Appendix C: Definition of soil data codes

Element	Code	Code Name	Code Description
aashto	A-1	Group Classification A-1	Granular materials (35% or less passing No. 200), Stone Fragments, Gravel and Sand.
aashto	A-1-A	Group Classification A-1-A	
aashto	A-1-B	Group Classification A-1-B	
aashto	A-2	Group Classification A-2	Granular materials (35% or less passing No. 200), Silty, or Clayey Gravel and Sand.
aashto	A-2-4	Group Classification A-2-4	
aashto	A-2-5	Group Classification A-2-5	
aashto	A-2-6	Group Classification A-2-6	
aashto	A-2-7	Group Classification A-2-7	
aashto	A-3	Group Classification A-3	Granular materials (35% or less passing No. 200), Fine Sand.
aashto	A-4	Group Classification A-4	Silt-ClayMaterials (more than 35% passing No. 200), Silty Soils.
aashto	A-5	Group Classification A-5	Silt-ClayMaterials (more than 35% passing No. 200), Silty Soils.
aashto	A-6	Group Classification A-6	Silt-ClayMaterials (more than 35% passing No. 200), Clayey Soils.
aashto	A-7	Group Classification A-7	Silt-ClayMaterials (more than 35% passing No. 200), Clayey Soils.
aashto	A-7-5	Group Classification A-7-5	
aashto	A-7-6	Group Classification A-7-6	
aashto	A-8	Group Classification A-8	
cl	1	Capability	Class - I Soils in Class I have few limitations that restrict their use.
cl	2	Capability	Class - II Soils in Class II have some limitations that reduce the choice of plants or require moderate conservation practices.
cl	3	Capability	Class - III Soils in Class III have severe limitations that reduce the choice of plants or require special conservation practices, or both.

Element	Code	Code Name	Code Description
cl	4	Capability	Class - IV Soils in Class IV have very severe limitations that restrict the choice of plants, require very careful management, or both.
cl	5	Capability	Class - V Soils in Class V have little or no erosion hazard but have other limitations impractical remove that limit their use.
cl	6	Capability	Class - VI Soils in Class VI have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, etc.
cl	7	Capability	Class - VII Soils in Class VII have very severe limitations that make them unsuited to cultivation and that restrict their use to grazing, etc.
cl	8	Capability	Class - VIII Soils (and landforms) in Class VIII have limitations that preclude their use for commercial plant production and restrict their use.
compkind	F	Family	
compkind	G	Taxon above family	
compkind	M	Miscellaneous area	
compkind	S	Series	
compkind	T	Taxadjunct	
compkind	V	Variant	
drainage	E	Excessively	Soils have very high and high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.
drainage	MW	Moderately well	Soils have a layer of low hydraulic conductivity, wet state high in the profile. Depth to water table is 3 to 6 feet.
drainage	P	Poorly	Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.
drainage	SE	Somewhat excessively	Soils have high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.
drainage	SP	Somewhat poorly	Soils commonly have a layer with low hydraulic conductivity, wet state high in profile, etc. Depth to water table is 1 to 3 feet.
drainage	VP	Very poorly	Soils are wet to the surface most of the time. Depth to water table is less than 1 foot, or is ponded.
drainage	W	Well	Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Element	Code	Code Name	Code Description
fips	AK	02	
fips	AL	01	
fips	AR	05	
fips	AZ	04	
fips	CA	06	
fips	CO	08	
fips	CT	09	
fips	DE	10	
fips	FL	12	
fips	GA	13	
fips	HI	15	
fips	IA	19	
fips	ID	16	
fips	IL	17	
fips	IN	18	
fips	KS	20	
fips	KY	21	
fips	LA	22	
fips	MA	25	
fips	MD	24	
fips	ME	23	
fips	MI	26	
fips	MN	27	
fips	MNTC	63	
fips	MO	29	
fips	MS	28	
fips	MT	30	
fips	NC	37	
fips	ND	38	
fips	NE	31	
fips	NENTC	61	
fips	NH	33	
fips	NJ	34	
fips	NM	35	
fips	NV	32	
fips	NY	36	
fips	OH	39	
fips	OK	40	
fips	OR	41	
fips	PA	42	
fips	PR	72	
fips	RI	44	
fips	SC	45	
fips	SD	46	
fips	SNTC	62	
fips	TN	47	
fips	TX	48	
fips	UT	49	
fips	VA	51	
fips	VT	50	
fips	WA	53	
fips	WI	55	
fips	WNTC	64	
fips	WV	54	
fips	WY	56	

Element	Code	Code Name	Code Description
flodur	BRIEF	Brief	Flood Duration Class - Brief — Average duration of inundation per flood is 2 to 7 days.
flodur	LONG	Long	Flood Duration Class - Long — Average duration of inundation per flood is 7 days to 1 month.
flodur	VERY BRIEF	Very brief	Flood Duration Class - Very brief — Average duration of inundation per flood is less than 2 days.
flodur	VERY LONG	Very long	Flood Duration Class - Very long — Average duration of inundation per flood is more than 1 month.
flofreq	COMM	Common Frequency	Class - Common — Is OCCAS/FREQ
flofreq	FREQ	Frequent Frequency	Class - Frequent — Flooding islikely to occur often, more than 50 percent chance of flooding in any year (at least 50 times in 100 years).
flofreq	NONE	None Frequency	Class - None — Flooding is not likely to occur.
flofreq	OCCAS	Occasional Frequency	Class - Occasional — Flooding is expected infrequently, 5 to 50 percent chance of flooding in any year (5 to 50 times in 100 years).
flofreq	RARE	Rare Frequency	Class - Rare — Flooding unlikely but possible, 0 to 5 percent chance of flooding in any year (0 to 5 time in 100 years).
flood	FREQ	Frequent Frequency	Class - Frequent (Hydric Only) — Flooding is likely to occur often, more than 50 percent chance of flooding in any year (at least 50 times in 100 years).
flood	NONE	None Frequency	Class - None (Hydric Only) — Flooding is not likely to occur.
flood	OCCAS	Occasional	Flooding is expected infrequently, 5 to 50 percent chance of floodind in any year (5 to 50 times in 100 years).
flood	RARE	Rare	Frequency Class - Rare (Hydric Only) — Flooding unlikely but possible, 0 to 5 percent chance of flooding in any year (0 to 5 time in 100 years).
frostact	HIGH	High	
frostact	LOW	Low	
frostact	MODERATE	Moderate	

Element	Code	Code Name	Code Description
grpcode	—	Null value indicator	
grpcode	1	Septic tank absorption fields	
grpcode	10	Local roads and streets	
grpcode	11	Lawns, landscaping, and golf fairways	
grpcode	12	Roadfill	
grpcode	13	Sand	
grpcode	14	Gravel	
grpcode	15	Topsoil	
grpcode	16	Pond reservoir area	
grpcode	17	Embankments, dikes, and levees	
grpcode	18	Aquifer-fed excavated ponds	
grpcode	19	Drainage	
grpcode	2	Sewage lagoons	
grpcode	20	Irrigation	
grpcode	21	Terraces and diversions	
grpcode	22	Grassed waterways	
grpcode	23	Camp areas	
grpcode	24	Picnic areas	
grpcode	25	Playgrounds	
grpcode	26	Paths and trails	
grpcode	3	Trench sanitary landfill	
grpcode	4	Area sanitary landfill	
grpcode	5	Daily cover for landfill	
grpcode	6	Shallow excavations	
grpcode	7	Dwellings without basements	
grpcode	8	Dwellings with basements	
grpcode	9	Small commercial buildings	
grtgroup	AAQAL	Albaqualfs	
grtgroup	AAQDU	Duraqualfs	
grtgroup	AAQEN	Endoaqualfs	
grtgroup	AAQEP	Epiaqualfs	
grtgroup	AAQFR	Fragiaqualfs	
grtgroup	AAQGL	Glossaqualfs	
grtgroup	AAQKA	Kandiaqualfs	
grtgroup	AAQNA	Natraqualfs	
grtgroup	AAQOC	Ochraqualfs	
grtgroup	AAQPN	Plinthaqualfs	
grtgroup	AAQTR	Tropaqualfs	
grtgroup	AAQUM	Umbraqualfs	
grtgroup	ABOCR	Cryoboralfs	
grtgroup	ABOEU	Eutroboralfs	
grtgroup	ABOFR	Fragiboralfs	
grtgroup	ABOGL	Glossoboralfs	
grtgroup	ABONA	Natriboralfs	
grtgroup	ABOPA	Paleboralfs	
grtgroup	AUDAG	Agrudalfs	
grtgroup	AUDFE	Ferrudalfs	
grtgroup	AUDFR	Fragiudalfs	
grtgroup	AUDFS	Fraglossudalfs	
grtgroup	AUDGL	Glossudalfs	
grtgroup	AUDHA	Hapludalfs	
grtgroup	AUDKA	Kandiudalfs	

Element	Code	Code Name	Code Description
grtgroup	AUDKH	Kanhapludalfs	
grtgroup	AUDNA	Natrudalfs	
grtgroup	AUDPA	Paleudalfs	
grtgroup	AUDRH	Rhodudalfs	
grtgroup	AUDTR	Tropudalfs	
grtgroup	AUSDU	Durustalfs	
grtgroup	AUSHA	Haplustalfs	
grtgroup	AUSKA	Kandiustalfs	
grtgroup	AUSKH	Kanhaplustalfs	
grtgroup	AUSNA	Natrustalfs	
grtgroup	AUSPA	Paleustalfs	
grtgroup	AUSPN	Plinthustalfs	
grtgroup	AUSRH	Rhodustalfs	
grtgroup	AXEDU	Durixeralfs	
grtgroup	AXEFR	Fragixeralfs	
grtgroup	AXEHA	Haploxeralfs	
grtgroup	AXENA	Natrixeralfs	
grtgroup	AXEPA	Palexeralfs	
grtgroup	AXEPN	Plinthoxeralfs	
grtgroup	AXERH	Rhodoxeralfs	
grtgroup	CAQCR	Cryaquands	
grtgroup	CAQDU	Duraquands	
grtgroup	CAQEN	Endoaquands	
grtgroup	CAQEP	Epiaquands	
grtgroup	CAQHA	Haplaquands	
grtgroup	CAQME	Melanaquands	
grtgroup	CAQPK	Placaquands	
grtgroup	CAQVI	Vitraquands	
grtgroup	CCRFU	Fulvicryands	
grtgroup	CCRGE	Gelicryands	
grtgroup	CCRHA	Haplocryands	
grtgroup	CCRHY	Hydrocryands	
grtgroup	CCRME	Melanocryands	
grtgroup	CCRVI	Vitricryands	
grtgroup	CTOVI	Vitritorrands	
grtgroup	CUDDU	Durudands	
grtgroup	CUDFU	Fulvudands	
grtgroup	CUDHA	Hapludands	
grtgroup	CUDHY	Hydrudands	
grtgroup	CUDME	Melanudands	
grtgroup	CUDPK	Placudands	
grtgroup	CUSDU	Durustands	
grtgroup	CUSHA	Haplustands	
grtgroup	CVIUD	Udivitrands	
grtgroup	CVIUS	Ustivitrands	
grtgroup	CXEHA	Haploxerands	
grtgroup	CXEME	Melanoxerands	
grtgroup	CXEVI	Vitrixerands	
grtgroup	DARDU	Durargids	
grtgroup	DARHA	Haplargids	
grtgroup	DARND	Nadurargids	
grtgroup	DARNT	Natrargids	
grtgroup	DARPA	Paleargids	
grtgroup	DORCL	Calciorthids	
grtgroup	DORCM	Camborthids	

