

United States
Department of
Agriculture

Soil
Conservation
Service



Hydrology Training Series

Module 104 - Runoff Curve Number Computations

Study Guide

**Engineering
Hydrology Training Series
Module 104**

**Runoff Curve Number
Computations**

National Employee Development Staff
Soil Conservation Service
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Preface

This module consists of a study guide that contains a step by step process for calculating average runoff curve numbers from given field data.

Proceed through this module at your own pace. Be sure you completely understand each section before moving on. If you have questions or need help, please request assistance from your supervisor. If your supervisor cannot clear up your problems, he/she will contact the state-appointed resource person. The resource person is familiar with the material and should be able to answer any questions you may have.

Be sure to write out your answers to the included activities. This will help to reinforce your learning. After completing each activity, compare your answers with the included solution.

Acknowledgement

The design and development of this training module is the result of a concentrated effort by practicing engineers in the Soil Conservation Service. The contributions from many technical and procedural reviews have helped make this module one that will provide needed knowledge of hydrology and hydraulics to SCS employees.

Module Description

Objectives

Upon completion of this module, the participant will be able to:

1. List and describe the elements needed to calculate a runoff curve number.
2. Calculate a runoff curve number from given field data.
3. Calculate a runoff curve number for complex areas.

The participant should be able to perform at ASK Level 3 (Perform with Supervision) after completing this module.

Prerequisites

Module 103 - Runoff Concepts

Equipment Needed

A dot grid training aid is needed to complete this module.

Length

Participant should take as long as necessary to complete this module. Training time for this module is approximately two hours.

Who May Take the Module

This module is intended for all SCS personnel who calculate runoff curve numbers for a drainage area.

Method of Completion

This module is self-study, but the state or NTC should select a resource person to answer any questions that the participant's supervisor cannot handle.

Content

Elements needed to calculate a runoff curve number and actual calculations of runoff curve numbers using given field data are presented in this module.

Contents

Preface	iii
Acknowledgment	iii
Module Description	v
Introduction	1
Elements Needed to Compute Runoff Curve Numbers	1
Activity 1	7
Activity 1 – Solution	11
Activity 2	13
Activity 2 – Solution	14
Runoff Curve Number Computations	15
Activity 3	17
Activity 3 – Solution.	18
Activity 4	19
Activity 4 – Solution	20
CN Computations for Complex Areas	21
Activity 5	23
Activity 5 – Solution	24,25
Activity 6	27
Activity 6 – Solution	28, 29
Summary	31
Appendix A– Charts and Tables	A1
Certification of Completion	Last page

ENG – Hydrology Training Series

Introduction

The SCS method of estimating volume runoff is based on procedures developed over the last three decades. Because most SCS work is with ungaged watersheds, this method is usable with easily attainable watershed parameters and rainfall data. In this module, you will learn to compute a runoff curve number, which can then be used in runoff calculations.

A more detailed discussion on the estimation of a hydrologic soil cover complex from watershed parameters, hydrologic soil groupings, land use and treatment classes is found in Chapters 7, 8, and 9, respectively of Section 4, National Engineering Handbook (NEH).

Elements Needed to Compute Runoff Curve Numbers

SCS has developed a method of combining the effects of soils, watershed characteristics, and land use into a single parameter. This parameter is the runoff curve number (CN) and represents the hydrologic soil cover complex of the watershed. A single runoff curve number can be developed for a watershed with a single land use and one soil type, and for a watershed with a combination of soils and land uses.

Runoff curve numbers are limited to:

1. Single events.
2. Maximum 24-hour duration rain events.
3. Areas with unfrozen ground conditions.
4. Representation of average watershed conditions when flooding or conditions when annual flood event occurs.
5. Direct runoff volume.

The elements needed to compute a runoff curve number for a watershed are soil type and cover description, which is combination of cover type, land treatment, and hydrologic condition. Soil type and cover description are easily obtained. The information needed and the sources of this information will be discussed in detail in the first section of this module. The second section will discuss how to compute an average runoff curve number for either a watershed, a drainage area, or a field.

Soil Type

The Soil Conservation Service has a wealth of soils information, including soils maps, throughout the United States. Part of this information relates to soil names and their relative intake or infiltration rate. Each soil symbol on the map has a related soil name. Associated with that name is the

infiltration rate, soil texture, depth, hydrologic soil group, etc. Basic soils information is listed on the soil interpretation sheets.

Soil properties

Soil properties influence the peak rate of runoff from rainfall and must be considered. The single most important soil property is the minimum rate of infiltration obtained for a bare soil after prolonged wetting. Soils have been grouped according to the infiltration rate (surface conditions) and transmission rate (profile conditions). The four hydrologic soil groups as defined by SCS are described in Module 103 - Runoff Concepts.

The final infiltration capacity has been determined for a wide range of bench mark soils or key soils using infiltrometers. Infiltrometers are devices used to measure the intake rate of soil. The remainder of the soils have been classified by soil scientists using correlation techniques.

Chapter 2, EFM, and Appendix A, TR-55 (Study Guide Appendix A) list more than 9000 soils that have been mapped and assigned soil series names and hydrologic soil groups. Some states have developed individual state listings and have issued these as a technical note.

Some soils can change hydrologic groupings depending on the water table. This is covered by footnote in Appendix A. For example, Adrian A/D is hydrologic soil group "A" when drained and "D" when undrained.

In some locations, urban activities may change the hydrologic soil group because of compaction, loss of the A horizon, and reshaping or grading of the landscape. There is a discussion on page A-1 of TR-55 explaining how a disturbed soil profile in an urban area may be evaluated.

The local soil scientist can provide assistance in selecting the correct hydrologic soil groups if the soil is not listed or if local conditions might alter information in Appendix A.

Precise measurement of soil-group areas by planimetering soil areas or weighing map cuttings is seldom necessary for hydrologic purposes. Normally, the percentage of the watershed occupied by a soil type can be determined using the dot counter techniques.

Example

From a sample soils map for an indicated watershed, determine the percentage of the watershed in each hydrologic soil group.

1. Outline the watershed on a soils map.
2. Classify the soils into group A, B, C, or D on the soils map or transfer this information to a topographic map of the watershed.
3. Place a grid or dot counter over the watershed soils map, count the number of grid intersections falling on each soil group, and tabulate. A planimeter can be used to measure the area of each soil group and land use.

4. Determine the percentage for each hydrologic soil group within the watershed.

Simplified versions for determining the extent of soil groups are often used in practice. Often the soil types may fall predominantly into one or two hydrologic soil groups. As a general rule, two groups can be combined if one is less than three percent of the watershed.

A serious under-estimation of runoff can result if a watershed with 90% of its soils in the "A" group and 10% in "D" is classified as all "A," since most of its storm runoff could come from the "D" soils.

5. If there is some question about how to prepare a hydrologic soil grouping map or estimate the percent of each soil group within the watershed, talk to a local soil scientist.

Cover Description

Vegetation affects peak rates of runoff in several ways:

1. The foliage and its litter maintain the soil's infiltration potential by preventing the sealing of the soil surface from the impact of the raindrops.
2. Some of the raindrops are retained on the surface of the foliage, increasing their chance of being evaporated back to the atmosphere.
3. Some of the intercepted moisture takes so long to drain from the plant to the soil that it is withheld from the initial period of runoff.

Conservation practices, in general, reduce sheet erosion and thereby maintain an open structure of the soil surface. This reduces the volume of runoff but the effect diminishes rapidly with increase in storm magnitude.

