2W	Slight	Severe	Severe	Severe	Red maple-----	55	35	---
77----- Napoleon	3W	Slight	Severe	Severe	Severe	Red maple----- Silver maple----- White ash----- Quaking aspen----- Tamarack----- Black ash----- Swamp white oak----- Black spruce-----	78 --- --- --- --- --- --- ---	49 --- --- --- --- --- --- ---	Tamarack.
92B, 92C----- Chelsea	5S	Slight	Slight	Moderate	Slight	White oak----- Red pine----- Eastern white pine-- Jack pine----- Quaking aspen----- Northern red oak----	70 72 83 70 72 70	66 134 140 103 84 66	Eastern white pine, red pine, jack pine.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
96B**, 96C**, 96D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Tekenink-----	4A	Slight	Slight	Slight	Slight	Northern red oak----- Black cherry----- White ash----- American basswood----- American beech----- Sugar maple-----	66 --- --- --- --- ---	60 --- --- --- --- ---	Black walnut, red pine, eastern white pine, yellow- poplar.
96E**: Spinks-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Tekenink-----	4R	Moderate	Moderate	Slight	Slight	Northern red oak----- Black cherry----- White ash----- American basswood----- American beech----- Sugar maple-----	66 --- --- --- --- ---	60 --- --- --- --- ---	Black walnut, red pine, eastern white pine, yellow- poplar.
97**: Kerston-----	2W	Slight	Severe	Severe	Severe	Red maple----- White ash----- Green ash----- Silver maple----- Tamarack----- Black ash----- American basswood-----	51 --- --- --- --- --- 51	33 --- --- --- --- --- 35	---
Carlisle-----	2W	Slight	Severe	Severe	Severe	Red maple----- White ash----- Green ash----- Quaking aspen----- Swamp white oak----- Silver maple-----	56 --- --- --- --- 82	36 --- --- --- --- 36	---
98B**, 98C**, 98D**: Spinks-----	4A	Slight	Slight	Slight	Slight	Northern red oak----- White oak----- Black oak----- Black cherry-----	66 --- --- ---	60 --- --- ---	Red pine, eastern white pine, Carolina poplar.
Scalley-----	3A	Slight	Slight	Slight	Slight	Sugar maple----- Northern red oak----- Black walnut----- Black cherry----- White ash----- White oak-----	61 --- --- --- --- ---	38 --- --- --- --- ---	White spruce, eastern white pine, red pine, black walnut.

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
99B**: Nappanee-----	4C	Slight	Severe	Slight	Moderate	Northern red oak----- White ash----- Swamp white oak----- Red maple----- American beech-----	66 --- --- --- ---	60 --- --- --- ---	White spruce, eastern white pine.
Hoytville-----	3W	Slight	Severe	Severe	Severe	Northern red oak----- White ash----- Eastern cottonwood-- Red maple----- Silver maple-----	55 --- --- --- ---	42 --- --- --- ---	---
100B----- Nappanee	4C	Slight	Severe	Slight	Moderate	Northern red oak----- White ash----- Swamp white oak----- Red maple----- American beech-----	66 --- --- --- ---	60 --- --- --- ---	White spruce, eastern white pine.
101B, 101C----- Claybanks	4A	Slight	Slight	Slight	Slight	Northern red oak----- Sugar maple----- White ash----- American basswood--- American elm-----	65 --- --- --- ---	59 --- --- --- ---	Northern red oak, white spruce, eastern white pine, northern whitecedar.
210B**, 210C**-- Typic Udipsamments	2S	Slight	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	50 42 54	34 26 40	Red pine, jack pine.
210D**----- Typic Udipsamments	2R	Moderate	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	50 42 54	34 26 40	Red pine, jack pine.
211B**, 211C**-- Typic Udipsamments	3S	Slight	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	53 45 54	34 26 40	Red pine.
212B**----- Typic Udipsamments	3S	Slight	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	56 49 55	34 26 42	Red pine.
213B**, 213C**-- Argic Udipsamments	---	Slight	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	--- --- ---	--- --- ---	---
213D**----- Argic Udipsamments	---	Moderate	Moderate	Moderate	Slight	Black oak----- White oak----- Northern red oak-----	--- --- ---	--- --- ---	---
220B**, 220C**-- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----- White oak----- Black oak----- Red maple-----	61 52 60 ---	53 37 51 ---	---
220D**----- Entic Haplorthods, sandy	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----- White oak----- Black oak----- Red maple-----	61 52 60 ---	53 37 51 ---	---

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
220E**----- Entic Haplorthods, sandy	4R	Severe	Severe	Moderate	Slight	Northern red oak----	61	53	---
						White oak-----	52	37	
						Black oak-----	60	51	
						Red maple-----	---	---	
221B**, 221C**-- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						White oak-----	53	37	
						Black oak-----	66	51	
						Red maple-----	---	---	
221D**----- Entic Haplorthods, sandy	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						White oak-----	53	37	
						Black oak-----	66	51	
						Red maple-----	---	---	
221E**----- Entic Haplorthods, sandy	4R	Severe	Severe	Moderate	Slight	Northern red oak----	65	59	---
						White oak-----	53	39	
						Black oak-----	66	60	
						Red maple-----	---	---	
222B**, 222C**-- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						Red maple-----	---	---	
						White oak-----	55	42	
						Eastern white pine--	---	---	
						Black oak-----	66	60	
223B**, 223C**-- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						Red maple-----	---	---	
						Eastern white pine--	---	---	
						White oak-----	53	39	
223D**----- Entic Haplorthods, sandy	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						Red maple-----	---	---	
						Eastern white pine--	---	---	
						White oak-----	53	39	
223E**----- Entic Haplorthods, sandy	4R	Severe	Severe	Moderate	Slight	Northern red oak----	65	59	---
						Red maple-----	---	---	
						Eastern white pine--	---	---	
						White oak-----	53	39	
224B**----- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	66	60	---
						Eastern white pine--	---	---	
						Paper birch-----	---	---	
						White oak-----	54	40	
						Red maple-----	---	---	
225B**, 225C**-- Entic Haplorthods, sandy	---	Slight	Moderate	Moderate	Slight	---	---	---	---
225D**----- Entic Haplorthods, sandy	---	Moderate	Moderate	Moderate	Slight	---	---	---	---

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
230B**, 230C**-- Entic Haplorthods, sandy	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	68	63	---
						White oak-----	60	51	
						Red maple-----	---	---	
230D**----- Entic Haplorthods, sandy	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----	68	63	
						White oak-----	60	51	
						Red maple-----	---	---	
230E**----- Entic Haplorthods, sandy	4R	Severe	Severe	Moderate	Slight	Northern red oak----	68	63	---
						White oak-----	60	51	
						Red maple-----	---	---	
231B**: Entic Haplorthods, sandy-----	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	61	53	---
						White oak-----	52	37	
						Black oak-----	60	51	
						Red maple-----	---	---	
Alfic Haplorthods, sandy over loamy-----	5S	Slight	Moderate	Moderate	Slight	Northern red oak----	77	76	---
						Red maple-----	74	46	
						Paper birch-----	---	---	
233B**, 235C**: Alfic Haplorthods, sandy over loamy-----	5S	Slight	Moderate	Moderate	Slight	Northern red oak----	77	76	---
						Red maple-----	74	46	
						Paper birch-----	---	---	
Entic Haplorthods; sandy-----	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	61	53	---
						White oak-----	52	37	
						Black oak-----	60	51	
						Red maple-----	---	---	
233D**: Alfic Haplorthods, sandy over loamy-----	5R	Moderate	Moderate	Moderate	Slight	Northern red oak----	77	76	---
						Red maple-----	74	46	
						Paper birch-----	---	---	
Entic Haplorthods, sandy-----	4R	Moderate	Moderate	Moderate	Slight	Northern red oak----	61	53	---
						White oak-----	52	37	
						Black oak-----	60	51	
						Red maple-----	---	---	

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Common trees	Site index	Volume*	
233E**: Alfic Haplorthods, sandy over loamy-----	5R	Severe	Severe	Moderate	Slight	Northern red oak----	77	76	---
						Red maple-----	74	46	
						Paper birch-----	---	---	
Entic Haplorthods, sandy-----	4R	Severe	Severe	Moderate	Slight	Northern red oak----	61	53	---
						White oak-----	52	37	
						Black oak-----	60	51	
						Red maple-----	---	---	
235B**, 235C**: Alfic Haplorthods, sandy over loamy-----	5S	Slight	Moderate	Moderate	Slight	Northern red oak----	77	76	---
						Red maple-----	74	46	
						Paper birch-----	---	---	
Alfic Haplorthods, sandy-----	3S	Slight	Moderate	Moderate	Slight	Red maple-----	72	44	---
						Northern red oak----	75	73	
						White oak-----	60	51	
240C**-----	3S	Slight	Moderate	Moderate	Slight	Sugar maple-----	65	40	---
Entic Haplorthods, sandy						Northern red oak----	76	73	
						Red maple-----	65	40	
						American beech-----	---	---	
241B**-----	3S	Slight	Moderate	Moderate	Slight	Sugar maple-----	65	40	---
Entic Haplorthods, sandy						American basswood----	---	---	
						American beech-----	---	---	
						Northern red oak----	76	75	
245B**, 245C**--	3S	Slight	Moderate	Moderate	Slight	Sugar maple-----	75	47	---
Entic Haplorthods, sandy						American beech-----	---	---	
						Northern red oak----	88	89	
						White ash-----	85	88	
						American basswood----	---	---	
245D**-----	3R	Moderate	Moderate	Moderate	Slight	Sugar maple-----	75	47	---
Entic Haplorthods, sandy						American beech-----	---	---	
						Northern red oak----	88	89	
						White ash-----	85	88	
						American basswood----	---	---	
250**: Mollic Psammaquents--	---	Slight	Severe	Severe	Severe	Red maple-----	---	---	---
						Balsam fir-----	---	---	
						Paper birch-----	---	---	
						Black ash-----	---	---	

See footnotes at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi- nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Common trees	Site index	Volume*	
250**: Aquic Udipsamments--	4S	Slight	Moderate	Moderate	Slight	Northern red oak----	65	59	---
						Red maple-----	---	---	
						Balsam fir-----	---	---	
Medisaprists, euic.									
262A**----- Aeric Haplaquods, sandy, orstein	4W	Slight	Severe	Moderate	Severe	Northern red oak----	60	51	---
						Black oak-----	---	---	
						White oak-----	52	37	
						Red maple-----	---	---	
						Paper birch-----	---	---	
						Jack pine-----	---	---	
263A**----- Aquic Udipsamments	---	Slight	Moderate	Moderate	Slight	---	---	---	---
272**----- Typic Haplaquods, sandy	---	Slight	Severe	Severe	Severe	Red maple-----	---	---	---
						Paper birch-----	---	---	
						Jack pine-----	---	---	
						Tamarack-----	---	---	
273**----- Mollic Psammaquents	---	Slight	Severe	Severe	Severe	Black ash-----	---	---	---
						Green ash-----	---	---	
274**----- Typic Haplaquolls, sandy over loamy	---	Slight	Severe	Severe	Severe	Black ash-----	---	---	---
						Eastern hemlock----	---	---	
						American basswood--	---	---	
						Northern whitecedar-	---	---	
						Red maple-----	---	---	
						White spruce-----	---	---	
281----- Medisaprists, dysic	---	Slight	Severe	Severe	Severe	Black spruce-----	---	---	---
282----- Medisaprists, euic	---	Slight	Severe	Severe	Severe	Northern whitecedar-	---	---	---
						American basswood---	---	---	

* Volume is the yield in cubic feet per acre per year calculated at the age of culmination of mean annual increment for fully stocked natural stands.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS

(The symbol < means less than; > means more than. Absence of an entry indicates that trees generally do not grow to the given height on that soil. Only those soils suitable for windbreaks and environmental plantings are listed)

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
10B, 10C, 10D, 10E----- Ferrinton	Roselow sargent crabapple, lilac, silky dogwood, northern whitecedar, American cranberrybush, nannyberry viburnum.	White spruce, Amur maple, Manchurian crabapple.	Eastern white pine, green ash, Norway spruce.	---
11A----- Ithaca	Northern whitecedar, silky dogwood, Amur maple, lilac, American cranberrybush, Amur privet.	White spruce, Siberian crabapple, eastern white pine, Norway spruce.	Green ash, red maple	---
12----- Bono	American cranberrybush, silky dogwood, Amur privet, Amur honeysuckle.	Northern whitecedar, Austrian pine, blue spruce, white fir, Washington hawthorn.	Eastern white pine, Norway spruce.	---
13B, 13C, 13D----- Marlette	American cranberrybush, common ninebark, lilac, silky dogwood.	White spruce, Amur maple, Manchurian crabapple, nannyberry viburnum.	Norway spruce, eastern white pine, green ash.	Imperial Carolina poplar.
14B----- Capac	Silky dogwood, American cranberrybush, Amur privet, lilac.	White spruce, northern whitecedar, Amur maple.	Eastern white pine, red maple, Norway spruce, green ash.	Imperial Carolina poplar.
16B, 16C, 16D----- Remus	Nannyberry viburnum, American cranberrybush, lilac, silky dogwood.	Northern whitecedar, Siberian crabapple, white spruce.	Norway spruce, red pine, green ash, eastern white pine.	Imperial Carolina poplar.
17B*, 17C*, 17D*: Marlette-----	American cranberrybush, common ninebark, lilac, silky dogwood.	White spruce, Amur maple, Manchurian crabapple, nannyberry viburnum.	Norway spruce, eastern white pine, green ash.	Imperial Carolina poplar.
Fern-----	Amur maple, nannyberry viburnum, American cranberrybush, Siberian peashrub, lilac, silky dogwood.	White spruce, green ash.	Norway spruce, red pine, eastern white pine.	Imperial Carolina poplar.
18B*, 18C*, 18D*: Spinks-----	American cranberrybush, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
18B*, 18C*, 18D*: Gowdy-----	Siberian peashrub, lilac, eastern redcedar, silky dogwood, Amur maple, gray dogwood, American cranberrybush.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
20B*, 20C*, 20D*: Arkport-----	American cranberrybush, Amur honeysuckle, Amur privet, Washington hawthorn.	Eastern redcedar, Osage-orange, northern whitecedar, Austrian pine.	Red pine, Norway spruce, eastern white pine.	---
Chelsea-----	Eastern redcedar-----	Red pine, jack pine, Austrian pine.	Eastern white pine----	---
21A----- Freesoil	Lilac, silky dogwood, nannyberry viburnum, arrowwood, Roselow sargent crabapple, autumn olive.	Manchurian crabapple, white spruce, Austrian pine.	Norway spruce, green ash.	Imperial Carolina poplar.
22B, 22C----- Gowdy	Siberian peashrub, lilac, eastern redcedar, silky dogwood, Amur maple, gray dogwood, American cranberrybush.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
23A----- Arkona	American cranberrybush, silky dogwood, lilac, nannyberry viburnum.	Northern whitecedar, blue spruce, Siberian crabapple.	Eastern white pine, Norway spruce, green ash.	Carolina poplar.
25B*, 25C*, 25D*, 25E*: Gowdy-----	Siberian peashrub, lilac, eastern redcedar, silky dogwood, Amur maple, gray dogwood, American cranberrybush.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
Perrinton-----	Roselow sargent crabapple, lilac, silky dogwood, northern whitecedar, American cranberrybush, nannyberry viburnum.	White spruce, Amur maple, Manchurian crabapple.	Eastern white pine, green ash, Norway spruce.	---

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
26A*: Arkona-----	American cranberrybush, silky dogwood, lilac, nannyberry viburnum.	Northern whitecedar, blue spruce, Siberian crabapple.	Eastern white pine, Norway spruce, green ash.	Carolina poplar.
Ithaca-----	Northern whitecedar, silky dogwood, Amur maple, lilac, American cranberrybush, Amur privet.	White spruce, Siberian crabapple, eastern white pine, Norway spruce.	Green ash, red maple	---
27B*: Arkona-----	American cranberrybush, silky dogwood, lilac, nannyberry viburnum.	Northern whitecedar, blue spruce, Siberian crabapple.	Eastern white pine, Norway spruce, green ash.	Carolina poplar.
Del Rey-----	American cranberrybush, Amur privet, late lilac.	Eastern white pine, white spruce.	White ash, red pine, red maple, Norway spruce, Black Hills spruce.	Green ash.
28B, 28C, 28D----- Fern	Amur maple, nannyberry viburnum, American cranberrybush, Siberian peashrub, lilac, silky dogwood.	White spruce, green ash.	Norway spruce, red pine, eastern white pine.	Imperial Carolina poplar.
29A----- Dixboro	Nannyberry viburnum, American cranberrybush, gray dogwood.	White spruce, northern whitecedar.	Eastern white pine, Norway spruce, green ash.	Imperial Carolina poplar.
30----- Lamson	American cranberrybush, Amur privet, silky dogwood.	Northern whitecedar, white spruce.	Eastern white pine, green ash.	---
35B*, 35C*, 35D*: Alvin-----	Eastern redcedar, Russian-olive, silky dogwood, Siberian peashrub.	Norway spruce, eastern white pine, honeylocust, green ash, red pine, hackberry, Amur maple.	---	---
Spinks-----	American cranberrybush, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
36A----- Del Rey	American cranberrybush, Amur privet, late lilac.	Eastern white pine, white spruce.	White ash, red pine, red maple, Norway spruce, Black Hills spruce.	Green ash.

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
37A----- Altmar	Lilac, silky dogwood, Roselow sargent crabapple, autumn olive.	White spruce, Amur maple, Manchurian crabapple, Austrian pine.	Norway spruce, eastern white pine, green ash.	Imperial Carolina poplar.
38B*, 38C*, 38D*, 38E*: Spinks-----	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
Okee-----	Siberian peashrub, eastern redcedar, Russian-olive.	Eastern white pine, red pine, honeylocust, Norway spruce, green ash, hackberry, Amur maple.	---	---
40B*, 40C*, 40D*: Coloma-----	Eastern redcedar, Siberian peashrub, lilac, American cranberrybush, silky dogwood, gray dogwood, Amur maple.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
Toogood-----	Eastern redcedar, Siberian peashrub, Siberian dogwood, Peking cotoneaster, lilac.	Jack pine, Austrian pine, red pine, honeylocust, black locust.	Eastern white pine----	---
42B*, 42C*, 42D*, 42E*: Spinks-----	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
Remus-----	Nannyberry viburnum, American cranberrybush, lilac, silky dogwood.	Northern whitecedar, Siberian crabapple, white spruce.	Norway spruce, red pine, green ash, eastern white pine.	Imperial Carolina poplar.
Fern-----	Amur maple, nannyberry viburnum, American cranberrybush, Siberian peashrub, lilac, silky dogwood.	White spruce, green ash.	Norway spruce, red pine, eastern white pine.	Imperial Carolina poplar.
43B, 43C, 43D, 43E----- Spinks	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
44B----- Thetford	Silky dogwood, lilac, American cranberrybush.	White spruce, northern whitecedar, Amur maple.	Norway spruce, eastern white pine, green ash.	Imperial Carolina poplar.
45B*, 45C*, 45D*, 45E*, 45F*: Spinks-----	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
Benona-----	Eastern redcedar, Siberian peashrub, red pine.	Austrian pine, jack pine.	Eastern white pine----	---
46B----- Grattan	Lilac, eastern redcedar, Siberian peashrub.	Red pine, Austrian pine, jack pine.	Eastern white pine----	---
48A*: Saugatuck-----	Siberian peashrub, lilac, silky dogwood, nannyberry viburnum, common ninebark, American cranberrybush.	White spruce, northern whitecedar, Siberian crabapple.	Eastern white pine, Norway spruce, green ash.	---
Jebavy.				
49B, 49B3, 49C, 49C3, 49E, 49F--- Grattan	Lilac, eastern redcedar, Siberian peashrub, Tatarian honeysuckle.	Siberian crabapple, Austrian pine, jack pine.	Red pine, eastern white pine.	---
50B----- Covert	Lilac, eastern redcedar, Siberian peashrub.	Austrian pine, jack pine, red pine.	Eastern white pine----	---
51B----- Pipestone	Lilac, silky dogwood, American cranberrybush.	Northern whitecedar, Amur maple, white spruce.	Red maple, Norway spruce, eastern white pine, green ash.	Imperial Carolina poplar.
52----- Granby	Amur privet, silky dogwood, American cranberrybush, nannyberry viburnum.	Northern whitecedar, white spruce, Manchurian crabapple, green ash, lilac.	Eastern white pine, Norway spruce.	Imperial Carolina poplar.
53B, 53C----- Grattan	Eastern redcedar, lilac, Siberian peashrub, smooth sumac, hedge cotoneaster, staghorn sumac.	Red pine, eastern white pine, Austrian pine, jack pine.	---	---

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
56B, 56C, 56E----- Benona	Eastern redcedar, Peking cotoneaster, lilac, smooth sumac, Siberian peashrub, staghorn sumac.	Austrian pine, jack pine, red pine.	---	---
57C, 57F----- Nordhouse	Eastern redcedar, lilac, Siberian peashrub.	Red pine, jack pine, Austrian pine.	Eastern white pine----	---
59B, 59C, 59E----- Benona	Eastern redcedar, Siberian peashrub, red pine.	Austrian pine, jack pine.	Eastern white pine----	---
60B, 60C, 60E----- Coloma	Eastern redcedar, Siberian peashrub, lilac, American cranberrybush, silky dogwood, gray dogwood, Amur maple.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
61B, 61C, 61E----- Epworth	Eastern redcedar, Siberian peashrub, lilac.	Austrian pine, red pine, jack pine.	Eastern white pine----	---
62B, 62C----- Plainfield	Siberian peashrub, lilac, eastern redcedar, American cranberrybush, silky dogwood, gray dogwood, Amur maple.	Norway spruce-----	Eastern white pine, red pine, jack pine.	---
65----- Sloan	Green ash, silky dogwood, Amur privet, white spruce, American cranberrybush.	Northern whitecedar, Manchurian crabapple.	Golden willow-----	Carolina poplar.
67----- Cohoctah	European privet, American cranberrybush, lilac, nannyberry viburnum.	Northern whitecedar, Manchurian crabapple, white spruce.	Green ash, Norway spruce, eastern white pine.	Imperial Carolina poplar.
71*: Houghton----- Carlisle.	Silky dogwood, lilac, Amur privet, common ninebark, nannyberry viburnum.	Siberian crabapple, northern whitecedar.	Green ash, Norway spruce, eastern white pine.	Imperial Carolina poplar.
92B, 92C----- Chelsea	Eastern redcedar-----	Red pine, jack pine, Austrian pine.	Eastern white pine----	---

See footnote at end of table.