Element	Code	Code Name	Code Description
grtgroup	DORDU	Durorthids	
grtgroup	DORGY	Gypsiorthids	
grtgroup	DORPA	Paleorthids	
grtgroup	DORSA	Salorthids	
grtgroup	EAQCR	Cryaquents	
grtgroup	EAQEN	Endoaquents	
grtgroup	EAQEP	Epiaquents	
grtgroup	EAQFL	Fluvaquents	
grtgroup	EAQHA	Haplaquents	
grtgroup	EAQHY	Hydraquents	
grtgroup	EAQPS	Psammaquents	
grtgroup	EAQSU	Sulfaquents	
grtgroup	EAQTR	Tropaquents	
grtgroup	EARTO	Torriarents	
grtgroup	EARUD	Udarents	
grtgroup	EARUS	Ustarents	
grtgroup	EARXE	Xerarents	
grtgroup	EFLCR	Cryofluvents	
grtgroup	EFLTO	Torrifluvents	
grtgroup	EFLTR	Tropofluvents	
grtgroup	EFLUD	Udifluvents	
grtgroup	EFLUS	Ustifluvents	
grtgroup	EFLXE	Xerofluvents	
grtgroup	EORCR	Cryorthents	
grtgroup	EORTO	Torriorthents	
grtgroup	EORTR	Troporthents	
grtgroup	EORUD	Udorthents	
grtgroup	EORUS	Ustorthents	
grtgroup	EORXE	Xerorthents	
grtgroup	EPSCR	Cryopsamments	
grtgroup	EPSQU	Quartzipsamments	
grtgroup	EPSTO	Torripsamments	
grtgroup	EPSTR	Tropopsamments	
grtgroup	EPSUD	Udipsamments	
grtgroup	EPSUS	Ustipsamments	
grtgroup	EPSXE	Xeropsamments	
grtgroup	HFIBO	Borofibrists	
grtgroup	HFICR	Cryofibrists	
grtgroup	HFILU	Luvifibrists	
grtgroup	HFIME	Medifibrists	
grtgroup	HFISP	Sphagnofibrists	
grtgroup	HFITR	Tropofibrists	
grtgroup	HFOBO	Borofolists	
grtgroup	HFOCR	Cryofolists	
grtgroup	HFOME	Medifolists	
grtgroup	HFOTR	Tropofolists	
grtgroup	HHEBO	Borohemists	
grtgroup	HHECR	Cryohemists	
grtgroup	HHELU	Luvihemists	
grtgroup	HHEME	Medihemists	
grtgroup	HHESI	Sulfihemists	
grtgroup	HHESO	Sulfohemists	
grtgroup	HHETR	Tropohemists	
grtgroup	HSABO	Borosaprists	
grtgroup	HSACR	Cryosaprists	

Element	Code	Code Name	Code Description
grtgroup	HSAME	Medisaprists	
grtgroup	HSASI	Sulfisaprists	
grtgroup	HSASO	Sulfosaprists	
grtgroup	HSATR	Troposaprists	
grtgroup	IANCR	Cryandepts	
grtgroup	IANDU	Durandepts	
grtgroup	IANDY	Dystrandepts	
grtgroup	IANEU	Eutrandepts	
grtgroup	IANHY	Hydrandepts	
grtgroup	IANPK	Placandepts	
grtgroup	IANVI	Vitrandepts	
grtgroup	IAQAN	Andaquepts	
grtgroup	IAQCR	Cryaquepts	
grtgroup	IAQEN	Endoaquepts	
grtgroup	IAQEP	Epiaquepts	
grtgroup	IAQFR	Fragiaquepts	
grtgroup	IAQHL	Halaquepts	
grtgroup	IAQHP	Haplaquepts	
grtgroup	IAQHU	Humaquepts	
grtgroup	IAQPK	Placaquepts	
grtgroup	IAQPN	Plinthaquepts	
grtgroup	IAQSU	Sulfaquepts	
grtgroup	IAQTR	Tropaquepts	
grtgroup	IOCCR	Cryochrepts	
grtgroup	IOCDU	Durochrepts	
grtgroup	IOCDY	Dystrochrepts	
grtgroup	IOCEU	Eutrochrepts	
grtgroup	IOCFR	Fragiochrepts	
grtgroup	IOCSU	Sulfochrepts	
grtgroup	IOCUS	Ustochrepts	
grtgroup	IOCXE	Xerochrepts	
grtgroup	IPLPL	Plaggepts	
grtgroup	ITRDY	Dystropepts	
grtgroup	ITREU	Eutropepts	
grtgroup	ITRHU	Humitropepts	
grtgroup	ITRSO	Sombritropepts	
grtgroup	ITRUS	Ustropepts	
grtgroup	IUMCR	Cryumbrepts	
grtgroup	IUMFR	Fragiumbrepts	
grtgroup	IUMHA	Haplumbrepts	
grtgroup	IUMXE	Xerumbrepts	
grtgroup	MALAR	Argialbolls	
grtgroup	MALNA	Natralbolls	
grtgroup	MAQAR	Argiaquolls	
grtgroup	MAQCA	Calciaquolls	
grtgroup	MAQCR	Cryaquolls	
grtgroup	MAQDU	Duraquolls	
grtgroup	MAQEN	Endoaquolls	
grtgroup	MAQEP	Epiaquolls	
grtgroup	MAQHA	Haplaquolls	
grtgroup	MAQNA	Natraquolls	
grtgroup	MBOAR	Argiborolls	
grtgroup	MBOCA	Calciborolls	
grtgroup	MBOCR	Cryoborolls	
grtgroup	MBOHA	Haploborolls	

Element	Code	Code Name	Code Description
grtgroup	MBONA	Natriborolls	
grtgroup	MBOPA	Paleborolls	
grtgroup	MBOVE	Vermiborolls	
grtgroup	MRERE	Rendolls	
grtgroup	MUDAR	Argiudolls	
grtgroup	MUDCA	Calciudolls	
grtgroup	MUDHA	Hapludolls	
grtgroup	MUDPA	Paleudolls	
grtgroup	MUDVE	Vermudolls	
grtgroup	MUSAR	Argiustolls	
grtgroup	MUSCA	Calciustolls	
grtgroup	MUSDU	Durustolls	
grtgroup	MUSHA	Haplustolls	
grtgroup	MUSNA	Natrustolls	
grtgroup	MUSPA	Paleustolls	
grtgroup	MUSVE	Vermustolls	
grtgroup	MXEAR	Argixerolls	
grtgroup	MXECA	Calcixerolls	
grtgroup	MXEDU	Durixerolls	
grtgroup	MXEHA	Haploxerolls	
grtgroup	MXENA	Natrixerolls	
grtgroup	MXEPA	Palexerolls	
grtgroup	OAQAC	Acraquox	
grtgroup	OAQEU	Eutraquox	
grtgroup	OAQGI	Gibbsiaquox	
grtgroup	OAQHA	Haplaquox	
grtgroup	OAQOC	Ochraquox	
grtgroup	OAQPN	Plinthaquox	
grtgroup	OAQUM	Umbraquox	
grtgroup	OHUAC	Acrohumox	
grtgroup	OHUGI	Gibbsihumox	
grtgroup	OHUHA	Haplohumox	
grtgroup	OHUSO	Sombrihumox	
grtgroup	OORAC	Acrorthox	
grtgroup	OOREU	Eutrorthox	
grtgroup	OORGI	Gibbsiorthox	
grtgroup	OORHA	Haplorthox	
grtgroup	OORSO	Sombriorthox	
grtgroup	OORUM	Umbriorthox	
grtgroup	OPRAC	Acroperox	
grtgroup	OPREU	Eutroperox	
grtgroup	OPRHA	Haploperox	
grtgroup	OPRKA	Kandiperox	
grtgroup	OPRSO	Sombriperox	
grtgroup	OTOAC	Acrotorrox	
grtgroup	OTOEU	Eutrotorrox	
grtgroup	OTOHA	Haplotorrox	
grtgroup	OTOTO	Torrox	
grtgroup	OUDAC	Acrudox	
grtgroup	OUDEU	Eutrudox	
grtgroup	OUDHA	Hapludox	
grtgroup	OUDKA	Kandiudox	
grtgroup	OUDSO	Sombriudox	
grtgroup	OUSAC	Acrustox	
grtgroup	OUSEU	Eutrustox	

Element	Code	Code Name	Code Description
grtgroup	OUSHA	Haplustox	
grtgroup	OUSKA	Kandiustox	
grtgroup	OUSSO	Sombriustox	
grtgroup	SAQA2	Alaquods	
grtgroup	SAQCR	Cryaquods	
grtgroup	SAQDU	Duraquods	
grtgroup	SAQEN	Endoaquods	
grtgroup	SAQEP	Epiaquods	
grtgroup	SAQFR	Fragiaquods	
grtgroup	SAQHA	Haplaquods	
grtgroup	SAQPK	Placaquods	
grtgroup	SAQSI	Sideraquods	
grtgroup	SAQTR	Tropaquods	
grtgroup	SCRDU	Duricryods	
grtgroup	SCRHA	Haplocryods	
grtgroup	SCRHU	Humicryods	
grtgroup	SCRPK	Placocryods	
grtgroup	SFEFE	Ferrods	
grtgroup	SHUCR	Cryohumods	
grtgroup	SHUDU	Durihumods	
grtgroup	SHUFR	Fragihumods	
grtgroup	SHUHA	Haplohumods	
grtgroup	SHUPK	Placohumods	
grtgroup	SHUTR	Tropohumods	
grtgroup	SORA2	Alorthods	
grtgroup	SORCR	Cryorthods	
grtgroup	SORDU	Durorthods	
grtgroup	SORFR	Fragiorthods	
grtgroup	SORHA	Haplorthods	
grtgroup	SORPK	Placorthods	
grtgroup	SORTR	Troporthods	
grtgroup	UAQAL	Albaquults	
grtgroup	UAQEN	Endoaquults	
grtgroup	UAQEP	Epiaquults	
grtgroup	UAQFR	Fragiaquults	
grtgroup	UAQKA	Kandiaquults	
grtgroup	UAQKH	Kanhaplaquults	
grtgroup	UAQOC	Ochraquults	
grtgroup	UAQPA	Paleaquults	
grtgroup	UAQPN	Plinthaquults	
grtgroup	UAQTR	Tropaquults	
grtgroup	UAQUM	Umbraquults	
grtgroup	UHUHA	Haplohumults	
grtgroup	UHUKA	Kandihumults	
grtgroup	UHUKH	Kanhaplohumults	
grtgroup	UHUPA	Palehumults	
grtgroup	UHUPN	Plinthohumults	
grtgroup	UHUSO	Sombrihumults	
grtgroup	UHUTR	Tropohumults	
grtgroup	UUDFR	Fragiudults	
grtgroup	UUDHA	Hapludults	
grtgroup	UUDKA	Kandiudults	
grtgroup	UUDKH	Kanhapludults	
grtgroup	UUDPA	Paleudults	
grtgroup	UUDPN	Plinthudults	