Contouring and terracing reduce sheet erosion and increase the amount of rainfall withheld from runoff by the small reservoirs they form. Leaving residue on the soil surface and no-till or minimum tillage practices also help reduce the volume of runoff.

Rural cover types

The typical rural cover types, as shown in Chapter 2, EFM and Table 9.1, NEH-4, include:

1. **Fallow** – Agricultural land kept as bare as possible to conserve moisture for use the following year.
2. **Row Crop** – Any field crop planted in rows far enough apart so as to expose most of the soil surface to the impact of rainfall.
3. **Small Grain** – Wheat, oats, barley, flax, etc., planted in rows close enough that the soil surface is not exposed except during or shortly after planting.

4. **Close-seeded legumes or rotation meadow** – Alfalfa, sweet clover, timothy, etc., or combinations, which are either planted in close rows or broadcast.
5. **Grassland** – Is evaluated using the three hydrologic conditions of native pasture or range, which are based on cover effect, not forage production.
 - a. Poor—heavily grazed. Either has no mulch or has plant cover on less than 1/2 of the area.
 - b. Fair—not heavily grazed. Has plant cover on 1/2 to 3/4 of the area.
 - c. Good—lightly grazed. Has plant cover on more than 3/4 of the area.
6. **Meadow** – A field on which grass is grown continuously, protected from grazing, and generally mowed for hay.
7. **Woods** – Small isolated groves of trees being raised for farm or ranch use.
 - a. Poor—heavily grazed or regularly burned. Litter, small trees, and brush are destroyed.
 - b. Fair—grazed, but not burned. There may be some litter, but these woods are not protected.
 - c. Good—protected from grazing. Litter and shrubs cover the soil.
8. **Forests** – Areas covered by national or commercial forests. The U.S. Forest Service has a procedure for determining hydrologic conditions on forest lands. Many times they will develop their information in Forest Hydrologic Condition Classes. Chapter 9, NEH-4 contains further information on the Forest Service procedure.
9. **Water Surfaces** – Lakes, ponds, marshes, etc.
10. **Impervious Surfaces** – Roads, roofs, parking lots, etc. outside typical urban cover types.

Urban cover types

The typical urban cover types, as shown in Table 2-2a, TR-55, (Appendix A) include:

1. **Residential houses** – on various lot sizes. This includes the impervious areas of the roof, streets, driveways, etc. within the subdivision with the typical percent impervious shown.
2. **Commercial and business** – small business shops, etc. along a street with the typical percent impervious shown.

3. **Industrial** – manufacturing areas with the typical percent impervious shown.
4. **Streets and roads** – paved areas, both including and excluding right of way. Unpaved areas include right of way.
5. **Open areas** – urban areas where vegetation has been established. Could include lawns, parks, golf courses, cemeteries, etc.
6. **Newly graded areas** – urban areas where the ground has been shaped or disturbed and where no vegetation has been established.
7. **Connected impervious areas** – urban areas where the impervious area is directly connected to the storm water drainage system.
8. **Unconnected impervious area** – urban areas where the impervious area is not directly connected to the stormwater drainage system. For example, outflow from the downspout is allowed to spread over the lawn before entering the stormwater drainage system.

Land treatment

Agricultural land management includes mechanical practices, such as contouring, terracing, and rotation. These types of management practices also reflect or influence the hydrologic condition of the particular land use.

1. **Rotations** – are planned sequences of crops; hydrologically, rotations range from “poor” to “good” in proportion to the amount of dense vegetation in the rotation.
 - a. Poor rotations are generally one cropland use, such as continuous corn, wheat, or combinations of row crops, small grain, and fallow.
 - b. Good rotations generally contain alfalfa or other close-seeded legumes or grasses to improve tilth and increase infiltration.
2. **Straight-Row** – fields are those farmed in straight rows either up and downhill or across the slope. Where land slopes are less than about 2 percent, farming across the slope in straight rows is equivalent to contouring.
3. **Contouring** – contoured fields have been farmed on the contour and their hydrologic effect is to increase the surface storage by providing furrows.
4. **Terracing** – refers to graded or open-end terraces with outlets and their hydrologic effect is to increase storage and opportunity for infiltration.

Land use and treatment classes can be readily obtained by observation, recent photos, or by consultation with work unit personnel.

Hydrologic Soil Cover Complex

Locations of the classes within the same hydrologic watershed unit used for the soil groups are usually ignored. The classes are tabulated using percentages or acreages. The accuracy of the areal extent of the data should be compatible with that of the soil group data.

The combination of hydrologic soil group and cover type information results in a hydrologic soil cover complex. Each hydrologic soil cover complex has been assigned a runoff curve number. The CN indicates the runoff potential of a hydrologic soil cover complex. The higher the CN, the higher the runoff potential.

Runoff curve numbers represent the median condition of the hydrologic soil cover complex when the largest annual flood occurs. This is the assumed hydrologic soil cover complex condition when the design flood of a conservation measure occurs.

Runoff curve numbers are to be used with single flood event models and not with continuous hydrologic models.

Runoff curve numbers should not be used to estimate the impact of frozen ground or frozen ground with snow cover on the design peak flow estimate.

Individual states may have developed supplemental curve numbers for hydrologic soil-covers complexes not identified in either Chapter 2, EFM or Chapter 2, TR-55. These documents should be used where applicable.