TABLE 9.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--			
	8-15	16-25	26-35	>35
96B*, 96C*, 96D*, 96E*: Spinks-----	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
Tekenink-----	Amur privet, nannyberry viburnum, lilac, silky dogwood, American cranberrybush.	White spruce, northern whitecedar, green ash.	Eastern white pine, red pine, Norway spruce.	Imperial Carolina poplar.
98B*, 98C*, 98D*: Spinks-----	American cranberrybush, silky dogwood, lilac, Siberian peashrub.	White spruce, eastern redcedar.	Eastern white pine, red pine, green ash, Norway spruce.	Carolina poplar.
Scalley-----	Lilac, Roselow sargent crabapple, silky dogwood, Amur honeysuckle, eastern redcedar, Siberian peashrub.	Austrian pine, Siberian crabapple, jack pine.	Eastern white pine, red pine, green ash.	---
99B*: Nappanee-----	Silky dogwood, American cranberrybush, lilac, sargent crabapple.	White spruce, northern whitecedar, Amur maple, Siberian crabapple.	Eastern white pine, green ash, Norway spruce.	Imperial Carolina poplar.
Hoytville-----	Nannyberry viburnum, American cranberrybush, silky dogwood, Amur privet.	Northern whitecedar, Manchurian crabapple, white spruce.	Norway spruce, green ash, eastern white pine.	Carolina poplar.
100B----- Nappanee	Silky dogwood, American cranberrybush, lilac, sargent crabapple.	White spruce, northern whitecedar, Amur maple, Siberian crabapple.	Eastern white pine, green ash, Norway spruce.	Imperial Carolina poplar.
101B, 101C----- Claybanks	Nannyberry viburnum, American cranberrybush, common ninebark, lilac, sargent crabapple.	Eastern white pine, white spruce, Norway spruce.	Green ash-----	---

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--RECREATIONAL DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
10B----- Perrinton	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones, percs slowly.	Severe: erodes easily.
10C----- Perrinton	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Severe: erodes easily.
10D----- Perrinton	Severe: slope.	Severe: slope.	Severe: slope.	Severe: erodes easily.
10E----- Perrinton	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, erodes easily.
11A----- Ithaca	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
12----- Bono	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding.
13B----- Marlette	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones, percs slowly.	Slight.
13C----- Marlette	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight.
13D----- Marlette	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
14B----- Capac	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
16B----- Remus	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
16C----- Remus	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight.
16D----- Remus	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
17B*: Marlette-----	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones, percs slowly.	Slight.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
17B*: Fern-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
17C*: Marlette-----	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight.
Fern-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
17D*: Marlette-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
Fern-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
18B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Gowdy-----	Moderate: percs slowly, too sandy.	Moderate: too sandy, percs slowly.	Moderate: slope, too sandy.	Moderate: too sandy.
18C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Gowdy-----	Moderate: slope, percs slowly.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
18D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Gowdy-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
20B*: Arkport-----	Slight-----	Slight-----	Moderate: slope.	Slight.
Chelsea-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
20C*: Arkport-----	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
20C*: Chelsea-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
20D*: Arkport-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Chelsea-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
21A----- Freesoil	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
22B----- Gowdy	Moderate: percs slowly, too sandy.	Moderate: too sandy, percs slowly.	Moderate: slope, too sandy.	Moderate: too sandy.
22C----- Gowdy	Moderate: slope, percs slowly.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
23A----- Arkona	Severe: wetness, percs slowly.	Severe: percs slowly.	Severe: wetness, percs slowly.	Moderate: wetness.
24----- Sickles	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding.
25B*: Gowdy-----	Moderate: percs slowly, too sandy.	Moderate: too sandy, percs slowly.	Moderate: slope, too sandy.	Moderate: too sandy.
Perrinton-----	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones, percs slowly.	Severe: erodes easily.
25C*: Gowdy-----	Moderate: slope, percs slowly.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Perrinton-----	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Severe: erodes easily.
25D*: Gowdy-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Perrinton-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: erodes easily.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
25E*: Gowdy-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Ferrinton-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, erodes easily.
26A*: Arkona-----	Severe: wetness, percs slowly.	Severe: percs slowly.	Severe: wetness, percs slowly.	Moderate: wetness.
Ithaca-----	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
27B*: Arkona-----	Severe: wetness, percs slowly.	Severe: percs slowly.	Severe: wetness, percs slowly.	Moderate: wetness.
Del Rey-----	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
28B----- Fern	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, small stones.	Moderate: too sandy.
28C----- Fern	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
28D----- Fern	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
29A----- Dixboro	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.
30----- Lamson	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
35B*: Alvin-----	Slight-----	Slight-----	Moderate: slope.	Slight.
Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, small stones.	Moderate: too sandy.
35C*: Alvin-----	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.
Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
35D*: Alvin-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
36A----- Del Rey	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
37A----- Altmar	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.
38B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Okee-----	Slight-----	Slight-----	Moderate: slope.	Slight.
38C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Okee-----	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.
38D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Okee-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
38E*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Okee-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
40B*: Coloma-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Toogood-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
40C*: Coloma-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
40C*: Toogood-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
40D*: Coloma-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Toogood-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
41----- Granby	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
42B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Remus-----	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
Fern-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: too sandy.	Moderate: too sandy.
42C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Remus-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
Fern-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
42D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Remus-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
Fern-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
42E*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Remus-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
42E*: Fern-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
43B----- Spinks	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
43C----- Spinks	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
43D----- Spinks	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
43E----- Spinks	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
44B----- Thetford	Severe: wetness.	Moderate: wetness, too sandy.	Severe: wetness.	Moderate: wetness, too sandy.
45B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Benona-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
45C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Benona-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
45D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Benona-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
45E*, 45F*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Benona-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
46B----- Grattan	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
48A*: Saugatuck-----	Severe: wetness, too sandy, cemented pan.	Severe: wetness, too sandy, cemented pan.	Severe: too sandy, wetness, cemented pan.	Severe: wetness, too sandy.
Jebavy-----	Severe: ponding, too sandy, cemented pan.	Severe: ponding, too sandy, cemented pan.	Severe: too sandy, ponding, cemented pan.	Severe: ponding, too sandy.
49B, 49B3----- Grattan	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
49C, 49C3----- Grattan	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
49E, 49F----- Grattan	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
50B----- Covert	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
51B----- Pipestone	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.
52----- Granby	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
53B----- Grattan	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
53C----- Grattan	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
56B----- Benona	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
56C----- Benona	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
56E----- Benona	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
57C----- Nordhouse	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
57F----- Nordhouse	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
58----- Kingsville	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
59B----- Benona	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
59C----- Benona	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
59E----- Benona	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
60B----- Coloma	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
60C----- Coloma	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
60E----- Coloma	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
61B----- Epworth	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
61C----- Epworth	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
61E----- Epworth	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
62B----- Plainfield	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
62C----- Plainfield	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
65----- Sloan	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.
67----- Cohoctah	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
69----- Alganssee	Severe: flooding, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.
70----- Glendora	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
71*: Houghton-----	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
Carlisle-----	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
72----- Adrian	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
73----- Palms	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
75----- Martisco	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
77----- Napoleon	Severe: ponding, excess humus, too acid.	Severe: ponding, excess humus, too acid.	Severe: excess humus, ponding, too acid.	Severe: ponding, excess humus.
83*: Histosols-----	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
84F*: Dune land.				
Quartzipsamments-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Psammaquents-----	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
85F*: Udorthents-----	Variable-----	Variable-----	Variable-----	Variable.
Quartzipsamments-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
86F*: Dune land.				
Quartzipsamments-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
87. Beaches				
88A----- Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
89A----- Udorthents	Variable-----	Variable-----	Variable-----	Variable.
91. Pits, sand and gravel				
92B----- Chelsea	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
92C----- Chelsea	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
96B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Tekenink-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
96C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Tekenink-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
96D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Tekenink-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope, too sandy.
96E*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Tekenink-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
97*: Kerston-----	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
97*: Carlisle-----	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.
98B*: Spinks-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
Scalley-----	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
98C*: Spinks-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
Scalley-----	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
98D*: Spinks-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
Scalley-----	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope, too sandy.
99B*: Nappanee-----	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
Hoytville-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
100B----- Nappanee	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
101B----- Claybanks	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones, percs slowly.	Severe: erodes easily.
101C----- Claybanks	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Severe: erodes easily.
210B*----- Typic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
210C*----- Typic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
210D*----- Typic Udipsamments	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
211B*----- Typic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
211C*----- Typic Udipsamments	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
212B*----- Typic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
213B*----- Argic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
213C*----- Argic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
213D*----- Argic Udipsamments	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
220B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
220C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
220D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
220E*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
221B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
221C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
221D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
221E*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
222B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
222C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
223B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
223C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
223D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
223E*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
224B*, 225B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
225C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
225D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
230B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
230C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
230D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
230E*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
231B*: Entic Haplorthods, sandy-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Alfic Haplorthods, sandy over loamy----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
233B*: Alfic Haplorthods, sandy over loamy----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
233B*: Entic Haplorthods, sandy-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
233C*: Alfic Haplorthods, sandy over loamy----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Entic Haplorthods, sandy-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
233D*: Alfic Haplorthods, sandy over loamy----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Entic Haplorthods, sandy-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
233E*: Alfic Haplorthods, sandy over loamy----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
Entic Haplorthods, sandy-----	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
235B*: Alfic Haplorthods, sandy over loamy----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Alfic Haplorthods, sandy-----	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
235C*: Alfic Haplorthods, sandy over loamy----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Alfic Haplorthods, sandy-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
240C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 10.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
241B*, 245B*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
245C*----- Entic Haplorthods, sandy	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
245D*----- Entic Haplorthods, sandy	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
250*: Mollic Psammaquents--	Severe: flooding, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
Aquic Udipsamments---	Severe: flooding, too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Medisaprists, euic---	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
262A*----- Aeric Haplaquods, sandy, ortstein	Severe: wetness, too sandy, cemented pan.	Severe: wetness, too sandy, cemented pan.	Severe: too sandy, wetness, cemented pan.	Severe: wetness, too sandy.
263A*----- Aquic Udipsamments	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
272*----- Typic Haplaquods, sandy	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
273*----- Mollic Psammaquents	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
274*----- Typic Haplaquolls, sandy over loamy	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
280*: Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
Histosols-----	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
281----- Medisaprists, dysic	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
282----- Medisaprists, euic	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 11.--WILDLIFE HABITAT

(See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
10B----- Perrinton	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
10C----- Perrinton	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
10D----- Perrinton	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
10E----- Perrinton	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
11A----- Ithaca	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
12----- Bono	Fair	Fair	Poor	Poor	Poor	Good	Good	Fair	Poor	Good.
13B----- Marlette	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
13C----- Marlette	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
13D----- Marlette	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
14B----- Capac	Good	Good	Good	Good	Fair	Poor	Poor	Good	Good	Poor.
16B----- Remus	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
16C, 16D----- Remus	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
17B*: Marlette-----	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Fern-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
17C*: Marlette-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Fern-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
17D*: Marlette-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Fern-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
18B*: Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Gowdy-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
18C*, 18D*: Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Gowdy-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
20B*: Arkport-----	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Chelsea-----	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.
20C*: Arkport-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Chelsea-----	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
20D*: Arkport-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Chelsea-----	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
21A----- Freesoil	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
22B----- Gowdy	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
22C----- Gowdy	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
23A----- Arkona	Fair	Fair	Good	Fair	Fair	Poor	Fair	Fair	Fair	Poor.
24----- Sickles	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
25B*: Gowdy-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Perrinton-----	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
25C*: Gowdy-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.
Perrinton-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
25D*: Gowdy-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Perrinton-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
25E*: Gowdy-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Perrinton-----	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
26A*: Arkona-----	Fair	Fair	Good	Fair	Fair	Poor	Fair	Fair	Fair	Poor.
Ithaca-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
27B*: Arkona-----	Fair	Fair	Good	Fair	Fair	Poor	Fair	Fair	Fair	Poor.
Del Rey-----	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
28B, 28C----- Fern	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
28D----- Fern	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
29A----- Dixboro	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
30----- Lamson	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
35B*: Alvin-----	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
35C*: Alvin-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
35D*:										
Alvin-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
36A-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Del Rey										
37A-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Poor.
Altmar										
38B*:										
Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Okee-----	Fair	Good	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
38C*:										
Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Okee-----	Fair	Good	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
38D*:										
Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Okee-----	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
38E*:										
Spinks-----	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Okee-----	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Very poor.	Good	Very poor.
40B*:										
Coloma-----	Fair	Fair	Fair	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.
Toogood-----	Fair	Fair	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
40C*, 40D*:										
Coloma-----	Poor	Fair	Fair	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.
Toogood-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
41-----										
Granby	Poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
42B*: Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Remus-----	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Fern-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
42C*, 42D*: Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Remus-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Fern-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Good.
42E*: Spinks-----	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Remus-----	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Fern-----	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Good.
43B----- Spinks	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
43C, 43D----- Spinks	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
43E----- Spinks	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
44B----- Thetford	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
45B*: Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Benona-----	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
45C*, 45D*: Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Benona-----	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
45E*, 45F*: Spinks-----	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
45E*, 45F*: Benona-----	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
46B----- Grattan	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
48A*: Saugatuck-----	Poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Poor.
Jebavy-----	Poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.
49B, 49B3----- Grattan	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
49C, 49C3, 49E, 49F-----	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
50B----- Covert	Poor	Poor	Fair	Good	Good	Poor	Poor	Poor	Good	Poor.
51B----- Pipestone	Poor	Fair	Fair	Good	Good	Poor	Very poor.	Poor	Good	Very poor.
52----- Granby	Poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.
53B, 53C----- Grattan	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
56B----- Benona	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
56C----- Benona	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
56E----- Benona	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
57C----- Nordhouse	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
57F----- Nordhouse	Very poor.	Very poor.	Fair	Fair	Fair	Very poor.	Very poor.	Very poor.	Fair	Very poor.
58----- Kingsville	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
59B----- Benona	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
59C----- Benona	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
59E----- Benona	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
60B----- Coloma	Fair	Fair	Fair	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.
60C----- Coloma	Poor	Fair	Fair	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.
60E----- Coloma	Very poor.	Fair	Fair	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.
61B----- Epworth	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
61C----- Epworth	Fair	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
61E----- Epworth	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
62B----- Plainfield	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
62C----- Plainfield	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
65----- Sloan	Fair	Fair	Good	Poor	Poor	Good	Good	Fair	Poor	Good.
67----- Cohoctah	Poor	Poor	Poor	Good	Good	Good	Good	Poor	Good	Good.
69----- Alganssee	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
70----- Glendora	Very poor.	Very poor.	Fair	Fair	Fair	Good	Good	Very poor.	Fair	Good.
71*: Houghton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
Carlisle-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
72----- Adrian	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
73----- Palms	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
75----- Martisco	Very poor.	Poor	Very poor.	Very poor.	Very poor.	Good	Good	Very poor.	Very poor.	Good.
77----- Napoleon	Very poor.	Very poor.	Poor	Poor	Poor	Good	Good	Very poor.	Poor	Good.
83*: Histosols. Aquents.										

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
84F*: Dune land.										
Quartzipsamments.										
Psammaquents.										
85F*: Udorthents.										
Quartzipsamments.										
86F*: Dune land.										
Quartzipsamments.										
87. Beaches										
88A. Udipsamments										
89A. Udorthents										
91. Pits, sand and gravel										
92B----- Chelsea	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.
92C----- Chelsea	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
96B*: Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Tekenink-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
96C*, 96D*: Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Tekenink-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
96E*: Spinks-----	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Tekenink-----	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
97*:										
Kerston-----	Fair	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
Carlisle-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
98B*:										
Spinks-----	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Scalley-----	Good	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
98C*, 98D*:										
Spinks-----	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Scalley-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
99B*:										
Nappanee-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
Hoytville-----	Fair	Fair	Poor	Poor	Poor	Good	Good	Fair	Poor	Good.
100B-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
Nappanee										
101B-----	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Claybanks										
101C-----	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Claybanks										
210B*-----	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Typic Udipsamments										
210C*, 210D*-----	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Typic Udipsamments										
211B*-----	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Typic Udipsamments										
211C*-----	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Typic Udipsamments										
212B*-----	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Typic Udipsamments										
213B*-----	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Argic Udipsamments										
213C*-----	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Argic Udipsamments										
213D*.										
Argic Udipsamments										

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
220B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
220C*, 220D*, 220E*----- Entic Haplorthods, sandy	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
221B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
221C*, 221D*, 221E*----- Entic Haplorthods, sandy	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
222B*, 222C*, 223B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
223C*, 223D*, 223E*----- Entic Haplorthods, sandy	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
224B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
225B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
225C*, 225D*----- Entic Haplorthods, sandy	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
230B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
230C*, 230D*, 230E*----- Entic Haplorthods, sandy	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
231B*: Entic Haplorthods, sandy-----	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
Alfic Haplorthods, sandy over loamy--	Poor	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
233B*: Alfic Haplorthods, sandy over loamy--	Poor	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Entic Haplorthods, sandy-----	Poor	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
233C*, 233D*, 233E*: Alfic Haplorthods, sandy over loamy	Poor	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Entic Haplorthods, sandy-----	Very poor.	Poor	Fair	Fair	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
235B*: Alfic Haplorthods, sandy over loamy--	Poor	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Alfic Haplorthods, sandy-----	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
235C*: Alfic Haplorthods, sandy over loamy--	Poor	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Alfic Haplorthods, sandy-----	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
240C*----- Entic Haplorthods, sandy	Poor	Poor	Poor	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 11.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
241B*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
245B*----- Entic Haplorthods, sandy	Poor	Good	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
245C*, 245D*----- Entic Haplorthods, sandy	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
250*: Mollic Psammaquents-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Aquic Udipsamments	Poor	Poor	Fair	Good	Good	Fair	Poor	Poor	Good	Fair.
Medisapristis, euic	Very poor.	Very poor.	Poor	Poor	Poor	Good	Good	Very poor.	Poor	Good.
262A*----- Aeric Haplaquods, sandy, ortstein	Poor	Poor	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Poor.
263A*----- Aquic Udipsamments	Poor	Poor	Fair	Good	Good	Poor	Poor	Poor	Good	Poor.
272*----- Typic Haplaquods, sandy	Very poor.	Poor	Poor	Fair	Poor	Good	Good	Very poor.	Fair	Good.
273*----- Mollic Psammaquents	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
274*----- Typic Haplaquolls, sandy over loamy	Poor	Poor	Good	Fair	Fair	Good	Good	Poor	Good	Good.
280*: Aquents. Histosols.										
281----- Medisapristis, dysic	Very poor.	Very poor.	Poor	Poor	Poor	Fair	Fair	Very poor.	Poor	Fair.
282----- Medisapristis, euic	Very poor.	Very poor.	Poor	Poor	Fair	Good	Good	Very poor.	Fair	Good.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--BUILDING SITE DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
10B----- Perrinton	Moderate: too clayey.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, slope.	Severe: low strength.	Slight.
10C----- Perrinton	Moderate: too clayey, slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Severe: low strength.	Moderate: slope.
10D, 10E----- Perrinton	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
11A----- Ithaca	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, frost action.	Moderate: wetness.
12----- Bono	Severe: ponding.	Severe: ponding, shrink-swell.	Severe: ponding, shrink-swell.	Severe: ponding, shrink-swell.	Severe: shrink-swell, low strength, ponding.	---
13B----- Marlette	Slight-----	Slight-----	Slight-----	Moderate: slope.	Severe: low strength.	Slight.
13C----- Marlette	Moderate: slope.	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: slope.
13D----- Marlette	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
14B----- Capac	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.
16B----- Remus	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: droughty.
16C----- Remus	Moderate: slope.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
16D----- Remus	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
17B*: Marlette-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Severe: low strength.	Slight.
Fern-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: droughty, too sandy.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
17C*: Marlette-----	Moderate: slope.	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: slope.
Fern-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope, too sandy.
17D*: Marlette-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
Fern-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
18B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
Gowdy-----	Severe: cutbanks cave.	Slight-----	Severe: shrink-swell.	Slight-----	Moderate: frost action.	Moderate: droughty.
18C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Gowdy-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
18D*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Gowdy-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope, shrink-swell.	Severe: slope.	Severe: slope.	Severe: slope.
20B*: Arkport-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: droughty.
Chelsea-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
20C*: Arkport-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
Chelsea-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
20D*: Arkport-----	Severe: slope, cutbanks cave.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Chelsea-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
21A----- Freesoil	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
22B----- Gowdy	Severe: cutbanks cave.	Slight-----	Slight-----	Severe: shrink-swell.	Moderate: frost action.	Moderate: droughty.
22C----- Gowdy	Severe: cutbanks cave.	Moderate: slope.	Severe: shrink-swell.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
23A----- Arkona	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
24----- Sickles	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
25B*: Gowdy-----	Severe: cutbanks cave.	Slight-----	Severe: shrink-swell.	Slight-----	Moderate: frost action.	Moderate: droughty.
Perrinton-----	Moderate: too clayey.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Severe: low strength.	Slight.
25C*: Gowdy-----	Severe: cutbanks cave.	Moderate: slope.	Severe: shrink-swell.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
Perrinton-----	Moderate: too clayey, slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Severe: low strength.	Moderate: slope.
25D*, 25E*: Gowdy-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope, shrink-swell.	Severe: slope.	Severe: slope.	Severe: slope.
Perrinton-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
26A*: Arkona-----	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
Ithaca-----	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, frost action.	Moderate: wetness.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
27B*: Arkona-----	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
Del Rey-----	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, frost action.	Moderate: wetness.
28B----- Fern	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: droughty.
28C----- Fern	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: droughty, slope.
28D----- Fern	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
29A----- Dixboro	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.
30----- Lamson	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding, excess humus.
35B*: Alvin-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Slight.
Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
35C*: Alvin-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: slope.
Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
35D*: Alvin-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
36A----- Del Rey	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, frost action.	Moderate: wetness.
37A----- Altmar	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Severe: droughty.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
38B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
Okee-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: large stones, droughty.
38C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Okee-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, droughty, slope.
38D*, 38E*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Okee-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
40B*: Coloma-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
Toogood-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
40C*: Coloma-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
Toogood-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
40D*: Coloma-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Toogood-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
41----- Granby	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
42B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
42B*: Remus-----	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: large stones, droughty.
Fern-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: droughty, too sandy.
42C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Remus-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Fern-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
42D*, 42E*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Remus-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Fern-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
43B----- Spinks	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
43C----- Spinks	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
43D, 43E----- Spinks	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
44B----- Thetford	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
45B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
Benona-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
45C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
45C*: Benona-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
45D*, 45E*, 45F*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Benona-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
46B----- Grattan	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
48A*: Saugatuck-----	Severe: cemented pan, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, cemented pan.	Severe: wetness.	Severe: wetness.	Severe: wetness, cemented pan.
Jebavy-----	Severe: cemented pan, cutbanks cave, ponding.	Severe: ponding.	Severe: ponding, cemented pan.	Severe: ponding.	Severe: ponding.	Severe: ponding, droughty, cemented pan.
49B, 49B3----- Grattan	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
49C, 49C3----- Grattan	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
49E, 49F----- Grattan	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
50B----- Covert	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: droughty, too sandy.
51B----- Pipestone	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
52----- Granby	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
53B----- Grattan	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
53C----- Grattan	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
56B----- Benona	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
56C----- Benona	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
56E----- Benona	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
57C----- Nordhouse	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
57F----- Nordhouse	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
58----- Kingsville	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
59B----- Benona	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
59C----- Benona	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
59E----- Benona	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
60B----- Coloma	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
60C----- Coloma	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
60E----- Coloma	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
61B----- Epworth	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
61C----- Epworth	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
61E----- Epworth	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
62B----- Plainfield	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
62C----- Plainfield	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
65----- Sloan	Severe: wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: low strength, wetness, flooding.	Severe: wetness, flooding.
67----- Cohoctah	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding, frost action.	Severe: wetness.
69----- Algansee	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding.	Moderate: wetness, droughty, flooding.
70----- Glendora	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding.	Severe: wetness.
71*: Houghton-----	Severe: ponding, excess humus.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: excess humus, ponding.
Carlisle-----	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: ponding, excess humus.
72----- Adrian	Severe: cutbanks cave, excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: ponding, excess humus.
73----- Palms	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: ponding, excess humus.
75----- Martisco	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
77----- Napoleon	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: too acid, ponding, excess humus.
83*: Histosols-----	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding.
84F*: Dune land.						

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
84F*: Quartzipsamments-	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Psammaquents-----	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
85F*: Udorthents-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
Quartzipsamments-	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
86F*: Dune land.						
Quartzipsamments-	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
87. Beaches						
88A----- Udipsamments	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
89A----- Udorthents	Variable-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
91. Pits, sand and gravel						
92B----- Chelsea	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
92C----- Chelsea	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
96B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
Tekenink-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Moderate: large stones, droughty.
96C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Tekenink-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, droughty, slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
96D*, 96E*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Tekenink-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
97*: Kerston-----	Severe: cutbanks cave, excess humus, ponding.	Severe: subsides, flooding, ponding.	Severe: subsides, flooding, ponding.	Severe: subsides, flooding, ponding.	Severe: subsides, ponding, flooding.	Severe: ponding, flooding, excess humus.
Carlisle-----	Severe: excess humus, ponding.	Severe: flooding, ponding, subsides.	Severe: flooding, ponding, subsides.	Severe: flooding, ponding, subsides.	Severe: ponding, flooding, subsides.	Severe: ponding, flooding, excess humus.
98B*: Spinks-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
Scalley-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Moderate: frost action.	Slight.
98C*: Spinks-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Scalley-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: slope.
98D*: Spinks-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Scalley-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
99B*: Nappanee-----	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength.	Moderate: wetness, droughty.
Hoytville-----	Severe: ponding.	Severe: ponding, shrink-swell.	Severe: ponding, shrink-swell.	Severe: ponding, shrink-swell.	Severe: shrink-swell, low strength, ponding.	Severe: ponding.
100B----- Nappanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength.	Moderate: wetness, droughty.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
101B----- Claybanks	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
101C----- Claybanks	Moderate: too clayey, slope.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Moderate: slope.
210B*----- Typic Udipsamments	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
210C*----- Typic Udipsamments	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
210D*----- Typic Udipsamments	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
211B*----- Typic Udipsamments	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
211C*----- Typic Udipsamments	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
212B*----- Typic Udipsamments	Severe: cutbanks cave.	Slight-----	Moderate: wetness.	Slight-----	Slight-----	Moderate: droughty, too sandy.
213B*----- Argic Udipsamments	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
213C*----- Argic Udipsamments	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
213D*----- Argic Udipsamments	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
220B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
220C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
220D*, 220E*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
221B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
221C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
221D*, 221E*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
222B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Moderate: wetness.	Slight-----	Slight-----	Moderate: droughty, too sandy.
222C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
223B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
223C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
223D*, 223E*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
224B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Moderate: wetness.	Slight-----	Slight-----	Moderate: droughty, too sandy.
225B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
225C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
225D*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
230B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
230C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
230D*, 230E*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
231B*: Entic Haplorthods, sandy-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
233B*: Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
Entic Haplorthods, sandy-----	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
233C*: Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
Entic Haplorthods, sandy-----	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
233D*, 233E*: Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
233D*, 233E*: Entic Haplorthods, sandy-----	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
235B*: Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
Alfic Haplorthods, sandy-----	Severe: cutbanks cave.	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell.	Severe: low strength.	Moderate: droughty, too sandy.
235C*: Alfic Haplorthods, sandy over loamy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope, too sandy.
Alfic Haplorthods, sandy-----	Severe: cutbanks cave.	Moderate: shrink-swell, slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: droughty, slope, too sandy.
240C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
241B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty, too sandy.
245B*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Severe: droughty.
245C*----- Entic Haplorthods, sandy	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
245D*----- Entic Haplorthods, sandy	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.

See footnote at end of table.