Element	Code	Code Name	Code Description
grtgroup	UUDRH	Rhodudults	
grtgroup	UUDTR	Tropudults	
grtgroup	UUSHA	Haplustults	
grtgroup	UUSKA	Kandiustults	
grtgroup	UUSKH	Kanhaplustults	
grtgroup	UUSPA	Paleustults	
grtgroup	UUSPN	Plinthustults	
grtgroup	UUSRH	Rhodustults	
grtgroup	UXEHA	Haploxerults	
grtgroup	UXEPA	Palexerults	
grtgroup	VAQCA	Calciaquerts	
grtgroup	VAQDU	Duraquerts	
grtgroup	VAQDY	Dystraquerts	
grtgroup	VAQEN	Endoaquerts	
grtgroup	VAQEP	Epiaquerts	
grtgroup	VAQNA	Natraquerts	
grtgroup	VAQSA	Salaquerts	
grtgroup	VCRHA	Haplocryerts	
grtgroup	VCRHU	Humicryerts	
grtgroup	VTOCA	Calcitorrerts	
grtgroup	VTOGY	Gypsitorrerts	
grtgroup	VTOHA	Haplotorrerts	
grtgroup	VTOSA	Salitorrerts	
grtgroup	VTOTO	Torrerts	
grtgroup	VUDCH	Chromuderts	
grtgroup	VUDDY	Dystruderts	
grtgroup	VUDHA	Hapluderts	
grtgroup	VUDPE	Pelluderts	
grtgroup	VUSCA	Calciusterts	
grtgroup	VUSCH	Chromusterts	
grtgroup	VUSDY	Dystrusterts	
grtgroup	VUSGY	Gypsiusterts	
grtgroup	VUSHA	Haplusterts	
grtgroup	VUSPE	Pellusterts	
grtgroup	VUSSA	Salusterts	
grtgroup	VXECA	Calcixererts	
grtgroup	VXECH	Chromoxererts	
grtgroup	VXEDU	Durixererts	
grtgroup	VXEHA	Haploxererts	
grtgroup	VXEPE	Pelloxererts	
hydgrp	A	Hydrology	Class - A High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.
hydgrp	A/D	Hydrology	Class - A/D Drained/undrained hydrologyclass of soils that can be drained and are classified
hydgrp	B	Hydrology	Class - B Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
hydgrp	B/D	Hydrology	Class - B/D Drained/undrained hydrology class of soils that can be drained and are classified

Element	Code	Code Name	Code Description
ydgrp	C	Hydrology	Class - C Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
hydgrp	C/D	Hydrology	Class - C/D Drained/undrained hydrology class of soils that can be drained and classified
hydgrp	D	Hydrology	Class - D Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
hydric	N	No	Soil does not meet the requirements for a hydric soil.
hydric	U	Unranked	Soil has not been ranked with hydric criteria.
hydric	Y	Yes	Soil meets the requirements for a hydric soil.
kfact	.02		
kfact	.05		
kfact	.1		
kfact	.10		
kfact	.15		
kfact	.17		
kfact	.2		
kfact	.20		
kfact	.24		
kfact	.28		
kfact	.32		
kfact	.37		
kfact	.43		
kfact	.49		
kfact	.55		
kfact	.64		
kfact	0.02		
kfact	0.05		
kfact	0.10		
kfact	0.15		
kfact	0.17		
kfact	0.20		
kfact	0.24		
kfact	0.28		
kfact	0.32		
kfact	0.37		
kfact	0.43		
kfact	0.49		
kfact	0.55		
kfact	0.64		
minalogy	01	unclassified	
minalogy	02	not used	
minalogy	03	allitic	
minalogy	04	calcareous	
minalogy	05	carbonatic	
minalogy	07	clastic	
minalogy	08	coprogenous	

Element	Code	Code Name	Code Description
minalogy	09	chloritic	
minalogy	10	diatomaceous	
minalogy	12	ferrihumic	
minalogy	14	ferritic	
minalogy	16	ferruginous	
minalogy	18	gibbsitic	
minalogy	20	glauconitic	
minalogy	22	gypsic	
minalogy	24	halloysitic	
minalogy	26	illitic	
minalogy	27	illitic (calcareous)	
minalogy	28	kaolinitic	
minalogy	30	marly	
minalogy	32	micaceous	
minalogy	33	micaceous (calcareous)	
minalogy	34	mixed	
minalogy	35	mixed (calcareous)	
minalogy	37	montmorillonitic	
minalogy	38	montmorillonitic (calcareous)	
minalogy	40	oxidic	
minalogy	42	sepiolitic	
minalogy	44	serpentinitic	
minalogy	46	siliceous	
minalogy	47	siliceous (calcareous)	
minalogy	48	sesquic	
minalogy	50	vermiculitic	
minalogy	51	vermiculitic (calcareous)	
mlra	1	Northern Pacific Coast Range, foothills, and Valleys	
mlra	10	Upper Snake River Lava Plains and Hills	
mlra	100	Erie Fruit and Truck Area	
mlra	101	Ontario Plain and Finger Lakes Region	
mlra	102A	Rolling Till Prairie	
mlra	102B	Loess Upland and Till Plains	
mlra	103	Central Iowa and Minnesota Till Prairies	
mlra	104	Eastern Iowa and Minnesota Till Prairies	
mlra	105	Northern Mississippi Valley Loess Hills	
mlra	106	Nebraska and Kansas Loess-Drift Hills	

Element	Code	Code Name	Code Description
mlra	107	Iowa and Missouri Deep Loess Hills	
mlra	108	Illinois and Iowa Deep Loess and Drift	
mlra	108A	Illinois and Iowa Deep Loess and Drift, Eastern Part (proposed)	
mlra	108B	Illinois and Iowa Deep Loess and Drift, East Central Part (proposed)	
mlra	108C	Illinois and Iowa Deep Loess and Drift, West Central Part (proposed)	
mlra	108D	Illinois and Iowa Deep Loess and Drift, Western Part (proposed)	
mlra	109	Iowa and Missouri Heavy Till Plain	
mlra	10A	Big and Little Wood River Footslopes and Plains (proposed)	
mlra	11	Snake River Plains	
mlra	110	Northern Illinois and Indiana Heavy Till Plain	
mlra	111	Indiana and Ohio Till Plain	
mlra	112	Cherokee Prairies	
mlra	113	Central Claypan Areas	
mlra	114	Southern Illinois and Indiana Thin Loess and Till Plain	
mlra	115	Central Mississippi Valley Wooded Slopes	
mlra	115A	Central Mississippi Valley Wooded Slopes, Eastern Part (proposed)	
mlra	115B	Central Mississippi Valley Wooded Slopes, Southern Part (proposed)	

Element	Code	Code Name	Code Description
mlra	115C	Central Mississippi Valley Wooded Slopes, Northern Part (porposed)	
mlra	116A	Ozark Highland	
mlra	116B	Ozark Border	
mlra	117	Boston Mountains	
mlra	118	Arkansas Valley and Ridges	
mlra	118A	Arkansas Valley and Ridges, Eastern Part (proposed)	
mlra	118B	Arkansas Valley and Ridges, Western Part (proposed)	
mlra	119	Ouachita Mountains	
mlra	11A	Central Snake River Plains (proposed)	
mlra	11B	Upper Snake River Plains (proposed)	
mlra	12	Lost River Valleys and Mountains	
mlra	120	Kentucky and Indiana Sandstone and Shale Hills and Valleys	
mlra	121	Kentucky Bluegrass	
mlra	122	Highland Rim and Pennyroyal	
mlra	123	Nashville Basin	
mlra	124	Western Allegheny Plateau	
mlra	125	Cumberland Plateau and Mountains	
mlra	126	Central Allegheny Plateau	
mlra	127	Eastern Allegheny Plateau and Mountains	
mlra	128	Southern Appalachian Ridges and Valleys	
mlra	129	Sand Mountain	
mlra	13	Eastern Idaho Plateaus	

Element	Code	Code Name	Code Description
mlra	130	Blue Ridge	
mlra	131	Southern Mississippi Valley Alluvium	
mlra	133A	Southern Coastal Plain	
mlra	133B	Western Coastal Plain	
mlra	134	Southern Mississippi Valley Silty Uplands	
mlra	135	Alabama, Mississippi, and Arkansas Blackland Prairies	
mlra	136	Southern Piedmont	
mlra	137	Carolina and Georgia Sand Hills	
mlra	138	North-Central Florida Ridge	
mlra	139	Eastern Ohio Till Plain	
mlra	14	Central California Coastal Valleys	
mlra	140	Glaciated Allegheny Plateau and Catskill Mountains	
mlra	141	Tughill Plateau	
mlra	142	St. Lawrence-Champlain Plain	
mlra	143	Northeastern Mountains	
mlra	144A	New England and Eastern New York Upland, Southern Part	
mlra	144B	New England and Eastern New York Upland, Northern Part	
mlra	145	Connecticut Valley	
mlra	146	Aroostock Area	
mlra	147	Northern Appalachain Ridges and Valleys	
mlra	148	Northern Piedmont	
mlra	149A	Northern Coastal Plain	
mlra	149B	Long Island-Cape Cod Coastal Lowland	

Element	Code	Code Name	Code Description
mlra	15	Central California Coast Range	
mlra	150A	Gulf Coast Prairies	
mlra	150B	Gulf Coast Saline Prairies	
mlra	151	Gulf Coast Marsh	
mlra	152A	Eastern Gulf Coast Flatwoods	
mlra	152B	Western Gulf Coast Flatwoods	
mlra	153A	Atlantic Coast Flatwoods	
mlra	153B	Tidewater Area	
mlra	153C	Mid-Atlantic Coastal Plain	
mlra	154	South-Central Florida Ridge	
mlra	155	Southern Florida Flatwoods	
mlra	156A	Florida Everglades and Associated Areas	
mlra	156B	Southern Florida Lowlands	
mlra	157	Arid and Semiarid Low Mountain Slopes	
mlra	158	Semiarid and Subhumid Low Mountain Slopes	
mlra	159	Humid and Very Humid Low and Intermediate Mountain Slopes	
mlra	16	California Delta	
mlra	160	Subhumid and Humid Intermediate and High Mountain Slopes	
mlra	161	Lava Flows and Rock Outcrops	
mlra	162	Very Humid Areas on East and West Maui Mountains, Kohala Mountains, and Mount Waialeale	
mlra	163	Alluvial Fans and Coastal Plains	
mlra	164	Rough Mountainous Lands	

