Engineering Interpretations

Water Management

Interpretations of soils for water management are given as limitations for pond reservoir areas; embankments, dikes, and levees; excavated pond (aquifer-fed); and as restrictive features that affect drainage, irrigation, terraces and diversions, and grassed waterways.

POND RESERVOIR AREA is the area that holds water behind a dam or embankment. Soils best suited to this use have a low seepage potential, which is determined by the permeability and depth to fractured or permeable bedrock, or other permeable material.

EMBANKMENTS, DIKES, AND LEVEES are raised structures of soil material constructed to impound water or protect land against overflow. They generally are less than 20 feet high and are constructed of "homogeneous" soil material (without a core zone) and compacted to medium density.

EXCAVATED PONDS (AQUIFER-FED) are bodies of water created by excavating a pit or dugout into a ground-water aquifer. Excluded are ponds which are fed by surface runoff or that have embankments that impound water 3 feet or more above the original surface.

DRAINAGE is the process of removing excess surface and subsurface water from agricultural land. Soil features are listed that affect grading, excavation, and stability of trench sides or ditch banks. Features are also listed which might affect productivity after drainage is installed. The availability of drainage outlets must also be considered.

IRRIGATION is the controlled application of water to supplement rainfall for supporting plant growth. Soil features are listed that affect design, layout, construction, management, or performance of an irrigation system.

TERRACES AND DIVERSIONS are embankments or a combination of an embankment and a channel constructed across a slope to control erosion by diverting or storing surface runoff instead of permitting it to flow uninterrupted down the slope. Soil features are listed that affect the construction of terraces and diversions and that may cause problems after construction.

GRASSED WATERWAYS are natural or constructed channels that generally are broad and shallow and are covered with erosion-resistant grasses. They are used to conduct surface water to outlets at a nonerosive velocity. Soil features are listed that affect the construction and maintenance of the waterway, and also that affect the growth of grass after construction.

This subsection includes:

• (a) Water Management

Water Management

Map symbol and soil name	Pond reservoir are	as	Drainage 		 Irrigation 		Terraces and divers	ions	Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value
1C: Menfro	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	0.30	 Limited ~slope (limited)	0.98	Limited ~slope (limited) ~erodes easily (moderately limited)	0.98	Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.30
1D2: Menfro	 Limited ~slope (limited) ~seepage (moderately limited)	0.99	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	Limited -slope (limited) -erodes easily (moderately limited)	 0.99 0.60	Limited -slope (limited) -erodes easily (moderately limited)	0.99
1E2: Menfro	 Very limited ~slope (very limited) ~seepage (moderately limited)	 1.00 0.50	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60
1F: Menfro	 Very limited ~slope (very limited) ~seepage (moderately limited)	 1.00 0.50	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60
2F: Clarksville	 Very limited ~slope (very limited) ~seepage (very limited)	1.00	 Very limited ~slope (very limited) ~large stones (slightly limited	1.00	 Very limited ~slope (very limited) ~droughty (slightly limited) 	 1.00 0.25 	 Very limited ~slope (very limited) ~large stones (limited) 	 1.00 0.85 	(very limited)	 1.00 0.85 0.25

Water Management

Map symbol and soil name	soil name		Drainage		 Irrigation 		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
2F: (cont) Menfro	 Very limited ~slope (very limited) ~seepage (moderately limited)	1.00	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60
3C: Menfro	 Moderately limited ~seepage (moderately limited) ~slope (slightly limited)	0.50	 Limited ~slope (limited)	 0.78 	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.78 0.60	 Moderately limited ~erodes easily (moderately limited) ~slope (slightly limited)	 0.60 0.20	 Moderately limited ~erodes easily (moderately limited) ~slope (slightly limited)	 0.60 0.20
3D2: Menfro, ERODED-	~slope (limited)	0.99	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60
3E2: Menfro, ERODED-	~slope (very limited)	0.50	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60
4D2: Menfro, ERODED-	~slope (limited)	0.99	 Very limited ~slope (very limited) 	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60