Activities 1 and 2

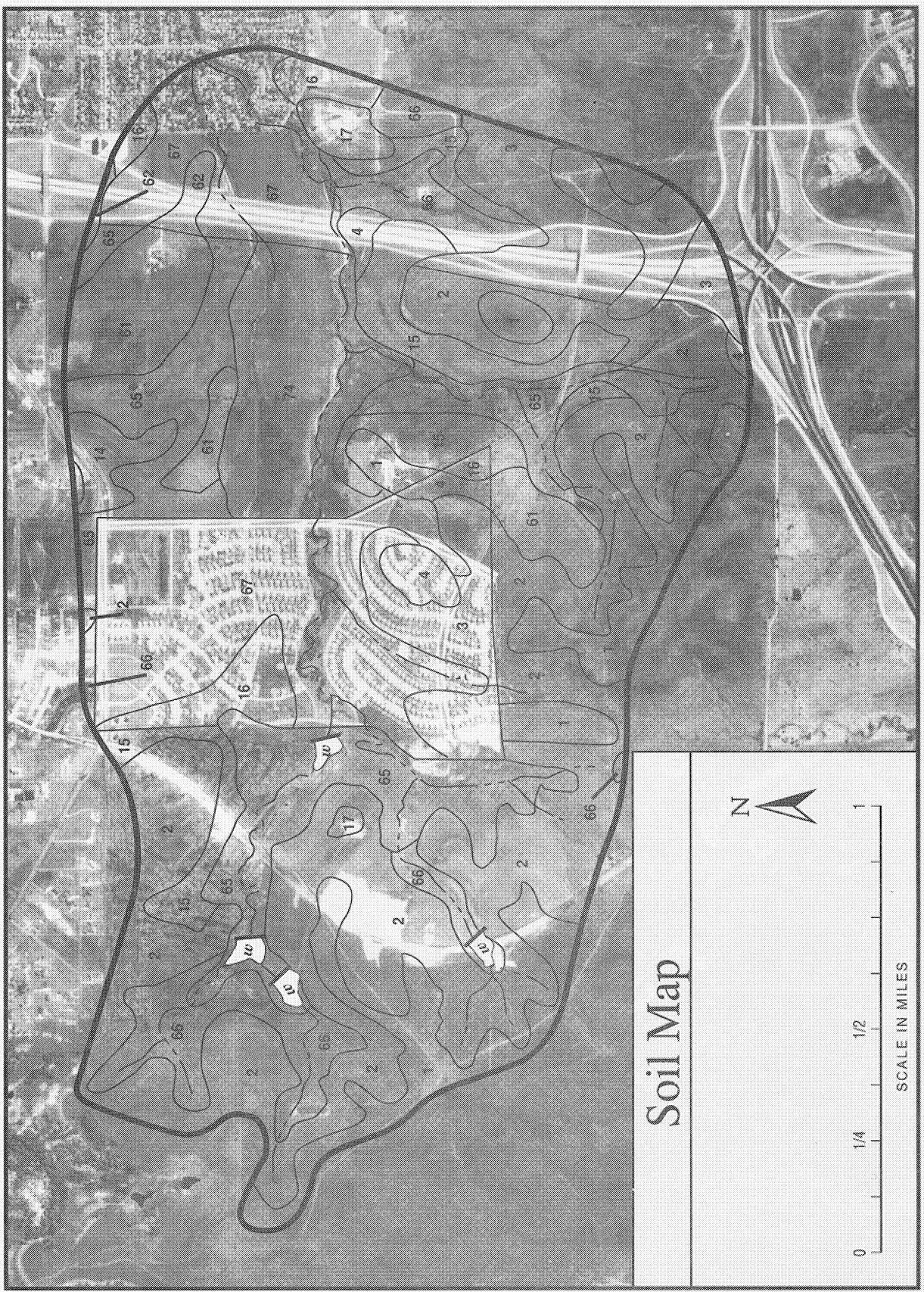
At this time, complete Activities 1 and 2 in your Study Guide to review the material just covered. After finishing each Activity, compare your answers with the solution provided. When you are satisfied that you understand the material, continue with the Study Guide text.

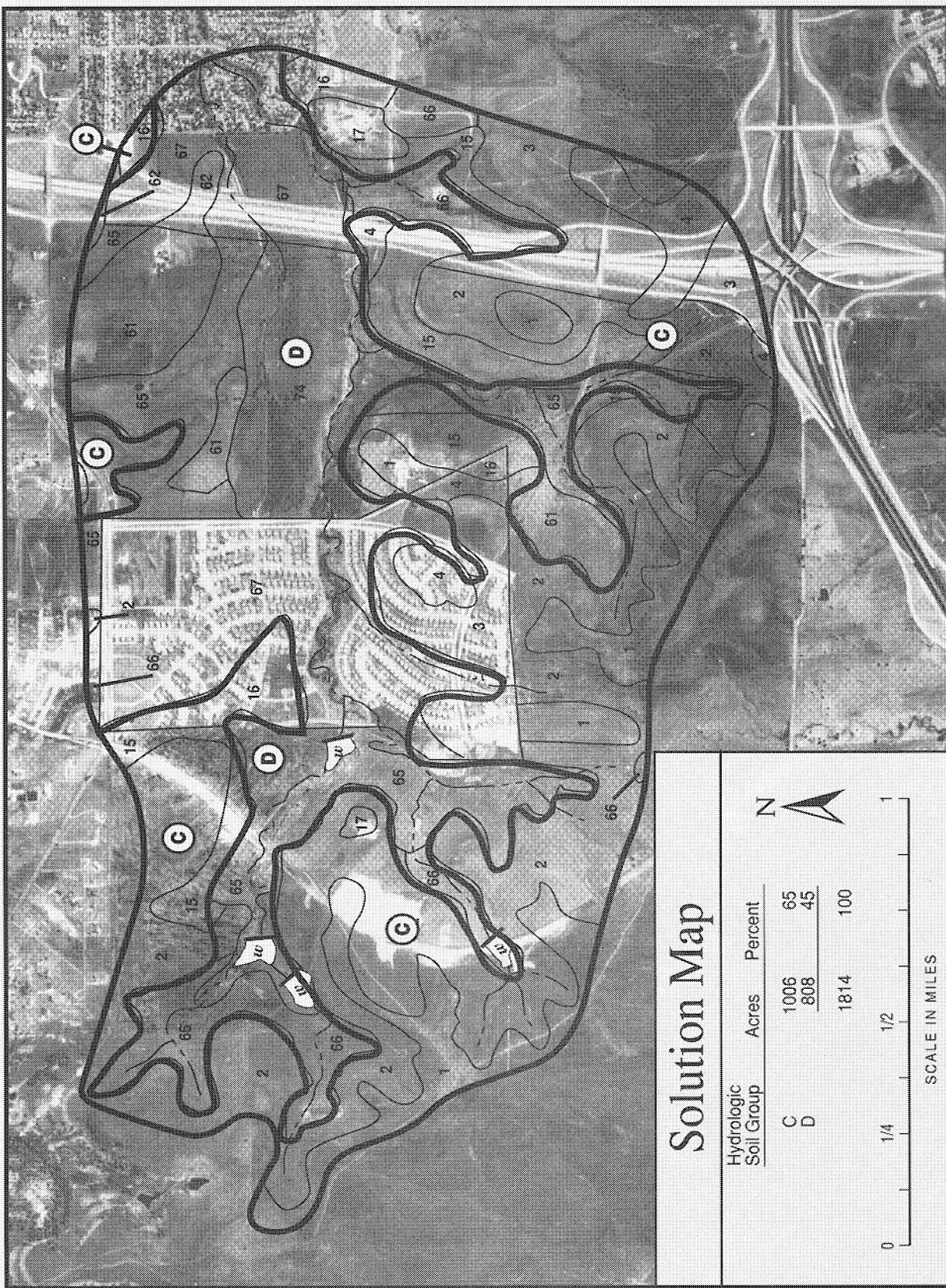
Activity 1

From the sample soils map and legend sheet on the following pages, determine the percentage of the indicated watershed in each hydrologic soil group. Refer to Appendix A of your Study Guide for applicable charts and tables. For this Activity, do not assume the hydrologic soil group has changed because of the urban land complex.

