SOIL MAP UNITS AND COMPONENT HIGHLY ERODIBLE LAND CLASS
FOR SOIL SURVEY AREA 091
MARSHALL COUNTY
(FROZEN FACTORS)

PUBLISHED SYMBOL	SOIL MAP UNIT NAME	COMPONENT	%	HEL CLASS WIND	HEL CLASS WATER	SOIL K	LV T	I	HYDRIC SOILS
41	GRAVEL PITS	GRAVEL PIT	100	ER	ER				
42	OPEN WATER LESS THAN 40 ACRES	OPEN WATER	100	ER	ER				
AAA	AASTAD LOAM, 0 TO 2 PERCENT SLOPES	AASTAD	100	3	3	0.24	5	48	1/
ABA	ABERDEEN-EXLINE SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	ABERDEEN	50	3	3	0.32	3	38	1/
		EXLINE	30	3	3	0.28	3	38	
AR	ARVESON FINE SANDY LOAM	ARVESON	100	3	3	0.17	4	86	HY-2
ASE	ARVILLA-SIOUX LOAMS, 9 TO 25 PERCENT SLOPES	ARVILLA	50	3	1	0.2	3	56	1/
		SIOUX	30	3	1	0.28	2	56	
BA	BEARDEN SILT LOAM	BEARDEN	100	3	3	0.28	5	56	1/
BDA	BEARDEN-TONKA SILT LOAMS, 0 TO 3 PERCENT SLOPES	BEARDEN	50	3	3	0.28	5	56	
		TONKA	30	3	3	0.32	5	48	HY-3
BE	BENOIT AND DIVIDE LOAMS	BENOIT	50	3	3	0.28	4	48	HY-3
		DIVIDE	50	3	3	0.28	4	48	
BFA	BEOTIA SILT LOAM, 0 TO 2 PERCENT SLOPES	BEOTIA	100	3	3	0.28	5	48	1/
BFB	BEOTIA SILT LOAM, 2 TO 6 PERCENT SLOPES	BEOTIA	100	3	3	0.28	5	48	1/
BHA	BEOTIA-BEARDEN SILT LOAMS, 0 TO 3 PERCENT SLOPES	BEOTIA	50	3	3	0.28	5	48	1/
		BEARDEN	30	3	3	0.28	5	56	
BKE	BUSE-FORMAN LOAMS, 9 TO 21 PERCENT SLOPES	BUSE	50	3	1	0.28	5	48	1/
		FORMAN	30	3	1	0.28	5	48	
BKF	BUSE-FORMAN LOAMS, 21 TO 40 PERCENT SLOPES	BUSE	50	3	1	0.28	5	48	2/
		FORMAN	30	3	1	0.28	5	48	
BMF	BUSE-FORMAN STONY COMPLEX, 9 TO 40 PERCENT SLOPES	BUSE	50	3	1	0.2	5	48	1/2/
		FORMAN	30	3	1	0.28	5	48	
BSE	BUSE-SIOUX COMPLEX, 15 TO 21 PERCENT SLOPES	BUSE	50	3	1	0.28	5	48	1/2/
		SIOUX	30	1	1	0.28	2	48	
BTE	BUSE-SIOUX STONY COMPLEX, 9 TO 40 PERCENT SLOPES	BUSE	50	3	1	0.2	5	48	1/
		SIOUX	30	3	1	0.24	2	48	
CO	COLVIN SILTY CLAY LOAM	COLVIN	100	3	3	0.32	5	48	HY-2
DO	DOVRAY SILTY CLAY	DOVRAY	100	3	3	0.28	5	86	HY-4
EDB	EDGELEY LOAM, 2 TO 6 PERCENT SLOPES	EDGELEY	100	3	3	0.28	4	48	
EDC	EDGELEY LOAM, 6 TO 9 PERCENT SLOPES	EDGELEY	100	3	2	0.28	4	48	
EDD	EDGELEY LOAM, 9 TO 15 PERCENT SLOPES	EDGELEY	100	3	1	0.28	4	48	
EMA	EMBDEN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	EMBDEN	100	3	3	0.2	5	86	
EMB	EMBDEN FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	EMBDEN	100	3	3	0.2	5	86	