Water Management

Map symbol and soil name	Pond reservoir are	as	Drainage 		Irrigation 		Terraces and divers 	ions	Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
4D2: (cont) Bucklick, ERODED	Limited ~slope (limited) ~depth to bedrock (moderately limited) ~seepage (moderately limited)	0.99	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited)	1.00	 Limited ~slope (limited) ~depth to bedrock (moderately limited)	0.99	Limited -slope (limited) -depth to bedrock (moderately limited)	0.99
4E: Menfro	 Very limited ~slope (very limited) ~seepage (moderately limited)	 1.00 0.50	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	(very limited)	1.00
Bucklick	 very limited ~slope (very limited) ~depth to bedrock (moderately limited) ~seepage (moderately limited)	 1.00 0.60 0.50	 very limited ~slope (very limited) 	1.00	 very limited ~slope (very limited) 	 1.00 	 very limited ~slope (very limited) ~depth to bedrock (moderately limited)	 1.00 0.51 	 very limited ~slope (very limited) ~depth to bedrock (moderately limited)	1.00
5C: Minnith	 Very limited ~seepage (very limited) ~slope (moderately limited)	1.00	 Limited ~slope (limited)	0.98	 Limited ~slope (limited) ~erodes easily (moderately limited)	0.98	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	 0.60 0.30	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.30
7E2: Menfro, ERODED-	 Very limited ~slope (very limited) ~seepage (moderately limited)	0.50	 Very limited ~slope (very limited) 	1.00	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60

Water Management

Map symbol and soil name	Pond reservoir are	as	 Drainage 		 Irrigation 		 Terraces and divers	ions	 Grassed waterway 	's
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
7E2: (cont) Caneyville, ERODED	 Very limited -slope	 1.00	 Very limited ~slope	 1.00	 Very limited ~slope	 1.00	 Very limited -depth to bedrock	 1.00	 Very limited ~slope	11.00
	<pre>(very limited) ~depth to bedrock (limited)</pre>	0.80	<pre>(very limited) ~depth to bedrock (slightly limited) ~percs slowly (slightly limited)</pre>	0.18	(very limited) ~depth to bedrock (slightly limited)	0.18	(very limited) ~slope (very limited)	 1.00 	(very limited) -depth to bedrock (limited)	0.80
8D2: Minnith, ERODED	 Very limited ~seepage (very limited) ~slope (limited)	1.00	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60
Lily, ERODED	Very limited -seepage (very limited) -slope (very limited) -depth to bedrock (limited)	 1.00 1.00 0.86	 very limited ~slope (very limited) ~depth to bedrock (moderately limited)	 1.00 0.35 	 very limited ~slope (very limited) ~depth to bedrock (moderately limited)	 1.00 0.35 	 Very limited ~depth to bedrock (very limited) ~slope (very limited)	 1.00 1.00 	 very limited ~slope (very limited) ~depth to bedrock (limited)	 1.00 0.86
9C: Hildebrecht	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	0.30	Limited ~slope (limited) ~percs slowly (moderately limited)	 0.98 0.39 	Limited ~slope (limited) ~erodes easily (moderately limited) ~percs slowly (moderately limited)	0.98	Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (moderately limited)	 0.60 0.36 0.30	Limited ~rooting depth (limited) ~erodes easily (moderately limited) ~wetness (moderately limited)	 0.80 0.60 0.36

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage		 Irrigation 		Terraces and divers	ions	 Grassed waterway 	rs
	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
9D: Hildebrecht	~slope (limited)	 0.99 0.50 	(very limited)	1.00 0.39	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~percs slowly (moderately limited)	0.39	(limited)	 0.60 0.36	Limited ~slope (limited) ~rooting depth (limited) ~erodes easily (moderately limited)	0.99
10F: Menfro	~slope (very limited)	0.50	 Very limited ~slope (very limited) 		 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 0.60	(very limited)	 0.60	Very limited -slope (very limited) -erodes easily (moderately limited)	 1.00 0.60
Caneyville	~slope (very limited)	 1.00 0.76 	(very limited) ~percs slowly (slightly limited)	1.00 0.13	 very limited ~slope (very limited) ~percs slowly (slightly limited) ~depth to bedrock (slightly limited)	 1.00 0.13 0.12	(very limited)	ĺ	 very limited very limited very limited very limited climited	1.00
Rubble	 Not rated 	 	 Not rated 		 Not rated 	 	 Not rated 		 Not rated 	
11E: Goss	~slope (very limited)	 1.00 0.50 	(very limited)		 very limited ~slope (very limited) ~droughty (slightly limited) ~large stones (slightly limited)	 1.00 0.16 0.09	(very limited)	 1.00 1.00 	 Very limited ~slope (very limited) ~large stones (very limited) ~droughty (slightly limited)	 1.00 1.00 0.16