SOIL LEGEND

SYMBOL	NAME	SYMBOL	NAME
1	Aledo gravelly clay loam, 1 to 8 percent slopes	45	Mabank fine sandy loam, 0 to 1 percent slopes
2	Aledo-Bolar complex, 5 to 20 percent slopes	46	Maloterre, Aledo, and Brackett soils, 3 to 20 percent slopes
3	Aledo-Bolar-Urban land complex, 3 to 20 percent slopes	47	Medlin clay, 5 to 15 percent slopes
4	Aledo-Urban land complex, 1 to 8 percent slopes	48	Mingo clay loam, 1 to 3 percent slopes
5	Altoga silty clay loam, 5 to 12 percent slopes	49	Mingo-Urban land complex, 1 to 3 percent slopes
6	Aquila loamy fine sand, 1 to 5 percent slopes		
7	Arents, frequently flooded	50	Navo clay loam, 1 to 3 percent slopes
8	Arents, loamy	51	Navo-Urban land complex, 1 to 3 percent slopes
9	Batsil fine sandy loam, 0 to 3 percent slopes	52	Nimrod fine sand, 1 to 5 percent slopes
10	Batsil-Urban land complex, 0 to 5 percent slopes	53	Ovan clay, occasionally flooded
11	Bironne fine sandy loam, 1 to 5 percent slopes	54	Ovan clay, frequently flooded
12	Bironne-Aubrey-Rayex complex, 5 to 15 percent slopes	55	Ovan-Urban land complex, occasionally flooded
13	Bironne-Aubrey-Urban land complex, 5 to 15 percent slopes		
14	Bolar clay loam, 1 to 3 percent slopes	56	Pits, quarries
15	Bolar clay loam, 3 to 5 percent slopes	57	Ponder clay loam, 1 to 3 percent slopes
16	Bolar-Urban land complex, 1 to 5 percent slopes	58	Ponder-Urban land complex, 0 to 3 percent slopes
17	Brackett clay loam, 3 to 8 percent slopes	59	Pulexas fine sandy loam, frequently flooded
18	Branyon clay, 0 to 1 percent slopes	60	Pulexas-Urban land complex, occasionally flooded
19	Burleson clay, 0 to 1 percent slopes	61	Purves clay, 0 to 3 percent slopes
20	Chatt silty clay, 1 to 3 percent slopes	62	Purves-Urban land complex, 0 to 3 percent slopes
21	Crosstall fine sandy loam, 1 to 3 percent slopes	63	Rader fine sandy loam, 0 to 3 percent slopes
22	Crosstall fine sandy loam, 3 to 6 percent slopes	64	Rader-Urban land complex, 0 to 3 percent slopes
23	Crosstall-Urban land complex, 1 to 6 percent slopes		
24	Ferris clay, 5 to 12 percent slopes, eroded	65	Sanger clay, 1 to 3 percent slopes
25	Ferris-Heiden complex, 2 to 5 percent slopes	66	Sanger clay, 3 to 5 percent slopes
26	Frio silty clay, occasionally flooded	67	Sanger-Urban land complex, 1 to 5 percent slopes
27	Frio silty clay, frequently flooded	68	San Saba clay, 0 to 2 percent slopes
28	Frio-Urban land complex, occasionally flooded	69	Selden loamy fine sand, 1 to 3 percent slopes
29	Gasil fine sandy loam, 1 to 3 percent slopes	70	Silawa fine sandy loam, 3 to 8 percent slopes
30	Gasil fine sandy loam, 3 to 8 percent slopes	71	Siltstd loamy fine sand, 1 to 5 percent slopes
31	Gasil sandy clay loam, graded, 1 to 5 percent slopes	72	Siltstd-Urban land complex, 1 to 5 percent slopes
32	Gasil-Urban land complex, 1 to 8 percent slopes	73	Slidell clay, 0 to 1 percent slopes
33	Heiden clay, 1 to 3 percent slopes	74	Slidell clay, 1 to 3 percent slopes
34	Houston Black clay, 1 to 3 percent slopes	75	Speck clay loam, 0 to 3 percent slopes
35	Houston Black-Urban land complex, 1 to 4 percent slopes	76	Stephenville fine sandy loam, 8 to 15 percent slopes
36	Justin loam, 1 to 3 percent slopes	77	Sunev clay loam, 1 to 3 percent slopes
37	Konsil fine sandy loam, 1 to 5 percent slopes	78	Sunev clay loam, 3 to 8 percent slopes
38	Leson clay, 1 to 3 percent slopes	79	Sunev-Urban land complex, 2 to 8 percent slopes
39	Lindale clay loam, 1 to 3 percent slopes	80	Trinity clay, frequently flooded
40	Lindale-Urban land complex, 1 to 3 percent slopes	81	Urban land
41	Lott silty clay, 1 to 3 percent slopes	82	Weatherford fine sandy loam, 3 to 8 percent slopes
42	Lott-Urban land complex, 1 to 5 percent slopes	83	Whitesboro loam, frequently flooded
43	Luckenbach clay loam, 1 to 3 percent slopes	84	Wilson clay loam, 0 to 2 percent slopes
44	Luckenbach-Urban land complex, 1 to 3 percent slopes	85	Wilson-Urban land complex, 0 to 2 percent slopes
		86	Windhorst fine sandy loam, 1 to 3 percent slopes
		87	Windhorst fine sandy loam, 3 to 8 percent slopes
		88	Windhorst fine sandy loam, 2 to 8 percent slopes, eroded

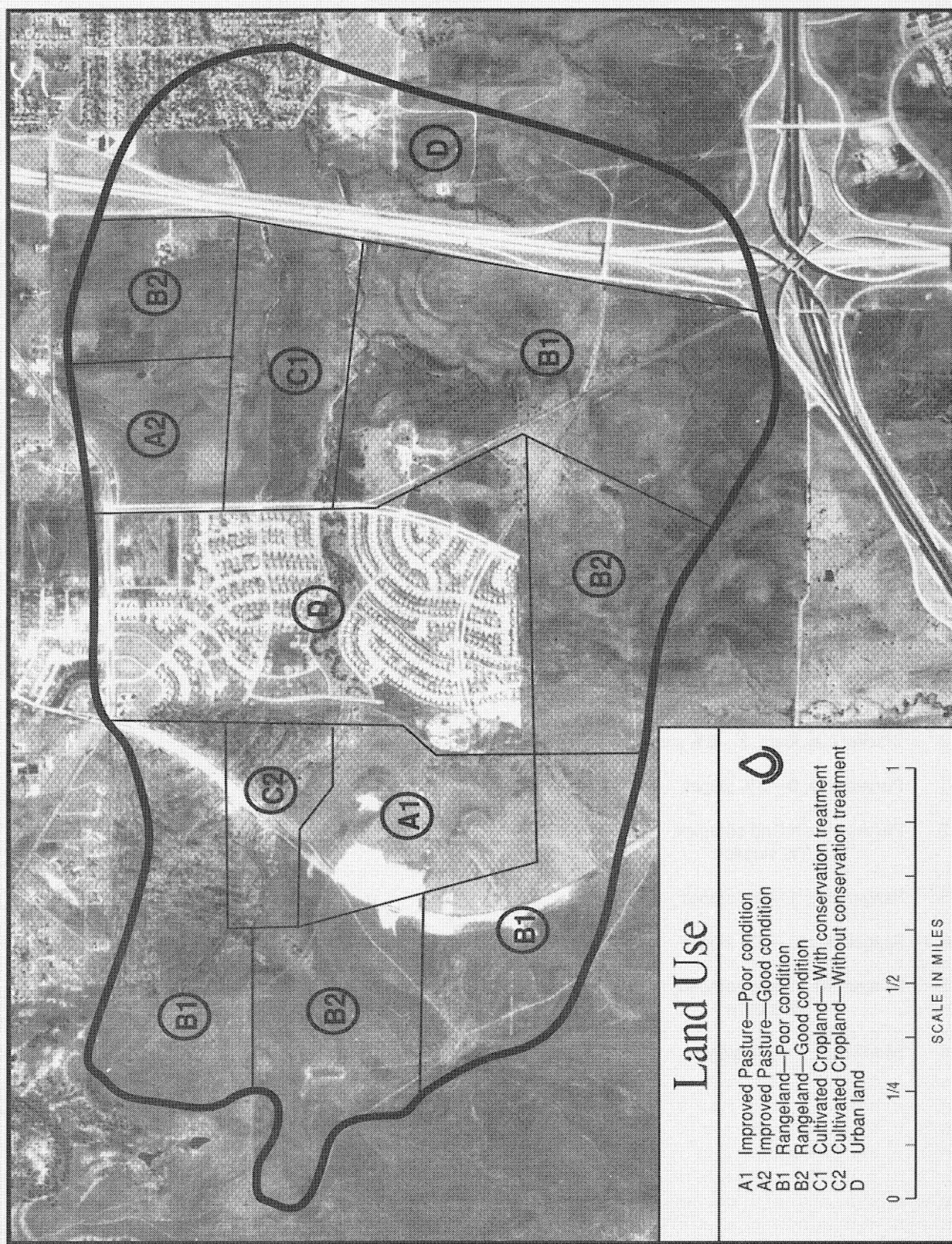




Activity 1 – Solution

From the sample soils map and legend sheet on the following pages, determine the percentage of the indicated watershed in each hydrologic soil group. Refer to Appendix A of your Study Guide for applicable chart and tables. For this activity, do not assume the hydrologic soil group has changed because of the urban land complex.