Element	Code	Code Name	Code Description
mlra	165	Subhumid Intermediate Mountain Slopes	
mlra	166	Very Stony Land and Rock Land	
mlra	167	Humid Low and Intermediate Mountain Slopes	
mlra	168	Southeastern Alaska	
mlra	169	South-Central Alaska Mountains	
mlra	17	Sacramento and San Joaquin Valleys	
mlra	170	Cook Inlet-Susitna Lowland	
mlra	171	Alaska Peninsula and Southwestern Islands	
mlra	172	Cooper River Plateau	
mlra	173	Alaska Range	
mlra	174	Interior Alaska Lowlands	
mlra	175	Kuskokwim Highlands	
mlra	176	Interior Alaska Highlands	
mlra	177	Norton Sound Highlands	
mlra	178	Western Alaska Coastal Plains and Deltas	
mlra	179	Bering Sea Islands	
mlra	18	Sierra Nevada Foothills	
mlra	180	Brooks Range	
mlra	181	Arctic Foothills	
mlra	182	Arctic Coastal Plains	
mlra	19	Southern California Coastal Plain	
mlra	190	Ponape (proposed)	Pacific Basin Area
mlra	191	Kosrae (proposed)	Pacific Basin Area
mlra	192	Marshall Islands (proposed)	Pacific Basin Area

Element	Code	Code Name	Code Description
mlra	193	Truk (proposed)	Pacific Basin Area
mlra	194	Yap (proposed)	Pacific Basin Area
mlra	195	Palau (proposed)	Pacific Basin Area
mlra	196	Tutuila, Aunu'u (proposed)	Pacific Basin Area
mlra	197	Tau (proposed)	Pacific Basin Area
mlra	198	Ofu, Olosega (proposed)	Pacific Basin Area
mlra	199	Northern Guam (proposed)	Pacific Basin Area
mlra	2	Willamette and Puget Sound Valleys	
mlra	20	Southern California Mountains	
mlra	200	Southern Guam (proposed)	Pacific Basin Area
mlra	201	Saipan (proposed)	Pacific Basin Area
mlra	202	Aguijan, Tinian (proposed)	Pacific Basin Area
mlra	203	Rota (proposed)	Pacific Basin Area
mlra	21	Klamath and Shasta Valleys and Basins	
mlra	22	Sierra Nevada Range	
mlra	23	Malheur High Plateau	
mlra	24	Humboldt Area	
mlra	25	Owyhee High Plateau	
mlra	26	Carson Basin and Mountains	
mlra	27	Fallon-Lovelock Area	
mlra	270	Humid Mountains and Valleys (proposed)	
mlra	271	Semiarid Mountains and Valleys (proposed)	
mlra	272	Humid Coastal Plains (proposed)	
mlra	273	Semiarid Coastal Plains (proposed)	
mlra	28A	Great Salt Lake Area	

Element	Code	Code Name	Code Description
mlra	28B	Central Nevada Basin And Range	
mlra	29	Southern Nevada Basin and Range	
mlra	3	Olympic and Cascade Mountains	
mlra	30	Sonoran Basin and Range	
mlra	31	Imperial Valley	
mlra	32	Northern Intermountai Desertic Basins	
mlra	33	Semiarid Rocky Mountains	
mlra	34	Central Desertic Basins, Mountains, and Plateaus	
mlra	35	Colorado and Green River Plateaus	
mlra	36	New Mexico and Arizona Plateaus and Mesas	
mlra	36A	Western Mesas, Plateaus and Basins (proposed)	
mlra	36B	Western Plateaus and Plains (proposed)	
mlra	37	San Juan River Valley Mesas and Plateaus	
mlra	39	Arizona and New Mexico Mountains	
mlra	4	California Coastal Redwood Belt	
mlra	40	Central Arizona Basin and Range	
mlra	41	Southeastern Arizona Basin and Range	
mlra	42	Southern Desertic Basins, Plains, and Mountains	
mlra	42A	Southern Desert Rio Grande Central Basin (proposed)	

Element	Code	Code Name	Code Description
mlra	42B	Southern Desert Basin and Range (proposed)	
mlra	42C	Southern Desert Pecos Basin (proposed)	
mlra	43	Northern Rocky Mountains	
mlra	44	Northern Rocky Mountain Valleys	
mlra	46	Northern Rocky Mountain Foothills	
mlra	47	Wasatch and Uinta Mountains	
mlra	48A	Southern Rocky Mountains	
mlra	48B	Southern Rocky Mountain Parks	
mlra	49	Southern Rocky Mountain Foothills	
mlra	5	Siskiyou-Trinity Area	
mlra	51	High Intermountain Valleys	
mlra	52	Brown Glaciated Plain	
mlra	53A	Northern Dark Brown Glaciated Plains	
mlra	53B	Central Dark Brown Glaciated Plains	
mlra	53C	Southern Dark Brown Glaciated Plains	
mlra	54	Rolling Soft Shale Plain	
mlra	55A	Northern Black Glaciated Plains	
mlra	55B	Central Black Glaciated Plains	
mlra	55C	Southern Black Glaciated Plains	
mlra	56	Red River Valley of the North	
mlra	57	Northern Minnesota Gray Drift	

Element	Code	Code Name	Code Description
mlra	58A	Northern Rolling High Plains, Norther Part	
mlra	58B	Northern Rolling High Plains, Southern Part	
mlra	58C	Northern Rolling High Plains, Northeastern Part	
mlra	58D	Northern Rolling High Plains, Eastern Part	
mlra	6	Cascade Mountains, Eastern Slope	
mlra	60A	Pierre Shale Plains and Badlands	
mlra	60B	Pierre Shale Plains, Northern Part	
mlra	61	Black Hills Foot Slopes	
mlra	62	Black Hills	
mlra	63A	Northern Rolling Pierre Shale Plains	
mlra	63B	Southern Rolling Pierre Shale Plains	
mlra	64	Mixed Sandy and Silty Tableland	
mlra	65	Nebraska Sand Hills	
mlra	66	Dakota-Nebraska Eroded Tableland	
mlra	67	Central High Plains	
mlra	69	Upper Arkansas Valley Rolling Plains	
mlra	7	Columbia Basin	
mlra	70	Pecos-Canadian Plains and Valleys	
mlra	70A	Canadian Plains and Valleys (proposed)	
mlra	70B	Upper Pecos Valley (proposed)	

Element	Code	Code Name	Code Description
mlra	70C	Central New Mexico Highlands (proposed)	
mlra	70D	Southern Desert Foothills (proposed)	
mlra	70E	Upper Pecos Canadian Breaks and Terraces (proposed)	
mlra	71	Central Nebraska Loess Hills	
mlra	72	Central High Tableland	
mlra	73	Rolling Plains and Breaks	
mlra	74	Central Kansas Sandstone Hills	
mlra	75	Central Loess Plains	
mlra	76	Bluestem Hills	
mlra	77	Southern High Plains	
mlra	77A	Southern High Plains, Northern Part (proposed)	
mlra	77B	Southern High Plains, Northwestern Part (proposed)	
mlra	77C	Southern High Plains, Southern Part (proposed)	
mlra	77D	Southern High Plains, Southwestern Part (proposed)	
mlra	77E	Southern High Plains, Breaks (proposed)	
mlra	78	Central Rolling Red Plains	
mlra	78A	Central Rolling Red Plains, Northern Part (proposed)	
mlra	78B	Central Rolling Red Plains, Western Part (proposed)	
mlra	78C	Central Rolling Red Plains, Eastern Part (proposed)	
mlra	78D	Rolling Limestone Prairie (proposed)	
mlra	79	Great Bend Sand Plains	
mlra	8	Columbia Plateau	

Element	Code	Code Name	Code Description
mlra	80A	Central Rolling Red Prairies	
mlra	80B	Texas North-Central Prairies	
mlra	81	Edwards Plateau	
mlra	81A	Edwards Plateau, Western Part (proposed)	
mlra	81B	Edwards Plateau, Central Part (proposed)	
mlra	81C	Edwards Plateau, Eastern Part (proposed)	
mlra	81D	Southern Edwards Plateau (proposed)	
mlra	82	Texas Central Basin	
mlra	82A	Texas Central Basin (proposed)	
mlra	82B	Wichita Mountains (proposed)	
mlra	83A	Northern Rio Grande Plain	
mlra	83B	Western Rio Grande Plain	
mlra	83C	Central Rio Grande Plain	
mlra	83D	Lower Rio Grande Plain	
mlra	84A	Cross Timbers	
mlra	84B	West Cross Timbers	
mlra	84C	East Cross Timbers	
mlra	85	Grand Prairie	
mlra	85A	Grand Prairie (proposed)	
mlra	85B	Arbuckle Mountains (proposed)	
mlra	86	Texas Blackland Prairie	
mlra	86A	Texas Blackland Prairie, Northern Part (proposed)	
mlra	86B	Texas Blackland Prairie, Southern Part (proposed)	
mlra	87	Texas Claypan Area	

Element	Code	Code Name	Code Description
mlra	87A	Texas Claypan Area, Southern Part (proposed)	
mlra	87B	Texas Claypan Area, Northern Part (proposed)	
mlra	88	Northern Minnesota Glacial Lake Basins	
mlra	9	Palouse and Nez Perce Prairies	
mlra	90	Central Wisconsin and Minnesota Thin Loess and Till	
mlra	91	Wisconsin and Minnesota Sandy Outwash	
mlra	92	Superior Lake Plain	
mlra	93	Superior Stony and Rocky Loamy Plains and Hills	
mlra	94A	Northern Michigan and Wisconsin Sandy Drift	
mlra	94B	Michigan Eastern Upper Penninsula Sandy Drift	
mlra	95A	Northeastern Wisconsin Drift Plain	
mlra	95B	Southern Wisconsin and Northern Illinois Drift Plain	
mlra	96	Western Michigan and Northeastern Wisconsin Fruit Belt	
mlra	97	Southwestern Michigan Fruit and Truck Belt	
mlra	98	Southern Michigan and Northern Indiana Drift Plain	
mlra	99	Erie-Huron Lake Plain	

Element	Code	Code Name	Code Description
month	APR	Apr	April
month	AUG	Aug	August
month	DEC	Dec	December
month	FEB	Feb	February
month	JAN	Jan	January
month	JUL	Jul	July
month	JUN	Jun	June
month	MAR	Mar	March
month	MAY	May	May
month	NOV	Nov	November
month	OCT	Oct	October
month	SEP	Sep	September
mukind	A	Association	Two or more soils with a repeating pattern.
mukind	C	Consociation	Seventy-five percent (75%) of mapunit within range of taxon.
mukind	U	Undifferentiated Group	Two or more soils that are not continously coterminous.
mukind	X	Complex	Two or more soils that cannot be mapped seperatey caused by map scale limitations.
noperm	CE	coprogenous earth	Allowable textural code for which no permeability is given.
noperm	CEM	cemented	Allowable textural code for which no permeability is given.
noperm	CIND	cinders	Allowable textural code for which no permeability is given.
noperm	DE	diotomaceous earth	Allowable textural code for which no permeability is given.
noperm	FB	fibric material	Allowable textural code for which no permeability is given.
noperm	FRAG	fragmental material	Allowable textural code for which no permeability is given.
noperm	G	gravel	Allowable textural code for which no permeability is given.
noperm	GYP	gypsiferous material	Allowable textural code for which no permeability is given.
noperm	HM	hemic material	Allowable textural code for which no permeability is given.
noperm	ICE	ice or frozen soil	Allowable textural code for which no permeability is given.