ENC	EMBDEN-BUSE COMPLEX, 2 TO 9 PERCENT SLOPES	EMBDEN	50	3	3	0.2	5	86	
		BUSE	30	3	3	0.28	5	48	
ESA	ESTELLINE SILT LOAM, 0 TO 2 PERCENT SLOPES	ESTELLINE	100	3	3	0.32	4	48	
EXA	EXLINE-ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	EXLINE	50	3	3	0.28	3	38	3/
		ABERDEEN	30	3	3	0.32	3	38	
FOA	FORDVILLE LOAM, 0 TO 2 PERCENT SLOPES	FORDVILLE	100	3	3	0.24	4	48	
FOB	FORDVILLE LOAM, 2 TO 6 PERCENT SLOPES	FORDVILLE	100	3	3	0.24	4	48	
FRA	FORMAN-AASTAD LOAMS, 0 TO 2 PERCENT SLOPES	FORMAN	50	3	3	0.28	5	48	1/
		AASTAD	30	3	3	0.24	5	48	
FRB	FORMAN-AASTAD LOAMS, 2 TO 6 PERCENT SLOPES	FORMAN	50	3	3	0.28	5	48	1/
		AASTAD	30	3	3	0.24	5	48	
FRC	FORMAN-AASTAD LOAMS, 6 TO 9 PERCENT SLOPES	FORMAN	50	3	3	0.28	5	48	1/
		AASTAD	30	3	3	0.24	5	48	
FRD	FORMAN-AASTAD LOAMS, 9 TO 15 PERCENT SLOPES	FORMAN	50	3	2	0.28	5	48	1/2/
		AASTAD	30	3	3	0.24	5	48	
FSC2	FORMAN-BUSE LOAMS, 6 TO 9 PERCENT SLOPES, ERODED	FORMAN	50	3	2	0.28	5	48	1/
		BUSE	30	3	2	0.28	5	48	
FSE	FORMAN-BUSE LOAMS, 15 TO 25 PERCENT SLOPES	FORMAN	50	3	1	0.28	5	48	1/
		BUSE	30	3	1	0.28	5	48	
FTD	FORMAN-BUSE STONY COMPLEX, 6 TO 21 PERCENT SLOPES	FORMAN	50	3	2	0.28	5	48	1/
		BUSE STONY	30	3	2	0.2	5	48	
FXC	FORMAN-POINSETT COMPLEX, 6 TO 9 PERCENT SLOPES	FORMAN	50	3	2	0.28	5	48	1/
		POINSETT	30	3	2	0.32	5	48	
FXD	FORMAN-POINSETT COMPLEX, 9 TO 15 PERCENT SLOPES	FORMAN	50	3	2	0.28	5	48	1/
		POINSETT	30	3	2	0.32	5	48	
GBB	GREAT BEND SILT LOAM, 2 TO 6 PERCEN SLOPES	GREAT BEND	100	3	3	0.32	5	48	1/
GDA	GREAT BEND-BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES	GREAT BEND	50	3	3	0.32	5	48	1/
		BEOTIA	30	3	3	0.28	5	48	
GEB	GREAT BEND-ZELL SILT LOAMS, 2 TO 6 PERCENT SLOPES	GREAT BEND	50	3	3	0.28	5	48	1/
		ZELL	30	3	3	0.32	5	86	
GEC	GREAT BEND-ZELL SILT LOAMS, 6 TO 9 PERCENT SLOPES	GREAT BEND	50	3	2	0.28	5	48	
		ZELL	30	3	2	0.32	5	86	
HA	HAMAR LOAMY FINE SANDY	HAMAR	100	1	3	0.17	5	134	HY-2
HO	HAMAR FINE SANDY LOAM	HAMAR	100	3	3	0.2	5	86	HY-2
HEA	HARMONY-ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	HARMONY	50	3	3	0.28	5	38	1/
		ABERDEEN	30	3	3	0.32	3	38	
HFA	HECLA LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	HECLA	100	1	3	0.17	5	134	4/