Map Symbol	Soil Name	Hydrologic Soil Group	Acres/Intersections	%
1	Aledo gr. clay loam, 1 – 8% slopes	C		
2	Aledo-Bolar complex, 5 – 20% slopes	C		
3	Aledo-Bolar-Urban land complex, 3 – 20% slopes	C		
4	Aledo-Urban land complex, 1 – 8% slopes	C		
14	Bolar clay loam, 1 – 3% slopes	C		
15	Bolar clay loam, 3 – 5% slopes	C		
16	Bolar-Urban land complex, 1 – 5% slopes	C		
17	Bracket clay loam, 3 – 8% slopes	C		
61	Purves clay, 0 – 3% slopes	D		
62	Purves-Urban land complex, 0 – 3% slopes	D		
65	Sanger clay, 1 – 3% slopes	D		
66	Sanger clay, 3 – 5% slopes	D		
67	Sanger-Urban land complex, 1 – 5% slopes	D		
74	Slidell clay, 1 – 3% slopes	D		
			1814 ac	100%



Activity 2

From the sample aerial photograph on the preceding page, determine the percentage of the indicated watershed in each cover description. Refer to Appendix A of your Study Guide for applicable charts and tables.

Activity 2 – Solution

From the sample aerial photograph on the preceding page, determine the percentage of the indicated watershed in each cover description. Refer to Appendix A of your Study Guide for applicable charts and tables.

Land Use	Acres	%
Improved Pasture – poor condition	112	6.2
Improved Pasture – good condition	73	4.0
Rangeland – poor condition	541	29.8
Rangeland – good condition	334	18.4
Cultivated cropland – with cons. treatment	96	5.3
Cultivated cropland – w/o cons. treatment	53	2.9
Urban land	<u>605</u>	<u>33.4</u>
	1,814	100.0

Runoff curve number computations

The runoff curve numbers for a wide range of hydrologic soil cover complexes are shown in Chapter 2, EFM and Chapter 2, TR-55. Each document lists the runoff curve numbers for specific cover descriptions.

Rural Cover Description

The runoff curve number for a wide range of rural hydrologic soil cover complexes are shown in Chapter 2, EFM and Chapter 2, TR-55.

Urban Cover Description

The runoff curve numbers for a wide range of urban hydrologic soil cover complexes are shown in Chapter 2, TR-55. While urban CN's are also given in Chapter 2, EFM, some restrictions apply to their use. Therefore, use TR-55 when working with urban areas. The runoff curve numbers for the urban hydrologic soil cover complex are for the specific percent impervious shown in Chapter 2, TR-55. The values shown represent the average percent impervious for that cover description.

If your percent impervious for a listed cover description is different, then develop a new CN for that hydrologic soil cover complex as follows:

$$(\% \text{ area impervious}) (98) + (1 - \% \text{ impervious}) (\text{CN open space in good condition for that soil})$$

For example, one-acre lots on a C hydrologic soil group have total impervious area percentage of 15. The estimated CN would be:

$$(0.15) (98) + (1 - 0.15) (74) = 77.6 = 78$$

The impervious runoff curve number from Table 2-2a is 98 and open space in good condition on a C hydrologic soil group from Table 2-2a is 74.

Activities 3 and 4

At this time, complete Activities 3 and 4 in your Study Guide to review the material just covered. After finishing each Activity, compare your answers with the solution provided. When you are satisfied that you understand the material, continue with the Study Guide text.

Activity 3

Determine the runoff curve numbers for the hydrologic soil cover complexes listed below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Hydrologic Soil Group	Cover Description	CN
B	Row crops – straight row & crop residue, in good condition	
B	Small grain – contoured, in poor condition	
B	Meadow – in good condition	
C	Woods – in fair condition	

Activity 3 – Solution

Determine the runoff curve numbers for the hydrologic soil cover complexes listed below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Hydrologic Soil Group	Cover Description	CN
B	Row crops – straight row & crop residue, in good condition	75
B	Small grain – contoured, in poor condition	74
B	Meadow – in good condition	58
C	Woods – in fair condition	73

Activity 4

Determine the runoff curve number for the hydrologic soil cover complexes listed below. Refer to Appendix A in your Study Guide for applicable charts and tables.

Hydrologic Soil Group	Cover Description	CN
A	Residential – 1 ac.	
B	Commercial	
C	New graded area	
B	Residential – 1 ac. 18% impervious	

Activity 4 – Solution

Determine the runoff curve number for the hydrologic soil cover complexes listed below. Refer to Appendix A in your Study Guide for applicable charts and tables.

Hydrologic Soil Group	Cover Description	CN
A	Residential – 1 ac.	51
B	Commercial	92
C	New graded area	91
B	Residential – 1 ac. 18% impervious	$(0.18)(98) + (1-0.18)(61)$ $= 67.7 = 68$

CN Computations for Complex Areas

The runoff curve number for a complex hydrologic soil-cover complex is developed by weighing areas of CN's within the total drainage area as:

$$\begin{array}{ll} (\text{CN}) \times (\text{acres}) = & (\text{CN})(\%) = \\ (\text{CN}) \times (\text{acres}) = & \text{or} \quad (\text{CN})(\%) = \\ (\text{CN}) \times (\text{acres}) = \underline{\hspace{2cm}} & (\text{CN})(\%) = \underline{\hspace{2cm}} \end{array}$$

$$\text{Weighted CN} = \frac{\text{Total Product}}{\text{Total Area}} = \text{to the nearest whole value}$$

For example, using acres and Chapter 2, EFM:

Hydrologic soil cover complex	Acres	CN	Product
Row Crop-Soil B (contoured, good)	220	75	16,500
Row Crop-Soil D (straight row, good)	150	89	13,350
Pasture-Soil D (good)	30	80	2,400
	<u>400</u>		<u>32,250</u>

$$\text{Weighted CN} = \frac{32,250}{400} = 80.6 = 81 \text{ to nearest whole value}$$

For example, using % and Chapter 2, TR-55:

Hydrologic soil cover complex	Acres	%	CN	Product
House-Soil C (1/2 acre lots)	220	0.550	80	44
Commercial-Soil D	150	0.375	95	37
Open Areas-Soil D (good)	30	0.075	80	6
	<u>.400</u>	<u>1.000</u>		<u>87</u>

Activities 5 and 6

At this time, complete Activities 5 and 6 in your Study Guide to review the material just covered. After finishing each Activity, compare your answers with the solution provided. When you are satisfied that you understand the material, continue with the Study Guide text.