Element	Code	Code Name	Code Description
noperm	IND	indurated	Allowable textural code for which no permeability is given.
noperm	MARL	marl	Allowable textural code for which no permeability is given.
noperm	MPT	mucky-peat	Allowable textural code for which no permeability is given.
noperm	MUCK	muck	Allowable textural code for which no permeability is given.
noperm	PEAT	peat	Allowable textural code for which no permeability is given.
noperm	SG	sand and gravel	Allowable textural code for which no permeability is given.
noperm	SP	sapric material	Allowable textural code for which no permeability is given.
noperm	UNK	unknown	Allowable textural code for which no permeability is given.
noperm	UWB	unweathered bedrock	Allowable textural code for which no permeability is given.
noperm	VAR	variable	Allowable textural code for which no permeability is given.
noperm	WB	weathered bedrock	Allowable textural code for which no permeability is given.
order	A	Alfisols	
order	C	Andisols	
order	D	Aridisols	
order	E	Entisols	
order	H	Histosols	
order	I	Inceptisols	
order	M	Mollisols	
order	O	Oxisols	
order	S	Spodosols	
order	U	Ultisols	
order	V	Vertisols	
ordsym	A	no limitations or slight limitation	
ordsym	C	clayey soils	
ordsym	D	restricted rooting depth	
ordsym	F	fragmental or skeletal soils	
ordsym	N	snow pack	
ordsym	R	relief or slope steepness	
ordsym	S	sandy soils	
ordsym	T	toxic substances	
ordsym	W	excessive wetness	
ordsym	X	stoniness or rockiness	

Element	Code	Code Name	Code Description
otherfam	01	unclassified	
otherfam	02	not used	
otherfam	04	coated	
otherfam	05	cracked	
otherfam	06	level	
otherfam	08	micro	
otherfam	12	ortstein	
otherfam	14	shallow	
otherfam	15	shallow & uncoated	
otherfam	16	sloping	
otherfam	17	shallow & coated	
otherfam	19	ortstein & shallow	
otherfam	20	uncoated	
otherph	AFFR	annual frost-free rainfall	
otherph	ALKALI	alkali	
otherph	ALL	all	
otherph	BRIEF	brief	
otherph	CALC SURF	calcareous surface	
otherph	CHANNELED	channeled	
otherph	COASTAL	coastal	
otherph	COLD	cold	
otherph	COMMON	common flooding	
otherph	COOL	cool	
otherph	DEPTH	depth	
otherph	DISSECTED	dissected	
otherph	DRAINED	drained	
otherph	DRY	dry	
otherph	ELEV	elevation	
otherph	ERODED	eroded	
otherph	ETA	evapotranspiration; actual	
otherph	FFS	frost-free	
otherph	FREQ	frequent flooding	
otherph	GULLIED	gullied	
otherph	HIGH ELEV	high elevation	
otherph	HIGH PE	high potential evapotranspiration	
otherph	HIGH PPT	high precipitation	
otherph	HUMMOCKY	hummocky	
otherph	IRR	irrigated	
otherph	LONG	long	
otherph	LONG FFS	long frost-free season	
otherph	LOW ELEV	low elevation	
otherph	LOW PE	low potential evapotranspiration	
otherph	LOW PPT	low precipitation	
otherph	MAAT	mean annual air temperature	
otherph	MAP	mean annual precipitation	
otherph	MAST	mean annual soil temperature	
otherph	MED PE	medium potential evapotranspiration	
otherph	MED PPT	medium precipitation	
otherph	MOD ALKALI	moderately alkali	
otherph	MOD DEEP	moderately deep	
otherph	MOD SAL-ALK	moderately saline-alkali	

Element	Code	Code Name	Code Description
otherph	MOD SALINE	moderately saline	
otherph	MOD TEMP	moderate temperature	
otherph	MOD THICK	moderately thick	
otherph	MOD WELL DR	moderately well drained	
otherph	MOIST	moist	
otherph	NIRR	nonirrigated	
otherph	NONCALC SURF	noncalcareous surface	
otherph	NONE	no flooding	
otherph	NONERODED	noneroded	
otherph	NONSALINE	nonsaline	
otherph	NORTH	north or east aspect	
otherph	OCCAS	occasional flooding	
otherph	OVERWASH	overwash	
otherph	PARTIALLY DR	partially drained	
otherph	PE	precipitation effectivity	
otherph	PONDED	ponded	
otherph	POORLY DR	poorly drained	
otherph	RANGELAND	rangeland	
otherph	RARE	rare flooding	
otherph	ROCKY	rocky	
otherph	SAL-ALK	saline-alkali	
otherph	SALINE	saline	
otherph	SER ER	severely eroded	
otherph	SHALLOW	shallow	
otherph	SHORT FFS	short frost-free season	
otherph	SLI ALKALI	slight alkali	
otherph	SLI SAL-ALK	slightly saline-alkali	
otherph	SLI SALINE	slightly saline	
otherph	SMD	soil moisture deficit	
otherph	SOUTH	south or west aspect	
otherph	STR ALKALI	strongly alkali	
otherph	STR SAL	strongly saline	
otherph	STR SAL-ALK	strongly saline-alkali	
otherph	SUBIRR	subirrigated	
otherph	SW POORLY DR	somewhat poorly drained	
otherph	THICK	thick solum	
otherph	THICK SURF	thick surface	
otherph	THIN SURF	thin surface	
otherph	UNDRAINED	undrained	
otherph	UNDULATING	undulating	
otherph	V BRIEF	very brief	
otherph	V COLD	very cold	
otherph	V Long	very long	
otherph	V POORLY DR	very poorly drained	
otherph	V ROCKY	very rocky	
otherph	V SHALLOW	very shallow	
otherph	WARM	warm	
otherph	WELL DR	well drained	
otherph	WET	wet	
otherph	WINTER PPT	winter precipitation	
otherph	WOODLAND	woodland	

Element	Code	Code Name	Code Description
panhard	THICK	Thick	Cemented Pan Class - Thick — Pan is more than 3 inches if continuously indurated and more than 18 inches if discontinous or fractured.
panhard	THIN	Thin	Cemented Pan Class - Thin — Pan is less than 3 inches if continuously indurated and less than 18 inches if discontinuous or fractured.
partsize	001	unclassified	
partsize	002	not used	
partsize	003	cindery	
partsize	004	cindery over sandy or sandy-skeletal	
partsize	005	ashy	
partsize	006	cindery over loamy	
partsize	007	ashy over pumiceous or cindery	
partsize	008	ashy over loamy	
partsize	009	ashy-skeletal	
partsize	010	medial	
partsize	011	medial-skeletal	
partsize	012	medial over pumiceous or cindery	
partsize	013	ashy over loamy-skeletal	
partsize	014	medial over clayey	
partsize	015	cindery over medial-skeletal	
partsize	016	medial over fragmental	
partsize	017	cindery over medial	
partsize	018	medial over loamy	
partsize	019	ashy over medial	
partsize	020	medial over loamy-skeletal	
partsize	021	ashy over sandy or sandy-skeletal	
partsize	022	medial over sandy or sandy-skeletal	
partsize	024	medial over thixotropic	
partsize	026	thixotropic	
partsize	027	thixotropic-skeletal	
partsize	028	thixotropic over fragmental	
partsize	030	thixotropic over sandy or sandy-skeletal	
partsize	032	thixotropic over loamy-skeletal	
partsize	034	thixotropic over loamy	
partsize	036	fragmental	
partsize	044	sandy-skeletal	
partsize	046	sandy-skeletal over loamy	
partsize	047	sandy-skeletal over clayey	
partsize	050	loamy-skeletal	
partsize	051	loamy-skeletal over fragmental	
partsize	052	loamy-skeletal over sandy or sandy-skeletal	
partsize	054	loamy-skeletal over clayey	
partsize	055	loamy-skeletal or clayey-skeletal	
partsize	056	clayey-skeletal	
partsize	058	clayey-skeletal over sandy or sandy-skeletal	

Element	Code	Code Name	Code Description
partsize	062	sandy	
partsize	063	sandy or sandy-skeletal	
partsize	064	sandy over loamy	
partsize	066	sandy over clayey	
partsize	068	loamy	
partsize	072	loamy over sandy or sandy-skeletal	
partsize	080	coarse-loamy	
partsize	082	coarse-loamy over fragmental	
partsize	084	coarse-loamy over sandy or sandy-skeletal	
partsize	086	coarse-loamy over clayey	
partsize	088	coarse-silty	
partsize	090	coarse-silty over fragmental	
partsize	092	coarse-silty over sandy or sandy-skeletal	
partsize	094	coarse-silty over clayey	
partsize	096	fine-loamy	
partsize	097	loamy over pumiceous or cindery	
partsize	098	fine-loamy over fragmental	
partsize	100	fine-loamy over sandy or sandy-skeletal	
partsize	102	fine-loamy over clayey	
partsize	104	ashy over clayey	
partsize	106	fine-silty	
partsize	108	fine-silty over fragmental	
partsize	110	fine-silty over sandy or sandy-skeletal	
partsize	112	fine-silty over clayey	
partsize	114	clayey	
partsize	116	clayey over fragmental	
partsize	118	clayey over sandy or sandy-skeletal	
partsize	120	clayey over loamy-skeletal	
partsize	122	clayey over fine-silty	
partsize	124	clayey over loamy	
partsize	126	fine	
partsize	134	very fine	
partsize	136	hydrous	
partsize	138	hydrous-pumiceous	
partsize	140	hydrous-skeletal	
partsize	142	hydrous over clayey	
partsize	144	hydrous over clayey-skeletal	
partsize	146	hydrous over fragmental	
partsize	148	hydrous over loamy	
partsize	150	hydrous over loamy-skeletal	
partsize	152	hydrous over sandy or sandy-skeletal	
partsize	153	ashy-pumiceous	
partsize	154	ashy over medial-skeletal	
partsize	155	medial-pumiceous	
partsize	158	medial over ashy	
partsize	160	medial over clayey-skeletal	

Element	Code	Code Name	Code Description
partsize	162	medial over hydrous	
partsize	163	pumiceous	
partsize	164	pumiceous or ashy-pumiceous over sandy or sandy-skeletal	
partsize	165	pumiceous or ashy-pumiceous over loamy	
partsize	166	pumiceous or ashy-pumiceous over medial-skelaetal	
partsize	167	pumiceous or ashy-pumiceous over medial	
partsize	169	ashy-skeletal over fragmental or cindery	
pnddur	BRIEF	brief	Flood Duration Class - Brief (Hydric Only) — Average duration of inundation per flood is 2 to 7 days.
pnddur	LONG	long	Flood Duration Class - Long (Hydric Only) — Average duration of inundation per flood is 7 days to 1 month.
pnddur	VERY BRIEF	very brief	Flood Duration Class - Very brief (Hydric Only) — Average duration of inundation per flood is less than 2 days.
pnddur	VERY LONG	very long	Flood Duration Class - Very long (Hydric Only) — Average duration of inundationper flood is more than 1 month.
primfml	0	not prime farmland	Not Prime Farmland.
primfml	1	all areas are prime farmland	All areas are prime farmland.
primfml	2	where drained	Only drained areas are prime farmland.
primfml	3	where protected from flooding or not frequently flooded during the growing season	Only areas protected from flooding or not frequently flooded during the growing season are prime farmland.
primfml	4	where irrigated	Only irrigated areas are prime farmland.
primfml	5	where drained and protected from flooding or not frequently flooded during the growing season	Only drained areas that are either protected from flooding or not frequently flooded during the growing season are prime farmland.
primfml	6	where irrigated and drained	Only irrigated areas that have been drained are prime farmland.
primfml	7	where irrigated and protected from flooding or not frequently flooded during the growing season	Only irrigated areas that are either protected from flooding or not frequently flooded during the growing season are prime farmland.