TABLE 12.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
250*: Mollic Psammaquents----	Severe: cutbanks cave, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: ponding, flooding.	Severe: ponding, excess humus.
Aquic Udipsamments----	Severe: cutbanks cave, wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding.	Moderate: wetness, droughty, flooding.
250*: Medisaprists, euic-----	Severe: excess humus, ponding.	Severe: flooding, ponding, low strength.	Severe: flooding, ponding.	Severe: flooding, ponding, low strength.	Severe: ponding, flooding, frost action.	Severe: ponding, excess humus.
262A*----- Aeric Haplaquods, sandy, ortstein	Severe: cemented pan, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, cemented pan.	Severe: wetness.	Severe: wetness.	Severe: wetness, droughty, cemented pan.
263A*----- Aquic Udipsamments	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness, droughty, too sandy.
272*----- Typic Haplaquods, sandy	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
273*----- Mollic Psammaquents	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, excess humus.
274*----- Typic Haplaquolls, sandy over loamy	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding, excess humus.
280*: Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding.
Histosols-----	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
281----- Medisaprists, dysic	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding, excess humus.
282----- Medisaprists, euic	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 13.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
10B----- Perrinton	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
10C----- Perrinton	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.
10D, 10E----- Perrinton	Severe: percs slowly, slope.	Severe: slope.	Severe: slope, too clayey.	Severe: slope.	Poor: too clayey, hard to pack, slope.
11A----- Ithaca	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
12----- Bono	Severe: ponding, percs slowly.	Slight-----	Severe: ponding, too clayey.	Severe: ponding.	Poor: too clayey, hard to pack, ponding.
13B----- Marlette	Severe: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.
13C----- Marlette	Severe: percs slowly.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, slope.
13D----- Marlette	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
14B----- Capac	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
16B----- Remus	Severe: percs slowly.	Moderate: slope.	Slight-----	Slight-----	Good.
16C----- Remus	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: slope.
16D----- Remus	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
17B*: Marlette-----	Severe: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
17B*: Fern-----	Moderate: percs slowly.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
17C*: Marlette-----	Severe: percs slowly.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, slope.
Fern-----	Moderate: percs slowly.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
17D*: Marlette-----	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Fern-----	Severe: slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
18B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Gowdy-----	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
18C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Gowdy-----	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
18D*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Gowdy-----	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: slope, too clayey.	Severe: seepage, slope.	Poor: too clayey, hard to pack, slope.
20B*: Arkport-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Fair: too sandy, thin layer.
Chelsea-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
20C*: Arkport-----	Moderate: slope.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Fair: slope, too sandy, thin layer.
Chelsea-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
20D*: Arkport-----	Severe: slope.	Severe: slope, seepage.	Severe: slope, seepage, too sandy.	Severe: slope, seepage.	Poor: slope.
Chelsea-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, seepage, too sandy.	Severe: slope, seepage.	Poor: seepage, too sandy, slope.
21A----- Freesoil	Severe: wetness.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: wetness.	Poor: too sandy, wetness.
22B----- Gowdy	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
22C----- Gowdy	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
23A----- Arkona	Severe: wetness, percs slowly, poor filter.	Severe: seepage.	Severe: wetness, too clayey.	Severe: seepage, wetness.	Poor: too clayey, hard to pack, wetness.
24----- Sickles	Severe: ponding, percs slowly, poor filter.	Severe: seepage, ponding.	Severe: ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
25B*: Gowdy-----	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
Perrinton-----	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
25C*: Gowdy-----	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too clayey.	Severe: seepage.	Poor: too clayey, hard to pack.
Perrinton-----	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
25D*, 25E*: Gowdy-----	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: slope, too clayey.	Severe: seepage, slope.	Poor: too clayey, hard to pack, slope.
Perrinton-----	Severe: percs slowly, slope.	Severe: slope.	Severe: slope, too clayey.	Severe: slope.	Poor: too clayey, hard to pack, slope.
26A*: Arkona-----	Severe: wetness, percs slowly, poor filter.	Severe: seepage.	Severe: wetness, too clayey.	Severe: seepage, wetness.	Poor: too clayey, hard to pack, wetness.
Ithaca-----	Severe: wetness, percs slowly.	Slight-----	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
27B*: Arkona-----	Severe: wetness, percs slowly, poor filter.	Severe: seepage.	Severe: wetness, too clayey.	Severe: seepage, wetness.	Poor: too clayey, hard to pack, wetness.
Del Rey-----	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
28B----- Fern	Moderate: percs slowly.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
28C----- Fern	Moderate: percs slowly.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
28D----- Fern	Severe: percs slowly, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
29A----- Dixboro	Severe: wetness.	Severe: wetness.	Severe: wetness, too sandy.	Severe: wetness.	Poor: too sandy, wetness.
30----- Lamson	Severe: ponding.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding.	Severe: seepage, ponding.	Poor: ponding, thin layer.
35B*: Alvin-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
35B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
35C*: Alvin-----	Moderate: slope.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage.
Spinks-----	Moderate: slope.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
35D*: Alvin-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, slope.
Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
36A----- Del Rey	Severe: wetness, percs slowly.	Slight-----	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
37A----- Altmar	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, small stones.
38B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Okee-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
38C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Okee-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
38D*, 38E*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
38D*, 38E*: Okee-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
40B*: Coloma-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Toogood-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
40C*: Coloma-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Toogood-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
40D*: Coloma-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Toogood-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
41----- Granby	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
42B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Remus-----	Severe: percs slowly.	Moderate: slope.	Slight-----	Slight-----	Good.
Fern-----	Moderate: percs slowly.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
42C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Remus-----	Severe: percs slowly.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
42C*: Fern-----	Slight-----	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
42D*, 42E*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Remus-----	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Fern-----	Severe: slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
43B----- Spinks	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
43C----- Spinks	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
43D, 43E----- Spinks	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
44B----- Thetford	Severe: wetness.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: too sandy, wetness.
45B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Benona-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
45C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Benona-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
45D*, 45E*, 45F*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Benona-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
46B----- Grattan	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
48A*: Saugatuck-----	Severe: cemented pan, wetness, poor filter.	Severe: seepage, cemented pan, wetness.	Severe: seepage, wetness, too sandy.	Severe: cemented pan, seepage, wetness.	Poor: cemented pan, seepage, too sandy.
Jebavy-----	Severe: cemented pan, ponding, poor filter.	Severe: seepage, cemented pan, ponding.	Severe: seepage, ponding, too sandy.	Severe: cemented pan, seepage, ponding.	Poor: cemented pan, seepage, too sandy.
49B, 49B3----- Grattan	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
49C, 49C3----- Grattan	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
49E, 49F----- Grattan	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
50B----- Covert	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.
51B----- Pipestone	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, wetness.
52----- Granby	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
53B----- Grattan	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
53C----- Grattan	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
56B----- Benona	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
56C----- Benona	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
56E----- Benona	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
57C----- Nordhouse	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
57F----- Nordhouse	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
58----- Kingsville	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
59B----- Benona	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
59C----- Benona	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
59E----- Benona	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
60B----- Coloma	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
60C----- Coloma	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
60E----- Coloma	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
61B----- Epworth	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: too sandy.
61C----- Epworth	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
61E----- Epworth	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.
62B----- Plainfield	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
62C----- Plainfield	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
65----- Sloan	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
67----- Cohoctah	Severe: flooding, wetness.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: wetness.
69----- Algansee	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
70----- Glendora	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
71*: Houghton-----	Severe: subsides, ponding, percs slowly.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding, excess humus.	Severe: ponding, seepage.	Poor: ponding, excess humus.
Carlisle-----	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
72----- Adrian	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
73----- Palms	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: ponding.	Severe: seepage, ponding.	Poor: ponding.
75----- Martisco	Severe: ponding, percs slowly.	Severe: seepage, excess humus.	Severe: ponding, excess humus.	Severe: ponding.	Poor: ponding, excess humus.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
77----- Napoleon	Severe: subsides, ponding.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus, too acid.
83*: Histosols-----	Severe: ponding.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding.	Poor: ponding, excess humus.
Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.
84F*: Dune land.					
Quartzipsamments---	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.
Psammaquents-----	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
85F*: Udorthents-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
Quartzipsamments---	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.
86F*: Dune land.					
Quartzipsamments---	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.
87. Beaches					
88A----- Udipsamments	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
89A----- Udorthents	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
91. Pits, sand and gravel					
92B----- Chelsea	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
92C----- Chelsea	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
96B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Tekenink-----	Moderate: percs slowly.	Moderate: seepage, slope.	Severe: seepage.	Slight-----	Fair: too sandy, small stones.
96C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Tekenink-----	Moderate: percs slowly.	Severe: slope.	Severe: seepage.	Moderate: slope.	Fair: too sandy, small stones, slope.
96D*, 96E*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Tekenink-----	Severe: slope.	Severe: slope.	Severe: seepage, slope.	Severe: slope.	Poor: slope.
97*: Kerston-----	Severe: flooding, ponding, percs slowly.	Severe: seepage, flooding, excess humus.	Severe: flooding, seepage, ponding.	Severe: flooding, seepage, ponding.	Poor: seepage, too sandy, ponding.
Carlisle-----	Severe: flooding, ponding, subsides.	Severe: seepage, flooding, excess humus.	Severe: flooding, seepage, ponding.	Severe: flooding, seepage, ponding.	Poor: ponding, excess humus.
98B*: Spinks-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Scalley-----	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
98C*: Spinks-----	Slight-----	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
98C*: Scalley-----	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
98D*: Spinks-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Scalley-----	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
99B*: Nappanee-----	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Hoytville-----	Severe: ponding, percs slowly.	Severe: ponding.	Severe: ponding, too clayey.	Severe: ponding.	Poor: too clayey, hard to pack, ponding.
100B----- Nappanee	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
101B----- Claybanks	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
101C----- Claybanks	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.
210B*----- Typic Udipsamments	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
210C*----- Typic Udipsamments	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
210D*----- Typic Udipsamments	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
211B*----- Typic Udipsamments	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
211C*----- Typic Udipsamments	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
212B*----- Typic Udipsamments	Severe: poor filter.	Severe: seepage.	Severe: seepage, wetness, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
213B*----- Argic Udipsamments	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
213C*----- Argic Udipsamments	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
213D*----- Argic Udipsamments	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
220B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
220C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
220D*, 220E*----- Entic Haplorthods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
221B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
221C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
221D*, 221E*----- Entic Haplorthods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
222B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, wetness.	Severe: seepage.	Poor: seepage, too sandy.
222C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, wetness.	Severe: seepage.	Poor: seepage, too sandy.
223B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
223C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
223D*, 223E*----- Entic Haplorthods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
224B*----- Entic Haplorthods, sandy	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.
225B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
225C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
225D*----- Entic Haplorthods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
230B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
230C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
230D*, 230E*----- Entic Haplorthods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
231B*: Entic Haplorthods, sandy-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
233B*: Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Entic Haplorthods, sandy-----	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
233C*: Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Entic Haplorthods, sandy-----	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
233D*, 233E*: Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Entic Haplorthods, sandy-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
235B*: Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Alfic Haplorthods, sandy-----	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
235C*: Alfic Haplorthods, sandy over loamy--	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Alfic Haplorthods, sandy-----	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
240C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
241B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
245B*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.
245C*----- Entic Haplorthods, sandy	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
245D*----- Entic Haplothods, sandy	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
250*: Mollic Psammaquents	Severe: flooding, ponding, poor filter.	Severe: seepage, flooding, ponding.	Severe: flooding, seepage, ponding.	Severe: flooding, seepage, ponding.	Poor: seepage, too sandy, ponding.
Aquic Udipsamments-	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy.
Medisaprists, euic-	Severe: flooding, ponding.	Severe: flooding, excess humus, ponding.	Severe: flooding, ponding, excess humus.	Severe: flooding, ponding.	Poor: ponding, excess humus.
262A*----- Aeric Haplaquods, sandy, ortstein	Severe: cemented pan, wetness, percs slowly.	Severe: seepage, cemented pan, wetness.	Severe: seepage, wetness, too sandy.	Severe: cemented pan, seepage, wetness.	Poor: cemented pan, seepage, too sandy.
263A*----- Aquic Udipsamments	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.
272*----- Typic Haplaquods, sandy	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
273*----- Mollic Psammaquents	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
274*----- Typic Haplaquolls, sandy over loamy	Severe: ponding, percs slowly, poor filter.	Severe: seepage, excess humus, ponding.	Severe: ponding.	Severe: seepage, ponding.	Poor: ponding.
280*: Aquents-----	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.
Histosols-----	Severe: ponding.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding.	Poor: ponding, excess humus.
281----- Medisaprists, dysic	Severe: ponding, percs slowly.	Severe: seepage, ponding.	Severe: seepage, ponding.	Severe: seepage, ponding.	Poor: ponding.

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
282----- Medisapristis, euic	Severe: ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 14.--CONSTRUCTION MATERIALS

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
10B, 10C----- Perrinton	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
10D----- Perrinton	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, slope.
10E----- Perrinton	Poor: low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, slope.
11A----- Ithaca	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
12----- Bono	Poor: shrink-swell, low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, wetness.
13B----- Marlette	Fair: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
13C----- Marlette	Fair: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, slope.
13D----- Marlette	Fair: low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
14B----- Capac	Fair: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, area reclaim.
16B----- Remus	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
16C----- Remus	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, slope.
16D----- Remus	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
17B*: Marlette-----	Fair: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
17B*: Fern-----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
17C*: Marlette-----	Fair: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, slope.
Fern-----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
17D*: Marlette-----	Fair: low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Fern-----	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
18B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
Gowdy-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
18C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope: too sandy.
Gowdy-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
18D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Gowdy-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
20B*, 20C*: Arkport-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy.
Chelsea-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
20D*: Arkport-----	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
20D*: Chelsea-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
21A----- Freesoil	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, wetness.
22B, 22C----- Gowdy	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
23A----- Arkona	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
24----- Sickles	Poor: wetness.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, wetness.
25B*, 25C*: Gowdy-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
Perrinton-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
25D*: Gowdy-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
Perrinton-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, slope.
25E*: Gowdy-----	Poor: shrink-swell, low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
Perrinton-----	Poor: low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, slope.
26A*: Arkona-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
Ithaca-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
27B*: Arkona-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
27B*: Del Rey-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
28B, 28C----- Fern	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
28D----- Fern	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
29A----- Dixboro	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
30----- Lamson	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
35B*: Alvin-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
35C*: Alvin-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
35D*: Alvin-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
36A----- Del Rey	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
37A----- Altmar	Fair: wetness.	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
38B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
Okee-----	Good-----	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
38C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
Okee-----	Good-----	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
38D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Okee-----	Fair: slope.	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
38E*: Spinks-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Okee-----	Poor: slope.	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
40B*, 40C*: Coloma-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones.
Toogood-----	Good-----	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
40D*: Coloma-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones, slope.
Toogood-----	Fair: slope.	Probable-----	Probable-----	Poor: too sandy, small stones, area reclaim.
41----- Granby	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
42B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
42B*: Remus-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Fern-----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
42C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
Remus-----	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Fern-----	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
42D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Remus-----	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Fern-----	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
42E*: Spinks-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Remus-----	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Fern-----	Poor: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
43B----- Spinks	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
43C----- Spinks	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
43D----- Spinks	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
43E----- Spinks	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
44B----- Thetford	Fair: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
45B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
Benona-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones.
45C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
Benona-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones.
45D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Benona-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones, slope.
45E*, 45F*: Spinks-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Benona-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones, slope.
46B----- Grattan	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
48A*: Saugatuck-----	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: cemented pan, area reclaim, too sandy.
Jebavy-----	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: cemented pan, too sandy, wetness.
49B, 49B3, 49C, 49C3-- Grattan	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
49E, 49F----- Grattan	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
50B----- Covert	Fair: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
51B----- Pipestone	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
52----- Granby	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
53B, 53C----- Grattan	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
56B, 56C----- Benona	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
56E----- Benona	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
57C----- Nordhouse	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
57F----- Nordhouse	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
58----- Kingsville	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
59B, 59C----- Benona	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones.
59E----- Benona	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones, slope.
60B, 60C----- Coloma	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones.
60E----- Coloma	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, small stones, slope.
61B, 61C----- Epworth	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
61E----- Epworth	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
62B, 62C----- Plainfield	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
65----- Sloan	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
67----- Cohoctah	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
69----- Algansee	Fair: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy.
70----- Glendora	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
71*: Houghton-----	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: wetness, excess humus.
Carlisle-----	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
72----- Adrian	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: excess humus, wetness.
73----- Palms	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
75----- Martisco	Poor: thin layer, wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
77----- Napoleon	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness, too acid.
83*: Histosols-----	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Aquents-----	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
84F*: Dune land.				
Quartzipsamments-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
Psammaquents-----	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
85F*: Udorthents-----	Variable-----	Variable-----	Variable-----	Variable.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
85F*: Quartzipsamments-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
86F*: Dune land. Quartzipsamments-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
87. Beaches				
88A----- Udipsamments	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
89A----- Udorhents	Variable-----	Variable-----	Variable-----	Variable.
91. Pits, sand and gravel				
92B, 92C----- Chelsea	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
96B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
Tekenink-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
96C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
Tekenink-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
96D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Tekenink-----	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
96E*: Spinks-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Tekenink-----	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
97*: Kerston-----	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: excess humus, wetness.
Carlisle-----	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
98B*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: too sandy.
Scalley-----	Good-----	Probable-----	Improbable: too sandy.	Poor: small stones, area reclaim.
98C*: Spinks-----	Good-----	Probable-----	Improbable: too sandy.	Fair: slope, too sandy.
Scalley-----	Good-----	Probable-----	Improbable: too sandy.	Poor: small stones, area reclaim.
98D*: Spinks-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: slope.
Scalley-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: small stones, area reclaim, slope.
99B*: Nappanee-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Hoytville-----	Poor: shrink-swell, low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, wetness.
100B----- Nappanee	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
101B, 101C----- Claybanks	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
210B*, 210C*----- Typic Udipsamments	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
210D*----- Typic Udipsamments	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
211B*----- Typic Udipsamments	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
211C*----- Typic Udipsamments	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
212B*----- Typic Udipsamments	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
213B*, 213C*----- Argic Udipsamments	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
213D*----- Argic Udipsamments		Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
220B*, 220C*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
220D*----- Entic Haplorthods, sandy	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
220E*----- Entic Haplorthods, sandy	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
221B*, 221C*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
221D*----- Entic Haplorthods, sandy	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
221E*----- Entic Haplorthods, sandy	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
222B*, 222C*, 223B*, 223C*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
223D*----- Entic Haplorthods, sandy	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
223E*----- Entic Haplorthods, sandy	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
224B*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
225B*, 225C*----- Entic Haplorthods, sandy	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
225D*----- Entic Haplorthods, sandy	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
230B*, 230C*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
230D*----- Entic Haplorthods, sandy	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
230E*----- Entic Haplorthods, sandy	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
231B*: Entic Haplorthods, sandy-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
Alfic Haplorthods, sandy over loamy----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
233B*, 233C*: Alfic Haplorthods, sandy over loamy----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
Entic Haplorthods, sandy-----	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
233D*: Alfic Haplorthods, sandy over loamy----	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
Entic Haplorthods, sandy-----	Fair: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
233E*: Alfic Haplorthods, sandy over loamy----	Poor: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
Entic Haplorthods, sandy-----	Poor: slope.	Probable-----	Improbable: too sandy.	Poor: too sandy, slope.
235B*: Alfic Haplorthods, sandy over loamy----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
235B*: Alfic Haplorthods, sandy-----	Fair: thin layer.	Probable-----	Improbable: too sandy.	Poor: too sandy.
235C*: Alfic Haplorthods, sandy over loamy-----	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
Alfic Haplorthods, sandy-----	Fair: thin layer.	Probable-----	Improbable: too sandy.	Poor: too sandy.
240C*, 241B*----- Entic Haplorthods, sandy	Good-----	Probable-----	Improbable: too sandy.	Poor: too sandy.
245B*, 245C*----- Entic Haplorthods, sandy	Good-----	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
245D*----- Entic Haplorthods, sandy	Fair: slope.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
250*: Mollic Psammaquents--	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
Aquic Udipsamments--	Fair: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy.
Medisaprists, euic--	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
262A*----- Aeric Haplaquods, sandy, ortstein	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: cemented pan, area reclaim, too sandy.
263A*----- Aquic Udipsamments	Fair: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy.
272*----- Typic Haplaquods, sandy	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
273*----- Mollic Psammaquents	Poor: wetness.	Probable-----	Improbable: too sandy.	Poor: too sandy, wetness.
274*----- Typic Haplaquolls, sandy over loamy	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, wetness.

See footnote at end of table.

TABLE 14.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
280*: Aquents-----	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Histosols-----	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
281----- Medisaprists, dysic	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
282----- Medisaprists, euic	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--WATER MANAGEMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
10B----- Perrinton	Moderate: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly.	Erodes easily, percs slowly.
10C, 10D, 10E----- Perrinton	Severe: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly.	Slope, erodes easily, percs slowly.
11A----- Ithaca	Slight-----	Severe: wetness.	Severe: slow refill.	Percs slowly, frost action.	Wetness-----	Wetness, percs slowly.
12----- Bono	Slight-----	Severe: ponding.	Severe: slow refill.	Ponding, percs slowly.	Ponding, percs slowly.	Wetness, percs slowly.
13B----- Marlette	Moderate: slope.	Moderate: piping.	Severe: no water.	Deep to water	Slope, soil blowing, rooting depth.	Rooting depth.
13C, 13D----- Marlette	Severe: slope.	Moderate: piping.	Severe: no water.	Deep to water	Slope, soil blowing, rooting depth.	Slope, rooting depth.
14B----- Capac	Slight-----	Severe: piping, wetness.	Severe: slow refill.	Frost action--	Wetness, soil blowing.	Wetness.
16B----- Remus	Moderate: slope.	Slight-----	Severe: no water.	Deep to water	Slope, droughty.	Droughty, rooting depth.
16C, 16D----- Remus	Severe: slope.	Slight-----	Severe: no water.	Deep to water	Slope, droughty.	Slope, droughty, rooting depth.
17B*: Marlette-----	Moderate: slope.	Moderate: piping.	Severe: no water.	Deep to water	Slope, soil blowing, rooting depth.	Rooting depth.
Fern-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
17C*, 17D*: Marlette-----	Severe: slope.	Moderate: piping.	Severe: no water.	Deep to water	Slope, soil blowing, rooting depth.	Slope, rooting depth.
Fern-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
18B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
18B*: Gowdy-----	Severe: seepage.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
18C*, 18D*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Gowdy-----	Severe: seepage, slope.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
20B*: Arkport-----	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Droughty.
Chelsea-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
20C*: Arkport-----	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, droughty.
Chelsea-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
20D*: Arkport-----	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, droughty.
Chelsea-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
21A----- Freesoil	Severe: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Frost action, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, droughty.
22B----- Gowdy	Severe: seepage.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
22C----- Gowdy	Severe: seepage, slope.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
23A----- Arkona	Severe: seepage.	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly---	Wetness, droughty.	Wetness, droughty, rooting depth.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
24----- Sickles	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: slow refill, cutbanks cave.	Ponding, percs slowly, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty, rooting depth.
25B*: Gowdy-----	Severe: seepage.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
Perrinton-----	Moderate: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly.	Erodes easily, percs slowly.
25C*, 25D*, 25E*: Gowdy-----	Severe: seepage, slope.	Severe: hard to pack.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
Perrinton-----	Severe: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly.	Slope, erodes easily, percs slowly.
26A*: Arkona-----	Severe: seepage.	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly---	Wetness, droughty.	Wetness, droughty, rooting depth.
Ithaca-----	Slight-----	Severe: wetness.	Severe: slow refill.	Percs slowly, frost action.	Wetness-----	Wetness, percs slowly.
27B*: Arkona-----	Severe: seepage.	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly---	Wetness, droughty.	Wetness, droughty, rooting depth.
Del Rey-----	Slight-----	Severe: wetness.	Severe: slow refill.	Percs slowly, frost action.	Wetness, percs slowly.	Wetness, erodes easily, percs slowly.
28B----- Fern	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
28C, 28D----- Fern	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
29A----- Dixboro	Moderate: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Frost action, cutbanks cave.	Wetness, fast intake.	Wetness.
30----- Lamson	Severe: seepage.	Severe: piping, ponding.	Severe: cutbanks cave.	Ponding, frost action.	Ponding, soil blowing.	Wetness.
35B*: Alvin-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, soil blowing.	Favorable.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
35B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
35C*, 35D*: Alvin-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, soil blowing.	Slope.
Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
36A----- Del Rey	Slight-----	Severe: wetness.	Severe: slow refill.	Percs slowly, frost action.	Wetness, percs slowly.	Wetness, erodes easily, percs slowly.
37A----- Altmar	Severe: seepage.	Severe: seepage, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Wetness, droughty.
38B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Okee-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
38C*, 38D*, 38E*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Okee-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
40B*: Coloma-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Toogood-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
40C*, 40D*: Coloma-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Toogood-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
41----- Granby	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
42B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Remus-----	Moderate: slope.	Slight-----	Severe: no water.	Deep to water	Slope, droughty.	Droughty, rooting depth.
Fern-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
42C*, 42D*, 42E*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Remus-----	Severe: slope.	Slight-----	Severe: no water.	Deep to water	Slope, droughty.	Slope, droughty, rooting depth.
Fern-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
43B----- Spinks	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
43C, 43D, 43E----- Spinks	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
44B----- Thetford	Severe: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Wetness, droughty.
45B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Benona-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
45C*, 45D*, 45E*, 45F*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Benona-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
46B----- Grattan	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
48A*: Saugatuck-----	Severe: seepage, cemented pan.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cemented pan, cutbanks cave.	Wetness, droughty.	Wetness, droughty, cemented pan.
Jebavy-----	Severe: seepage, cemented pan.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cemented pan, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty, cemented pan.
49B, 49B3----- Grattan	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
49C, 49C3, 49E, 49F----- Grattan	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
50B----- Covert	Severe: seepage.	Severe: seepage, piping.	Severe: cutbanks cave.	Slope, cutbanks cave.	Slope, wetness, droughty.	Droughty.
51B----- Pipestone	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Wetness, droughty.
52----- Granby	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
53B----- Grattan	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
53C----- Grattan	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
56B----- Benona	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
56C, 56E----- Benona	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
57C, 57F----- Nordhouse	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
58----- Kingsville	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
59B----- Benona	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
59C, 59E----- Benona	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
60B----- Coloma	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
60C, 60E----- Coloma	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
61B----- Epworth	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, rooting depth.
61C, 61E----- Epworth	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
62B----- Plainfield	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
62C----- Plainfield	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
65----- Sloan	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Flooding, frost action.	Wetness, flooding.	Wetness, erodes easily.
67----- Cohoctah	Severe: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Flooding, frost action.	Wetness, flooding.	Wetness.
69----- Algansee	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty.	Wetness, droughty.
70----- Glendora	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty, flooding.	Wetness, droughty.
71*: Houghton-----	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Frost action, subsides, ponding.	Ponding-----	Wetness.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
71*: Carlisle-----	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing.	Wetness.
72----- Adrian	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: slow refill, cutbanks cave.	Ponding, subsides, frost action.	Ponding, soil blowing, rooting depth.	Wetness, rooting depth.
73----- Palms	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing.	Wetness, erodes easily, rooting depth.
75----- Martisco	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, percs slowly.	Ponding, soil blowing, percs slowly.	Wetness, percs slowly.
77----- Napoleon	Severe: seepage.	Severe: excess humus, ponding.	Moderate: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing, too acid.	Wetness.
83*: Histosols-----	Slight-----	Severe: excess humus, ponding.	Slight-----	Ponding, frost action.	Ponding-----	Wetness.
Aquents-----	Slight-----	Severe: ponding.	Slight-----	Ponding, frost action.	Ponding-----	Wetness.
84F*: Dune land.						
Quartzipsamments-	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Psammaquents-----	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, slope, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
85F*: Udorthents-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
Quartzipsamments-	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
86F*: Dune land.						
Quartzipsamments-	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
87. Beaches						

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
88A----- Udipsamments	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake.	Droughty.
89A----- Udorthents	Variable-----	Variable-----	Variable-----	Variable-----	Variable-----	Variable.
91. Pits, sand and gravel						
92B----- Chelsea	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
92C----- Chelsea	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
96B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Tekenink-----	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
96C*, 96D*, 96E*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Tekenink-----	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
97*: Kerston-----	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: slow refill, cutbanks cave.	Ponding, flooding, subsides.	Ponding, soil blowing, flooding.	Wetness.
Carlisle-----	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, flooding, subsides.	Ponding, soil blowing, flooding.	Wetness.
98B*: Spinks-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Scalley-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, fast intake.	Favorable.
98C*, 98D*: Spinks-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
98C*, 98D*: Scalley-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, fast intake.	Slope.
99B*: Nappanee-----	Slight-----	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly---	Wetness, droughty.	Wetness, erodes easily.
Hoytville-----	Slight-----	Severe: hard to pack, ponding.	Severe: no water.	Ponding, frost action.	Ponding, percs slowly.	Wetness, rooting depth.
100B----- Nappanee	Slight-----	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly---	Wetness, droughty.	Wetness, erodes easily.
101B----- Claybanks	Moderate: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly, rooting depth.	Erodes easily, rooting depth.
101C----- Claybanks	Severe: slope.	Moderate: hard to pack.	Severe: no water.	Deep to water	Slope, percs slowly, rooting depth.	Slope, erodes easily, rooting depth.
210B*----- Typic Udipsamments	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
210C*, 210D*----- Typic Udipsamments	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
211B*----- Typic Udipsamments	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
211C*----- Typic Udipsamments	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
212B*----- Typic Udipsamments	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
213B*----- Argic Udipsamments	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
213C*, 213D*----- Argic Udipsamments	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
220B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
220C*, 220D*, 220E*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
221B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
221C*, 221D*, 221E*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
222B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
222C*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
223B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
223C*, 223D*, 223E*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
224B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: cutbanks cave.	Deep to water	Slope, droughty, fast intake.	Droughty.
225B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
225C*, 225D*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
230B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
230C*, 230D*, 230E*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
231B*: Entic Haplorthods, sandy-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Alfic Haplorthods, sandy over loamy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
233B*: Alfic Haplorthods, sandy over loamy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
Entic Haplorthods, sandy-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
233C*, 233D*, 233E*: Alfic Haplorthods, sandy over loamy-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
Entic Haplorthods, sandy-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
235B*: Alfic Haplorthods, sandy over loamy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Erodes easily, droughty.
Alfic Haplorthods, sandy-----	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
235C*: Alfic Haplorthods, sandy over loamy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, erodes easily, droughty.
Alfic Haplorthods, sandy-----	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
240C*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
241B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, soil blowing.	Droughty.
245B*----- Entic Haplorthods, sandy	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
245C*, 245D*----- Entic Haplorthods, sandy	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
250*: Mollic Psammaquents----	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, flooding, cutbanks cave.	Ponding, droughty, flooding.	Wetness, droughty.
Aquic Udipsamments----	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty.	Droughty.
Medisaprists, eulic-----	Slight-----	Severe: excess humus, ponding.	Slight-----	Ponding, flooding, frost action.	Ponding, soil blowing, flooding.	Wetness.
262A*----- Aeric Haplaquods, sandy, ortstein	Severe: seepage, cemented pan.	Severe: seepage, piping, wetness.	Severe: slow refill, cutbanks cave.	Cemented pan, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, droughty, cemented pan.
263A*----- Aquic Udipsamments	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Droughty.