Activity 5

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres
Dover	Row Crops–SR & CR in good condition	500
Crofton	Small grain–contoured contoured, in poor condition	300
Greenville	Meadow–in good condition	150
Odessa	Woods–in fair condition	50

Activity 5 – Alternate Solution 1

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	Hydrologic Soils Group	CN	Product
Dover	Row Crops—SR & CR in good condition	500	B	75	37,500
Crofton	Small grain—contoured, in poor condition	300	B	74	22,200
Greenville	Meadow—in good condition	150	B	58	8,700
Odessa	Woods—in fair condition	50	D	79	3,950
		<hr/> <u>1,000</u>			<hr/> <u>72,350</u>

$$\text{weighted CN} = \frac{72.350}{1000} = 72.3 \text{ use } 72$$

Activity 5 – Alternate Solution 2

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	% Area	Hydrologic Soils Group	CN	Product
Dover	Row Crops—SR & CR in good condition	500	0.50	B	75	37.5
Crofton	Small grain—contoured, in poor condition	300	0.30	B	74	22.2
Greenville	Meadow—in good condition	150	0.15	B	58	8.7
Odessa	Woods—in fair condition	50	0.05	D	79	3.9
		<hr/> <hr/> 1,000	<hr/> <hr/> 1.00			<hr/> <hr/> 72.3
						Use 72

Activity 6

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres
Dover	Row Crops-straight row and crop residue, in good condition	300
Newberg	Meadow-in good condition	200
Crofton	1 ac Residential	200
Odessa	Industrial	100
Dover	1/2 ac. Residential 27% impervious	100
Greenville	New graded	100

Activity 6 - Alternate Solution 1

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	Hydrologic Soils Group	CN	Product
Dover	Row Crops-straight row and crop residue, in good condition	300	B	75	22,500
Newberg	Meadow-in good condition	200	B	58	11,600
Crofton	1 ac Residential	200	B	68	13,600
Odessa	Industrial	100	D	93	9,300
Dover	1/2 ac. Residential 27% impervious $(0.27)(98)+(1-0.27)(61)$	100	B	71	7,100
Greenville	New graded	<u>100</u>	B	86	<u>8,600</u>
		1,000			72,700

$$\text{weighted CN} = \frac{72,700}{1,000} = 72.7 \text{ use 73}$$

Activity 6 – Alternate Solution 2

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	% Area	Hydrologic Soils Group	CN	Product
Dover	Row Crops—SR & CR in good condition	300	0.30	B	75	22.5
New Castle	Meadow—in good condition	200	0.20	B	58	11.6
Crofton	1 ac Residential	200	0.20	B	68	13.6
Odessa	Industrial	100	0.10	D	93	9.3
Dover	1/2 ac. Residential 27% impervious $(0.27) (98) + (1-0.27) (61)$	100	0.10	B	71	7.1
Greenville	New graded	100	0.10	B	86	8.6
		<u>1,000</u>	<u>1.00</u>			<u>72.7</u>

use 73

Summary

In summary, we have learned that a runoff curve number for a watershed with a mixture of cover descriptions and soil types can be easily determined. Each soil cover complex has a unique runoff curve number.

The hydrologic soil group information is in either Appendix A, TR-55 or Chap. 2, EFM. Urban cover description CN's are shown in Table 2-2a, TR-55 and rural CN's are shown in Chapter 2, EFM.

The CN's are to be used with single event design storms or events and represent the median condition when the largest yearly event occurs. They do not account for the impact of frozen ground on runoff rates and should not be used in continuous models.

You have proven that you can calculate the runoff curve number for a complex watershed by two methods. You have also seen that the two methods produce identical results. The methods are simple and easy to use.

Retain this Study Guide as a reference until you are satisfied that you have successfully mastered all the methods covered. It will provide an easy review at any time if you should encounter a problem.

If you have had problems understanding the module or if you would like to take additional, related modules, contact your supervisor.

When you are satisfied that you have completed this module, remove the Certification of Completion sheet (last page of the Study Guide), fill it out, and give it to your supervisor to submit, through channels, to your State or NTC Training Officer.

ENG – Hydrology Training Series

Appendix A

Charts and Tables

Table 2-2a.—Runoff curve numbers for urban areas¹

Cover type and hydrologic condition	Average percent impervious area ²	Curve numbers for hydrologic soil group—			
		A	B	C	D
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³ :					
Poor condition (grass cover < 50%)	68	79	86	89	
Fair condition (grass cover 50% to 75%).....	49	69	79	84	
Good condition (grass cover > 75%)	39	61	74	80	
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)	98	98	98	98	
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way).....	98	98	98	98	
Paved; open ditches (including right-of-way)	83	89	92	93	
Gravel (including right-of-way)	76	85	89	91	
Dirt (including right-of-way)	72	82	87	89	
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴ ...	63	77	85	88	
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders).	96	96	96	96	
Urban districts:					
Commercial and business.....	85	89	92	94	95
Industrial.....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses).....	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ⁵		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹Average runoff condition, and $I_a = 0.2S$.

²The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2b.—Runoff curve numbers for cultivated agricultural lands¹

Cover description		Hydrologic condition ³	Curve numbers for hydrologic soil group—			
Cover type	Treatment ²		A	B	C	D
Fallow	Bare soil	—	77	86	91	94
	Crop residue cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
Row crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C&T)	Poor	66	74	80	82
		Good	62	71	78	81
	C&T + CR	Poor	65	73	79	81
		Good	61	70	77	80
Small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C&T	Poor	61	72	79	82
		Good	59	70	78	81
	C&T + CR	Poor	60	71	78	81
		Good	58	69	77	80
Close-seeded or broadcast legumes or rotation meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C&T	Poor	63	73	80	83
		Good	51	67	76	80

¹Average runoff condition, and $I_a = 0.2S$.

²*Crop residue cover* applies only if residue is on at least 5% of the surface throughout the year.

³Hydrologic condition is based on combination of factors that affect infiltration and runoff, including (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes in rotations, (d) percent of residue cover on the land surface (good $\geq 20\%$), and (e) degree of surface roughness.

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

Table 2-2c.—Runoff curve numbers for other agricultural lands¹

Cover type	Cover description	Hydrologic condition	Curve numbers for hydrologic soil group—			
			A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. ²		Poor	68	79	86	89
		Fair	49	69	79	84
		Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.		—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. ³		Poor	48	67	77	83
		Fair	35	56	70	77
		Good	30	48	65	73
Woods—grass combination (orchard or tree farm). ⁵		Poor	57	73	82	86
		Fair	43	65	76	82
		Good	32	58	72	79
Woods. ⁶		Poor	45	66	77	83
		Fair	36	60	73	79
		Good	30	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.		—	59	74	82	86

¹Average runoff condition, and $I_a = 0.2S$.

²Poor: <50% ground cover or heavily grazed with no mulch.

Fair: 50 to 75% ground cover and not heavily grazed.

Good: >75% ground cover and lightly or only occasionally grazed.

³Poor: <50% ground cover.

Fair: 50 to 75% ground cover.

Good: >75% ground cover.

⁴Actual curve number is less than 30; use CN = 30 for runoff computations.

