



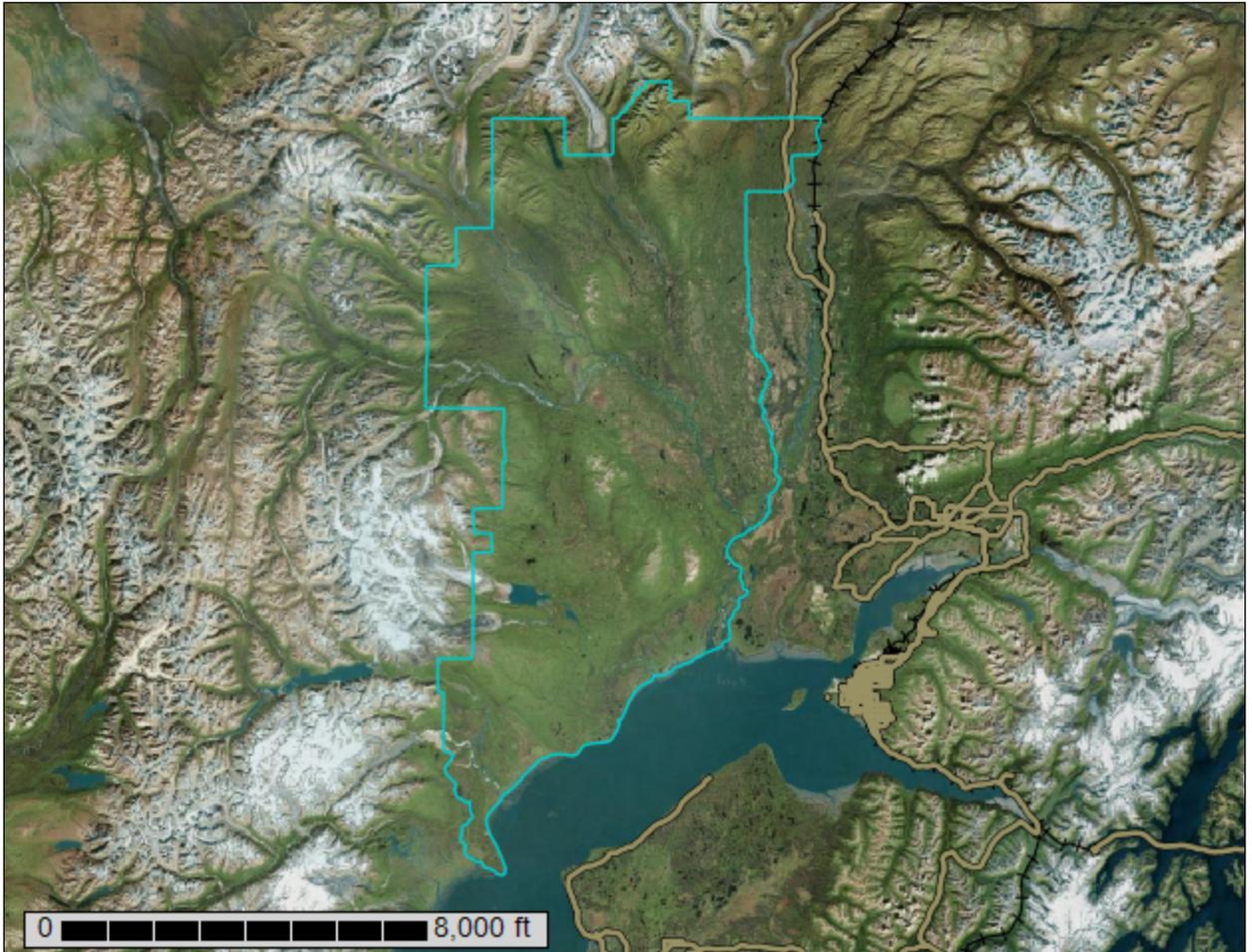
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Yentna Area, Alaska



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part

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(Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

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Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

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Report—Hydric Soil List - All Components