See footnote at end of table.

TABLE 15.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
272*----- Typic Haplaquods, sandy	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
273*----- Mollic Psammaquents	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty.	Wetness, droughty.
274*----- Typic Haplaquolls, sandy over loamy	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill, cutbanks cave.	Ponding, frost action.	Ponding, soil blowing.	Wetness, erodes easily.
280*: Aquents-----	Slight-----	Severe: ponding.	Slight-----	Ponding, frost action.	Ponding-----	Wetness.
Histosols-----	Slight-----	Severe: excess humus, ponding.	Slight-----	Ponding, frost action.	Ponding, soil blowing.	Wetness.
281----- Medisaprists, dysic	Severe: seepage.	Severe: ponding.	Severe: slow refill.	Ponding, frost action.	Ponding, soil blowing.	Wetness.
282----- Medisaprists, euic	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, frost action.	Ponding, soil blowing.	Wetness.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 16.--ENGINEERING INDEX PROPERTIES

(The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated)

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
10B, 10C, 10D, 10E----- Perrinton	0-9	Loam-----	CL, CL-ML	A-4, A-6	0-5	95-100	85-100	70-100	50-90	20-35	4-15
	9-18	Fine sandy loam, clay loam, silty clay loam.	SC, CL-ML, CL, SC-SM	A-2-4, A-4, A-6, A-7 A-6, A-7	0-5	95-100	85-100	50-100	25-90	20-60	4-35
	18-35	Clay loam, silty clay loam, silty clay.	CL, CH	A-7	0-5	95-100	85-100	80-100	60-90	40-60	20-35
	35-60	Silty clay loam, silty clay.	CL, CH	A-6, A-7	0-5	95-100	85-100	75-100	55-90	35-60	15-35
11A----- Ithaca	0-9	Loam-----	CL, CL-ML	A-4, A-6	0-3	95-100	85-100	70-95	50-75	20-35	4-15
	9-13	Fine sandy loam, clay loam, silty clay loam.	SC, CL	A-4, A-6, A-7-6	0-3	95-100	85-100	55-100	35-95	25-50	7-30
	13-24	Clay loam, silty clay loam.	CL, CH	A-7	0-3	95-100	85-100	85-100	60-90	40-55	20-30
	24-60	Clay loam, silty clay loam.	CL, CH	A-7	0-3	95-100	85-100	85-100	60-90	40-55	20-30
12----- Bono	0-11	Silt loam-----	CL	A-7, A-6	0	95-100	95-100	90-100	70-95	25-45	10-25
	11-32	Silty clay, clay, silty clay loam.	CH, CL	A-7	0	100	95-100	95-100	90-100	40-66	26-44
	32-60	Clay, silty clay loam, silty clay.	CH, CL	A-7, A-6	0	100	95-100	95-100	90-100	35-60	20-40
13B, 13C, 13D---- Marlette	0-8	Fine sandy loam	SC-SM, SC	A-4, A-2-4	0-5	95-100	85-95	50-70	30-50	20-30	4-10
	8-12	Fine sandy loam, clay loam, silty clay loam.	CL, SC, CL-ML, SC-SM	A-4, A-6, A-7, A-2-4	0-5	95-100	85-95	50-95	30-90	20-45	4-25
	12-25	Clay loam, silty clay loam.	CL	A-6, A-7	0-5	95-100	85-95	80-95	55-90	30-45	11-25
	25-60	Silty clay loam, clay loam.	CL	A-4, A-6	0-5	95-100	85-95	75-95	50-75	25-40	7-20
14B----- Capac	0-9	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4, A-2	0-5	95-100	85-100	50-85	30-55	<25	NP-7
	9-36	Fine sandy loam, clay loam, silty clay loam.	CL, CL-ML	A-4, A-6, A-7	0-5	95-100	85-100	75-100	50-85	25-45	5-20
	36-60	Loam, clay loam	CL, CL-ML	A-4, A-6, A-7	0-5	90-100	75-100	70-95	55-75	20-45	5-20
16B, 16C, 16D---- Remus	0-9	Fine sandy loam	SM, SC-SM	A-2, A-4	0-10	85-100	85-95	55-75	25-45	<25	NP-7
	9-21	Loam, loamy sand, fine sandy loam.	SM, SC-SM	A-2, A-4, A-1-b	0-10	85-100	85-95	45-75	15-45	<25	NP-7
	21-50	Sandy loam, sandy clay loam, loam.	SC, CL	A-2, A-6	0-10	85-100	85-95	45-80	10-65	20-30	10-15
	50-60	Sandy loam, sandy clay loam.	SC	A-2, A-6	0-10	85-100	85-95	55-80	25-45	25-40	10-20

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
17B*, 17C*, 17D*: Marlette-----	0-8	Fine sandy loam	SC-SM, SC	A-4, A-2-4	0-5	95-100	85-95	50-70	30-50	20-30	4-10
	8-12	Fine sandy loam, clay loam, silty clay loam.	CL, SC, CL-ML, SC-SM	A-4, A-6, A-7, A-2-4	0-5	95-100	85-95	50-95	30-90	20-45	4-25
	12-25	Clay loam, silty clay loam.	CL	A-6, A-7	0-5	95-100	85-95	80-95	55-90	30-45	11-25
	25-60	Silty clay loam, clay loam.	CL	A-4, A-6	0-5	95-100	85-95	75-95	50-75	25-40	7-20
Fern-----	0-10	Loamy fine sand	SM	A-4, A-2-4	0	95-100	85-100	75-95	30-50	<20	NP
	10-21	Loamy sand, fine sand, loamy fine sand.	SP-SM, SM, SC-SM	A-1-b, A-3, A-2-4	0	95-100	85-100	40-90	5-50	<25	NP-6
	21-51	Loamy sand, loamy fine sand, loam.	SP-SM, CL, ML, SC	A-4, A-2-4, A-6	0	95-100	85-100	40-95	10-70	20-40	2-20
	51-60	Loam, clay loam	CL, CL-ML	A-4, A-6	0	95-100	85-100	70-95	50-80	20-40	4-20
18B*, 18C*, 18D*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
Gowdy-----	0-9	Loamy fine sand	SM	A-2	0	95-100	95-100	60-100	15-25	---	NP
	9-28	Fine sand, sand	SM, SP-SM	A-2, A-3	0	95-100	95-100	50-100	5-35	---	NP
	28-32	Silty clay, silty clay loam, fine sandy loam.	CL, CL-ML	A-4, A-6, A-7	0	90-100	95-100	80-100	50-95	25-50	9-30
	32-42	Silty clay loam, silty clay, clay.	CH, CL	A-7	0	90-100	90-100	85-100	65-100	40-65	20-50
	42-60	Silty clay loam	CL	A-6, A-7	0	90-100	90-100	95-100	85-95	40-45	16-20
20B*, 20C*, 20D*: Arkport-----	0-8	Loamy very fine sand.	SM	A-2, A-4	0	95-100	95-100	65-85	20-45	---	NP
	8-22	Very fine sand, loamy very fine sand.	SM, ML	A-2, A-4	0	95-100	95-100	70-95	30-65	<15	NP-4
	22-60	Very fine sand, loamy very fine sand, very fine sandy loam.	SM, ML	A-2, A-4	0	95-100	95-100	65-95	20-80	---	NP
Chelsea-----	0-9	Fine sand-----	SP, SP-SM, SM	A-3, A-2-4	0	100	100	65-95	3-15	---	NP
	9-60	Fine sand, loamy fine sand.	SP, SM, SP-SM	A-3, A-2-4	0	100	100	65-80	3-15	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
21A----- Freesoil	0-9	Loamy very fine sand.	SM, SC-SM, ML, CL-ML	A-4	0	100	100	90-95	40-60	<25	NP-7
	9-24	Stratified fine sand to silt loam.	SM, SC, ML, CL	A-4, A-2-4, A-2-6	0	100	100	65-100	20-80	<30	NP-11
	24-60	Stratified fine sand to silty clay loam.	SM, ML	A-4, A-2, A-6	0	100	100	65-100	20-90	<45	NP-18
22B, 22C----- Gowdy	0-9	Loamy fine sand	SM	A-2	0	95-100	95-100	60-100	15-25	---	NP
	9-28	Fine sand, sand	SM, SP-SM	A-2, A-3	0	95-100	95-100	50-100	5-35	---	NP
	28-32	Silty clay, silty clay loam, fine sandy loam.	CL, CL-ML	A-4, A-6, A-7	0	90-100	95-100	80-100	50-95	25-50	9-30
	32-42	Silty clay loam, silty clay, clay.	CH, CL	A-7	0	90-100	90-100	85-100	65-100	40-65	20-50
23A----- Arkona	0-7	Loamy fine sand	SM, SP-SM	A-2-4, A-1-b	0	95-100	90-100	45-80	10-35	---	NP
	7-31	Sand, loamy sand, fine sand.	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-80	5-35	---	NP
	31-60	Silty clay, silty clay loam.	CH	A-7	0	95-100	90-100	85-100	75-95	50-70	25-40
24----- Sickles	0-9	Loamy sand-----	SM, SP-SM, SC-SM	A-2-4	0	95-100	90-100	50-75	10-30	<20	NP-6
	9-32	Sand, loamy sand, fine sand.	SP-SM, SM, SC-SM	A-3, A-2-4	0	95-100	90-100	50-75	5-30	<25	NP-6
	32-60	Silty clay loam, silty clay.	CH, CL	A-7	0	95-100	90-100	90-100	75-95	42-60	29-40
25B*, 25C*, 25D*, 25E*: Gowdy-----	0-9	Loamy fine sand	SM	A-2	0	95-100	95-100	60-100	15-25	---	NP
	9-28	Fine sand, sand	SM, SP-SM	A-2, A-3	0	95-100	95-100	50-100	5-35	---	NP
	28-32	Silty clay, silty clay loam, fine sandy loam.	CL, CL-ML	A-4, A-6, A-7	0	90-100	95-100	80-100	50-95	25-50	9-30
	32-42	Silty clay loam, silty clay, clay.	CH, CL	A-7	0	90-100	90-100	85-100	65-100	40-65	20-50
Perrinton-----	0-9	Loam-----	CL, CL-ML	A-4, A-6	0-5	95-100	85-100	70-100	50-90	20-35	4-15
	9-18	Fine sandy loam, clay loam, silty clay loam.	SC, CL-ML, CL, SC-SM	A-2-4, A-4, A-6, A-7	0-5	95-100	85-100	50-100	25-90	20-60	4-35
	18-35	Clay loam, silty clay loam, silty clay.	CL, CH	A-7	0-5	95-100	85-100	80-100	60-90	40-60	20-35
	35-60	Silty clay loam, silty clay.	CL, CH	A-6, A-7	0-5	95-100	85-100	75-100	55-90	35-60	15-35

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
26A*: Arkona-----	0-7	Loamy sand-----	SM, SP-SM	A-2-4, A-1-b	0	95-100	90-100	45-80	10-35	---	NP
	7-31	Sand, loamy sand, fine sand.	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-80	5-35	---	NP
	31-60	Silty clay, silty clay loam.	CH	A-7	0	95-100	90-100	85-100	75-95	50-70	25-40
Ithaca-----	0-9	Loam-----	CL, CL-ML	A-4, A-6	0-3	95-100	85-100	70-95	50-75	20-35	4-15
	9-13	Fine sandy loam, clay loam, silty clay loam.	SC, CL	A-4, A-6, A-7-6	0-3	95-100	85-100	55-100	35-95	25-50	7-30
	13-24	Clay loam, silty clay loam.	CL, CH	A-7	0-3	95-100	85-100	85-100	60-90	40-55	20-30
	24-60	Clay loam, silty clay loam.	CL, CH	A-7	0-3	95-100	85-100	85-100	60-90	40-55	20-30
27B*: Arkona-----	0-7	Loamy sand-----	SM, SP-SM	A-2-4, A-1-b	0	95-100	90-100	45-80	10-35	---	NP
	7-31	Sand, loamy sand, fine sand.	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-80	5-35	---	NP
	31-60	Silty clay, silty clay loam.	CH	A-7	0	95-100	90-100	85-100	75-95	50-70	25-40
Del Rey-----	0-8	Silt loam-----	CL	A-6, A-7	0	95-100	95-100	90-100	70-95	25-45	10-25
	8-32	Silty clay loam, silty clay.	CH, CL	A-7	0	95-100	95-100	90-100	85-95	40-55	20-30
	32-60	Silt loam, silty clay loam.	CL	A-6, A-7	0	95-100	95-100	90-100	70-95	30-45	10-25
28B, 28C, 28D---- Fern	0-10	Loamy fine sand	SM	A-4, A-2-4	0	95-100	85-100	75-95	30-50	<20	NP
	10-21	Loamy sand, fine sand, loamy fine sand.	SP-SM, SM, SC-SM	A-1-b, A-3, A-2-4	0	95-100	85-100	40-90	5-50	<25	NP-6
	21-51	Loamy sand, loamy fine sand, loam.	SP-SM, CL, ML, SC	A-4, A-2-4, A-6	0	95-100	85-100	40-95	10-70	20-40	2-20
	51-60	Loam, clay loam	CL, CL-ML	A-4, A-6	0	95-100	85-100	70-95	50-80	20-40	4-20
29A----- Dixboro	0-9	Loamy very fine sand.	SM, ML, SC-SM, CL-ML	A-2-4, A-4	0	100	100	70-95	20-60	<25	NP-6
	9-24	Very fine sandy loam, silt loam, loamy very fine sand.	SM, ML, SC, CL	A-4	0	100	100	70-95	40-90	<25	2-10
	24-60	Stratified fine sand to silt loam.	SM, ML, SC, CL	A-2-4, A-4	0	100	95-100	70-95	20-80	<20	NP-8
30----- Lamson	0-7	Muck-----	PT	A-8	0	---	---	---	---	---	---
	7-80	Fine sand, loamy very fine sand, silt loam.	SM, ML	A-2, A-4	0	95-100	80-100	60-90	20-90	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
35B*, 35C*, 35D*: Alvin-----	0-8	Fine sandy loam	SM, ML	A-4, A-2	0	100	100	80-95	30-60	<25	NP-4
	8-15	Fine sandy loam, sandy loam, loamy fine sand.	SM, ML	A-2, A-4	0	100	100	80-95	30-60	<25	NP-4
	15-22	Fine sandy loam, sandy loam, loam.	SM, SC, CL, ML	A-2, A-4, A-6	0	100	100	70-100	20-80	15-40	NP-15
	22-80	Sand, fine sandy loam, loamy sand.	SP, SP-SM, SM	A-2, A-3, A-1	0	95-100	90-100	45-95	4-35	<20	NP-4
Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-80	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
36A----- Del Rey	0-8	Silt loam-----	CL	A-6, A-7	0	95-100	95-100	90-100	70-95	25-45	10-25
	8-32	Silty clay loam, silty clay.	CH, CL	A-7	0	95-100	95-100	90-100	85-95	40-55	20-30
	32-60	Silt loam, silty clay loam.	CL	A-6, A-7	0	95-100	95-100	90-100	70-95	30-45	10-25
37A----- Altmar	0-9	Loamy fine sand	SM, SW-SM, SP-SM	A-2, A-4, A-1	0-2	80-100	75-100	40-80	10-45	<15	NP-1
	9-24	Loamy sand, sand	SP, SP-SM, SM	A-3, A-2-4, A-1	0-5	95-100	85-100	45-75	0-30	<15	NP-1
	24-60	Gravelly sand---	SP, GP, SP-SM, GP-GM	A-1	0-5	40-80	35-70	20-45	0-10	---	NP
38B*, 38C*, 38D*, 38E*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
Okee-----	0-3	Loamy sand-----	SM, SP-SM	A-2, A-4, A-1-b	0-10	95-100	90-100	45-85	10-40	---	NP
	3-25	Loamy fine sand, loamy sand.	SM, SP-SM, SP	A-2, A-3, A-4, A-1-b	0-10	95-100	90-100	45-85	3-40	---	NP
	25-33	Sandy clay loam, sandy loam, gravelly sandy loam.	SC, SM, ML, CL	A-2, A-4	0-10	95-100	90-100	35-80	20-55	<25	2-10
	33-60	Sand, very gravelly sand.	SM, SP-SM, GM, GP-GM	A-2, A-4, A-3, A-1-b	0-15	45-95	40-95	10-75	2-40	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
40B*, 40C*, 40D*: Coloma-----	0-4	Sand-----	SP, SM, SP-SM	A-2, A-3	0-7	75-100	75-100	50-70	2-15	---	NP
	4-35	Sand-----	SP, SM, SP-SM	A-2, A-3	0-7	75-100	75-100	50-75	2-30	---	NP
	35-60	Stratified sand to sandy loam.	SP, SM, SP-SM	A-2, A-3, A-4	0-7	75-100	75-100	50-100	2-40	---	NP
Toogood-----	0-4	Loamy sand-----	SM, SC-SM, SP-SM	A-2-4, A-1-b	0-5	85-100	75-100	35-75	10-30	<20	NP-5
	4-36	Loamy sand, sand	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0-5	95-100	85-100	35-75	10-30	<20	NP-5
	36-38	Gravelly sandy loam, loamy sand, gravelly loamy sand.	SC, SC-SM	A-1-b, A-2-4	0-5	80-85	70-75	40-55	20-35	20-30	5-10
	38-60	Gravelly coarse sand, gravelly sand.	GP-GM, GP, SP-SM, SP	A-1-A, A-1-b	0-5	40-70	30-60	15-45	0-15	<20	NP
41----- Granby	0-10	Mucky loamy sand	SM	A-2-4	0	100	100	50-75	15-30	---	NP
	10-28	Sand, fine sand, loamy sand.	SP-SM, SM	A-3, A-2, A-1	0	100	95-100	45-80	5-35	---	NP
	28-60	Sand-----	SP-SM, SM	A-3, A-2, A-1	0	100	95-100	45-80	5-35	---	NP
42B*, 42C*, 42D*, 42E*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	75-100	40-90	10-35	<25	NP-7
Remus-----	0-9	Fine sandy loam	SM, SC-SM	A-2, A-4	0-10	85-100	85-95	55-75	25-45	<25	NP-7
	9-21	Loam, loamy sand, fine sandy loam.	SM, SC-SM	A-2, A-4, A-1-b	0-10	85-100	85-95	45-75	15-45	<25	NP-7
	21-38	Sandy loam, sandy clay loam, loam.	SC, SP-SC, CL	A-2, A-6	0-10	85-100	85-95	45-80	10-65	20-30	10-15
	38-60	Sandy loam, sandy clay loam.	SC	A-2, A-6	0-10	85-100	85-95	55-80	25-45	25-40	10-20
Fern-----	0-10	Loamy fine sand	SM	A-4, A-2-4	0	95-100	85-100	75-95	30-50	<20	NP
	10-21	Loamy sand, fine sand, loamy fine sand.	SP-SM, SM, SC-SM	A-1-b, A-3, A-2-4	0	95-100	85-100	40-90	5-50	<25	NP-6
	21-51	Loamy sand, loamy fine sand, loam.	SP-SM, CL, ML, SC	A-4, A-2-4, A-6	0	95-100	85-100	40-95	10-70	20-40	2-20
	51-60	Loam, clay loam	CL, CL-ML	A-4, A-6	0	95-100	85-100	70-95	50-80	20-40	4-20

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
43B, 43C, 43D, 43E----- Spinks	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
44B----- Thetford	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2, A-4, A-1-b	0	95-100	90-100	45-80	10-45	<25	NP-7
	9-24	Sand, loamy sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2, A-3, A-1-b	0	95-100	90-100	45-80	5-35	<25	NP-7
	24-54	Loamy sand, fine sandy loam, sand.	SM, SC-SM, SC	A-2, A-4	0	95-100	90-100	60-80	20-50	<30	NP-10
	54-60	Fine sand, sand	SM, SP, SP-SM	A-2, A-4, A-3	0	75-100	60-100	50-85	0-45	<20	NP-4
45B*, 45C*, 45D*, 45E*, 45F*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
Benona-----	0-8	Sand-----	SP, SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-70	0-15	---	NP
	8-46	Sand, loamy sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-90	0-30	---	NP
	46-60	Sand, loamy sand	SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-75	5-30	---	NP
46B----- Grattan	0-3	Sand-----	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	5-15	---	NP
	3-32	Sand-----	SM, SP-SM, SP	A-2-4, A-1-b, A-3	0	95-100	90-100	45-70	3-15	---	NP
	32-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP
48A*: Saugatuck-----	0-3	Fine sand-----	SP-SM, SM	A-3, A-2-4	0	100	100	50-70	5-20	---	NP
	3-7	Sand, fine sand	SP-SM, SM	A-3, A-2-4	0	100	100	80-95	5-30	---	NP
	7-29	Sand, fine sand	SP-SM, SM	A-3, A-2-4	0	100	100	80-95	5-30	---	NP
	29-60	Sand, fine sand	SP, SP-SM, SM	A-3, A-2-4	0	100	100	80-95	0-30	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
48A*: Jebavy-----	0-4	Fine sand-----	SP-SM, SM	A-3, A-2-4	0	95-100	90-100	45-70	5-15	---	NP
	4-12	Sand, fine sand	SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	90-100	45-95	5-30	---	NP
	12-16	Sand, fine sand	SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	90-100	45-95	5-30	---	NP
	16-36	Sand, fine sand	SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	90-100	45-95	5-30	---	NP
	36-60	Sand, fine sand	SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	90-100	45-95	5-30	---	NP
49B----- Grattan	0-3	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	3-15	---	NP
	3-32	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	32-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP
49B3----- Grattan	0-22	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	22-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP
49C----- Grattan	0-3	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	3-15	---	NP
	3-32	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	32-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP
49C3----- Grattan	0-22	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	22-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP
49E, 49F----- Grattan	0-3	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	3-15	---	NP
	3-32	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	32-60	Sand-----	SP, SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	0-15	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
50B----- Covert	0-1	Sand-----	SP-SM, SM	A-3, A-2-4	0	95-100	90-100	50-75	5-15	---	NP
	1-33	Sand, loamy sand	SP-SM, SM	A-3, A-2-4	0	95-100	90-100	50-70	5-15	---	NP
	33-60	Sand-----	SP-SM, SM	A-3, A-2-4	0	95-100	90-100	50-70	5-15	---	NP
51B----- Pipestone	0-2	Fine sand-----	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	85-100	40-90	5-35	---	NP
	2-38	Sand, fine sand	SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	85-100	40-90	5-30	---	NP
	38-60	Sand, fine sand	SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	85-100	40-90	5-30	---	NP
52----- Granby	0-11	Sand-----	SP-SM, SM	A-3, A-2	0	100	100	50-80	5-35	---	NP
	11-28	Sand, fine sand, loamy sand.	SP-SM, SM	A-3, A-2, A-1	0	100	95-100	45-80	5-35	---	NP
	28-60	Sand-----	SP-SM, SM	A-3, A-2, A-1	0	100	95-100	45-80	5-35	---	NP
53B, 53C----- Grattan	0-9	Sand-----	SM, SP-SM, SP	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	3-15	---	NP
	9-36	Sand-----	SM, SP-SM, SP	A-2-4, A-3, A-1-b	0	95-100	90-100	45-75	3-30	---	NP
	36-48	Sand-----	SP, SP-SM, SM	A-1-b, A-2-4, A-3	0	95-100	90-100	40-85	0-15	---	NP
	48-60	Clay loam-----	CL	A-6, A-7	0	95-100	90-100	70-90	50-80	35-45	15-25
56B, 56C, 56E----- Benona	0-8	Sand-----	SP, SP-SM, SM	A-2, A-3, A-1	0	90-100	75-100	45-70	0-15	---	NP
	8-48	Sand-----	SP, SP-SM, SM	A-2, A-3, A-1	0	90-100	75-100	45-70	0-15	---	NP
	48-87	Sand, loamy sand	SP-SM, SM	A-2, A-3, A-1	0	90-100	75-100	45-75	5-30	---	NP
	87-91	Clay loam-----	CL, CL-ML	A-4, A-6	0	95-100	95-100	90-100	70-80	20-35	5-20
	91-99	Sand-----	SP-SM, SM	A-2, A-3, A-1	0	90-100	75-100	45-75	5-30	---	NP
57C, 57F----- Nordhouse	0-1	Fine sand-----	SM, SP-SM	A-2-4	0	100	100	65-80	10-35	---	NP
	1-34	Fine sand-----	SM, SP-SM	A-2-4	0	100	100	65-80	10-35	---	NP
	34-60	Fine sand-----	SM, SP-SM	A-2-4	0	100	100	65-80	10-35	---	NP
58----- Kingsville	0-7	Mucky sand-----	SM, SP-SM	A-2, A-1, A-3	0	100	90-100	45-70	5-15	---	NP
	7-24	Fine sand-----	SM, SP-SM	A-2, A-4	0	100	90-100	50-80	10-45	---	NP
	24-60	Fine sand, sand	SM, SW-SM, SP-SM	A-2, A-3, A-4, A-1	0	95-100	85-100	45-80	5-45	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
59B, 59C, 59E--- Benona	0-8	Sand-----	SP, SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-70	0-15	---	NP
	8-46	Sand, loamy sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-90	0-30	---	NP
	46-60	Sand, loamy sand	SP-SM, SM	A-2, A-3, A-1	0-5	90-100	75-100	45-75	5-30	---	NP
60B, 60C, 60E--- Coloma	0-4	Sand-----	SP, SM, SP-SM	A-2, A-3	0-7	75-100	75-100	50-70	2-15	---	NP
	4-35	Sand-----	SP, SM, SP-SM	A-2, A-3	0-7	75-100	75-100	50-75	2-30	---	NP
	35-60	Stratified sand to sandy loam.	SP, SM, SP-SM	A-2, A-3, A-4	0-7	75-100	75-100	50-100	2-40	---	NP
61B, 61C, 61E--- Epworth	0-1	Fine sand-----	SM	A-2-4	0	100	100	65-80	20-35	---	NP
	1-24	Fine sand-----	SM	A-2-4	0	100	100	65-80	20-35	---	NP
	24-60	Fine sand-----	SM	A-2-4	0	100	100	65-80	20-35	---	NP
62B, 62C----- Plainfield	0-3	Sand-----	SP-SM, SM, SP	A-3, A-2, A-1	0	75-100	75-100	40-80	3-35	---	NP
	3-30	Sand-----	SP, SM, SP-SM	A-3, A-1, A-2	0	75-100	75-100	40-70	1-15	---	NP
	30-60	Sand-----	SP, SM, SP-SM	A-3, A-1, A-2	0	75-100	75-100	40-90	1-15	---	NP
65----- Sloan	0-14	Silt loam-----	CL, ML, CL-ML	A-6, A-4	0	100	95-100	85-100	70-95	20-40	3-15
	14-32	Silty clay loam, clay loam, silt loam.	CL, ML	A-6, A-7, A-4	0	100	90-100	85-100	75-95	30-45	8-18
	32-60	Stratified loam to silty clay loam.	ML, CL	A-4, A-6	0	95-100	70-100	60-95	50-90	25-40	3-15
67----- Cohoctah	0-15	Fine sandy loam	ML, SM, SC, CL	A-4, A-2	0	100	100	60-95	30-65	<30	NP-10
	15-30	Loam, fine sandy loam, sandy loam.	ML, SM, SC, CL	A-4, A-2	0	95-100	85-100	70-90	30-70	<30	NP-10
	30-80	Loam, silt loam, fine sandy loam.	ML, SM, SC, CL	A-4, A-2	0	95-100	85-100	65-90	20-70	<30	NP-10
69----- Alganssee	0-8	Loamy fine sand	SM, SC-SM	A-2-4	0	100	100	50-75	15-35	<25	NP-7
	8-60	Sand, fine sand	SM, SP-SM	A-3, A-2-4	0	100	100	50-80	5-35	---	NP
70----- Glendora	0-8	Mucky loamy fine sand.	SC-SM, SM, SP-SM	A-2-4, A-4, A-1	0-5	95-100	90-100	45-85	10-50	<25	NP-7
	8-60	Stratified sand to loamy fine sand.	SP-SM, SP, SM	A-3, A-2-4, A-1-b	0-5	95-100	90-100	45-85	0-35	---	NP
71*: Houghton-----	0-8	Mucky peat-----	PT	A-8	0	---	---	---	---	---	---
	8-60	Muck-----	PT	A-8	0	---	---	---	---	---	---
Carlisle-----	0-60	Muck-----	PT	A-8	0-30	---	---	---	---	---	---