⁵CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

⁶Poor: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Table 2-2d.—Runoff curve numbers for arid and semiarid rangelands¹

Cover type	Cover description	Hydrologic condition ²	Curve numbers for hydrologic soil group—			
			A ³	B	C	D
Herbaceous—mixture of grass, weeds, and low-growing brush, with brush the minor element.		Poor	80	87	93	
		Fair	71	81	89	
		Good	62	74	85	
Oak-aspen—mountain brush mixture of oak brush, aspen, mountain mahogany, bitter brush, maple, and other brush.		Poor	66	74	79	
		Fair	48	57	63	
		Good	30	41	48	
Pinyon-juniper—pinyon, juniper, or both; grass understory.		Poor	75	85	89	
		Fair	58	73	80	
		Good	41	61	71	
Sagebrush with grass understory.		Poor	67	80	85	
		Fair	51	63	70	
		Good	35	47	55	
Desert shrub—major plants include saltbush, greasewood, creosotebush, blackbrush, bursage, palo verde, mesquite, and cactus.		Poor	63	77	85	88
		Fair	55	72	81	86
		Good	49	68	79	84

¹Average runoff condition, and $I_a = 0.2S$. For range in humid regions, use table 2-2c.

²Poor: <30% ground cover (litter, grass, and brush overstory).

Fair: 30 to 70% ground cover.

Good: >70% ground cover.

³Curve numbers for group A have been developed only for desert shrub.

Appendix A: Hydrologic soil groups

Soils are classified into hydrologic soil groups (HSG's) to indicate the minimum rate of infiltration obtained for bare soil after prolonged wetting. The HSG's, which are A, B, C, and D, are one element used in determining runoff curve numbers (see chapter 2). For the convenience of TR-55 users, exhibit A-1 lists the HSG classification of United States soils.

The infiltration rate is the rate at which water enters the soil at the soil surface. It is controlled by surface conditions. HSG also indicates the transmission rate—the rate at which the water moves within the soil. This rate is controlled by the soil profile. Approximate numerical ranges for transmission rates shown in the HSG definitions were first published by Musgrave (USDA 1955). The four groups are defined by SCS soil scientists as follows:

Group A soils have low runoff potential and high infiltration rates even when thoroughly wetted. They consist chiefly of deep, well to excessively drained sands or gravels and have a high rate of water transmission (greater than 0.30 in/hr).

Group B soils have moderate infiltration rates when thoroughly wetted and consist chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission (0.15-0.30 in/hr).

Group C soils have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine texture. These soils have a low rate of water transmission (0.05-0.15 in/hr).

Group D soils have high runoff potential. They have very low infiltration rates when thoroughly wetted and consist chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very low rate of water transmission (0-0.05 in/hr).

In exhibit A-1, some of the listed soils have an added modifier; for example, "Abrazo, gravelly." This refers to a gravelly phase of the Abrazo series that is found in SCS soil map legends.

Disturbed soil profiles

As a result of urbanization, the soil profile may be considerably altered and the listed group classification may no longer apply. In these circumstances, use the following to determine HSG according to the texture of the new surface soil, provided that significant compaction has not occurred (Brakensiek and Rawls 1983):

HSG Soil textures

A	Sand, loamy sand, or sandy loam
B	Silt loam or loam
C	Sandy clay loam
D	Clay loam, silty clay loam, sandy clay, silty clay, or clay

Drainage and group D soils

Some soils in the list are in group D because of a high water table that creates a drainage problem. Once these soils are effectively drained, they are placed in a different group. For example, Ackerman soil is classified as A/D. This indicates that the drained Ackerman soil is in group A and the undrained soil is in group D.