Hydric Soil List - All Components—AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
201: Beaches	Beaches	100	Beaches	Unranked	—
202: Chedatna silt loam, 0 to 2 percent slopes	Chedatna	90	Stream terraces	No	—
	Aquepts	5	Depressions	Yes	2
	Gravelly soils	5	Terraces	No	—
203: Chichantna peat, 0 to 8 percent slopes	Chichantna	85	Depressions,muskegs	Yes	1
	Water-Small lakes	8	Depressions	Unranked	—
	Aquepts	7	Depressions	Yes	2
204: Chuit-Nakochna-Chichantna complex, 2 to 7 percent slopes	Chuit	40	Mountain slopes	No	—
	Nakochna	25	Mountains	No	—
	Chichantna	20	Depressions,muskegs	Yes	1
	Water-Small lakes	15	Depressions	Unranked	—
205: Chuit-Nakochna-Rubble land complex, 7 to 45 percent slopes	Chuit	30	Mountain slopes	No	—
	Nakochna	30	Mountains	No	—
	Rubble land	25	Mountain slopes,talus slopes	Unranked	—
	Histosols	8	Depressions	Yes	1,3
	Rock outcrop	7	Mountain slopes	Unranked	—
206: Chuit and Nakochna silt loams, 3 to 30 percent slopes	Chuit	45	Mountain slopes	No	—
	Nakochna	40	Mountains	No	—
	Histosols	8	Depressions	Yes	1,3
	Rock outcrop	7	Mountain slopes	Unranked	—
207: Clunie peat, 0 to 2 percent slopes	Clunie	95	Fens on tidal flats	Yes	1,3
	Water-Small lakes	3	Depressions	Unranked	—
	Riverwash	2	Flood plains	Unranked	—
208: Doroshin peat, 0 to 5 percent slopes	Doroshin	90	Muskegs	Yes	1
	Aquepts	5	Depressions	Yes	2
	Water-Small lakes	5	Depressions	Unranked	—
209: Cryaquents, tidal	Cryaquents-Tidal	85	Tidal flats	Yes	2
	Histosols	8	Depressions	Yes	1,3
	Water-Small lakes	7	Depressions	Unranked	—
210: Glaciers	Glaciers	100	Glaciers	Unranked	—

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Hydric Soil List - All Components--AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
211: Hewitt peat, 0 to 2 percent slopes	Hewitt	90	Muskegs on flood plains	Yes	1
	Fluvaquents	5	Flood plains	Yes	2,4
	Rarely flooded soils	3	Flood plains	No	—
	Water-Small lakes	2	Depressions	Unranked	—
212: Histic Pergelic Cryaquepts-Starichkof complex, 0 to 7 percent slopes	Histic Pergelic Cryaquepts	45	Mountain slopes,moraines	Yes	2
	Starichkof	40	Muskegs	Yes	1,3
	Strandline	10	Mountain slopes,moraines	No	—
	Water-Small lakes	5	Depressions	Unranked	—
213: Homestead silt loam, 0 to 2 percent slopes	Homestead	85	Outwash plains	No	—
	Histosols	8	Depressions	Yes	1,3
	Aquepts	7	Depressions	Yes	2
214: Killey and Hiline silt loams, 0 to 2 percent slopes	Killey	45	Flood plains	Yes	2
	Hiline	40	Flood plains,stream terraces	Yes	2
	Niklason	5	Levees,flood plains,alluvial fans	No	—
	Histosols	5	Depressions	Yes	1,3
	Water-Small lakes	5	Depressions	Unranked	—
215: Kliskon silt loam, 2 to 12 percent slopes	Kliskon	90	Mountain slopes	No	—
	Aquepts	5	Depressions	Yes	2
	Chuit	5	Mountain slopes	No	—
216: Kroto-Strandline-Cryorthents complex, 30 to 45 percent slopes	Kroto	35	Hills,mountain slopes,moraines	No	—
	Strandline	30	Moraines,mountain slopes	No	—
	Cryorthents	20	Escarpmnts on moraines,escarpments on drumlins,escarpments on mountain slopes	No	—
	Aquepts	10	Depressions	Yes	2
	Kroto-Steep slopes	5	Hills,mountain slopes,moraines	No	—
217: Lucile silt loam, 0 to 2 percent slopes	Lucile	85	Stream terraces	No	—
	Histosols	5	Depressions	Yes	1,3