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
72----- Adrian	0-34 34-60	Muck----- Sand, coarse sand	PT SP, SM	A-8 A-2, A-3, A-1	--- 0	--- 80-100	--- 60-100	--- 30-80	--- 0-35	--- ---	--- NP
73----- Palms	0-10 10-18 18-60	Muck----- Muck----- Sandy loam, silt loam, silty clay loam.	PT PT CL-ML, CL, SC, SC-SM	A-8 A-8 A-4, A-6, A-7, A-2	0 0 0	--- --- 85-100	--- --- 60-100	--- --- 35-95	--- --- 15-90	--- --- 20-45	--- --- 5-20
75----- Martisco	0-15 15-60	Muck----- Marl-----	PT ---	A-8 ---	0 0	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---
77----- Napoleon	0-4 4-60	Muck----- Mucky-peat-----	PT PT	A-8 A-8	0 0	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---
83*: Histosols-----	0-51 51-60	Muck----- Variable-----	PT ---	A-8 ---	0 ---	--- ---	--- ---	--- ---	--- ---	--- ---	NP ---
Aquents-----	0-60	Variable-----	---	---	---	---	---	---	---	---	---
84F*: Dune land.											
Quartzipsamments	0-80	Sand-----	SM, SP-SM	A-2-4, A-3	0	100	100	50-70	5-15	---	NP
Psammaquents-----	0-60	Fine sand-----	SP, SP-SM, SM	A-1, A-2, A-3	0-5	85-100	80-100	40-80	2-35	<20	NP
85F*: Udorthents-----	0-80	Variable-----	---	---	---	---	---	---	---	---	---
Quartzipsamments	0-80	Sand-----	SM, SP-SM	A-2-4, A-3	0	100	100	50-70	5-15	---	NP
86F*: Dune land.											
Quartzipsamments	0-80	Sand-----	SM, SP-SM	A-2-4, A-3	0	100	100	50-70	5-15	---	NP
87. Beaches											
88A----- Udipsamments	0-60	Sand-----	SP, SP-SM, SM	A-1, A-2, A-3	0	85-100	75-100	30-75	0-25	---	NP
89A----- Udorthents	0-80	Variable-----	---	---	---	---	---	---	---	---	---
91. Pits, sand and gravel											
92B, 92C----- Chelsea	0-9 9-60	Fine sand----- Fine sand, loamy sand, loamy fine sand.	SP, SP-SM, SM SP, SM, SP-SM	A-3, A-2-4 A-3, A-2-4	0 0	100 100	100 100	65-95 65-80	3-15 3-15	--- ---	NP NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
96B*, 96C*, 96D*, 96E*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
Tekenink-----	0-9	Loamy fine sand	SM, SC-SM	A-2-4, A-4, A-1-b	0-10	95-100	80-100	45-95	15-40	<25	NP-6
	9-15	Loamy fine sand, loamy sand.	SM, SC-SM, SC	A-4, A-2-4	0-10	95-100	80-100	50-85	15-50	<25	NP-10
	15-35	Loamy fine sand, fine sandy loam, sandy loam.	SM, SC, CL, ML	A-4, A-2-4, A-1-b	0-10	95-100	80-100	35-95	10-75	<25	NP-10
	35-46	Sandy loam, fine sandy loam, loam.	SC-SM, SC, CL, CL-ML	A-4, A-2-4, A-2-6	0-10	95-100	80-100	45-95	20-75	<30	4-15
	46-60	Sandy loam, fine sandy loam, loamy sand.	SM, SC, SC-SM, SP-SM	A-4, A-2-4, A-1-b	0-10	95-100	80-100	35-85	10-50	<25	NP-10
97*: Kerston-----	0-13	Muck-----	PT	A-8	0	---	---	---	---	---	---
	13-26	Muck-----	PT	A-8	0	---	---	---	---	---	---
	26-33	Sand, loamy sand	SP, SM, SP-SM	A-3, A-1, A-2	0	75-100	75-100	40-80	5-30	---	NP-7
	33-46	Muck-----	PT	A-8	0	---	---	---	---	---	---
	46-60	Sand, loamy sand	SP, SM, SP-SM	A-3, A-1, A-2	0	75-100	75-100	45-75	5-30	---	NP-7
Carlisle-----	0-60	Muck-----	PT	A-8	0-30	---	---	---	---	---	---
98B*, 98C*, 98D*: Spinks-----	0-9	Loamy fine sand	SM, SC-SM, SP-SM	A-2-4, A-1-b	0	95-100	80-100	35-90	10-30	<25	NP-7
	9-24	Sand, fine sand, loamy fine sand.	SM, SP-SM, SC-SM	A-2-4, A-3, A-1-b	0	95-100	80-100	35-90	5-35	<25	NP-7
	24-60	Fine sand, loamy fine sand, sand.	SM, SP-SM, SC-SM	A-2-4, A-1-b	0	95-100	80-100	40-90	10-35	<25	NP-7
Scalley-----	0-6	Fine sandy loam	SC-SM, SC	A-2, A-4	0-5	95-100	85-100	50-85	25-50	20-30	4-10
	6-22	Fine sandy loam, clay loam, silty clay loam.	SC-SM, SC, CL, CL-ML	A-2, A-4, A-6, A-7	0-5	95-100	85-100	50-95	25-85	20-45	4-20
	22-34	Clay loam, silty clay loam.	CL	A-6, A-7	0-5	95-100	85-100	70-95	50-85	30-45	10-20
	34-60	Sand, loamy sand	SM, SP-SM	A-2-4, A-1-b, A-3	0-5	95-100	85-100	45-80	5-30	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
99B*: Nappanee-----	0-9	Silt loam-----	CL	A-6	0-5	95-100	90-100	85-100	55-90	30-40	10-15
	9-19	Silty clay, clay	CH	A-7	0-5	95-100	90-100	85-100	70-95	50-70	25-45
	19-60	Silty clay, clay	CH	A-7	0-5	95-100	90-100	85-100	70-95	40-60	20-35
Hoytville-----	0-9	Silt loam-----	CL	A-6	0-5	100	90-100	85-100	75-90	30-40	15-25
	9-44	Clay, silty clay	CH, CL, MH	A-7	0-5	100	85-100	80-100	75-100	42-66	22-40
	44-60	Clay, silty clay	CH	A-7	0-5	100	85-100	80-100	75-100	40-62	22-40
100B-----	0-9	Silt loam-----	CL	A-6	0-5	95-100	90-100	85-100	55-90	30-40	10-15
Nappanee	9-19	Silty clay, clay	CH	A-7	0-5	95-100	90-100	85-100	70-95	50-70	25-45
	19-60	Silty clay, clay	CH	A-7	0-5	95-100	90-100	85-100	70-95	40-60	20-35
101B, 101C-----	0-7	Silt loam-----	CL, CL-ML	A-4, A-6	0	95-100	85-100	75-100	55-90	20-40	5-15
Claybanks	7-11	Silt loam, silty clay.	CL, CL-ML, CH	A-4, A-6, A-7-6	0	95-100	85-100	75-100	60-100	20-55	4-30
	11-17	Clay, silty clay	CH	A-7	0	95-100	85-100	80-100	75-90	55-65	30-40
	17-60	Clay, silty clay	CH	A-7	0	95-100	85-100	80-100	75-90	55-65	30-40
210B*, 210C*, 210D*-----	0-3	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
Typic Udipsamments	3-36	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
	36-99	Sand, coarse sand, fine sand.	SP, SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	0-15	---	NP
211B*, 211C*-----	0-2	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
Typic Udipsamments	2-40	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
	40-60	Sand, coarse sand, fine sand.	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
	60-99	Stratified sand to sandy loam.	SM, SC-SM, SC, SP-SM	A-3, A-1, A-2, A-4	0	90-100	85-100	40-70	5-40	<30	NP-10
212B*-----	0-2	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
Typic Udipsamments	2-40	Sand-----	SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
	40-99	Sand, coarse sand	SP, SM, SP-SM	A-3, A-1, A-2	0	90-100	85-100	40-70	0-15	---	NP
213B*, 213C*, 213D*-----	0-3	Sand-----	SP-SM, SM	A-3, A-1, A-2	0	90-100	85-100	40-70	5-15	---	NP
Argic Udipsamments	3-31	Sand, coarse sand	SP, SP-SM, SM	A-3, A-1, A-2	0	90-100	85-100	40-70	0-15	---	NP
	31-99	Stratified sand to sandy loam.	SP-SM, SM	A-3, A-2	0	90-100	85-100	50-75	5-30	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
220B*, 220C*, 220D*, 220E*----- Entic Haplorthods, sandy	0-3 3-48 48-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3	0 0 0	95-100 95-100 95-100	85-100 85-100 85-100	40-70 40-70 35-70	3-15 3-15 0-15	--- --- ---	NP NP NP
221B*, 221C*, 221D*, 221E*----- Entic Haplorthods, sandy	0-3 3-35 35-60 60-90	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand. Stratified sand to sandy loam.	SP, SP-SM, SM SP, SP-SM, SM SP, SM, SC-SM, SC	A-2, A-3, A-1 A-2, A-3, A-1 A-3, A-1, A-2, A-4	0 0 0 0	95-100 95-100 95-100 95-100	85-100 85-100 85-100 85-100	40-70 45-70 45-70 40-70	1-15 1-15 1-15 1-40	--- --- --- 0-30	NP NP NP NP-10
222B*, 222C*----- Entic Haplorthods, sandy	0-3 3-35 35-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3	0 0 0	95-100 95-100 95-100	85-100 85-100 85-100	40-70 40-70 40-70	3-15 3-15 0-15	--- --- ---	NP NP NP
223B*, 223C*, 223D*, 223E*----- Entic Haplorthods, sandy	0-3 3-35 35-60 60-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand. Stratified sand to sandy clay loam.	SP, SP-SM, SM SP, SP-SM, SM SM, SC, CL, SP-SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3 A-3, A-2, A-4, A-6	0 0 0 0	95-100 95-100 95-100 95-100	85-100 85-100 85-100 85-100	40-70 40-70 40-70 40-90	3-15 3-15 0-15 5-55	--- --- --- 0-40	NP NP NP NP-20
224B*----- Entic Haplorthods, sandy	0-3 3-35 35-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM	A-2, A-3, A-1 A-2, A-3, A-1 A-2, A-3, A-1	0 0 0	95-100 95-100 95-100	85-100 85-100 85-100	40-70 40-70 40-70	3-15 3-15 0-15	--- --- ---	NP NP NP
225B*, 225C*, 225D*----- Entic Haplorthods, sandy	0-3 3-35 35-60 60-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand. Sandy clay loam, clay loam.	SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM SC, CL	A-2, A-1, A-3 A-2, A-1, A-3 A-2, A-1, A-3 A-6, A-7, A-2-6	0 0 0 0	95-100 95-100 95-100 95-100	90-100 90-100 90-100 85-100	45-70 45-70 45-70 65-95	5-15 3-15 0-15 30-80	--- --- --- 30-50	NP NP NP 10-25

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
230B*, 230C*, 230D*, 230E* Entic Haplorthods, sandy	In 0-3 3-33 33-60 60-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand. Stratified sand to sandy loam.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM SP, SM, SC, SC-SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3, A-4	0 0 0 0	95-100 95-100 95-100 95-100	85-100 85-100 85-100 85-100	45-70 45-70 45-70 40-70	1-15 1-15 1-15 1-40	--- --- --- 0-30	NP NP NP NP-10
231B*: Entic Haplorthods, sandy	0-3 3-48 48-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3	0 0 0	95-100 95-100 95-100	85-100 85-100 85-100	40-70 40-70 35-70	3-15 3-25 0-15	--- --- ---	NP NP NP
Alfic Haplorthods, sandy over loamy	0-3 3-22 22-34 34-99	Sand----- Sand, fine sand, loamy sand. Sandy clay loam, clay loam, silty clay loam. Stratified sand to sandy clay loam.	SP-SM, SM SP-SM, SM SC, CL SM, SC, CL, SC-SM	A-1, A-2, A-3 A-1, A-2, A-3 A-2, A-6, A-7 A-2, A-3, A-4, A-6	0 0 0 0	95-100 95-100 95-100 95-100	85-100 85-100 90-100 90-100	40-70 40-95 70-100 45-90	5-15 5-35 30-95 5-55	--- --- 30-50 0-40	NP NP 11-25 NP-20
233B*, 233C*, 233D*, 233E*: Alfic Haplorthods, sandy over loamy	0-3 3-22 22-34 34-99	Sand----- Sand, fine sand, loamy sand. Sandy clay loam, clay loam, silty clay loam. Stratified sand to sandy clay loam.	SP-SM, SM SP-SM, SM SC, CL SM, SC, CL, SC-SM	A-1, A-2, A-3 A-1, A-2, A-3 A-2, A-6, A-7 A-2, A-3, A-4, A-6	0 0 0 0	95-100 95-100 95-100 95-100	85-100 85-100 90-100 90-100	40-70 40-95 70-100 45-90	5-15 5-35 30-95 5-55	--- --- 30-50 0-40	NP NP 11-25 NP-20
Entic Haplorthods, sandy	0-3 3-48 48-99	Sand----- Sand, loamy sand, fine sand. Sand, coarse sand, gravelly sand.	SP, SP-SM, SM SP, SP-SM, SM SP, SP-SM, SM	A-1, A-2, A-3 A-1, A-2, A-3 A-1, A-2, A-3	0 0 0	95-100 95-100 95-100	85-100 85-100 85-100	40-70 40-70 35-70	3-15 3-25 0-15	--- --- ---	NP NP NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
235B*, 235C*: Alfic Haplorthods, sandy over loamy-----	In				Pct					Pct	
	0-3	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	3-22	Sand, fine sand, loamy sand.	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-95	5-35	---	NP
	22-34	Sandy clay loam, clay loam, silty clay loam.	SC, CL	A-2, A-6, A-7	0	95-100	90-100	70-100	30-95	30-50	11-25
	34-99	Stratified sand to sandy clay loam.	SM, SC, CL, SC-SM	A-2, A-3, A-4, A-6	0	95-100	90-100	45-90	5-55	0-40	NP-20
Alfic Haplorthods, sandy-----	0-4	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	4-42	Sand, loamy sand	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-75	5-30	---	NP
	42-52	Sandy loam, clay loam, silty clay loam.	SC, CL	A-2-6, A-2-7, A-6, A-7	0	95-100	90-100	70-100	30-95	30-50	11-25
	52-99	Sand, loamy fine sand, sandy loam.	SP-SM, SM, SC, SC-SM	A-1, A-2, A-3, A-4	0	95-100	90-100	40-70	5-40	<30	NP-9
240C*----- Entic Haplorthods, sandy	0-2	Sand-----	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	5-15	---	NP
	2-36	Sand-----	SM, SP-SM	A-2-4, A-3, A-1-b	0	95-100	90-100	45-70	5-15	---	NP
	36-99	Sand, coarse sand	SP-SM, SM	A-2-4, A-3, A-1-b	0	95-100	90-100	35-70	5-15	---	NP
241B*----- Entic Haplorthods, sandy	0-3	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	90-100	45-70	5-15	---	NP
	3-47	Sand, loamy sand, fine sand.	SP-SM, SM	A-1, A-2, A-3	0	95-100	90-100	45-70	5-15	---	NP
	47-60	Sand, coarse sand, gravelly sand.	SP-SM, SM	A-1, A-2, A-3	0	95-100	90-100	45-70	5-15	---	NP
	60-99	Stratified sand to sandy loam.	SM, SC, SP-SM, SC-SM	A-1-b, A-2-4, A-3	0	95-100	90-100	40-70	5-40	0-30	NP-10

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
245B*, 245C*, 245D*----- Entic Haplorthods, sandy	0-2	Sand-----	SP-SM, SM	A-2-4, A-1-b, A-3	0	95-100	90-100	45-70	5-15	---	NP
	2-40	Sand, loamy sand, fine sand.	SP, SP-SM, SM	A-2-4, A-1-b, A-3	0	95-100	90-100	45-70	3-15	---	NP
	40-45	Sand, coarse sand, gravelly sand.	SP, SP-SM, SM	A-2-4, A-1-b, A-3	0	95-100	90-100	45-70	0-15	---	NP
	45-60	Sandy clay loam, clay loam.	SC, CL	A-6, A-7, A-2-6	0	95-100	85-100	65-95	30-80	30-50	10-25
250*: Mollic Psammaquents----	0-3	Muck-----	---	---	---	---	---	---	---	---	---
	3-8	Fine sandy loam, sandy loam, loamy sand.	SM, SC-SM, SC	A-2, A-4	0	95-100	85-100	50-85	30-50	<25	NP-10
	8-20	Loamy sand, sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0	95-100	85-100	40-90	2-30	---	NP
	20-60	Sand, loamy sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0	95-100	85-100	40-90	2-30	---	NP
Aquic Udipsamments----	0-3	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	3-7	Sand, loamy sand	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-25	---	NP
	7-41	Sand, loamy sand, fine sand.	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	41-60	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
Medisaprists, euic-----	0-51	Muck-----	PT	A-8	---	---	---	---	---	---	---
	51-60	Variable-----	---	---	---	---	---	---	---	---	---
262A*----- Aeric Haplaquods, sandy, ortstein	0-5	Sand-----	SP-SM, SM	A-3, A-1, A-2	0	95-100	90-100	45-70	5-15	---	NP
	5-11	Sand, loamy sand, fine sand.	SP-SM, SM	A-3, A-1, A-2	0	95-100	90-100	45-70	5-15	---	NP
	11-17	Sand, coarse sand, loamy sand.	SP-SM, SM	A-3, A-1, A-2	0	95-100	90-100	45-70	5-15	---	NP
	17-60	Sand, coarse sand, loamy sand.	SP-SM, SM	A-3, A-1, A-2	0	95-100	90-100	45-70	5-15	---	NP
263A*----- Aquic Udipsamments	0-3	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	3-7	Sand, loamy sand	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-75	5-25	---	NP
	7-41	Sand, loamy sand, fine sand.	SM, SM, SP-SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	41-60	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP

See footnote at end of table.

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
272*----- Typic Haplaquods, sandy	0-6	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	6-25	Sand-----	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
	25-60	Sand, loamy fine sand, coarse sand.	SP-SM, SM	A-1, A-2, A-3	0	95-100	85-100	40-70	5-15	---	NP
273*----- Mollic Psammaquents	0-3	Muck-----	---	---	---	---	---	---	---	---	---
	3-8	Fine sandy loam, sandy loam, loamy sand.	SM, SC-SM, SC	A-2, A-4	0	95-100	85-100	55-85	30-50	<25	NP-10
	8-20	Loamy sand, sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0	95-100	85-100	40-90	2-30	---	NP
	20-60	Sand, loamy sand, fine sand.	SP, SP-SM, SM	A-2, A-3, A-1	0	95-100	85-100	40-90	2-30	---	NP
274*----- Typic Haplaquolls, sandy over loamy	0-2	Muck-----	PT	A-8	0	---	---	---	---	---	---
	2-10	Loamy fine sand	SM	A-4	0	95-100	90-100	80-95	40-50	---	NP
	10-20	Fine sand, sand, loamy fine sand.	SM, SP-SM	A-3, A-4, A-2, A-1	0	95-100	90-100	45-95	5-50	---	NP
	20-60	Sandy clay loam, silt loam, silty clay loam.	SC-SM, SC, CL-ML, CL	A-2-6, A-6, A-7	0	95-100	90-100	70-100	30-95	20-50	6-25
280*: Aquents-----	0-60	Variable-----	---	---	---	---	---	---	---	---	
Histosols-----	0-51	Muck-----	PT	A-8	0	---	---	---	---	---	NP
	51-60	Variable-----	---	---	---	---	---	---	---	---	---
281----- Medisaprists, dysic	0-51	Muck-----	---	---	---	---	---	---	---	---	---
	51-60	Variable-----	---	---	---	---	---	---	---	---	---
282----- Medisaprists, euic	0-51	Muck-----	PT	A-8	---	---	---	---	---	---	---
	51-60	Variable-----	---	---	---	---	---	---	---	---	---