Element	Code	Code Name	Code Description
primfml	8	when subsoiled (completely remove root inhibiting soil layer)	When subsoiled (completely remove root inhibiting soil layer) are prime farmland.
primfml	9	irrigated area that the product of I (soil erodibility) and C (climate factor) does not exceed 60	Only irrigated area that the product of I (soil erodibility) and C (climate factor) does not exceed 60 are prime farmland.
rating	—	Null value indicator	
rating	1	Fair	
rating	10	Favorable	
rating	11	Limitation	
rating	2	Good	
rating	3	Moderate	
rating	4	Poor	
rating	5	Severe	
rating	6	Slight	
rating	7	Unsuited	
rating	8	Probable	
rating	9	Improbable	
reaction	01	unclassified	
reaction	02	not used	
reaction	04	acid	
reaction	06	allic	
reaction	08	dysic	
reaction	10	euic	
reaction	12	nonacid	
reaction	14	noncalcareous	
restct	–	null value indicator	
restct	1	area reclaim	
restct	10	dusty	
restct	11	erodes easily	
restct	12	excess sodium	
restct	13	excess humus	
restct	14	excess lime	
restct	15	excess salt	
restct	16	fast intake	
restct	17	favorable	
restct	18	flooding	
restct	19	frost action	
restct	2	cemented pan	
restct	20	hard to pack	
restct	21	large stones	
restct	22	low strength	
restct	23	no water	
restct	24	not needed	
restct	25	seepage	
restct	26	percs slowly	
restct	27	piping	
restct	28	poor outlets	
restct	3	complex slope	
restct	30	rooting depth	

Element	Code	Code Name	Code Description
restct	31	shrink-swell	
restct	32	slope	
restct	33	slow intake	
restct	34	slow refill	
restct	35	small stones	
restct	36	thin layer	
restct	37	too clayey	
restct	38	too sandy	
restct	39	unstable fill	
restct	4	compressible	
restct	40	wetness	
restct	41	excess fines	
restct	42	soil blowing	
restct	43	permafrost	
restct	44	pitting	
restct	45	salty water	
restct	46	subsides	
restct	47	too acid	
restct	48	ponding	
restct	49	excess sulfur	
restct	5	corrosive	
restct	50	poor filter	
restct	51	dense layer	
restct	52	fragile	
restct	53	slippage	
restct	54	variable	
restct	55	excess gypsum	
restct	56	too arid	
restct	6	cutbanks cave	
restct	7	deep to water	
restct	8	depth to rock	
restct	9	droughty	
rockhard	HARD	Hard	Hardness Class - Hard — Excavation requires blasting or special equipment.
rockhard	SOFT	Soft	Hardness Class - Soft — Excavation can be made with trenching machines, backhoes, or small rippers.
scl	2C		
scl	2E		
scl	2S		
scl	2W		
scl	3C		
scl	3E		
scl	3S		
scl	3W		
scl	4C		
scl	4E		
scl	4S		
scl	4W		
scl	5C		
scl	5E		
scl	5S		
scl	5W		
scl	6C		

Element	Code	Code Name	Code Description
scl	6E		
scl	6S		
scl	6W		
scl	7C		
scl	7E		
scl	7S		
scl	7W		
scl	8C		
scl	8E		
scl	8S		
scl	8W		
shrinksw	HIGH	High	
shrinksw	LOW	Low	
shrinksw	MODERATE	Moderate	
shrinksw	VERY HIGH	Very high	
soiltemp	01	Unclassified	
soiltemp	02	Not used	
soiltemp	03	Cryic	
soiltemp	04	Frigid	
soiltemp	06	Hyperthermic	
soiltemp	08	Isofrigid	
soiltemp	10	Isohyperthermic	
soiltemp	12	Isomesic	
soiltemp	14	Isothermic	
soiltemp	16	Mesic	
soiltemp	17	Pergelic	
soiltemp	18	Thermic	
soiltemp	20	Cryic	
soiltemp	22	Pergelic	
state	AK	Alaska	
state	AL	Alabama	
state	AR	Arkansas	
state	AS	American Samoa	
state	AZ	Arizona	
state	CA	California	
state	CO	Colorado	
state	CT	Connecticut	
state	CZ	Canal Zone	
state	DC	District of Columbia	
state	DE	Delaware	
state	FL	Florida	
state	FM	Federated States of Micronesia	
state	FN	Foreign	
state	GA	Georgia	
state	GU	Guam	
state	HI	Hawaii	
state	IA	Iowa	
state	ID	Idaho	
state	IL	Illinois	
state	IN	Indiana	
state	KS	Kansas	
state	KY	Kentucky	

Element	Code	Code Name	Code Description
state	LA	Louisiana	
state	MA	Massachusetts	
state	MD	Maryland	
state	ME	Maine	
state	MH	Marshall Islands	
state	MI	Michigan	
state	MN	Minnesota	
state	MO	Missouri	
state	MP	Northern Mariana Islands	
state	MS	Mississippi	
state	MT	Montana	
state	NC	North Carolina	
state	ND	North Dakota	
state	NE	Nebraska	
state	NH	New Hampshire	
state	NJ	New Jersey	
state	NM	New Mexico	
state	NV	Nevada	
state	NY	New York	
state	OH	Ohio	
state	OK	Oklahoma	
state	OR	Oregon	
state	PA	Pennsylvania	
state	PR	Puerto Rico	
state	PW	Palau	
state	RI	Rhode Island	
state	SC	South Carolina	
state	SD	South Dakota	
state	TN	Tennessee	
state	TX	Texas	
state	UM	U.S. Minor Outlying Islands	
state	UT	Utah	
state	VA	Virginia	
state	VI	Virgin Islands	
state	VT	Vermont	
state	WA	Washington	
state	WI	Wisconsin	
state	WV	West Virginia	
state	WY	Wyoming	
subgroup	AA	typic	
subgroup	AB	abruptic	
subgroup	AB04	abruptic aridic	
subgroup	AB08	abruptic cryic	
subgroup	AB10	abruptic haplic	
subgroup	AB14	abruptic udic	
subgroup	AB16	abruptic xerollic	
subgroup	AC	acric	
subgroup	AC05	acric plinthic	old code - This code is outdated and should no longer be used.
subgroup	AE	aeric	
subgroup	AE03	aeric arenic	old code - This code is outdated and should no longer be used.

Element	Code	Code Name	Code Description
subgroup	AE05	aeric grossarenic	old code - This code is outdated and should no longer be used.
subgroup	AE06	aeric humic	
subgroup	AE08	aeric mollic	old code - This code is outdated and should no longer be used.
subgroup	AE09	aeric tropic	
subgroup	AE10	aeric umbric	
subgroup	AE12	aeric xeric	old code - This code is outdated and should no longer be used.
subgroup	AL	albaquic	
subgroup	AL02	albaquultic	
subgroup	AL04	albic	
subgroup	AL08	albic glossic	
subgroup	AL09	albollic	
subgroup	AL10	alfic	
subgroup	AL12	alfic arenic	
subgroup	AL13	alfic andeptic	old code - This code is outdated and should no longer be used.
subgroup	AL14	alfic humic	
subgroup	AL14	ruptic-alfic lithic	old code - This code is outdated and should no longer be used.
subgroup	AL16	alfic lithic	
subgroup	AL20	alic	
subgroup	AL22	alic aquic	
subgroup	AL24	alic pachic	
subgroup	AL26	alic thaptic	
subgroup	AN	andic	
subgroup	AN01	andeptic	old code - This code is outdated and should no longer be used.
subgroup	AN03	andaquic	old code - This code is outdated and
subgroup	AN06	andic dystric	old code - This code is outdated and should no longer be used.
subgroup	AN08	andic epiaquic	old code - This code is outdated and should no longer be used.
subgroup	AN08	andic ombroaquic	
subgroup	AN11	andeptic glossoboric	old code - This code is outdated and should no longer be used.
subgroup	AN12	andic udic	old code - This code is outdated and should no longer be used.
subgroup	AN22	andic ustic	old code - This code is outdated and should no longer be used.
subgroup	AN24	andaqueptic	old code - This code is outdated and should no longer be used.
subgroup	AN25	anionic	
subgroup	AN26	anionic aquic	
subgroup	AN28	anthraquic	
subgroup	AN30	anthropic	
subgroup	AQ	aqualfic	
subgroup	AQ01	aquandic	
subgroup	AQ02	aquentic	
subgroup	AQ04	aqueptic	
subgroup	AQ06	aquic	
subgroup	AQ07	aquic anionic	old code - This code is outdated and should no longer be used.