HHA	HECLA-HAMAR LOAMY FINE SANDS, 0 TO 3 PERCENT SLOPES	HECLA	50	1	3	0.17	5	134	
		HAMAR	30	1	3	0.17	5	134	HY-2
HVB2	HECLA-VENLO COMPLEX, 0 TO 6 PERCENT SLOPES, ERODED	HECLA	50	1	3	0.17	5	134	

		VENLO	30	1	3	0.2	5	134	HY-3
KBE	KLOTEN-BUSE COMPLEX, 15 TO 40 PERCENT SLOPES	KLOTEN	50	3	1	0.32	2	48	
		BUSE	30	3	1	0.28	5	86	
KNA	KRANZBURG SILT LOAM, 0 TO 2 PERCENT SLOPES	KRANZBURG	100	3	3	0.32	5	48	1/
KNB	KRANZBURG SILT LOAM, 2 TO 6 PERCENT SLOPES	KRANZBURG	100	3	3	0.32	5	48	1/
KNC2	KRANZBURG SILT LOAM, 6 TO 9 PERCENT SLOPES, ERODED	KRANZBURG	100	3	2	0.32	5	48	
KRA	KRANZBURG-ABERDEEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	KRANZBURG	50	3	3	0.32	5	48	1/
		ABERDEEN	30	3	3	0.32	3	48	
KRB	KRANZBURG-ABERDEEN SILT LOAMS, 2 TO 6 PERCENT SLOPES	KRANZBURG	50	3	3	0.32	5	48	1/
		ABERDEEN	30	3	3	0.32	3	48	
LA	LAMOURE SILTY CLAY LOAM	LAMOURE	100	3	3	0.28	5	86	HY-1
LO	LAMY ALLUVIAL LAND	LOAMY ALLU	100	ER	ER			86	2/
LU	LUDDEN SILTY CLAY	LUDDEN	100	3	3	0.28	5	86	HY-1
MAB	MADDOCK LOAMY FINE SAND, 2 TO 6 PERCENT SLOPES	MADDOCK	100	1	3	0.17	5	134	
MAD	MADDOCK LOAMY FINE SAND, 6 TO 15 PERCENT SLOPES	MADDOCK	100	1	2	0.17	5	134	
MR	MARSH	MARSH	100	ER	ER			86	HY-4
OD	OLDHAM SILTY CLAY LOAM	OLDHAM	100	3	3	0.28	5	86	HY-3
OH	OLDHAM SILTY CLAY LOAM, SALINE	OLDHAM	100	3	3	0.28	5	86	HY-3
PA	PARNELL SILTY CLAY LOAM	PARNELL	100	3	3	0.28	5	38	HY-4
PEA	PEEVER CLAY LOAM, 0 TO 2 PERCENT SLOPES	PEEVER	100	3	3	0.28	5	48	1/
PEB	PEEVER CLAY LOAM, 2 TO 6 PERCENT SLOPES	PEEVER	100	3	2	0.28	5	48	1/
PEC	PEEVER CLAY LOAM, 6 TO 9 PERCENT SLOPES	PEEVER	100	3	2	0.28	5	48	
PHA	PEEVER-HAMERLY COMPLEX, 0 TO 2 PERCENT SLOPES	PEEVER	50	3	3	0.28	5	48	1/
		HAMERLY	30	3	3	0.28	5	86	
PM	PLAYMOOR SILTY CLAY LOAM	PLAYMOOR	100	3	3	0.28	5	86	HY-1
POB	POINSETT-FORMAN COMPLEX, 2 TO 6 PERCENT SLOPES	POINSETT	50	3	3	0.32	5	48	1/
		FORMAN	30	3	3	0.28	5	48	1/
PWA	POINSETT-WAUBAY SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	POINSETT	50	3	3	0.32	5	38	1/
		WAUBAY	30	3	3	0.28	5	38	
PWB	POINSETT-WAUBAY SILTY CLAY LOAMS, 2 TO 6 PERCENT SLOPES	POINSETT	50	3	3	0.32	5	38	1/
		WAUBAY	30	3	3	0.28	5	38	
RFA	RENSHAW-FORDVILLE LOAMS, 0 TO 3 PERCENT SLOPES	RENSHAW	50	3	3	0.28	3	48	