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
10B, 10C, 10D, 10E----- Perrinton	0-9 9-18 18-35 35-60	10-27 10-50 35-50 30-50	1.35-1.55 1.35-1.65 1.50-1.70 1.65-1.70	0.6-2.0 0.2-0.6 0.06-0.2 0.06-0.2	0.17-0.24 0.11-0.20 0.10-0.20 0.14-0.20	5.6-7.8 5.6-7.8 5.6-8.4 7.9-8.4	Low----- Moderate---- Moderate---- Moderate----	0.37 0.32 0.32 0.32	5 5 5 5	5 5 5 5	1-3 1-3 1-3 1-3
11A----- Ithaca	0-9 9-13 13-24 24-60	8-27 12-40 35-50 30-50	1.40-1.70 1.40-1.60 1.40-1.65 1.50-1.65	0.6-2.0 0.2-0.6 0.06-0.2 0.06-0.2	0.18-0.22 0.14-0.18 0.10-0.20 0.13-0.20	5.1-7.3 5.1-7.3 5.1-7.8 7.3-8.4	Low----- Low----- Moderate---- Moderate----	0.32 0.28 0.32 0.32	5 5 5 5	5 5 5 5	1-4 1-4 1-4 1-4
12----- Bono	0-11 11-32 32-60	15-27 40-55 35-60	1.30-1.55 1.35-1.55 1.45-1.60	0.6-2.0 0.06-0.2 <0.2	0.22-0.24 0.10-0.14 0.08-0.12	6.1-7.8 6.1-8.4 7.4-8.4	High----- High----- High-----	0.28 0.28 0.28	5 5 5	4 4 4	4-8 4-8 4-8
13B, 13C, 13D---- Marlette	0-8 8-12 12-25 25-60	10-18 10-35 27-35 25-30	1.50-1.65 1.50-1.65 1.50-1.70 1.50-1.75	2.0-6.0 0.2-2.0 0.2-0.6 0.2-0.6	0.11-0.18 0.11-0.20 0.18-0.20 0.12-0.19	5.6-7.3 5.6-7.3 5.6-7.8 6.6-8.4	Low----- Low----- Low----- Low-----	0.24 0.28 0.32 0.32	5 5 5 5	3 3 3 3	1-3 1-3 1-3 1-3
14B----- Capac	0-9 9-36 36-60	5-15 18-35 10-35	1.40-1.70 1.45-1.70 1.50-1.70	2.0-6.0 0.2-0.6 0.2-0.6	0.13-0.16 0.14-0.18 0.14-0.17	5.6-7.3 5.6-7.3 7.4-8.4	Low----- Low----- Low-----	0.24 0.32 0.32	5 5 5	3 3 3	2-6 2-6 2-6
16B, 16C, 16D---- Remus	0-9 9-21 21-50 50-60	8-18 5-18 10-30 15-30	1.10-1.60 1.30-1.75 1.65-1.80 1.30-1.80	2.0-6.0 2.0-6.0 0.2-0.6 0.2-0.6	0.10-0.18 0.08-0.17 0.08-0.16 0.08-0.16	5.1-7.3 5.1-7.3 5.1-7.3 5.1-8.4	Low----- Low----- Low----- Low-----	0.24 0.24 0.28 0.28	3 3 3 3	3 3 3 3	1-2 1-2 1-2 1-2
17B*, 17C*, 17D*: Marlette-----	0-8 8-12 12-25 25-60	10-18 10-35 27-35 25-30	1.50-1.65 1.50-1.65 1.50-1.70 1.50-1.75	2.0-6.0 0.2-2.0 0.2-0.6 0.2-0.6	0.11-0.18 0.11-0.20 0.18-0.20 0.12-0.19	5.6-7.3 5.6-7.3 5.6-7.8 6.6-8.4	Low----- Low----- Low----- Low-----	0.24 0.28 0.32 0.32	5 5 5 5	3 3 3 3	1-3 1-3 1-3 1-3
Fern-----	0-10 10-21 21-51 51-60	5-10 1-12 5-27 18-30	1.30-1.55 1.30-1.60 1.40-1.70 1.50-1.70	6.0-20 6.0-20 0.6-6.0 0.6-2.0	0.10-0.12 0.06-0.11 0.08-0.18 0.15-0.18	5.6-7.3 5.6-7.3 5.6-7.3 6.1-7.3	Low----- Low----- Low----- Low-----	0.17 0.17 0.37 0.37	5 5 5 5	2 2 2 2	1-3 1-3 1-3 1-3
18B*, 18C*, 18D*: Spinks-----	0-9 9-24 24-60	2-15 0-15 3-15	1.40-1.70 1.40-1.70 1.40-1.70	6.0-20 2.0-20 2.0-6.0	0.08-0.10 0.05-0.10 0.04-0.08	5.1-7.3 5.6-7.3 5.6-7.8	Low----- Low----- Low-----	0.17 0.17 0.17	5 5 5	2 2 2	2-4 2-4 2-4
Gowdy-----	0-9 9-28 28-32 32-42 42-60	4-10 2-10 35-60 35-60 35-60	1.55-1.70 1.55-1.70 1.35-1.70 1.45-1.55 1.30-1.65	6.0-20 6.0-20 0.06-0.2 0.06-0.2 0.06-0.2	0.09-0.13 0.07-0.09 0.11-0.20 0.09-0.20 0.18-0.20	5.1-7.3 5.1-7.3 5.1-7.3 5.1-7.3 7.4-8.4	Low----- Low----- High----- High----- High-----	0.17 0.17 0.43 0.43 0.43	5 5 5 5 5	2 2 2 2 2	.5-2 .5-2 .5-2 .5-2 .5-2
20B*, 20C*, 20D*: Arkport-----	0-8 8-22 22-60	5-15 3-15 1-5	1.10-1.40 1.25-1.55 1.25-1.55	2.0-6.0 2.0-6.0 2.0-6.0	0.08-0.09 0.06-0.16 0.06-0.12	4.5-7.3 4.5-7.3 5.1-7.3	Low----- Low----- Low-----	0.17 0.28 0.28	3 3 3	---	.5-2 .5-2 .5-2

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction pH	Shrink-swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
20B*, 20C*, 20D*: Chelsea-----	0-9 9-60	3-8 5-10	1.50-1.55 1.55-1.70	6.0-20 6.0-20	0.06-0.08 0.06-0.08	5.6-7.3 5.1-6.5	Low----- Low-----	0.15 0.17	5	1	.5-1
21A----- Freesoil	0-9 9-24 24-60	5-15 5-20 5-30	1.35-1.55 1.35-1.60 1.50-1.65	0.6-2.0 0.6-2.0 0.6-6.0	0.11-0.13 0.08-0.22 0.07-0.20	6.1-8.4 7.3-8.4 7.9-8.4	Low----- Low----- Low-----	0.24 0.24 0.24	5	2	2-4
22B, 22C----- Gowdy	0-9 9-28 28-32 32-42 42-60	4-10 2-10 35-60 35-60 35-60	1.55-1.70 1.55-1.70 1.35-1.70 1.45-1.55 1.30-1.65	6.0-20 6.0-20 0.06-0.2 0.06-0.2 0.06-0.2	0.09-0.13 0.07-0.09 0.11-0.20 0.09-0.20 0.18-0.20	5.1-7.3 5.1-7.3 5.1-7.3 5.1-7.3 7.4-8.4	Low----- Low----- High----- High----- High-----	0.17 0.17 0.43 0.43 0.43	5	2	.5-2
23A----- Arkona	0-7 7-31 31-60	1-12 3-15 35-50	1.25-1.40 1.35-1.45 1.50-1.75	2.0-20 6.0-20 <0.06	0.10-0.12 0.06-0.11 0.08-0.12	5.1-7.3 5.1-7.3 5.6-8.4	Low----- Low----- Moderate----	0.17 0.17 0.28	4	2	1-3
24----- Sickles	0-9 9-32 32-60	2-12 2-12 35-50	1.35-1.50 1.40-1.55 1.50-1.75	2.0-6.0 6.0-20 <0.06	0.10-0.12 0.06-0.11 0.08-0.12	5.6-7.3 6.1-7.3 7.9-8.4	Low----- Low----- High-----	0.17 0.17 0.32	4	2	4-6
25B*, 25C*, 25D*, 25E*: Gowdy-----	0-9 9-28 28-32 32-42 42-60	4-10 2-10 35-60 35-60 35-60	1.55-1.70 1.55-1.70 1.35-1.70 1.45-1.55 1.30-1.65	6.0-20 6.0-20 0.06-0.2 0.06-0.2 0.06-0.2	0.09-0.13 0.07-0.09 0.11-0.20 0.09-0.20 0.18-0.20	5.1-7.3 5.1-7.3 5.1-7.3 5.1-7.3 7.4-8.4	Low----- Low----- High----- High----- High-----	0.17 0.17 0.43 0.43 0.43	5	2	.5-2
Perrinton-----	0-9 9-18 18-35 35-60	10-27 10-50 35-50 30-50	1.35-1.55 1.35-1.65 1.50-1.70 1.65-1.70	0.6-2.0 0.2-0.6 0.06-0.2 0.06-0.2	0.17-0.24 0.11-0.20 0.10-0.20 0.14-0.20	5.6-7.8 5.6-7.8 5.6-8.4 7.9-8.4	Low----- Moderate---- Moderate---- Moderate----	0.37 0.32 0.32 0.32	3	5	1-3
26A*: Arkona-----	0-7 7-31 31-60	1-12 3-15 35-50	1.25-1.40 1.35-1.45 1.50-1.75	2.0-20 6.0-20 <0.06	0.10-0.12 0.06-0.11 0.08-0.12	5.1-7.3 5.1-7.3 5.6-8.4	Low----- Low----- Moderate----	0.17 0.17 0.28	4	2	1-3
Ithaca-----	0-9 9-13 13-24 24-60	8-27 12-40 35-50 30-50	1.40-1.70 1.40-1.60 1.40-1.65 1.50-1.65	0.6-2.0 0.2-0.6 0.06-0.2 0.06-0.2	0.18-0.22 0.14-0.18 0.10-0.20 0.13-0.20	5.1-7.3 5.1-7.3 5.1-7.8 7.3-8.4	Low----- Low----- Moderate---- Moderate----	0.32 0.28 0.32 0.32	3	5	1-4
27B*: Arkona-----	0-7 7-31 31-60	1-12 3-15 35-50	1.25-1.40 1.35-1.45 1.50-1.75	2.0-20 6.0-20 <0.06	0.10-0.12 0.06-0.11 0.08-0.12	5.1-7.3 5.1-7.3 5.6-8.4	Low----- Low----- Moderate----	0.17 0.17 0.28	4	2	1-3
Del Rey-----	0-8 8-32 32-60	15-27 35-45 25-35	1.30-1.50 1.40-1.65 1.50-1.70	0.6-2.0 0.06-0.2 0.06-0.2	0.22-0.24 0.12-0.20 0.09-0.11	4.5-7.8 4.5-8.4 7.9-8.4	Low----- Moderate---- Moderate----	0.43 0.43 0.43	3	6	2-3
28B, 28C, 28D----- Fern	0-10 10-21 21-51 51-60	5-10 1-12 5-27 18-30	1.30-1.55 1.30-1.60 1.40-1.70 1.50-1.70	6.0-20 6.0-20 0.6-6.0 0.6-2.0	0.10-0.12 0.06-0.11 0.08-0.18 0.15-0.18	5.6-7.3 5.6-7.3 5.6-7.3 6.1-7.3	Low----- Low----- Low----- Low-----	0.17 0.17 0.37 0.37	5	2	1-3

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
29A----- Dixboro	0-9	2-12	1.30-1.65	2.0-6.0	0.10-0.14	5.6-7.3	Low-----	0.20	5	2	2-3
	9-24	6-17	1.40-1.70	0.6-2.0	0.15-0.20	5.6-7.8	Low-----	0.32			
	24-60	0-15	1.50-1.65	0.6-2.0	0.07-0.20	6.6-8.4	Low-----	0.24			
30----- Lamson	0-7	---	0.13-0.23	0.6-6.0	0.35-0.45	5.6-7.3	-----	---	3	2	25-75
	7-80	1-10	1.45-1.65	0.6-6.0	0.02-0.04	6.1-8.4	Low-----	0.20			
35B*, 35C*, 35D*: Alvin-----	0-8	10-15	1.45-1.65	2.0-6.0	0.14-0.17	4.5-7.3	Low-----	0.24	5	3	.5-1
	8-15	10-15	1.45-1.65	0.6-6.0	0.10-0.17	4.5-7.3	Low-----	0.24			
	15-22	15-18	1.40-1.65	0.6-6.0	0.14-0.18	4.5-7.3	Low-----	0.24			
	22-80	3-10	1.45-1.65	2.0-6.0	0.10-0.15	5.1-8.4	Low-----	0.24			
Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-80	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
36A----- Del Rey	0-8	15-27	1.30-1.50	0.6-2.0	0.22-0.24	4.5-7.8	Low-----	0.43	3	6	2-3
	8-32	35-45	1.40-1.65	0.06-0.2	0.12-0.20	4.5-8.4	Moderate----	0.43			
	32-60	25-35	1.50-1.70	0.06-0.2	0.09-0.11	7.9-8.4	Moderate----	0.43			
37A----- Altmar	0-9	1-5	1.10-1.40	2.0-6.0	0.07-0.16	5.1-7.3	Low-----	0.17	5	2	2-5
	9-24	1-10	1.25-1.55	6.0-20	0.04-0.08	5.1-7.8	Low-----	0.17			
	24-60	1-3	1.45-1.65	6.0-20	0.02-0.04	7.4-8.4	Low-----	0.10			
38B*, 38C*, 38D*, 38E*: Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
	Okee-----	0-3	4-10	1.55-1.70	2.0-6.0	0.07-0.13	5.6-7.3	Low-----	0.17		
3-25	2-10	1.50-1.65	0.6-6.0	0.05-0.12	5.6-7.3	Low-----	0.17				
25-33	10-18	1.55-1.70	0.6-6.0	0.12-0.16	5.6-7.8	Low-----	0.32				
33-60	2-15	1.35-1.70	2.0-20	0.07-0.12	7.4-8.4	Low-----	0.17				
40B*, 40C*, 40D*: Coloma-----	0-4	0-10	1.35-1.65	6.0-20	0.05-0.09	4.5-7.3	Low-----	0.15	5	1	.5-2
	4-35	0-10	1.35-1.65	6.0-20	0.05-0.12	4.5-6.5	Low-----	0.15			
	35-60	2-12	1.50-1.65	6.0-20	0.03-0.08	4.5-6.0	Low-----	0.15			
Toogood-----	0-4	2-10	1.25-1.55	6.0-20	0.06-0.09	5.1-7.3	Low-----	0.17	4	2	.5-2
	4-36	2-10	1.40-1.65	6.0-20	0.05-0.11	5.1-7.3	Low-----	0.17			
	36-38	10-20	1.35-1.65	6.0-20	0.09-0.12	5.6-8.4	Low-----	0.17			
	38-60	0-10	1.50-1.65	>20	0.02-0.04	7.3-8.4	Low-----	0.10			
41----- Granby	0-10	0-10	1.10-1.20	6.0-20	0.15-0.20	5.6-7.3	Low-----	0.17	5	2	10-15
	10-28	0-14	1.45-1.60	6.0-20	0.05-0.12	5.6-7.8	Low-----	0.15			
	28-60	0-10	1.45-1.60	6.0-20	0.05-0.12	6.6-8.4	Low-----	0.15			
42B*, 42C*, 42D*, 42E*: Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
	Remus-----	0-9	8-18	1.10-1.60	2.0-6.0	0.10-0.18	5.1-7.3	Low-----	0.24		
9-21	5-18	1.30-1.75	2.0-6.0	0.08-0.17	5.1-7.3	Low-----	0.24				
21-38	10-30	1.65-1.80	0.2-0.6	0.08-0.16	5.1-7.3	Low-----	0.28				
38-60	15-30	1.30-1.80	0.2-0.6	0.08-0.16	5.1-8.4	Low-----	0.28				

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
42B*, 42C*, 42D*, 42E*: Fern-----	0-10	5-10	1.30-1.55	6.0-20	0.10-0.12	5.6-7.3	Low-----	0.17	5	2	1-3
	10-21	1-12	1.30-1.60	6.0-20	0.06-0.11	5.6-7.3	Low-----	0.17			
	21-51	5-30	1.40-1.70	0.6-6.0	0.08-0.18	5.6-7.3	Low-----	0.37			
	51-60	18-30	1.50-1.70	0.6-2.0	0.15-0.18	6.1-7.3	Low-----	0.37			
43B, 43C, 43D, 43E----- Spinks	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
44B----- Thetford	0-9	2-15	1.30-1.60	2.0-6.0	0.09-0.11	5.6-7.3	Low-----	0.17	5	2	1-4
	9-24	2-15	1.30-1.60	2.0-20	0.07-0.11	5.6-7.3	Low-----	0.17			
	24-54	8-18	1.45-1.65	2.0-6.0	0.06-0.08	5.6-7.8	Low-----	0.17			
	54-60	0-10	1.45-1.65	6.0-20	0.05-0.08	7.4-8.4	Low-----	0.15			
45B*, 45C*, 45D*, 45E*, 45F*: Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
Benona-----	0-8	0-5	1.30-1.55	6.0-20	0.07-0.09	4.5-5.5	Low-----	0.15	5	1	5-2
	8-46	0-10	1.40-1.60	6.0-20	0.06-0.10	4.5-6.0	Low-----	0.15			
	46-60	2-12	1.55-1.65	6.0-20	0.05-0.10	5.1-7.3	Low-----	0.17			
46B----- Grattan	0-3	0-10	1.35-1.55	6.0-20	0.07-0.09	4.5-6.5	Low-----	0.15	5	1	5-1
	3-32	0-10	1.40-1.60	6.0-20	0.04-0.06	4.5-6.5	Low-----	0.15			
	32-60	0-10	1.50-1.65	6.0-20	0.02-0.04	5.6-7.3	Low-----	0.15			
48A*: Saugatuck-----	0-3	2-12	1.20-1.50	6.0-20	0.07-0.09	3.6-5.5	Low-----	0.15	2	1	2-10
	3-7	2-12	1.30-1.55	6.0-20	0.06-0.08	3.6-5.5	Low-----	0.15			
	7-29	2-12	1.75-2.00	0.6-2.0	0.06-0.08	3.6-6.0	Low-----	0.15			
	29-60	2-12	1.50-1.65	6.0-20	0.04-0.06	5.1-6.5	Low-----	0.15			
Jebavy-----	0-4	0-10	1.20-1.50	6.0-20	0.07-0.09	3.6-5.5	Low-----	0.15	5	1	4-8
	4-12	0-10	1.30-1.55	6.0-20	0.06-0.08	3.6-5.5	Low-----	0.15			
	12-16	0-10	1.75-2.00	0.6-2.0	0.02-0.06	3.6-5.5	Low-----	0.15			
	16-36	0-10	1.45-1.70	6.0-20	0.02-0.04	4.5-5.5	Low-----	0.15			
	36-60	0-10	1.50-1.70	6.0-20	0.02-0.04	4.5-6.5	Low-----	0.15			
49B----- Grattan	0-3	0-10	1.35-1.55	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15	5	1	1-3
	3-32	0-10	1.40-1.60	6.0-20	0.05-0.10	4.5-6.5	Low-----	0.15			
	32-60	0-10	1.50-1.65	6.0-20	0.04-0.06	5.6-7.3	Low-----	0.15			
49B3----- Grattan	0-22	0-10	1.40-1.60	6.0-20	0.05-0.10	4.5-6.5	Low-----	0.15	---	---	---
	22-60	0-10	1.50-1.65	6.0-20	0.04-0.06	5.6-7.3	Low-----	0.15			
49C----- Grattan	0-3	0-10	1.35-1.55	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15	5	1	1-3
	3-32	0-10	1.40-1.60	6.0-20	0.05-0.10	4.5-6.5	Low-----	0.15			
	32-60	0-10	1.50-1.65	6.0-20	0.04-0.06	5.6-7.3	Low-----	0.15			
49C3----- Grattan	0-22	0-10	1.40-1.60	6.0-20	0.05-0.10	4.5-6.5	Low-----	0.15	---	---	---
	22-60	0-10	1.50-1.65	6.0-20	0.04-0.06	5.6-7.3	Low-----	0.15			
49E, 49F----- Grattan	0-3	0-10	1.35-1.55	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15	5	1	1-3
	3-32	0-10	1.40-1.60	6.0-20	0.05-0.10	4.5-6.5	Low-----	0.15			
	32-60	0-10	1.50-1.65	6.0-20	0.04-0.06	5.6-7.3	Low-----	0.15			

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
50B----- Covert	0-1	2-10	1.30-1.55	6.0-20	0.06-0.09	4.5-7.3	Low-----	0.15	5	1	1-2
	1-33	2-10	1.45-1.65	6.0-20	0.05-0.08	4.5-7.3	Low-----	0.15			
	33-60	0-10	1.30-1.60	6.0-20	0.04-0.08	4.5-7.3	Low-----	0.15			
51B----- Pipestone	0-2	2-12	1.30-1.50	6.0-20	0.07-0.10	3.6-7.3	Low-----	0.15	5	1	3-4
	2-38	2-12	1.40-1.70	6.0-20	0.06-0.09	3.6-7.3	Low-----	0.15			
	38-60	2-12	1.40-1.70	6.0-20	0.05-0.07	3.6-7.3	Low-----	0.15			
52----- Granby	0-11	2-10	1.20-1.60	6.0-20	0.07-0.10	5.6-7.3	Low-----	0.15	5	1	4-10
	11-28	0-14	1.45-1.60	6.0-20	0.05-0.12	5.6-7.8	Low-----	0.17			
	28-60	0-10	1.45-1.60	6.0-20	0.05-0.09	6.6-8.4	Low-----	0.17			
53B, 53C----- Grattan	0-9	0-10	1.35-1.55	6.0-20	0.07-0.09	4.5-6.5	Low-----	0.15	5	1	1-3
	9-36	0-10	1.40-1.60	6.0-20	0.04-0.10	4.5-6.5	Low-----	0.15			
	36-48	0-10	1.50-1.65	6.0-20	0.02-0.04	5.6-7.3	Low-----	0.15			
	48-60	28-35	1.45-1.70	0.06-0.6	0.14-0.16	6.6-7.8	Low-----	0.32			
56B, 56C, 56E----- Benona	0-8	0-10	1.30-1.55	6.0-20	0.07-0.09	6.1-6.5	Low-----	0.15	5	1	2-3
	8-48	0-10	1.30-1.55	6.0-20	0.05-0.07	6.1-6.5	Low-----	0.15			
	48-87	0-15	1.55-1.65	6.0-20	0.05-0.10	6.6-7.3	Low-----	0.15			
	87-91	27-40	1.35-1.60	0.6-2.0	0.17-0.19	6.6-7.3	Moderate----	0.24			
	91-99	0-10	1.35-1.55	6.0-20	0.05-0.07	6.6-7.3	Low-----	0.15			
57C, 57F----- Nordhouse	0-1	0-5	1.30-1.55	6.0-20	0.07-0.09	4.5-6.5	Low-----	0.15	5	1	1-2
	1-34	0-5	1.40-1.65	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15			
	34-60	0-5	1.40-1.65	6.0-20	0.05-0.07	4.5-6.5	Low-----	0.15			
58----- Kingsville	0-7	2-10	0.60-1.00	6.0-20	0.16-0.18	4.5-6.0	Low-----	0.15	5	1	15-25
	7-24	2-10	1.20-1.50	6.0-20	0.07-0.12	4.5-7.3	Low-----	0.17			
	24-60	2-10	1.45-1.65	6.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
59B, 59C, 59E----- Benona	0-8	0-5	1.30-1.55	6.0-20	0.07-0.09	4.5-5.5	Low-----	0.15	5	1	.5-2
	8-46	0-10	1.40-1.60	6.0-20	0.06-0.10	4.5-6.0	Low-----	0.15			
	46-60	2-12	1.55-1.65	6.0-20	0.05-0.10	5.1-7.3	Low-----	0.17			
60B, 60C, 60E----- Coloma	0-4	0-10	1.35-1.65	6.0-20	0.05-0.09	4.5-7.3	Low-----	0.15	5	1	.5-2
	4-35	0-10	1.35-1.65	6.0-20	0.05-0.12	4.5-6.5	Low-----	0.15			
	35-60	2-12	1.50-1.65	6.0-20	0.03-0.08	4.5-6.0	Low-----	0.15			
61B, 61C, 61E----- Epworth	0-1	0-10	1.35-1.65	6.0-20	0.07-0.09	4.5-6.0	Low-----	0.15	5	1	1-2
	1-24	0-10	1.30-1.70	6.0-20	0.06-0.08	4.5-6.0	Low-----	0.15			
	24-60	0-10	1.55-1.75	6.0-20	0.05-0.07	5.6-6.5	Low-----	0.15			
62B, 62C----- Plainfield	0-3	2-5	1.50-1.65	6.0-20	0.04-0.09	5.1-7.3	Low-----	0.15	5	1	5-2
	3-30	1-7	1.50-1.65	6.0-20	0.04-0.07	4.5-6.5	Low-----	0.15			
	30-60	0-4	1.50-1.70	6.0-20	0.03-0.07	4.5-6.5	Low-----	0.15			
65----- Sloan	0-14	15-27	1.20-1.40	0.6-2.0	0.19-0.24	6.1-7.8	Low-----	0.28	5	6	3-6
	14-32	22-35	1.25-1.55	0.2-2.0	0.15-0.19	6.1-8.4	Moderate----	0.37			
	32-60	10-30	1.20-1.50	0.2-2.0	0.13-0.18	6.6-8.4	Low-----	0.37			
67----- Cohoctah	0-15	5-20	1.20-1.50	2.0-6.0	0.13-0.22	6.1-8.4	Low-----	0.24	5	3	3-15
	15-30	5-18	1.45-1.65	2.0-6.0	0.12-0.20	6.1-8.4	Low-----	0.28			
	30-60	2-18	1.45-1.65	2.0-6.0	0.08-0.20	6.1-8.4	Low-----	0.28			
69----- Algansee	0-8	0-15	1.35-1.50	6.0-20	0.10-0.12	4.5-7.8	Low-----	0.17	5	2	2-4
	8-60	0-15	1.40-1.65	6.0-20	0.05-0.10	4.5-8.4	Low-----	0.17			

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
70----- Glendora	0-8	5-15	1.00-1.35	6.0-20	0.14-0.16	5.6-7.8	Low-----	0.17	5	2	10-15
	8-60	0-10	1.40-1.65	6.0-20	0.05-0.11	5.6-7.8	Low-----	0.17			
71*:											
Houghton-----	0-8	---	0.15-0.30	0.6-6.0	0.45-0.55	4.5-7.8	-----	---	5	5	>70
	8-60	---	0.15-0.25	0.2-6.0	0.35-0.45	4.5-7.8	-----	---			
Carlisle-----	0-60	---	0.13-0.23	0.2-6.0	0.35-0.45	4.5-7.8	-----	---	5	2	>70
72----- Adrian	0-34	---	0.30-0.55	0.2-6.0	0.35-0.45	5.1-7.3	-----	---	4	2	55-75
	34-60	2-10	1.40-1.75	6.0-20	0.03-0.08	5.6-8.4	Low-----	0.15			
73----- Palms	0-10	---	0.30-0.40	0.2-6.0	0.35-0.45	5.1-7.8	-----	---	5	2	>75
	10-18	---	0.15-0.30	0.2-6.0	0.35-0.45	5.1-7.8	-----	---			
	18-60	7-35	1.45-1.75	0.2-2.0	0.14-0.22	6.1-8.4	Low-----	0.37			
75----- Martisco	0-15	---	0.25-0.45	0.6-6.0	0.35-0.45	6.1-8.4	-----	---	---	2	25-75
	15-60	---	---	0.06-0.2	---	7.9-8.4	Low-----	---			
77----- Napoleon	0-4	---	0.30-0.40	0.2-6.0	0.35-0.45	<4.5	-----	---	5	2	70-90
	4-60	---	0.10-0.20	0.6-6.0	0.45-0.55	<4.5	-----	---			
83*:											
Histosols-----	0-51	---	---	0.2-6.0	---	---	-----	---	2	8	50-70
	51-60	---	---	---	---	---	-----	---			
Aquents-----	0-60	---	---	---	---	---	-----	---	---	---	---
84F*:											
Dune land.											
Quartzipsamments	0-80	0-5	1.50-1.70	6.0-20	0.03-0.06	5.1-6.5	Low-----	0.15	5	1	0-.1
Psammaquents----	0-60	0-10	1.50-1.70	>6.0	0.05-0.07	5.1-7.3	Low-----	0.15	5	1	---
85F*:											
Udorthents-----	0-80	---	---	---	---	---	-----	---	---	---	---
Quartzipsamments	0-80	0-5	1.50-1.70	6.0-20	0.03-0.06	5.1-6.5	Low-----	0.15	5	1	0-.1
86F*:											
Dune land.											
Quartzipsamments	0-80	0-5	1.50-1.70	6.0-20	0.03-0.06	5.1-6.5	Low-----	0.15	5	1	0-.1
87.											
Beaches											
88A-----	0-60	0-10	1.35-1.65	>60	0.05-0.09	5.1-6.5	Low-----	0.15	5	1	<1
Udipsamments											
89A-----	0-80	---	---	---	---	---	-----	---	---	---	---
Udorthents											
91.											
Pits, sand and gravel											
92B, 92C-----	0-9	3-8	1.50-1.55	6.0-20	0.06-0.08	5.6-7.3	Low-----	0.15	5	1	.5-1
	9-60	5-10	1.55-1.70	6.0-20	0.06-0.08	5.1-7.3	Low-----	0.17			
Chelsea											