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage 		 Irrigation 		Terraces and divers	ions	 Grassed waterway 	s
	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
12E: Lily		1.00	 Very limited ~slope (very limited) ~depth to bedrock (slightly limited)	1.00	 Very limited ~slope (very limited) ~depth to bedrock (slightly limited)	1.00	 Very limited ~slope (very limited) ~depth to bedrock (very limited)	1.00	(very limited)	1.00
Minnith	~slope (very limited)	 1.00 0.32 	 very limited ~slope (very limited) ~percs slowly (slightly limited)	 1.00 0.13	Very limited ~slope (very limited) ~erodes easily (moderately limited) ~percs slowly (slightly limited)	 1.00 0.60 0.13	 very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60 	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60
15E: Gasconade	 Very limited ~bedrock <20 in. (very limited) ~slope (very limited)	 1.00 1.00 	Very limited ~slope (very limited) ~shallow to bedrock (very limited) ~percs slowly (very limited)	 1.00 1.00 1.00	(very limited) ~percs slowly (very limited)	 1.00 1.00 1.00	 Very limited ~depth to bedrock (very limited) ~large stones (very limited) ~slope (very limited)	 1.00 1.00 1.00	Very limited ~bedrock <20 in. (very limited) ~droughty (very limited) ~large stones (very limited)	 1.00 1.00 1.00
Rock outcrop	 Not rated 	 	 Not rated 	 	 Not rated 		 Not rated 	 	 Not rated 	
18C: Weller	 Moderately limited ~slope (moderately limited)	 0.30 	Limited -slope (limited) -percs slowly (moderately limited)	0.39	Limited -slope (limited) -erodes easily (moderately limited) -percs slowly (moderately limited)	0.39	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.30	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.30

Water Management

Map symbol and soil name	Pond reservoir are	as	 Drainage 		 Irrigation 		 Terraces and divers 	ions	 Grassed waterway 	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
19C: Weingarten	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	0.30	Limited ~slope (limited) ~percs slowly (slightly limited)	0.98	(limited)	0.98	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.30
19D: Weingarten	 Limited ~slope (limited) ~seepage (moderately limited)	0.99	 Very limited ~slope (very limited) ~percs slowly (slightly limited)		 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~percs slowly (slightly limited)	 1.00 0.60 0.13	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60 	 Limited ~slope (limited) ~erodes easily (moderately limited)	 0.99 0.60
20: Wilbur, FREQUENTLY FLOODED	Moderately limited	 	Limited -flooding (limited)	 0.90 	 Limited ~flooding (limited) ~erodes easily (moderately limited)	 0.90 0.60	Moderately limited	 0.60 0.52	Moderately limited erodes easily (moderately limited)wetness (moderately limited)	0.52
21: Haymond, FREQUENTLY FLOODED	Moderately limited	 	Limited ~flooding ((limited))	 0.90 	Limited -flooding (limited) -erodes easily (moderately limited)	 0.90 0.60	Moderately limited	 0.60 	 Moderately limited ~erodes easily (moderately limited)	0.60

Water Management

Map symbol and soil name	Pond reservoir are 	as	 Drainage 		Irrigation 		 Terraces and divers 	ions	Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
24A: Elsah, FREQUENTLY FLOODED	 Very limited		Limited		Limited	 	Moderately limited	 	 Moderately limited	
	~seepage (very limited) 	1.00	~flooding (limited) ~large stones (slightly limited	0.90	<pre> -flooding (limited) -erodes easily (moderately limited)</pre>	0.90 0.60 	-erodes easily (moderately limited) -large stones (slightly limited)	0.60	-erodes easily (moderately limited) -large stones (slightly limited)	0.60
25A: Midco, FREQUENTLY FLOODED	 Very limited 		 Limited 		 Very limited 	 	 Very limited 	 	 Very limited 	
r fooden	~seepage (very limited)	1.00	 -flooding (limited) -large stones (limited	0.90	-droughty (very limited) -flooding (limited) -large stones (slightly limited)	1.00 0.90 0.01	 ~large stones (very limited) 	 1.00 	 -droughty (very limited) -large stones (very limited) 	1.00
Riverwash	 Not rated 		 Not rated 		 Not rated 	 	 Not rated 	 	 Not rated 	
26A: Auxvasse, RARELY FLOODED	 Not limited 		 very limited ~percs slowly (very limited)	1.00	 Very limited -percs slowly (very limited) -erodes easily (moderately limited)	 1.00 0.60	Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited)	 0.60 0.60	Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited)	0.60
27A: Ashton, RARELY FLOODED	 Moderately limited ~seepage (moderately limited)	 0.50	 Not limited 		 Not limited 	 	 Not limited -	 	 Not limited 	