		FORDVILLE	30	3	3	0.24	4	48	
RFB	RENSHAW-FORDVILLE LOAMS, 3 TO 6 PERCENT SLOPES	RENSHAW	50	3	3	0.28	3	48	
		FORDVILLE	30	3	3	0.24	4	48	
RFC	RENSHAW-FORDVILLE LOAMS, 6 TO 9 PERCENT SLOPES	RENSHAW	50	3	2	0.28	3	48	
		FORDVILLE	30	3	2	0.24	4	48	
SA	SANDY LAKE BEACHES	SANDY LAKE	100	3	ER			134	
SDD2	SERDEN FINE SAND, 6 To 21 PERCENT SLOPES, ERODED	SERDEN	100	1	2	0.15	5	250	
SEB	SERDEN-VENLO COMPLEX, 0 TO 6 PERCENT SLOPES	SERDEN	50	1	3	0.15	5	250	
		VENLO	30	1	3	0.2	2	134	HY-3
SHD	SIECHE LOAM, 6 TO 15 PERCENT SLOPES	SIECHE	100	3	2	0.28	5	48	2/
SHF	SIECHE LOAM, 21 TO 50 PERCENT SLOPES	SIECHE	100	3	1	0.28	5	48	2/
SKA	SINAI SILTY CLAY, 0 TO 3 PERCENT SLOPES	SINAI	100	3	3	0.28	5	86	
SKB	SINAI SILTY CLAY, 3 TO 6 PERCENT SLOPES	SINAI	100	3	3	0.28	5	86	
SKC	SINAI SILTY CLAY, 6 TO 9 PERCENT SLOPES	SINAI	100	3	2	0.28	5	86	
SME	SIOUX-ARVILLA LOAMS, 15 TO 40 PERCENT SLOPES	SIOUX	50	3	1	0.28	2	56	
		ARVILLA	30	3	1	0.2	3	56	
SU	STIRUM-ULEN FINE SANDY LOAMS	STIRUM	50	1	3	0.24	3	86	HY-2
		ULEN	30	3	3	0.17	4	86	
SWA	SWENODA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	SWENODA	100	3	3	0.2	5	86	
SWB	SWENODA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	SWENODA	100	3	3	0.2	5	86	
SXA	SWENODA-LARSON COMPLEX, 0 TO 2 PERCENT SLOPES	SWENODA	50	3	3	0.2	5	86	
		LARSON	30	3	3	0.32	3	56	
TO	TONKA SILT LOAM	TONKA	100	3	3	0.32	5	48	HY-3
UF	ULEN FINE SANDY LOAM	ULEN	100	3	3	0.17	4	86	4/
US	ULEN-STIRUM FINE SANDY LOAMS	ULEN	50	3	3	0.17	4	86	
		STIRUM	30	1	3	0.24	3	86	HY-2
VA	VALLERS LOAM	VALLERS	100	3	3	0.28	5	86	HY-2
WA	WET ALLUVIAL LAND	WET ALLUVI	100	ER	ER			86	HY-1

Footnotes:

R = 85, C = 0.30
1= HIGHLY ERODIBLE, 2 = POTENTIALLY HIGHLY ERODIBLE, 3 = NOT HIGHLY ERODIBLE
HY = HYDRIC SOILS
ERROR = NOT RATED
1/ This map unit may have inclusions of hydric soils in depressions. PARNELL OR TONKA SOILS
2/ Along the channel are some areas of hydric soils
3/ This map unit may have inclusions of hydric soils in depressions. COLVIN SOILS
4/ This map unit may have inclusions of hydric soils in depressions. ARVESON SOILS
5/ This map unit may have inclusions of hydric soils in low areas. COLVIN, DOVRAY, OR PLAYMOOR SOILS