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
								K	T		
	In	Pct	g/cc	In/hr	In/in	pH					Pct
96B*, 96C*, 96D*, 96E*:											
Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
Tekenink-----	0-9	2-12	1.30-1.60	2.0-6.0	0.08-0.12	5.1-7.3	Low-----	0.17	5	2	1-3
	9-15	2-15	1.45-1.60	0.6-2.0	0.08-0.17	5.1-7.3	Low-----	0.24			
	15-35	2-15	1.45-1.60	0.6-2.0	0.08-0.17	5.1-7.3	Low-----	0.24			
	35-46	10-22	1.55-1.70	0.6-2.0	0.10-0.17	5.1-7.3	Low-----	0.24			
	46-60	2-15	1.55-1.70	0.6-6.0	0.08-0.16	6.5-8.4	Low-----	0.24			
97*:											
Kerston-----	0-13	---	0.25-0.45	0.2-6.0	0.35-0.45	5.1-8.4	-----	---	3	2	60-85
	13-26	---	0.25-0.45	0.2-6.0	0.35-0.45	5.1-8.4	-----	---			
	26-33	0-10	1.45-1.70	6.0-20	0.06-0.11	5.1-8.4	Low-----	---			
	33-46	---	0.12-0.25	0.2-6.0	0.35-0.45	5.1-8.4	-----	---			
	46-60	0-10	1.45-1.70	6.0-20	0.05-0.10	5.1-8.4	Low-----	---			
Carlisle-----	0-60	---	0.13-0.23	0.2-6.0	0.35-0.45	4.5-7.8	-----	---	5	2	>70
98B*, 98C*, 98D*:											
Spinks-----	0-9	2-15	1.40-1.70	6.0-20	0.08-0.10	5.1-7.3	Low-----	0.17	5	2	2-4
	9-24	0-15	1.40-1.70	2.0-20	0.05-0.10	5.6-7.3	Low-----	0.17			
	24-60	3-15	1.40-1.70	2.0-6.0	0.04-0.08	5.6-7.8	Low-----	0.17			
Scalley-----	0-6	10-18	1.30-1.60	2.0-6.0	0.12-0.15	5.6-7.3	Low-----	0.24	4	3	1-3
	6-22	10-35	1.30-1.60	0.2-0.6	0.11-0.20	5.6-7.3	Low-----	0.28			
	22-34	25-35	1.35-1.55	0.2-0.6	0.14-0.20	5.6-7.3	Low-----	0.32			
	34-60	0-15	1.55-1.70	>6.0	0.02-0.10	5.6-7.8	Low-----	0.15			
99B*:											
Nappanee-----	0-9	20-27	1.30-1.50	0.6-2.0	0.20-0.24	5.1-7.3	Low-----	0.37	3	6	1-3
	9-19	45-60	1.40-1.65	0.06-0.2	0.08-0.14	5.1-8.4	Moderate----	0.37			
	19-60	40-50	1.50-1.75	0.06-0.2	0.06-0.12	7.4-8.4	Moderate----	0.37			
Hoytville-----	0-9	24-27	1.25-1.50	0.2-2.0	0.20-0.24	6.1-7.8	Moderate----	0.28	5	6	3-6
	9-44	40-55	1.35-1.60	0.2-0.6	0.08-0.17	6.1-7.8	High-----	0.28			
	44-60	35-50	1.40-1.80	0.06-0.2	0.06-0.10	7.4-8.4	High-----	0.28			
100B-----	0-9	20-27	1.30-1.50	0.6-2.0	0.20-0.24	5.1-7.3	Low-----	0.37	3	6	1-3
Nappanee	9-19	45-60	1.40-1.65	0.06-0.2	0.08-0.14	5.1-8.4	Moderate----	0.37			
	19-60	40-50	1.50-1.75	0.06-0.2	0.06-0.12	7.4-8.4	Moderate----	0.37			
101B, 101C-----	0-7	12-27	1.50-1.70	2.0-6.0	0.13-0.15	6.1-7.8	Low-----	0.37	5	6	1-3
Claybanks	7-11	10-50	1.40-1.60	0.2-0.6	0.20-0.24	6.1-7.8	Moderate----	0.37			
	11-17	50-60	1.50-1.70	0.06-0.2	0.11-0.13	6.6-7.8	High-----	0.37			
	17-60	50-60	1.60-1.75	0.06-0.2	0.11-0.13	7.4-8.4	High-----	0.37			
210B*, 210C*, 210D*-----	0-3	0-4	1.30-1.55	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15	5	1	1-5
Typic	3-36	0-4	1.40-1.60	6.0-20	0.05-0.07	4.5-6.5	Low-----	0.15			
Udipsammets	36-99	0-4	1.50-1.65	6.0-20	0.04-0.06	4.5-6.5	Low-----	0.15			
211B*, 211C*-----	0-2	0-4	1.30-1.55	6.0-20	0.06-0.08	4.5-6.5	Low-----	0.15	5	1	1-5
Typic	2-40	0-4	1.40-1.60	6.0-20	0.05-0.07	4.5-6.5	Low-----	0.15			
Udipsammets	40-60	0-4	1.50-1.65	6.0-20	0.04-0.06	4.5-6.5	Low-----	0.15			
	60-99	0-20	1.55-1.70	0.6-20	0.04-0.12	4.5-6.5	Low-----	0.20			

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction pH	Shrink-swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
								K	T		
	In	Pct	g/cc	In/hr	In/in						
212B*----- Typic Udipsamments	0-2 2-40 40-99	0-4 0-4 0-4	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.06-0.08 0.05-0.07 0.04-0.06	4.5-6.5 4.5-6.5 4.5-6.5	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5
213B*, 213C*, 213D*----- Argic Udipsamments	0-3 3-31 31-99	0-4 0-4 2-12	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.06-0.08 0.04-0.08	4.5-6.5 4.5-6.5 4.5-6.5	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5
220B*, 220C*, 220D*, 220E*---- Entic Haplorthods, sandy	0-3 3-48 48-99	0-5 0-5 0-5	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.04-0.06	4.5-6.0 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5
221B*, 221C*, 221D*, 221E*---- Entic Haplorthods, sandy	0-3 3-35 35-60 60-90	0-5 0-5 0-5 0-20	1.30-1.55 1.40-1.60 1.50-1.65 1.55-1.70	6.0-20 6.0-20 6.0-20 0.6-20	0.07-0.09 0.05-0.07 0.04-0.06 0.07-0.10	4.5-6.5 4.5-6.5 5.6-7.3 5.6-7.3	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.17	5 5 5 5	1 1 1 1	1-5 1-5 1-5 1-5
222B*, 222C*---- Entic Haplorthods, sandy	0-3 3-35 35-99	0-5 0-5 0-5	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.04-0.06	4.5-6.0 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5
223B*, 223C*, 223D*, 223E*---- Entic Haplorthods, sandy	0-3 3-35 35-60 60-99	0-5 0-5 0-5 0-35	1.30-1.55 1.40-1.60 1.50-1.65 1.50-1.70	6.0-20 6.0-20 6.0-20 0.2-20	0.07-0.09 0.05-0.07 0.04-0.06 0.04-0.17	4.5-6.5 4.5-6.5 5.6-7.3 5.6-7.3	Low----- Low----- Low----- Moderate----	0.15 0.15 0.15 0.28	5 5 5 5	1 1 1 1	1-5 1-5 1-5 1-5
224B*----- Entic Haplorthods, sandy	0-3 3-35 35-99	0-5 0-5 0-5	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.04-0.06	4.5-6.0 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5
225B*, 225C*, 225D*----- Entic Haplorthods, sandy	0-3 3-35 35-60 60-99	0-5 0-5 0-5 20-40	1.30-1.55 1.40-1.60 1.50-1.65 1.30-1.65	6.0-20 6.0-20 6.0-20 0.2-0.6	0.07-0.09 0.05-0.07 0.04-0.06 0.14-0.16	4.5-6.5 4.5-6.5 5.6-7.3 5.6-8.4	Low----- Low----- Low----- Moderate----	0.15 0.15 0.15 0.37	5 5 5 5	1 1 1 1	1-5 1-5 1-5 1-5
230B*, 230C*, 230D*, 230E*---- Entic Haplorthods, sandy	0-3 3-33 33-60 60-99	0-5 0-5 0-5 0-18	1.30-1.55 1.40-1.60 1.50-1.65 1.55-1.70	6.0-20 6.0-20 6.0-20 0.6-20	0.07-0.09 0.05-0.07 0.04-0.06 0.04-0.10	4.5-6.5 4.5-6.5 5.6-7.3 7.9-8.4	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.17	5 5 5 5	1 1 1 1	1-5 1-5 1-5 1-5
231B*: Entic Haplorthods, sandy-----	0-3 3-48 48-99	0-5 0-5 0-5	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.04-0.06	4.5-6.0 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	1-5 1-5 1-5

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth		Moist bulk density g/cc	Permeability In/hr	Available water capacity In/in	Soil reaction pH	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter Pct
	In	Pct						K	T		
231B*: Alfic Haplorthods, sandy over loamy-----	0-3 3-22 22-34 34-99	0-5 0-10 20-40 5-20	1.30-1.55 1.40-1.65 1.45-1.60 1.50-1.65	6.0-20 6.0-20 0.2-2.0 0.2-20	0.07-0.09 0.06-0.11 0.16-0.20 0.04-0.17	4.5-6.0 5.1-7.3 6.1-8.4 6.1-8.4	Low----- Low----- Moderate---- Low-----	0.15 0.15 0.37 0.28	5	1	1-5
233B*, 233C*, 233D*, 233E*: Alfic Haplorthods, sandy over loamy-----	0-3 3-22 22-34 34-99	0-5 0-10 20-40 5-20	1.30-1.55 1.40-1.65 1.45-1.60 1.50-1.65	6.0-20 6.0-20 0.2-2.0 0.2-20	0.07-0.09 0.06-0.11 0.16-0.20 0.04-0.17	4.5-6.0 5.1-7.3 6.1-8.4 6.1-8.4	Low----- Low----- Moderate---- Low-----	0.15 0.15 0.37 0.28	5	1	1-5
Entic Haplorthods, sandy-----	0-3 3-48 48-99	0-5 0-5 0-5	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.04-0.06	4.5-6.0 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5	1	1-5
235B*, 235C*: Alfic Haplorthods, sandy over loamy-----	0-3 3-22 22-34 34-99	0-5 0-10 20-40 5-20	1.30-1.55 1.40-1.65 1.45-1.60 1.50-1.65	6.0-20 6.0-20 0.2-2.0 0.2-20	0.07-0.09 0.06-0.11 0.16-0.20 0.04-0.17	4.5-6.0 5.1-7.3 6.1-8.4 6.1-8.4	Low----- Low----- Moderate---- Low-----	0.15 0.15 0.37 0.28	5	1	1-5
Alfic Haplorthods, sandy-----	0-4 4-42 42-52 52-99	1-5 1-10 20-40 1-18	1.30-1.55 1.35-1.65 1.45-1.60 1.40-1.60	6.0-20 6.0-20 0.2-0.6 6.0-20	0.07-0.09 0.06-0.11 0.16-0.20 0.05-0.13	4.5-6.0 5.6-7.3 5.6-7.3 5.6-7.3	Low----- Low----- Moderate---- Low-----	0.15 0.15 0.32 0.17	5	1	2-5
240C*----- Entic Haplorthods, sandy	0-2 2-36 36-99	5-10 5-10 5-10	1.30-1.55 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20	0.07-0.09 0.05-0.07 0.02-0.04	4.5-6.5 4.5-6.5 5.6-7.3	Low----- Low----- Low-----	0.15 0.15 0.15	5	1	1-5
241B*----- Entic Haplorthods, sandy	0-3 3-47 47-60 60-99	5-10 5-10 5-10 5-40	1.30-1.55 1.40-1.60 1.50-1.65 1.55-1.70	6.0-20 6.0-20 6.0-20 0.6-20	0.07-0.09 0.05-0.08 0.04-0.06 0.04-0.10	4.5-6.5 4.5-6.5 5.6-7.3 5.6-7.3	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.17	5	1	1-5
245B*, 245C*, 245D*----- Entic Haplorthods, sandy	0-2 2-40 40-45 45-60	5-10 5-10 5-10 20-40	1.30-1.55 1.40-1.60 1.50-1.65 1.30-1.65	6.0-20 6.0-20 6.0-20 0.2-0.6	0.07-0.09 0.04-0.06 0.02-0.04 0.14-0.16	4.5-6.5 4.5-6.5 5.6-7.3 5.6-8.4	Low----- Low----- Low----- Moderate----	0.15 0.15 0.15 0.37	5	1	1-5

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction pH	Shrink-swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
								K	T		
	In	Pct	g/cc	In/hr	In/in						
250*: Mollic Psammaquents	0-3 3-8 8-20 20-60	--- 5-15 1-10 1-10	0.30-0.50 1.30-1.60 1.45-1.65 1.50-1.70	2.0-6.0 2.0-6.0 6.0-20 6.0-20	0.35-0.45 0.16-0.18 0.06-0.08 0.05-0.07	4.5-7.3 4.5-7.3 4.5-7.3 5.6-7.3	----- Low----- Low----- Low-----	----- 0.24 0.15 0.15	5 5 5 5	5 5 5 5	50-60 50-60 50-60 50-60
Aquic Udipsamments	0-3 3-7 7-41 41-60	0-5 0-10 0-5 0-5	1.20-1.55 1.40-1.60 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20 6.0-20	0.08-0.10 0.07-0.09 0.06-0.08 0.04-0.06	5.1-6.5 5.1-6.0 5.1-6.0 5.1-6.0	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.15	5 5 5 5	1 1 1 1	2-6 2-6 2-6 2-6
Medisaprists, euic	0-51 51-60	--- ---	--- ---	--- ---	--- ---	4.5-7.8 ---	----- -----	----- -----	5 5	2 2	70-90 70-90
262A*----- Aeric Haplaquods, sandy, ortstein	0-5 5-11 11-17 17-60	0-5 0-5 0-5 0-5	1.20-1.50 1.35-1.50 1.75-2.00 1.50-1.60	6.0-20 6.0-20 0.2-0.6 6.0-20	0.07-0.09 0.06-0.08 0.02-0.06 0.02-0.06	3.6-5.5 3.6-5.5 3.6-5.5 4.5-6.0	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.15	2 2 2 2	1 1 1 1	2-7 2-7 2-7 2-7
263A*----- Aquic Udipsamments	0-3 3-7 7-41 41-60	0-5 0-10 0-5 0-5	1.20-1.55 1.40-1.60 1.40-1.60 1.50-1.65	6.0-20 6.0-20 6.0-20 6.0-20	0.08-0.10 0.07-0.09 0.06-0.08 0.04-0.06	5.1-6.5 5.1-6.0 5.1-6.0 5.1-6.0	Low----- Low----- Low----- Low-----	0.15 0.15 0.15 0.15	5 5 5 5	1 1 1 1	2-6 2-6 2-6 2-6
272*----- Typic Haplaquods	0-6 6-25 25-60	0-5 0-5 0-5	1.20-1.50 1.45-1.65 1.50-1.65	6.0-20 6.0-20 6.0-20	0.08-0.10 0.06-0.08 0.04-0.06	4.5-6.5 4.5-6.5 4.5-6.5	Low----- Low----- Low-----	0.15 0.15 0.15	5 5 5	1 1 1	4-8 4-8 4-8
273*----- Mollic Psammaquents	0-3 3-8 8-20 20-60	--- 5-18 2-10 2-10	0.30-0.50 1.30-1.60 1.45-1.65 1.50-1.70	2.0-6.0 2.0-6.0 6.0-20 6.0-20	0.35-0.45 0.16-0.18 0.06-0.08 0.05-0.07	4.5-7.3 4.5-7.3 4.5-7.3 5.6-7.3	----- Low----- Low----- Low-----	----- 0.24 0.15 0.15	5 5 5 5	5 5 5 5	50-60 50-60 50-60 50-60
274*----- Typic Haplaquolls, sandy over loamy	0-2 2-10 10-20 20-60	--- 0-10 0-10 12-40	0.30-0.40 1.30-1.50 1.40-1.55 1.50-1.70	6.0-20 6.0-20 6.0-20 0.2-0.6	0.35-0.45 0.10-0.12 0.06-0.11 0.18-0.20	6.1-8.4 6.1-8.4 6.1-8.4 7.4-8.4	----- Low----- Low----- Moderate----	----- 0.17 0.17 0.37	5 5 5 5	2 2 2 2	50-70 50-70 50-70 50-70
280*: Aquents	0-60	---	---	---	---	---	-----	-----	---	---	---
Histosols	0-51 51-60	---	---	0.2-6.0 ---	---	---	-----	-----	2 2	8 8	50-70 50-70
281----- Medisaprists, dysic	0-51 51-60	---	0.15-0.25 ---	0.2-6.0 ---	0.35-0.45 ---	3.6-4.4 ---	-----	-----	5 5	2 2	>70 >70
282----- Medisaprists, euic	0-51 51-60	---	0.15-0.25 ---	0.2-6.0 ---	0.35-0.45 ---	4.5-7.8 ---	-----	-----	5 5	2 2	>70 >70

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 18.--SOIL AND WATER FEATURES

("Flooding," "water table," and terms such as "brief," "apparent," and "perched" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete
10B, 10C, 10D, 10E----- Perrinton	C	None-----	---	---	>6.0	---	---	---	---	Moderate	High-----	Moderate.
11A----- Ithaca	C	None-----	---	---	1.0-2.0	Apparent	Oct-May	---	---	High-----	High-----	Moderate.
12----- Bono	D	None-----	---	---	+1-1.0	Apparent	Dec-May	---	---	Moderate	High-----	Low.
13B, 13C, 13D----- Marlette	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.
14B----- Capac	C	None-----	---	---	1.0-2.0	Apparent	Nov-May	---	---	High-----	High-----	Low.
16B, 16C, 16D----- Remus	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.
17B*, 17C*, 17D*: Marlette-----	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.
Fern-----	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.
18B*, 18C*, 18D*: Spinks-----	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low-----	Low.
Gowdy-----	B	None-----	---	---	>6.0	---	---	---	---	Moderate	High-----	Low.
20B*, 20C*, 20D*: Arkport-----	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.
Chelsea-----	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low-----	Low.
21A----- Freesoil	B	None-----	---	---	0.5-1.5	Apparent	Nov-May	---	---	High-----	High-----	Low.
22B, 22C----- Gowdy	B	None-----	---	---	>6.0	---	---	---	---	Moderate	High-----	Low.

See footnote at end of table.

TABLE 18.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table				Subsidence		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete	
23A----- Arkona	B	None	---	---	1.0-2.0	Perched	Nov-May	---	---	---	Moderate	High	Moderate.
24----- Sickles	B/D	None	---	---	+1-1.0	Apparent	Dec-May	---	---	---	Moderate	High	Low.
25B*, 25C*, 25D*, 25E*: Gowdy	B	None	---	---	>6.0	---	---	---	---	---	Moderate	High	Low.
Perrinton	C	None	---	---	>6.0	---	---	---	---	---	Moderate	High	Moderate.
26A*: Arkona	B	None	---	---	1.0-2.0	Perched	Nov-May	---	---	---	Moderate	High	Moderate.
Ithaca	C	None	---	---	1.0-2.0	Apparent	Oct-May	---	---	---	High	High	Moderate.
27B*: Arkona	B	None	---	---	1.0-2.0	Perched	Nov-May	---	---	---	Moderate	High	Moderate.
Del Rey	C	None	---	---	1.0-3.0	Apparent	Jan-May	---	---	---	High	High	Moderate.
28B, 28C, 28D----- Fern	B	None	---	---	>6.0	---	---	---	---	---	Moderate	Low	Moderate.
29A----- Dixboro	B	None	---	---	1.0-2.0	Apparent	Nov-Apr	---	---	---	High	Moderate	Moderate.
30----- Lamson	B/D	None	---	---	+1-0.5	Apparent	Dec-May	---	---	---	High	High	Low.
35B*, 35C*, 35D*: Alvin	B	None	---	---	>6.0	---	---	---	---	---	Moderate	Low	High.
Spinks	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	Low.
36A----- Del Rey	C	None	---	---	1.0-3.0	Apparent	Jan-May	---	---	---	High	High	Moderate.
37A----- Altmar	B	None	---	---	0.5-1.5	Apparent	Dec-May	---	---	---	Moderate	Low	Moderate.
38B*, 38C*, 38D*, 38E*: Spinks	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	Low.
Okee	B	None	---	---	>6.0	---	---	---	---	---	Low	Moderate	Moderate.

See footnote at end of table.

TABLE 18. --SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete
40B*, 40C*, 40D*: Coloma	A	None	---	---	>6.0	---	---	In	---	Low	Low	Moderate.
Toogood	A	None	---	---	>6.0	---	---	---	---	Low	Low	Moderate.
41 Granby	A/D	None	---	---	+1-1.0	Apparent	Nov-Jun	---	---	Moderate	High	Low.
42B*, 42C*, 42D*, 42E*: Spinks	A	None	---	---	>6.0	---	---	---	---	Low	Low	Low.
Remus	B	None	---	---	>6.0	---	---	---	---	Moderate	Low	Moderate.
Fern	B	None	---	---	>6.0	---	---	---	---	Moderate	Low	Moderate.
43B, 43C, 43D, 43E Spinks	A	None	---	---	>6.0	---	---	---	---	Low	Low	Low.
44B Thetford	A	None	---	---	1.0-2.0	Apparent	Feb-May	---	---	Moderate	Low	Moderate.
45B*, 45C*, 45D*, 45E*, 45F*: Spinks	A	None	---	---	>6.0	---	---	---	---	Low	Low	Low.
Benona	A	None	---	---	>6.0	---	---	---	---	Low	Low	High.
46B Grattan	A	None	---	---	>6.0	---	---	---	---	Low	Low	High.
48A*: Saugatuck	C	None	---	---	0.5-2.0	Apparent	Nov-May	---	---	Moderate	Low	Moderate.
Jebavy	A/D	None	---	---	+1-1.0	Apparent	Oct-Jun	---	---	Moderate	High	High.
49B, 49B3, 49C, 49C3, 49E, 49F Grattan	A	None	---	---	>6.0	---	---	---	---	Low	Low	High.
50B Covert	A	None	---	---	2.0-3.5	Apparent	Nov-Apr	---	---	Low	Low	Moderate.

See footnote at end of table.

TABLE 18.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence		Risk of corrosion			
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete	
51B----- Pipestone	B	None	---	---	0.5-1.5	Apparent	Oct-Jun	---	In	---	Moderate	Low	Moderate.
52----- Granby	A/D	None	---	---	+1-1.0	Apparent	Nov-Jun	---	---	---	Moderate	High	Low.
53B, 53C----- Grattan	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	High.
56B, 56C, 56E----- Benona	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	High.
57C, 57F----- Nordhouse	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	Moderate.
58----- Kingsville	A/D	None	---	---	+1-1.0	Apparent	Jan-Apr	---	---	---	Moderate	High	High.
59B, 59C, 59E----- Benona	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	High.
60B, 60C, 60E----- Coloma	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	Moderate.
61B, 61C, 61E----- Epworth	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	Moderate.
62B, 62C----- Plainfield	A	None	---	---	>6.0	---	---	---	---	---	Low	Low	High.
65----- Sloan	B/D	Frequent	Brief	Nov-Jun	0-1.0	Apparent	Nov-Jun	---	---	---	High	High	Low.
67----- Cohoctah	B/D	Occasional	Brief to long.	Nov-Apr	0-1.0	Apparent	Sep-May	---	---	---	High	High	Low.
69----- Algansee	B	Occasional	Long	Nov-May	1.0-2.0	Apparent	Nov-May	---	---	---	Moderate	Low	Low.
70----- Glendora	A/D	Frequent	Long	Jan-Dec	0-1.0	Apparent	Nov-Jun	---	---	---	Moderate	High	Moderate.
71*: Houghton	A/D	None	---	---	+1-1.0	Apparent	Sep-Jun	6-18	55-60	---	High	High	Moderate.
Carlisle	A/D	None	---	---	+5-1.0	Apparent	Sep-Jun	6-18	43-54	---	High	High	Low.

See footnote at end of table.

TABLE 18.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding				High water table				Subsidence		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete	
72----- Adrian	A/D	None	---	---	+1-1.0	Apparent	Nov-May	6-18	29-33	High	High	Moderate.	
73----- Palms	A/D	None	---	---	+1-1.0	Apparent	Nov-May	4-15	25-32	High	High	Moderate.	
75----- Martisco	B/D	None	---	---	+1-0.5	Apparent	Oct-Jun	3-4	4-6	High	High	Low.	
77----- Napoleon	A/D	None	---	---	+1-1.0	Apparent	Sep-Jun	22-26	50-59	High	Moderate	High.	
83*: Histosols	D	None	---	---	+1-1.0	Apparent	Sep-Jun	---	---	High	High	Moderate.	
Aquents	D	None	---	---	+1-1.0	Apparent	Jan-Dec	---	---	High	---	---	
84F*: Dune land.													
Quartzipsamments-	A	None	---	---	>6.0	---	---	---	---	---	Low	Moderate.	
Psammaquents	D	None	---	---	+1-1.0	Apparent	Oct-May	---	---	Moderate	High	High.	
85F*: Udorthents	---	None	---	---	>6.0	---	---	---	---	---	---	---	
Quartzipsamments-	A	None	---	---	>6.0	---	---	---	---	---	Low	Moderate.	
86F*: Dune land.													
Quartzipsamments-	A	None	---	---	>6.0	---	---	---	---	---	Low	Moderate.	
87. Beaches													
88A----- Udipsamments	A	None	---	---	>6.0	---	---	---	---	Low	Low	Moderate.	
89A----- Udorthents	---	None	---	---	>6.0	---	---	---	---	---	---	---	
91. Pits, sand and gravel													

See footnote at end of table.