Water Management

Map symbol and soil name	Pond reservoir are 	as	Drainage		Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28A: Freeburg, RARELY FLOODED	 Moderately limited ~seepage (moderately limited)	0.50	 Slightly limited ~percs slowly (slightly limited)	0.13	 Moderately limited -erodes easily (moderately limited) -percs slowly (slightly limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited)	0.36
29: Kickapoo, FREQUENTLY	 Moderately limited 	 	 Limited		Limited		 Not limited		 Not limited	
FLOODED	 ~seepage (moderately limited)	0.50	 ~flooding (limited)	0.90	 ~flooding (limited)	 0.90 		 		
32E: Gasconade	 very limited ~bedrock <20 in. (very limited) ~slope (very limited)	 1.00 1.00	 very limited ~slope (very limited) ~shallow to bedrock (very limited) ~percs slowly (very limited)	 1.00 1.00 	 very limited ~shallow to bedrock (very limited) ~percs slowly (very limited) ~droughty (very limited)	 1.00 1.00 	Very limited -slope (very limited) -depth to bedrock (very limited) -large stones (very limited)	 1.00 1.00 	 Very limited ~bedrock <20 in. (very limited) ~slope (very limited) ~droughty (very limited)	 1.00 1.00 1.00
Caneyville	 Very limited ~slope (very limited) ~depth to bedrock (limited)	1.00	 Very limited ~slope (very limited) ~depth to bedrock (moderately limited) ~percs slowly (slightly limited)	 1.00 0.42 0.13	 Very limited ~slope (very limited) ~depth to bedrock (moderately limited) ~percs slowly (slightly limited)	 1.00 0.42 0.13	 Very limited ~slope (very limited) ~depth to bedrock (very limited)	 1.00 1.00 	 Very limited ~slope (very limited) ~depth to bedrock (limited)	1.00
50: Darwin, RARELY FLOODED	 Not limited 		Very limited	 1.00 1.00	 Very limited 	 1.00 1.00 0.65	 Very limited - ~ponded (wetness) (very limited) ~wetness (very limited)	1.00	 Very limited ~wetness (very limited)	1.00

Water Management

Map symbol and soil name	Pond reservoir area 	as	 Drainage 		Irrigation 		Terraces and divers	ions	Grassed waterway	s
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
52: Parkville, RARELY FLOODED	 Very limited ~seepage (very limited)	1.00	 Very limited ~percs slowly (very limited)	1.00	 Very limited -percs slowly (very limited) ~slow intake (limited)	1.00	Moderately limited	0.60	 Moderately limited ~wetness (moderately limited)	0.60
53: Leta, RARELY FLOODED	 Moderately limited ~seepage (moderately limited)	 0.50 	Moderately limited -percs slowly (moderately limited)	 0.39 	Limited -slow intake (limited) -percs slowly (moderately limited)	 0.68 0.39	Moderately limited ~wetness (moderately limited)	 0.44	 Moderately limited ~wetness (moderately limited)	 0.44
54: Waldron, RARELY FLOODED	 Not limited 		 Moderately limited ~percs slowly (moderately limited)	 0.39 	 -slow intake (limited) -percs slowly (moderately limited)	 0.70 0.39	 Moderately limited -wetness (moderately limited)	 0.44 	 Moderately limited wetness (moderately limited)	 0.44
FLOODED	Moderately limited	 0.50	Not limited	 	Moderately limited	 0.60	Moderately limited	 0.60	 Moderately limited ~erodes easily (moderately limited)	0.60
58: Dupo, RARELY FLOODED	Moderately limited	 0.50 	 Slightly limited ~percs slowly (slightly limited) 	 0.26 	Moderately limited	 0.60 0.26	Moderately limited	 0.60 0.44	Moderately limited	0.44

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage 		 Irrigation 		 Terraces and divers	ions	 Grassed waterway 	s
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62A: Haynie, RARELY FLOODED	 Moderately limited ~seepage (moderately limited)	 0.50	 Not limited 	 	 Moderately limited ~erodes easily (moderately limited)	 0.60	 Moderately limited ~erodes easily (moderately limited)	 0.60	 Moderately limited ~erodes easily (moderately limited)	 0.60
Waldron, RARELY FLOODED	 Not limited 	 	 Moderately limited ~percs slowly (moderately limited) 	 0.39 	Limited -slow intake (limited) -percs slowly (moderately limited)	 0.70 0.39	 Moderately limited ~wetness (moderately limited) 	1	 Moderately limited -wetness (moderately limited) 	 0.44
65: Orthents	 Slightly limited ~seepage (slightly limited)	 0.18	 Not limited 		 Not limited 		 Not limited 	 	 Not limited 	
Water	 Not rated	 	 Not rated		 Not rated		 Not rated		 Not rated	
66: Pits	 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 	
AED: Orthent	 Not rated 	 	 Not rated 		 Not rated 		 Not rated 		 Not rated 	
W: Water	 Not rated 	 	 Not rated 	 	 Not rated 	 	Not rated	 	Not rated	