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Hydric Soil List - All Components--AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
	Aquepts	5	Depressions	Yes	2
	Susitna	5	Flood plains,stream terraces	No	—
218: Nancy-Kashwitna complex, 0 to 2 percent slopes	Nancy	50	Terraces	No	—
	Kashwitna	35	Stream terraces	No	—
	Histosols	8	Depressions	Yes	1,3
	Aquepts	7	Depressions	Yes	2
219: Nancy-Kashwitna complex, 2 to 7 percent slopes	Nancy	50	Terraces	No	—
	Kashwitna	35	Stream terraces	No	—
	Histosols	8	Depressions	Yes	1,3
	Aquepts	7	Depressions	Yes	2
220: Nancy-Kashwitna complex, 7 to 12 percent slopes	Nancy	45	Terraces	No	—
	Kashwitna	40	Stream terraces	No	—
	Histosols	8	Depressions	Yes	1,3
	Aquepts	7	Depressions	Yes	2
221: Nancy-Kashwitna complex, 12 to 20 percent slopes	Nancy	45	Terraces	No	—
	Kashwitna	40	Stream terraces	No	—
	Aquepts	5	Depressions	Yes	2
	Histosols	5	Depressions	Yes	1,3
	Kashwitna-Steep	5	Stream terraces	No	—
222: Nancy-Kashwitna complex, 20 to 30 percent slopes	Nancy	45	Terraces	No	—
	Kashwitna	40	Stream terraces	No	—
	Aquepts	10	Depressions	Yes	2
	Nancy-Less steep	3	Terraces	No	—
	Nancy-Steeper	2	Hillslopes	No	—
223: Nancy-Kashwitna complex, 30 to 45 percent slopes	Nancy	45	Terraces	No	—
	Kashwitna	40	Stream terraces	No	—
	Aquepts	5	Depressions	Yes	2
	Gravelly soils	5	Terraces	No	—
	Nancy-Steep slopes	5	Hillslopes	No	—
224: Nancy-Kashwitna complex, cool, 0 to 7 percent slopes	Nancy	45	Terraces	No	—
	Kashwitna	40	Stream terraces	No	—
	Gravelly soils	5	Terraces	No	—
	Aquepts	5	Depressions	Yes	2

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Hydric Soil List - All Components--AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
	Histosols	5	Depressions	Yes	1,3
225: Niklason silt loam, 0 to 2 percent slopes	Niklason	85	Levees,flood plains,alluvial fans	No	—
	Aquepts	5	Depressions	Yes	2
	Riverwash	5	Flood plains	Unranked	—
	Niklason-Stony surface	5	Levees,flood plains,alluvial fans	No	—
226: Puntilla silt loam, 7 to 20 percent slopes	Puntilla	85	Mountain slopes	No	—
	Aquepts	5	Depressions	Yes	2
	Histosols	5	Depressions	Yes	1,3
	Puntilla-Stony	5	Mountain slopes	No	—
227: Puntilla silt loam, 20 to 30 percent slopes	Puntilla	90	Mountain slopes	No	—
	Aquepts	5	Depressions	Yes	2
	Histosols	3	Depressions	Yes	1,3
	Puntilla-Stony	2	Mountain slopes	No	—
228: Puntilla silt loam, 30 to 45 percent slopes	Puntilla	90	Mountain slopes	No	—
	Aquepts	5	Depressions	Yes	2
	Puntilla-Stony	5	Mountain slopes	No	—
229: Riverwash	Riverwash	100	Flood plains	Unranked	—
230: Rubble land	Rubble land	100	Mountain slopes,talus slopes	Unranked	—
231: Salamatof peat, 0 to 2 percent slopes	Salamatof	90	Muskegs	Yes	1,3
	Aquepts	5	Depressions	Yes	2
	Water-Small lakes	5	Depressions	Unranked	—
232: Schrock silt loam, 0 to 2 percent slopes	Schrock	90	Stream terraces	No	—
	Aquepts	5	Depressions	Yes	2
	Gravelly soils	5	Terraces	No	—
233: Slikok muck, 0 to 5 percent slopes	Slikok	90	Depressions,muskegs, moraines	Yes	2,3
	Water-Small lakes	5	Depressions	Unranked	—
	Chuit	3	Moraines	No	—
	Histosols	2	Depressions	Yes	1,3
234: Slikok-Starichkof-Strandline complex, 0 to 7 percent slopes	Slikok	30	Depressions,muskegs, moraines	Yes	2
	Starichkof	30	Fens	Yes	1,3
	Strandline	25	Mountain slopes,moraines	No	—
	Water-Small lakes	8	Depressions	Unranked	—