Element	Code	Code Name	Code Description
subgroup	AQ08	aquic arenic	
subgroup	AQ14	aquic duric	
subgroup	AQ16	aquic durorthidic	
subgroup	AQ18	aquic dystric	
subgroup	AQ24	aquic haplic	
subgroup	AQ26	aquic lithic	
subgroup	AQ28	aquic petroferric	
subgroup	AQ31	aquic psammentic	old code - This code is outdated and should no longer be used.
subgroup	AQ32	aquodic	
subgroup	AQ34	aquollic	
subgroup	AQ36	aquultic	
subgroup	AQ38	aquertic	
subgroup	AR	arenic	
subgroup	AR02	arenic aridic	
subgroup	AR03	arenic orthoxic	old code - This code is outdated and should no longer be used.
subgroup	AR04	arenic plinthaquic	
subgroup	AR06	arenic plinthic	
subgroup	AR08	arenic rhodic	
subgroup	AR10	arenic ultic	
subgroup	AR14	arenic umbric	
subgroup	AR16	arenic ustalfic	
subgroup	AR18	arenic ustollic	
subgroup	AR22	argiaquic	
subgroup	AR24	argiaquic xeric	
subgroup	AR26	argic	
subgroup	AR27	argixerollic	old code - This code is outdated and should no longer be used.
subgroup	AR28	argic lithic	
subgroup	AR30	argic pachic	
subgroup	AR32	argic vertic	
subgroup	AR33	argidic	old code - This code is outdated and should no longer be used.
subgroup	AR34	aridic	
subgroup	AR36	aridic calcic	
subgroup	AR42	aridic duric	
subgroup	AR50	aridic pachic	old code - This code is outdated and should no longer be used.
subgroup	AR52	aridic petrocalcic	
subgroup	AR54	argic ustic	
subgroup	AX	acrudoxic	
subgroup	AX02	acrudoxic hydric	
subgroup	AX03	acrudoxic plinthic	
subgroup	AX04	acrudoxic thaptic	
subgroup	AX06	acrudoxic ultic	
subgroup	AX08	acrudoxic vitric	
subgroup	AX10	acraquoxic	
subgroup	AX12	acrustoxic	
subgroup	BO	boralfic	
subgroup	BO02	boralfic lithic	
subgroup	BO04	boralfic udic	
subgroup	BO06	borollic	
subgroup	BO08	borollic glossic	

Element	Code	Code Name	Code Description
subgroup	BO10	borollic lithic	
subgroup	BO12	borollic vertic	
subgroup	CA	calcic	
subgroup	CA04	calcic pachic	
subgroup	CA05	calcic udic	
subgroup	CA06	calciorthidic	
subgroup	CA10	calcixerollic	
subgroup	CA20	cambic	
subgroup	CH	chromic	
subgroup	CH04	chromic udic	
subgroup	CH06	chromudic	old code - This code is outdated and should no longer be used.
subgroup	CR	cryic	
subgroup	CR10	cryic lithic	
subgroup	CR14	cryic pachic	
subgroup	CU	cumulic	
subgroup	CU02	cumulic udic	
subgroup	CU04	cumulic ultic	
subgroup	DU	durargidic	
subgroup	DU02	duric	
subgroup	DU04	duric histic	
subgroup	DU08	durixerollic	
subgroup	DU10	durixerollic lithic	
subgroup	DU11	durochreptic	old code - This code is outdated and should no longer be used.
subgroup	DU12	durorthidic	
subgroup	DU14	durorthidic xeric	
subgroup	DY02	dystric	
subgroup	DY03	dystric entic	
subgroup	DY04	dystric fluventic	
subgroup	DY06	dystric lithic	
subgroup	DY08	dystropeptic	old code - This code is outdated and should no longer be used.
subgroup	DY09	dystric vitric	
subgroup	EN	entic	
subgroup	EN02	entic lithic	
subgroup	EN04	entic udic	
subgroup	EN04	ruptic-entic lithic	old code - This code is outdated and should no longer be used.
subgroup	EN06	entic ultic	
subgroup	EP	epiaquic	old code - This code is outdated and should no longer be used.
subgroup	EP10	epiaquic orthoxic	old code - This code is outdated and should no longer be used.
subgroup	EU	eutric	
subgroup	EU02	eutrochreptic	
subgroup	EU04	eutropeptic	
subgroup	EU06	eutric hydric	
subgroup	EU08	eutric pachic	
subgroup	EU10	eutric thaptic	
subgroup	EU12	eutric vitric	
subgroup	FE	ferrudalfic	
subgroup	FI	fibric	
subgroup	FI02	fibric terric	
subgroup	FL02	fluvaquentic	

Element	Code	Code Name	Code Description
subgroup	FL06	fluventic	
subgroup	FL12	fluventic umbric	
subgroup	FR10	fragiaquic	
subgroup	FR18	fragic	
subgroup	GL02	glossaquic	
subgroup	GL04	glossic	
subgroup	GL10	glossic udic	
subgroup	GL12	glossic ustollic	
subgroup	GL14	glossoboralfic	old code - This code is outdated and should no longer be used.
subgroup	GL16	glossoboric	
subgroup	GR	grossarenic	
subgroup	GR01	grossarenic entic	
subgroup	GR04	grossarenic plinthic	
subgroup	GY gypsic		
subgroup	HA	haplaquodic	old code - This code is outdated and should no longer be used.
subgroup	HA01	haplaquic	old code - This code is outdated and should no longer be used.
subgroup	HA02	haplic	
subgroup	HA04	halic	
subgroup	HA07	haploxerollic	
subgroup	HA09	hapludic	
subgroup	HA12	hapludollic	old code - This code is outdated and should no longer be used.
subgroup	HA16	haplustollic	
subgroup	HE	hemic	
subgroup	HE02	hemic terric	
subgroup	HI	histic	
subgroup	HI02	histic lithic	
subgroup	HI06	histic pergelic	
subgroup	HU	humic	
subgroup	HU02	humic lithic	old code - This code is outdated and should no longer be used.
subgroup	HU05	humic pergelic	
subgroup	HU06	humoxic	old code - This code is outdated and should no longer be used.
subgroup	HU10	humaqueptic	
subgroup	HU15	humic rhodic	
subgroup	HU20	humic xanthic	
subgroup	HU22	humic xeric	
subgroup	HY	hydric	
subgroup	HY02	hydric lithic	
subgroup	HY04	hydric pachic	
subgroup	HY06	hydric thaptic	
subgroup	HY10	hydraquentic	
subgroup	IN	inceptic	
subgroup	KA	kandic	
subgroup	KA02	kandiudalfic	
subgroup	KA04	kandiustalfic	
subgroup	KH	kanhaplic	
subgroup	LE	leptic	
subgroup	LE04	leptic udic	
subgroup	LI	limnic	
subgroup	LI02	lithic	

Element	Code	Code Name	Code Description
subgroup	LI04	lithic mollic	
subgroup	LI05	lithic petrocalcic	
subgroup	LI06	lithic ruptic-alfic	
subgroup	LI07	lithic ruptic-argic	
subgroup	LI08	lithic ruptic-entic	old code - This code is outdated and should no longer be used.
subgroup	LI08	lithic ruptic-entic xerollic	
subgroup	LI09	lithic ruptic-entic	
subgroup	LI10	lithic udic	old code - This code is outdated and should no longer be used.
subgroup	LI11	lithic ruptic-xerorthentic	
subgroup	LI12	lithic ultic	
subgroup	LI13	lithic ruptic-ultic	
subgroup	LI14	lithic umbric	old code - This code is outdated and should no longer be used.
subgroup	LI15	lithic ruptic-xerochreptic	
subgroup	LI16	lithic ustic	
subgroup	LI18	lithic ustollic	
subgroup	LI20	lithic vertic	old code - This code is outdated and should no longer be used.
subgroup	LI22	lithic xeric	
subgroup	LI24	lithic xerollic	
subgroup	MO	mollic	
subgroup	NA06	natric	
subgroup	OC	ochreptic	
subgroup	OM	ombroaquic	
subgroup	OR	orthidic	
subgroup	OR01	orthic	old code - This code is outdated and should no longer be used.
subgroup	OR02	orthoxic	old code - This code is outdated and should no longer be used.
subgroup	OX	oxic	
subgroup	OX02	oxyaquic	
subgroup	PA	pachic	
subgroup	PA02	pachic udic	
subgroup	PA04	pachic ultic	
subgroup	PA06	pachic vitric	
subgroup	PA08	paleustollic	old code - This code is outdated and should no longer be used.
subgroup	PA10	palexerollic	old code - This code is outdated and should no longer be used.
subgroup	PA20	paralithic vertic	old code - This code is outdated and should no longer be used.
subgroup	PE	pergelic	
subgroup	PE01	pergelic ruptic-histic	
subgroup	PE02	pergelic sideric	old code - This code is outdated and should no longer be used.
subgroup	PE04	petrocalcic	
subgroup	PE06	petrocalcic ustalfic	
subgroup	PE08	petrocalcic ustollic	
subgroup	PE14	petrocalcic xerollic	
subgroup	PE16	petroferric	
subgroup	PE20	petrogypsic	
subgroup	PK	placic	
subgroup	PK10	plaggeptic	

Element	Code	Code Name	Code Description
subgroup	PK12	plaggic	old code - This code is outdated and should no longer be used.
subgroup	PL	plinthaquic	
subgroup	PL04	plinthic	
subgroup	PL06	plinthudic	
subgroup	PS	psammaquentic	
subgroup	PS02	psammentic	
subgroup	QU	quartzipsammentic	
subgroup	RE	rendollic	
subgroup	RH	rhodic	
subgroup	RU02	ruptic-alfic	
subgroup	RU09	ruptic-lithic	
subgroup	RU11	ruptic-lithic-entic	
subgroup	RU15	ruptic-lithic-xerochreptic	
subgroup	RU17	ruptic-ultic	
subgroup	RU19	ruptic-vertic	
subgroup	SA	salorthidic	
subgroup	SA02	sapric	
subgroup	SA04	sapric terric	
subgroup	SI	sideric	old code - This code is outdated and should no longer be used.
subgroup	SO	sombric	
subgroup	SO02	sodic	
subgroup	SO04	sombrihumic	old code - This code is outdated and should no longer be used.
subgroup	SP	sphagnic	
subgroup	SP02	sphagnic terric	
subgroup	SP04	spodic	
subgroup	SU	sulfic	
subgroup	SU02	sulfaqueptic	
subgroup	TE	terric	
subgroup	TH	thaptic	
subgroup	TH04	thapto-histic	
subgroup	TH06	thapto-histic tropic	
subgroup	TO	torrertic	
subgroup	TO02	torrifluventic	
subgroup	TO04	torriorthentic	
subgroup	TO06	torripsammentic	
subgroup	TO10	torroxic	
subgroup	TR	tropaquodic	old code - This code is outdated and should no longer be used.
subgroup	TR02	tropeptic	old code - This code is outdated and should no longer be used.
subgroup	TR04	tropic	
subgroup	U15	humic rhodic	old code - This code is outdated and should no longer be used.
subgroup	UD	udertic	
subgroup	UD01	udalfic	old code - This code is outdated and should no longer be used.
subgroup	UD02	udic	
subgroup	UD03	udollic	
subgroup	UD05	udorthentic	
subgroup	UD07	udandic	
subgroup	UD08	udifluventic	
subgroup	UD10	udoxic	
subgroup	UL	ultic	

Element	Code	Code Name	Code Description
subgroup	UL02	ultic vitric	old code - This code is outdated and should no longer be used.
subgroup	UM	umbreptic	
subgroup	UM02	umbric	
subgroup	US	ustalfic	
subgroup	US01	ustandic	
subgroup	US02	ustertic	
subgroup	US04	ustic	
subgroup	US05	ustivitrandic	
subgroup	US06	ustochreptic	
subgroup	US08	ustollic	
subgroup	US12	ustoxic	
subgroup	VE	vermic	
subgroup	VE02	vertic	
subgroup	VI	vitric	
subgroup	VI02	vitrandic	
subgroup	VI04	vitrustandic	old code - This code is outdated and should no longer be used.
subgroup	VI06	vitritorrandic	
subgroup	VI08	vitrixerandic	
subgroup	XA	xanthic	
subgroup	XE	xeralfic	
subgroup	XE02	xerertic	
subgroup	XE04	xeric	
subgroup	XE08	xerollic	
subgroup	XE10	xerochreptic	
suborder	AAQ	Aqualfs	
suborder	ABO	Boralfs	
suborder	AUD	Udalfs	
suborder	AUS	Ustalfs	
suborder	AXE	Xeralfs	
suborder	CAQ	Aquands	
suborder	CCR	Cryands	
suborder	CTO	Torrands	
suborder	CUD	Udands	
suborder	CUS	Ustands	
suborder	CVI	Vitrands	
suborder	CXE	Xerands	
suborder	DAR	Argids	
suborder	DOR	Orthids	
suborder	EAQ	Aquents	
suborder	EAR	Arents	
suborder	EFL	Fluvents	
suborder	EOR	Orthents	
suborder	EPS	Psamments	
suborder	HFI	Fibrists	
suborder	HFO	Folists	
suborder	HHE	Hemists	
suborder	HSA	Saprists	
suborder	IAN	Andepts	
suborder	IAQ	Aquepts	
suborder	IOC	Ochrepts	
suborder	IPL	Plaggepts	
suborder	ITR	Tropepts	
suborder	IUM	Umbrepts	