TABLE 18.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding				High water table				Subsidence		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete	
92B, 92C----- Chelsea	A	None-----	---	---	>6.0	---	---	In-----	---	---	Low-----	Low.	
96B*, 96C*, 96D*, 96E*:----- Spinks-----	A	None-----	---	---	>6.0	---	---	---	---	---	Low-----	Low.	
Tekenink-----	B	None-----	---	---	>6.0	---	---	---	---	---	Moderate	Moderate.	
97*: Kerston-----	A/D	Frequent-----	Long-----	Mar-May	+1-1.0	Apparent	Sep-Jun	6-12	18-20	High-----	High-----	Low.	
Carlisle-----	A/D	Frequent-----	Very brief to long.	Nov-Apr	+5-1.0	Apparent	Sep-Jun	4-18	43-54	High-----	High-----	Low.	
98B*, 98C*, 98D*: Spinks-----	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low-----	Low.	
Scalley-----	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low-----	Moderate.	
99B*: Nappanee-----	D	None-----	---	---	1.0-2.0	Perched	Nov-May	---	---	Moderate	High-----	Low.	
Hoytville-----	C/D	None-----	---	---	+1-1.0	Perched	Jan-Apr	---	---	High-----	High-----	Low.	
100B----- Nappanee	D	None-----	---	---	1.0-2.0	Perched	Nov-May	---	---	Moderate	High-----	Low.	
101B, 101C----- Claybanks	C	None-----	---	---	>6.0	---	---	---	---	Moderate	High-----	Moderate.	
210B*, 210C*, 210D*, 211B*, 211C*----- Typic Udipsamments	A	None-----	---	---	>15	---	---	---	---	Low-----	Low-----	High.	
212B*----- Typic Udipsamments	A	None-----	---	---	5.0-15	Apparent	Jan-Dec	---	---	Low-----	Low-----	High.	
213B*, 213C*, 213D*----- Argic Udipsamments	A	None-----	---	---	>15	---	---	---	---	Low-----	Low-----	High.	

See footnote at end of table.

TABLE 18. --SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete
220B*, 220C*, 220D*, 220E*, 221B*, 221C*, 221D*, 221E*----- Entic Haplorthods, sandy	A	None-----	---	---	>15	---	---	In	---	Low-----	Low-----	High.
222B*, 222C*----- Entic Haplorthods, sandy	A	None-----	---	---	5.0-15	Apparent Jan-Dec	---	---	---	Low-----	Low-----	High.
223B*, 223C*, 223D*, 223E*----- Entic Haplorthods, sandy	A	None-----	---	---	>15	---	---	---	---	Low-----	Low-----	High.
224B*----- Entic Haplorthods, sandy	A	None-----	---	---	3.0-5.0	Apparent Jan-Dec	---	---	---	Low-----	Low-----	High.
225B*, 225C*, 225D*, 230B*, 230C*, 230D*, 230E*----- Entic Haplorthods, sandy	A	None-----	---	---	>15	---	---	---	---	Low-----	Low-----	High.
231B*: Entic Haplorthods, sandy----- Alfic Haplorthods, sandy over loamy-----	A	None-----	---	---	>15	---	---	---	---	Low-----	Low-----	High.
	A	None-----	---	---	>15	---	---	---	---	Low-----	Moderate	Moderate.

See footnote at end of table.

TABLE 18. --SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence			Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete
233B*, 233C*, 233D*, 233E*: Alfic Haplorthods, sandy over loamy	A	None	---	---	>15	---	---	In	In	Low	Moderate	Moderate.
Entic Haplorthods, sandy	A	None	---	---	>15	---	---	---	---	Low	Low	High.
235B*: Alfic Haplorthods, sandy over loamy	A	None	---	---	>15	---	---	---	---	Low	Moderate	Moderate.
Alfic Haplorthods, sandy	A	None	---	---	>15	---	---	---	---	Low	Low	Moderate.
235C*: Alfic Haplorthods, sandy over loamy	A	None	---	---	>15	---	---	---	---	Low	Moderate	Moderate.
Alfic Haplorthods, sandy	A	None	---	---	>15	---	---	---	---	Low	Low	Moderate.
240C*, 241B*, 245B*, 245C*, 245D*: Entic Haplorthods, sandy	A	None	---	---	>15	---	---	---	---	Low	Moderate	Moderate.
250*: Mollic Psammaquents	D	Occasional	Brief	Oct-May	+1-1.0	Apparent	Nov-May	---	---	Moderate	High	High.
Aquic Udipsammaquents	A	Occasional	Brief	Oct-May	1.5-3.5	Apparent	Nov-Apr	---	---	Low	Low	High.
Medisaprists, euic	D	Occasional	Brief	Oct-May	+1-1.0	Apparent	Sep-Jun	---	---	High	High	Moderate.

See footnote at end of table.

TABLE 18. --SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Subsidence			Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Potential frost action	Uncoated steel	Concrete
262A* Aeric Haplaquods, sandy, ortstein	C	None	---	---	0.5-2.5	Apparent	Oct-Jun	---	---	Moderate	High	High.
263A* Aquic Udipsamments	A	None	---	---	1.5-3.5	Apparent	Nov-May	---	---	Low	Low	High.
272* Typic Haplaquods, sandy	D	None	---	---	+1-1.5	Apparent	Nov-May	---	---	Moderate	Moderate	High.
273* Mollic Psammaquents	D	None	---	---	+1-1.0	Apparent	Nov-May	---	---	Moderate	High	High.
274* Typic Haplaquolls, sandy over loamy	D	None	---	---	+1-1.0	Apparent	Nov-May	---	---	High	Moderate	Low.
280* Aquents	D	None	---	---	+1-1.0	Apparent	Jan-Dec	---	---	High	---	---
Histosols	D	None	---	---	+1-1.0	Apparent	Sep-Jun	---	---	High	High	Moderate.
281 Medisaprists, dysic	D	None	---	---	+1-1.0	Apparent	Sep-Jun	---	---	High	High	High.
282 Medisaprists, euic	D	None	---	---	+1-1.0	Apparent	Sep-Jun	---	---	High	High	Moderate.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 19.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Adrian-----	Sandy or sandy-skeletal, mixed, euic, mesic Terric Medisaprists
Aeric Haplaquods, sandy, ortstein-----	Sandy, mixed, mesic, ortstein Aeric Haploquods
Alfic Haplorthods, sandy	Sandy, mixed, mesic Alfic Haplorthods
Alfic Haplorthods, sandy over loamy-----	Sandy over loamy, mixed, mesic Alfic Haplorthods
Algansee-----	Mixed, mesic Aquic Udipsamments
Altmar-----	Mixed, mesic Aquic Udipsamments
Alvin-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Aquents-----	Aquents
Aquic Udipsamments-----	Mixed, mesic Aquic Udipsamments
Argic Udipsamments-----	Mixed, mesic Argic Udipsamments
Arkona-----	Sandy over clayey, mixed, mesic Alfic Epiquods
Arkport-----	Coarse-loamy, mixed, mesic Psammentic Hapludalfs
Benona-----	Sandy, mixed, mesic Entic Haplorthods
Bono-----	Fine, illitic, mesic Typic Endoaquolls
Capac-----	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Carlisle-----	Euic, mesic Typic Medisaprists
Chelsea-----	Mixed, mesic Argic Udipsamments
Claybanks-----	Fine, mixed, mesic Haplic Glossudalfs
Cohoctah-----	Coarse-loamy, mixed, mesic Fluvaquentic Haplaquolls
Coloma-----	Mixed, mesic Argic Udipsamments
Covert-----	Sandy, mixed, mesic Oxyaquic Haplorthods
Del Rey-----	Fine, illitic, mesic Aeric Ochraqualfs
Dixboro-----	Coarse-loamy, mixed, mesic Aquollic Hapludalfs
Entic Haplorthods, sandy	Sandy, mixed, mesic Entic Haplorthods
Epworth-----	Sandy, siliceous, mesic Entic Haplorthods
Fern-----	Sandy over loamy, mixed, mesic Psammentic Argiudolls
Freesoil-----	Coarse-loamy, mixed, mesic Aquic Eutrochrepts
Glendora-----	Mixed, mesic Mollic Psammaquents
Gowdy-----	Clayey, mixed, mesic Arenic Glossudalfs
Granby-----	Sandy, mixed, mesic Typic Haplaquolls
Grattan-----	Sandy, mixed, mesic Entic Haplorthods
Histosols-----	Histosols
Houghton-----	Euic, mesic Typic Medisaprists
Hoytville-----	Fine, illitic, mesic Mollic Ochraqualfs
Ithaca-----	Fine, mixed, mesic Aquic Glossudalfs
Jebavy-----	Sandy, mixed, mesic, ortstein Aeric Haplaquods
Kerston-----	Euic, mesic Fluvaquentic Medisaprists
Kingsville-----	Mixed, mesic Mollic Psammaquents
Lamson-----	Coarse-loamy, mixed, nonacid, mesic Aeric Haplaquepts
Marlette-----	Fine-loamy, mixed, mesic Haplic Glossudalfs
Martisco-----	Fine-silty, carbonatic, mesic Histic Humaquepts
Medisaprists-----	Medisaprists
Mollic Psammaquents-----	Mixed, mesic Mollic Psammaquents
Napoleon-----	Dysic, mesic Typic Medihemists
Nappanee-----	Fine, illitic, mesic Aeric Ochraqualfs
Nordhouse-----	Mesic, uncoated Spodic Quartzipsamments
Okee-----	Loamy, mixed, mesic Arenic Hapludalfs
Palms-----	Loamy, mixed, euic, mesic Terric Medisaprists
Perrinton-----	Fine, mixed, mesic Haplic Glossudalfs
Pipestone-----	Sandy, mixed, mesic Entic Haplaquods
Plainfield-----	Mixed, mesic Typic Udipsamments
Psammaquents-----	Psammaquents
Quartzipsamments-----	Quartzipsamments
Remus-----	Fine-loamy, mixed, mesic Haplic Glossudalfs
Saugatuck-----	Sandy, mixed, mesic, ortstein Aeric Haplaquods
Scalley-----	Fine-loamy over sandy or sandy-skeletal, mixed, mesic Haplic Glossudalfs
Sickles-----	Sandy over clayey, mixed, nonacid, mesic Mollic Haplaquents
Sloan-----	Fine-loamy, mixed, mesic Fluvaquentic Haplaquolls
Spinks-----	Sandy, mixed, mesic Psammentic Hapludalfs

TABLE 19.--CLASSIFICATION OF THE SOILS--Continued

Soil name	Family or higher taxonomic class
Tekonink-----	Coarse-loamy, mixed, mesic Typic Glossudalfs
Thetford-----	Sandy, mixed, mesic Psammaquentic Hapludalfs
Toogood-----	Sandy, mixed, mesic Arenic Eutrochrepts
Typic Haplaquods, sandy---	Sandy, mixed, mesic Typic Haplaquods
Typic Haplaquolls, sandy over loamy-----	Sandy over loamy, mixed, mesic Typic Haplaquolls
Typic Udipsamments-----	Mixed, mesic Typic Udipsamments
Udipsamments-----	Udipsamments
Udorthents-----	Udorthents

Interpretive Groups

INTERPRETIVE GROUPS

(Dashes indicate that the soil was not assigned to the interpretive group)

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
10B----- Perrinton	IIe	Yes	4A	1.5a
10C----- Perrinton	IIIe	---	4A	1.5a
10D----- Perrinton	IVe	---	4A	1.5a
10E----- Perrinton	VIIe	---	4R	1.5a
11A----- Ithaca	IIe	Yes*	4W	1.5b
12----- Bono	IIIw	Yes*	4W	1.5c
13B----- Marlette	IIe	Yes	3A	1.5a
13C----- Marlette	IIIe	---	3A	1.5a
13D----- Marlette	IVe	---	3A	1.5a
14B----- Capac	IIe	Yes*	4W	1.5b
16B----- Remus	IIe	Yes	3A	2.5a
16C----- Remus	IIIe	---	3A	2.5a
16D----- Remus	IVe	---	3A	2.5a
17B----- Marlette----- Fern-----	IIe	Yes	3A 4S	1.5a 4/2a
17C----- Marlette----- Fern-----	IIIe	---	3A 4S	1.5a 4/2a
17D----- Marlette Fern-----	IVe	---	3A 4S	1.5a 4/2a
18B----- Spinks----- Gowdy-----	IIIi	---	4A 3A	4a 4/1a
18C----- Spinks----- Gowdy-----	IIIe	---	4A 3A	4a 4/1a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
18D----- Spinks----- Gowdy-----	IVe	---	4A 3A	4a 4/1a
20B----- Arkport----- Chelsea-----	IIe	Yes	3A 5S	3a-s 5a
20C----- Arkport----- Chelsea-----	IIIe	---	3A 5S	3a-s 5a
20D----- Arkport----- Chelsea-----	IVe	---	3A 5S	3a-s 5a
21A----- Freesoil	IIIw	Yes*	3W	3b-s
22B----- Gowdy	IIIe	Yes	3A	4/1a
22C----- Gowdy	IVe	---	3A	4/1a
23A----- Arkona	IIIw	---	2W	4/1b
24----- Sickles	Vw	---	5W	4/c
25B----- Gowdy----- Perrinton-----	IIIe	Yes	3A 4A	4/1a 1.5a
25C----- Gowdy----- Perrinton-----	IVe	---	3A 4A	4/1a 1.5a
25D----- Gowdy----- Perrinton-----	IVe	---	3A 4A	4/1a 1.5a
25E----- Gowdy----- Perrinton-----	VIIe	---	3R 4R	4/1a 1.5a
26A----- Arkona----- Ithaca-----	IIIw	---	2W 4W	4/1b 1.5b
27B----- Arkona----- Del Rey-----	IIIw	---	2W 3C	4/1b 1.5b
28B----- Fern	IIIe	---	4S	4/2a
28C----- Fern	IIIe	---	4S	4/2a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
28D----- Fern	IVe	---	4S	4/2a
29A----- Dixboro	IIw	Yes*	4W	3b-s
30----- Lamson	IIIw	Yes*	8W	3c-s
35B----- Alvin----- Spinks-----	IIe	Yes	5A 4A	3/5a 4a
35C----- Alvin----- Spinks-----	IIIe	---	5A 4A	3/5a 4a
35D----- Alvin----- Spinks-----	IVe	---	5A 4A	3/5a 4a
36A----- Del Rey	IIw	Yes*	3C	1.5b
37A----- Altmar	IVw	---	3W	4b
38B----- Spinks----- Okee-----	IIIIs	---	4A 2A	4a 4/2a
38C----- Spinks----- Okee-----	IIIe	---	4A 2A	4a 4/2a
38D----- Spinks----- Okee-----	VIIe	---	4A 2A	4a 4/2a
38E----- Spinks----- Okee-----	VIIe	---	4R 2R	4a 4/2a
40B----- Coloma----- Toogood-----	IVs	---	2S 6A	5a 4/Ga
40C----- Coloma----- Toogood-----	VIIs	---	2S 6A	5a 4/Ga
40D----- Coloma----- Toogood-----	VIIs	---	2S 6A	5a 4/Ga
41----- Granby	Vw	---	2W	5C
42B----- Spinks----- Remus----- Fern-----	IIIIs	---	4A 3A 4S	4a 2.5a 4/2a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
42C----- Spinks----- Remus----- Fern-----	IIIe	---	4A 3A 4S	4a 2.5a 4/2a
42D----- Spinks----- Remus----- Fern-----	IVe	---	4A 3A 4S	4a 2.5a 4/2a
42E----- Spinks----- Remus----- Fern-----	VIIe	---	4R 3R 4R	4a 2.5a 4/2a
43B----- Spinks	IIIs	---	4A	4a
43C----- Spinks	IIIe	---	4A	4a
43D----- Spinks	IVe	---	4A	4a
43E----- Spinks	VIIe	---	4R	4a
44B----- Thetford	IIIw	---	3W	4b
45B----- Spinks----- Benona-----	IIIs	---	4A 4S	4a 5a
45C----- Spinks----- Benona-----	IIIe	---	4A 4S	4a 5a
45D----- Spinks----- Benona-----	IVe	---	4A 4S	4a 5a
45E----- Spinks----- Benona-----	VIIe	---	4R	4a 5a
45F----- Spinks----- Benona-----	VIIe	---	4R	4a 5a
46B----- Grattan	IVs	---	3S	5a
48A----- Saugatuck----- Jebavy-----	IVw	---	2W	5b-h 5c-h
49B----- Grattan	VI s	---	9S	5.3a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
49B3----- Grattan	VIIIs	---	9S	5.3a
49C----- Grattan	VIIs	---	9S	5.3a
49C3----- Grattan	VIIIs	---	9S	5.3a
49E----- Grattan	VIIIs	---	9R	5.3a
49F----- Grattan	VIIIs	---	9R	5.3a
50B----- Covert	IVs	---	4S	5a
51B----- Pipestone	IVw	---	3W	5b
52----- Granby	IVw	---	2W	5c
53B----- Grattan	VIIs	---	9S	5/2a
53C----- Grattan	VIIs	---	9S	5/2a
56B----- Benona	IVs	---	3S	5a
56C----- Benona	VIIs	---	3S	5a
56E----- Benona	VIIIs	---	3R	5a
57C----- Nordhouse	VIIIs	---	4S	5.7a
57F----- Nordhouse	VIIIs	---	4R	5.7a
58----- Kingsville	Vw	---	5W	5c
59B----- Benona	IVs	---	4S	5a
59C----- Benona	VIIs	---	4S	5a
59E----- Benona	VIIIs	---	4R	5a
60B----- Coloma	IVs	---	2S	5a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
60C----- Coloma	VI _s	---	2S	5a
60E----- Coloma	VII _s	---	2R	5a
61B----- Epworth	III _s	---	4S	5.3a
61C----- Epworth	IV _e	---	4S	5.3a
61E----- Epworth	VI _e	---	4R	5.3a
62B----- Plainfield	IV _s	---	8S	5.3a
62C----- Plainfield	VII _s	---	8S	5.3a
65----- Sloan	III _w	Yes**	3W	L-2c
67----- Cohoctah	V _w	Yes*	2W	L-2c
69----- Alganssee	III _w	---	4W	L-4c
70----- Glendora	VI _w	---	3W	L-4c
71----- Houghton and Carlisle	V _w	---	2W	Mc
72----- Adrian	V _w	---	2W	M/4c
73----- Palms	V _w	---	2W	M/3c
75----- Martisco	V _w	---	2W	M/mc
77----- Napoleon	VI _w	---	3W	Mc-ay
83. Histosols and Aquents				
84F. Dune land- Quartzipsamments- Psammaquents				
85F. Udorthents- Quartzipsamments				

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
86F. Dune land- Quartzipsamments				
87. Beaches				
88A. Udipsamments				
89A. Udorthents				
91. Pits, sand and gravel				
92B----- Chelsea	IVs	---	5S	5a
92C----- Chelsea	VI s	---	5S	5a
96B----- Spinks----- Tekenink-----	III s	---	4A	4a 3a
96C----- Spinks----- Tekenink-----	III e	---	4A	4a 3a
96D----- Spinks----- Tekenink-----	IV e	---	4A	4a 3a
96E----- Spinks----- Tekenink-----	VII e	---	4R	4a 3a
97----- Kerston----- Carlisle-----	Vw	---	2W	L-Mc Mc
98B----- Spinks----- Scalley-----	III s	---	4A 3A	4a 3/5a
98C----- Spinks----- Scalley-----	III e	---	4A 3A	4a 3/5a
98D----- Spinks----- Scalley-----	IV e	---	4A 3A	4a 3/5a
99B----- Nappanee----- Hoytville-----	III e	Yes*	4C 3W	1b 1c
100B----- Nappanee-----	III e	Yes*	4C	1b

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
101B----- Claybanks	IIIe	Yes	4A	1a
101C----- Claybanks	IIIe	---	4A	1a
210B----- Typic Udipsamments	VI s	---	2S	5.7a
210C----- Typic Udipsamments	VII s	---	2S	5.7a
210D----- Typic Udipsamments	VII s	---	2R	5.7a
211B----- Typic Udipsamments	VI s	---	3S	5.7a
211C----- Typic Udipsamments	VII s	---	3S	5.7a
212B----- Typic Udipsamments	VI s	---	3S	5.3a
213B----- Argic Udipsamments	IV s	---	---	5.3a
213C----- Argic Udipsamments	VI s	---	---	5.3a
213D----- Argic Udipsamments	VI s	---	---	5.3a
220B----- Entic Haplorthods, sandy	VI s	---	4S	5.3a
220C----- Entic Haplorthods, sandy	VII s	---	4S	5.3a
220D----- Entic Haplorthods, sandy	VII s	---	4R	5.3a
220E----- Entic Haplorthods, sandy	VII s	---	4R	5.3a
221B----- Entic Haplorthods, sandy	VI s	---	4S	5.3a
221C----- Entic Haplorthods, sandy	VII s	---	4S	5.3a
221D----- Entic Haplorthods, sandy	VII s	---	4R	5.3a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
221E----- Entic Haplorthods, sandy	VIIs	---	4R	5.3a
222B----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
222C----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
223B----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
223C----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
223D----- Entic Haplorthods, sandy	VIIs	---	4R	5.3a
223E----- Entic Haplorthods, sandy	VIIs	---	4R	5.3a
224B----- Entic Haplorthods, sandy	IVs	---	4S	5a
225B----- Entic Haplorthods, sandy	VIIs	---	---	5.3a
225C----- Entic Haplorthods, sandy	VIIs	---	---	5.3a
225D----- Entic Haplorthods, sandy	VIIs	---	---	5.3a
230B----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
230C----- Entic Haplorthods, sandy	VIIs	---	4S	5.3a
230D----- Entic Haplorthods, sandy	VIIs	---	4R	5.3a
230E----- Entic Haplorthods, sandy	VIIs	---	4R	5.3a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
231B----- Entic Haplorthods, sandy-----	VI _s	---	4S	5.3a
Alfic Haplorthods, sandy over loamy-----			5S	5.2a
233B----- Alfic Haplorthods, sandy over loamy-----	III _s	---	5S	5.2a
Entic Haplorthods, sandy-----			4S	5.3a
233C----- Alfic Haplorthods, sandy over loamy-----	IV _e	---	5S	5.2a
Entic Haplorthods, sandy-----			4S	5.3a
233D----- Alfic Haplorthods, sandy over loamy-----	VI _e	---	5R	5.2a
Entic Haplorthods, sandy-----			4R	5.3a
233E----- Alfic Haplorthods, sandy over loamy-----	VII _e	---	5R	5.2a
Entic Haplorthods, sandy-----			4R	5.3a
235B----- Alfic Haplorthods, sandy over loamy-----	III _s	---	5S	5.2a
Alfic Haplorthods, sandy-----			3S	5.3a
235C----- Alfic Haplorthods, sandy over loamy-----	IV _e	---	5S	5.2a
Alfic Haplorthods, sandy-----			3S	5.3a
240C----- Entic Haplorthods, sandy	VI _s	---	3S	5a
241B----- Entic Haplorthods, sandy	IV _s	---	3S	5a
245B----- Entic Haplorthods, sandy	IV _s	---	3S	5/2a

See footnotes at end of table.

INTERPRETIVE GROUPS--Continued

Map symbol and soil name	Land capability	Prime farmland	Woodland ordination symbol	Michigan soil management group
245C----- Entic Haplorthods, sandy	VI _s	---	3S	5/2a
245D----- Entic Haplorthods, sandy	VII _s	---	3R	5/2a
250----- Mollic Psammaquents-- Aquic Udipsamments--- Medisaprists, euic---	V _w	---	--- 4S ---	5c 5b Mc
262A----- Aeric Haplaquods, sandy, ortstein	V _w	---	4W	5b-h
263A----- Aquic Udipsamments	IV _s	---	---	5.3a
272----- Typic Haplaquods, sandy	VI _w	---	---	5b-h
273----- Mollic Psammaquents	V _w	---	---	5c
274----- Mollic Haplaquolls, sandy over loamy	V _w	---	---	4/2c
280----- Aquents and Histosols	---	---	---	---
281----- Medisaprists, dysic	---	---	---	M/5c
282----- Medisaprists, euic	---	---	---	Mc

* Where drained.

** Where drained and either protected from flooding or not frequently flooded during the growing season.

Accessibility Statement

This document is not accessible by screen-reader software. The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at (800) 457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at <http://offices.sc.egov.usda.gov/locator/app>.

Nondiscrimination Statement

Nondiscrimination Policy

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, whether all or part of an individual's income is derived from any public assistance program, or protected genetic information. The Department prohibits discrimination in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases apply to all programs and/or employment activities.)

To File an Employment Complaint

If you wish to file an employment complaint, you must contact your agency's EEO Counselor (<http://directives.sc.egov.usda.gov/33081.wba>) within 45 days of the date of the alleged discriminatory act, event, or personnel action. Additional information can be found online at http://www.ascr.usda.gov/complaint_filing_file.html.

To File a Program Complaint

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter by mail to U.S. Department of Agriculture; Director, Office of Adjudication; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-9419; by fax to (202) 690-7442; or by email to program.intake@usda.gov.

Persons with Disabilities

If you are deaf, are hard of hearing, or have speech disabilities and you wish to file either an EEO or program complaint, please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish).

If you have other disabilities and wish to file a program complaint, please see the contact information above. If you require alternative means of communication for

program information (e.g., Braille, large print, audiotape, etc.), please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

Supplemental Nutrition Assistance Program

For additional information dealing with Supplemental Nutrition Assistance Program (SNAP) issues, call either the USDA SNAP Hotline Number at (800) 221-5689, which is also in Spanish, or the State Information/Hotline Numbers (<http://directives.sc.egov.usda.gov/33085.wba>).

All Other Inquiries

For information not pertaining to civil rights, please refer to the listing of the USDA Agencies and Offices (<http://directives.sc.egov.usda.gov/33086.wba>).