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Hydric Soil List - All Components--AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
	Slikok-Stony	7	Depressions,muskegs, moraines	Yes	2
235: Spenard silt loam, 0 to 7 percent slopes	Spenard	85	Mountain slopes,moraines	Yes	2
	Chuit	5	Moraines	No	—
	Histosols	5	Depressions	Yes	1,3
	Aquepts	5	Depressions	Yes	2
236: Starichkof peat, 0 to 7 percent slopes	Starichkof	90	Fens	Yes	1,3
	Aquepts	5	Depressions	Yes	2
	Water-Small lakes	3	Depressions	Unranked	—
	Aquepts-Stony	2	Depressions	Yes	2
237: Strandline-Kroto complex, 20 to 45 percent slopes	Strandline	45	Mountain slopes,moraines	No	—
	Kroto	40	Hills,mountain slopes,moraines	No	—
	Aquepts	5	Depressions	Yes	2
	Histosols	5	Depressions	Yes	1,3
	Gravelly soils	5	Moraines	No	—
238: Strandline-Kroto-Chichantna complex, 1 to 20 percent slopes	Strandline	30	Moraines,mountain slopes	No	—
	Kroto	30	Hills,mountain slopes,moraines	No	—
	Chichantna	25	Depressions,muskegs	Yes	1
	Kroto-Steep slopes	5	Hills,mountain slopes,moraines	No	—
	Aquepts	5	Depressions	Yes	2
	Water-Small lakes	5	Depressions	Unranked	—
239: Strandline-Kroto-Slikok complex, 1 to 12 percent slopes	Strandline	30	Moraines,mountain slopes	No	—
	Kroto	30	Hills,mountain slopes,moraines	No	—
	Slikok	25	Depressions,muskegs, moraines	Yes	2,3
	Histosols	10	Depressions	Yes	1,3
	Kroto-Stony	5	Mountain slopes,moraines,hills	No	—
240: Strandline-Spenard-Kroto complex, 2 to 30 percent slopes	Strandline	30	Mountain slopes,moraines	No	—
	Spenard	30	Mountain slopes,moraines	Yes	2

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Hydric Soil List - All Components--AK631-Yentna Area, Alaska					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
	Kroto	25	Hills,mountain slopes,moraines	No	—
	Histosols	8	Depressions	Yes	1,3
	Spenard-Stony	7	Mountain slopes,moraines	Yes	2
241: Suntrana silt loam, 2 to 7 percent slopes	Suntrana	85	Moraines	No	—
	Aquepts	5	Depressions	Yes	2
	Histosols	5	Depressions	Yes	1,3
	Suntrana-Stony	5	Moraines	No	—
242: Susitna-Niklason silt loams, 0 to 2 percent slopes	Susitna	50	Flood plains,stream terraces	No	—
	Niklason	35	Alluvial fans,levees,flood plains	No	—
	Fluvaquents	10	Flood plains	Yes	2,4
	Riverwash	5	Flood plains	Unranked	—
243: Susitna and Niklason silt loams, 0 to 2 percent slopes	Susitna	45	Flood plains,stream terraces	No	—
	Niklason	40	Levees,flood plains,alluvial fans	No	—
	Fluvaquents	5	Flood plains	Yes	2
	Riverwash	5	Flood plains	Unranked	—
	Water-Stream channels	5	Channels	Unranked	—
244: Tyonek peat, 0 to 2 percent slopes	Tyonek	90	Moraines	Yes	1
	Aquepts	10	Depressions	Yes	2
245: Wasilla silt loam, 0 to 2 percent slopes	Wasilla	90	Flood plains,stream terraces	Yes	2,4
	Moderately well drained soils	5	Stream terraces	No	—
	Histosols	3	Depressions	Yes	1,3
	Water-Small lakes	2	Depressions	Unranked	—
246: Water	Water	100	Lakes	Unranked	—