Element	Code	Code Name	Code Description
suborder	MAL	Albolls	
suborder	MAQ	Aquolls	
suborder	MBO	Borolls	
suborder	MRE	Rendolls	
suborder	MUD	Udolls	
suborder	MUS	Ustolls	
suborder	MXE	Xerolls	
suborder	OAQ	Aquox	
suborder	OHU	Humox	
suborder	OOR	Orthox	
suborder	OPR	Perox	
suborder	OTO	Torrox	
suborder	OUD	Udox	
suborder	OUS	Ustox	
suborder	SAQ	Aquods	
suborder	SCR	Cryods	
suborder	SFE	Ferrods	
suborder	SHU	Humods	
suborder	SOR	Orthods	
suborder	UAQ	Aquults	
suborder	UHU	Humults	
suborder	UUD	Udults	
suborder	UUS	Ustults	
suborder	UXE	Xerults	
suborder	VAQ	Aquerts	
suborder	VCR	Cryerts	
suborder	VTO	Torrerts	
suborder	VUD	Uderts	
suborder	VUS	Usterts	
suborder	VXE	Xererts	
suitcode	E	Existing	Plant exists (is common) on the site.
suitcode	EP	Existing Potential	Plant exists (is commom) on the site and has potential for planting on the site as a tree crop.
suitcode	P	Potential	Plant has potential as a species for planting on the site as a tree crop.
texture	APUM	ashy-pumiceous	
texture	ASHY	ashy	
texture	ASK	ashy-skeletal	
texture	BM	bouldery mucky	
texture	BVM	very bouldery mucky	
texture	BXM	extremely bouldery mucky	
texture	BY	bouldery	
texture	BYV	very bouldery	
texture	BYX	extremely bouldery	
texture	C	clay	
texture	CAM	angular cobbly mucky	
texture	CB	cobbly	
texture	CBA	angular cobbly	
texture	CBV	very cobbly	
texture	CBX	extremely cobbly	
texture	CE	coprogenous earth	
texture	CEM	cemented	

Element	Code	Code Name	Code Description
texture	CIND	cinders	
texture	CL	clay loam	
texture	CM	cobbly mucky	
texture	CN	channery	
texture	CNDY	cindery	
texture	CNV	very channery	
texture	CNX	extremely channery	
texture	COS	coarse sand	
texture	COSL	coarse sandy loam	
texture	CR	cherty	
texture	CRC	coarse cherty	
texture	CRV	very cherty	
texture	CRX	extremely cherty	
texture	CVM	very cobbly mucky	
texture	CXM	extremely cobbly mucky	
texture	DE	diatomaceous earth	
texture	FB	fibric material	
texture	FL	flaggy	
texture	FLV	very flaggy	
texture	FLX	extremely flaggy	
texture	FRAG	fragmental material	
texture	FS	fine sand	
texture	FSL	fine sandy loam	
texture	G	gravel	
texture	GCM	coarse gravelly mucky	
texture	GFM	fine gravelly mucky	
texture	GM	gravelly mucky	
texture	GR	gravelly	
texture	GRC	coarse gravelly	
texture	GRF	fine gravelly	
texture	GRV	very gravelly	
texture	GRX	extremely gravelly	
texture	GVM	very gravelly mucky	
texture	GXM	extremely gravelly mucky	
texture	GYP	gypsiferous material	
texture	HM	hemic material	
texture	HPUM	hydrous-pumiceous	
texture	HSK	hydrous-skeletal	
texture	HYDR	hydrous	
texture	ICE	ice or frozen soil	
texture	IND	indurated	
texture	L	loam	
texture	LCOS	loamy coarse sand	
texture	LFS	loamy fine sand	
texture	LS	loamy sand	
texture	LVFS	loamy very fine sand	
texture	MARL	marl	
texture	MEDL	medial	
texture	MK	mucky	
texture	MPT	mucky-peat	
texture	MPUM	medial-pumiceous	
texture	MSK	medial-skeletal	
texture	MUCK	muck	
texture	PEAT	peat	
texture	PT	peaty	

Element	Code	Code Name	Code Description
texture	PUM	pumiceous	
texture	RB	rubbly	
texture	S	sand	
texture	SC	sandy clay	
texture	SCL	sandy clay loam	
texture	SG	sand and gravel	
texture	SH	shaly	
texture	SHV	very shaly	
texture	SHX	extremely shaly	
texture	SI	silt	
texture	SIC	silty clay	
texture	SICL	silty clay loam	
texture	SIL	silt loam	
texture	SL	sandy loam	
texture	SM	stony mucky	
texture	SP	sapric material	
texture	SR	stratified	
texture	ST	stony	
texture	STV	very stony	
texture	STX	extremely stony	
texture	SVM	very stony mucky	
texture	SXM	extremely stony mucky	
texture	SY	slaty	
texture	SYV	very slaty	
texture	SYX	extremely slaty	
texture	UNK	unknown	
texture	UWB	unweathered bedrock	
texture	VAR	variable	
texture	VFS	very fine sand	
texture	VFSL	very fine sandy loam	
texture	WB	weathered bedrock	
unified	CH	Group Symbol - CH	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.
unified	CL	Group Symbol - CL	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay.
unified	CL-A	Group Symbol - CL-A	Andic suffix for CL.
unified	CL-K	Group Symbol - CL-K	Kaolinitic suffix for CL.
unified	CL-ML	Group Symbol - CL-ML	
unified	CL-O	Group Symbol - CL-O	Oxidic suffix for CL
unified	CL-T	Group Symbol - CL-T	Thixotropic suffix for CL.
unified	GC	Group Symbol - GC	COARSE-GRAINED SOILS ,Gravels, Gravels with fines, Clayey Gravel.
unified	GM	Group Symbol - GM	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.
unified	GM-GC	Group Symbol - GM-GC	

Element	Code	Code Name	Code Description
unified	GP	Group Symbol - GP	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.
unified	GP-GC	Group Symbol - GP-GC	
unified	GP-GM	Group Symbol - GP-GM	
unified	GW	Group Symbol - GW	COARSE-GRAINED SOIILS, Gravels, Clean Gravels, Well-graded gravel.
unified	GW-GC	Group Symbol - GW-GC	
unified	GW-GM	Group Symbol - GW-GM	
unified	MH	Group Symbol - MH	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.
unified	MH-A	Group Symbol - MH-A	Andic suffix for MH.
unified	MH-K	Group Symbol - MH-K	Kaolinitic suffix for MH.
unified	MH-O	Group Symbol - MH-O	Oxidic suffix for MH.
unified	MH-T	Group Symbol - MH-T	Thixotropic suffix for MH.
unified	ML	Group Symbol - ML	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Silt.
unified	ML-A	Group Symbol - ML-A	Andic suffix for ML.
unified	ML-K	Group Symbol - ML-K	Kaolinitic suffix for ML.
unified	ML-O	Group Symbol - ML-O	Oxidic suffix for ML.
unified	ML-T	Group Symbol - ML-T	Thixotropic suffix for ML.
unified	OH	Group Symbol - OH	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Organic Clay or Organic Silt.
unified	OH-T	Group Symbol - OH-T	Thixotropic suffix for OH.
unified	OL	Group Symbol - OL	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Organic Clay or Organic Silt.
unified	PT	Group Symbol - PT	Highly organic soils, Peat.
unified	SC	Group Symbol - SC	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.
unified	SC-SM	Group Symbol - SC-SM	
unified	SM	Group Symbol - SM	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.

Element	Code	Code Name	Code Description
unified	SM-SC	Group Symbol - SM-SC	
unified	SP	Group Symbol - SP	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.
unified	SP-SC	Group Symbol - SP-SC	
unified	SP-SM	Group Symbol - SP-SM	
unified	SW	Group Symbol - SW	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.
unified	SW-SC	Group Symbol - SW-SC	
unified	SW-SM	Group Symbol - SW-SM	
unitkind	FAMILY	family	
unitkind	FAMPHS	family phase	
unitkind	GRTGRP	great group	
unitkind	MISC	miscellaneous	
unitkind	SERIES	series	
unitkind	SUBGRP	subgroup	
unitkind	SUBORD	suborder	
unitkind	VAR	variant	
weg	1	Wind Erodibility Group 1	Surface texture - VFS,FS,S,COS. Percent aggregates - 1, Wind erodibility index 310 t/a/y.
weg	2	Wind Erodibility Group 2	Surface texture - LVFS,LFS,LCOS,Sapric material. Percent aggregates - 10, Wind erodibility index - 134 t/a/y.
weg	3	Wind Erodibility Group 3	Surface texture - VFSL,FSL,SL,COSL. Percent aggregates - 25, Wind erodibility index - 86 t/a/y.
weg	4	Wind Erodibility Group 4	Surface Texture - C,SIC,noncalcareous CL,SICL(>35% CLAY). Percent aggregates - 25, Wind erodibility index 86 t/a/y.
weg	4L	Wind Erodibility Group 4L	Surface texture - calcareous L/SIL/CL,SICL. Percent aggregates - 25, Wind Erodibility index - 86 t/a/y.
weg	5	Wind Erodibility Group 5	Surface textue - noncalcareous L/SIL(<20% CLAY),SCL,SC. Percent aggregates - 40, Wind erodibility index 56 t/a/y.
weg	6	Wind Erodibility Group 6	Surface texture - noncalcareous L/SIL(>20% CLAY),CL(<35% CLAY). Percent aggregates - 45, Wind erodibility index - 48 t/a/y.

Element	Code	Code Name	Code Description
weg	7	Wind Erodibility Group 7	Surface texture - SI,noncalcareousSICL(<35% CLAY). Percent aggregates 50, Wind erodibility index - 38 t/a/y.
weg	8	Wind Erodibility Group 8	Erosion not a problem.
wei	0		
wei	134		
wei	160		
wei	180		
wei	220		
wei	250		
wei	310		
wei	38		
wei	48		
wei	56		
wei	86		
wtkind	APPAR	Apparent	Apparent water table — Water stands in a freshly dug hole.
wtkind	ARTES	Artesian	Artesian water table — Water with an hydrostatic head below an impermeable layer.
	wtkind	PERCH	Perched Perched water table — Water standing above an unsaturated zone.