Exhibit A-1: Hydrologic soil groups for United States soils

AABAB	D	ADAVEN	C	AHREN	B	ALDING	D	ALSEA	B
AABERG	D	ADDICKS	D	AHRNKLIN	C	ALDINO	C	ALSPAUGH	C
AARDN	C	ADDIELOU	E	AMRS	B	ALEDDO	C	ALSTAD	B
AASTAD	B	ADE	A	AHTANUM	D	ALEGROS	C	ALSTONY	B
AAZDAHL	B	ADEX	B	AHTANUM, DRAINED	C	ALEKNAGIK	C	ALSUP	C
ABAC	D	ADEL	B	AMWAHNEE	B	ALEMEDA	C	ALTAMONT	D
ABAJO	C	ADEL, WET	D	AICONITO	C	ALEX	B	ALTAPEAK	B
ABALOBADIAH	S	ADELAIDE	D	AIDO	D	ALEXANDER	C	ALTAR	B
ABARCA	B	ADELANTO	E	AJKEN	B	ALEXANDRIA	C	ALTAVISTA	C
ABBAYE	B	ADELINO	B	AIKMAN	D	ALFIR	B	ALTDORF	D
ABBIE	B	ADELINGO	C	AIRMAN, STONY	C	ALFLACK	C	ALTHOUSE	B
ABBOTT	D	SALINE-ALKALI		AILFY	E	ALFORD	B	ALTICREST	B
ABBOTTSTOWN	C	ADELPHIA	B/C	AIMELIA	P	ALGANSEE	P	ALTITA	C
ABCAL	D	ADEN	C	AINAKEA	B	ALGARROBO	A	ALTMAR	B
ABEGG	B	ADENA	C	AINSLEY	B	ALERITA	B	ALTO	C
ABELA	B	ADGER	D	AINSWORTH	E	ALGIERS	C/D	ALTOGA	C
ABELL	B	ADIEUX	B	AIRMCNT	C	ALGOA	C	ALTON	A
ABERDEEN	C	ADILIS	B	AIRPORT	D	ALGOMA	B/D	ALDONA	D
ABERONE	B	ADIN	D	AITS	E	ALHAMBRA	B	ALTUDA	D
ARESITO	C	ADIOS	D	AJC	C	ALHARK	B	ALTURAS	C
ASERT	R	ADJUNTAS	C	AJOLITO	D	ALICE	B	ALTUS	B
AEES	D	ADKINS	B	AKAD	C	ALICEL	B	ALT VAN	B
ABGESE	B	ADKINS, ALKALI	C	AKAKA	A	ALICIA	B	ALUF	A
ABILENE	C	ADKINS, WET	C	AKAN	B/D	ALIDA	B	ALUM	D
ABIQUA	B	ADLER	C	AKASKA	E	ALIKCHI	B	ALUSA	D
ABIQUA, FLOODED	C	ADMAN	D	AKELA	D	ALINE	A	ALVARADO	B
ARITA	C	ADDOBE	C	AKERCAN	E	ALKIPIDGE	C	ALVIN	B
ABD	C	ADOLPH	B/D	AKERUE	D	ALKO	D	ALVIRA	C
ABOR	D	ADOS	C	AKINA	E	ALLAGASH	B	ALVISO	D
ABORIGINE	D	ADRIAN	A/D	AKLEF	D	ALLAMORE	D	ALVODEST	D
ABOTEN	D	ADVKAY	D	ALADDIN	E	ALLANTON	B/D	ALVOP	D
ABRA	S	ACECT	C	ALADSHI	E	ALLANTON,	D	ALVCP, DRAINED	C
ABRAHAM	S	AENEAS	B	ALAE	A	DEPRESSIONAL		ALVOR, PROTECTED	C
ABRAZC	D	AFFEY	C	ALAELOA	E	ALLARD	B	ALWILDA	B
ABRAZO, GRAVELLY	C	AFLEVY	B	ALAGA	A	ALLDOWN	B	ALYAN	C
ABREU	B	AFTADEN	D	ALAKAI	C	ALLEHENY	B	ALZADA	D
ABRIGO	B	AFTON	C/D	ALAMA	B	ALLEMANDS	D	ALZOLA	C
ABSAPOKEE	C	AGA	B	ALAMADITAS	C	ALLEN	B	AMADOR	D
ABSCOTA	A	AGAIRAH	D	ALAMANCE	P	ALLENDALE	B	AMAGON	D
ABSHER	D	AGAN	D	ALAMBIQUE	B	ALLENDORF	B	AMALIA	B
ABSTED	C	AGAR	B	ALAMC	D	ALLENS PARK	B	AMALU	D
ABSTED, FLOODED	D	AGASSIZ	D	ALAMOGORDO	P	ALLENS PARK, STONY	C	AMANA	B
ABSTON	C	AGATE	C	ALAMOSA	D	ALLENTINE	D	AMANDA	C
ACACIO	B	AGATHA	E	ALAMOSA, DRAINED	E	ALLENWOOD	B	AMARILLO	B
ACADEMY	C	AGAWAH	P	ALAMUCHEE	P	ALLEY	B	AMASA	B
ACADIA	D	AGENCY	C	ALANGS	P	ALLHANDS	D	AMASA, MODERATELY	C
ACANA	D	AGER	D	ALAFAMA	D	ALLIANCE	B	WET, SANDY	
ACANDD	C	AGFAYAN	D	ALAPAI	A	ALLIGATOR	D	SUPERSTRATUM	
ACASCO	D	AGNAL	D	ALAZAN	E	ALLIS	D	AMBER	B
ACCELERATOR	B	AGNESTON, COBBLY	C	ALBAN	P	ALLISON	P	AMBIA	D
ACEITUNAS	B	AGNESTON, COBBLY	C	ALBANO	D	ALLKER	P	AMBOAT	C
ACEL	C	SUBSTRATUM		ALBANY	C	ALLOR	B	AMBOY	C
ACHIMIN	C	AGNESTON, CORBLY	C	ALBATON	D	ALLDUEZ	B	AMBRANT	B
ACKEF	B	AGNESTON.	C	ALEEE	C	ALMAC	B	AMRAV	B/D
ACKERMAN	A/D	NONGRAVELLY	C	ALEEMARLE	B	ALMANDR	E	AMELIA	C
ACKERVILLE	C	AGNEW	C	ALBERTON	B	ALMATIVE	D	AMENE	D
ACKETT	D	AGNOS	D	ALEERTVILLE	C	ALPENA	C	AMENIA	B
ACKLEY	B	AGON	C	ALEINAS	B	ALMERIA	D	AMENSON	D
ACKMEN	B	AGORT	C	ALEION	B	ALMIFANTE	B	AMERICANOS	B
ACKMORE	B	AGRA	C	ALEFIGHTS	C	ALMO	D	AMERICUS	A
ACKWATER	D	AGUA	P	ALFUZ	C	ALMONT	C	AMERY	B
ACME	C	AGUA DULCE	E	ALPURZ, DRAINED	E	ALMOTA	C	AMES	C/D
ACO	B	AGUA FRIA	C	ALBUS	B	ALMY	P	AMESHA	B
ACOMA	C	AGUA FRIA, HIGH	B	ALCAN	D	ALNITE	D	AMESHON	
ACORD	C	RAINFALL		ALCESTER	P	ALD	D	AMHERST	D
ACOVE	C	AGUA FRIA, STONY	P	ALCDA	E	ALDHA	C	AMISTAD	D
ACREDALE	D	AGUADILLA	A	ALCONA	B	ALDOMAX	D	AMITY	D
ACREE	C	AGUALT	B	ALCCT	A	ALDONA	B	AMMON	B
ACRELANE	C	AGUEDA	B	ALCDOVA	P	ALONSO	B	AMCDAC	C
ACTON	B	AGUILARES	P	ALDA	C	ALOVAR	C	ANGLE	A
ACUFF	P	AGUILITA	B	ALDA, SALINE	B/D	ALPENA	A	AMOR	B
ACUNA	C	AGUIPRE	C	ALDAX	C	ALPHA	P	AMORUS	D
ACY	C	AGUSTIN	P	ALDEN	D	ALPIN	A	AMOS	C
ADA	C	AHART	C	ALDER	C	ALPON	P	AMOSTOWN	C
ADAIR	C	AHL	C	ALDEFDALE	C	ALPONA	P	AMPAD	C
ADAMS	A	AHLSTROM	D	ALDERMAND	B	ALRED	B	AMPHION	C
ADAMSON	B	AMHEEK	C	ALDERWOOD	C	ALROS	C	AMSDEN	B
ADAMSVILLE	C	AMOLT	D	ALDI	E	ALS	A	AMSTERDAM	B
ADATON	D	AMPAH	B	ALDINE	D	ALSCO	B	AMTOFT	D

NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS B/C INDICATES THE DRAINED/UNDRAINED SITUATION.
MODIFIERS SHOWN, E.G., BEDROCK SUBSTRATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Exhibit A-1, continued: Hydrologic soil groups for United States soils

AMWELL	C	ANSELMO. BEDROCK	A	ARCH	E	ARMYDRAIN	C	ASSUMPTION	B
AMY	D	SUBSTRATUM		ARCHABAL	B	ARNEGARD	B	ASTA	B
ANACAPA	B	ANSGAR	B/D	ARCHBOLD	A	ARNESS	D	ASTATULA	A
ANACOCO	D	ANSPING	B	ARCHFR	C	ARNHEIM	D	ASTOR	B/D
ANACONDA	B	ANT FLAT	C	ARCHEPALE	C	ARNO	D	ASTDP. FLOODED	D
ANAHIME	C	ANTEL	B	ARCHESES	D	ARNOLD	A	ASTORIA	B
ANAHUAC	D	ANTELOPE SPRINGS	C	ARCHIN	D	ARNOT	C/D	ATARQUE	D
ANAMITE	D	ANTERO	D	ARCHIN. COOL	C	ARNTZ	C	ATASCO	C
ANAPRA	B	ANTHO	B	ARCHUELA	D	AROL	D	ATASCOSA	D
ANASAZI	C	ANTHOLOP	D	ARCIA	C	AROSA	C	ATATE	B
ANATONE	D	ANTHONY	B	ARCLAY	D	ARP	C	ATCHEE	D
ANAUD	D	ANTIGO	B	ARCO	C	ARRADA	D	ATCO	B
ANAVERDE	B	ANTILON	C	ARCO. DRAINED	E	ARRASTRE	B	ATENCIO	B
ANAWALT	D	ANTIOCH	D	ARCOLA	C	ARREDONDO	A	ATEPIC	D
ANCHO	B	ANTLER	C	ARD	C	ARRIBA	C	ATHELWOLD	B
ANCHO. SALINE	C	ANTOINE	B	ARDENMONT	B	ARRINGTON	B	ATHENA	B
ANCHOR POINT	D	ANTONITO	C	ARCIENOIR	B	ARRICLA	D	ATHERTON	B/D
ANCHORAGE	A	ANTOSA	D	ARDEP	B	ARRITOLA	D	ATHOL	B
ANCLOTE	B/D	ANTROBUS	B	ARDEP. WET	C	ARROLIME	C	ATKINS	D
ANCLOTE.	D	ANTWERP	C	ARDILLA	C	ARRON	D	ATKINSON	B
DEPRESSONAL		ANTY	B	ARDIVEY	B	ARROWHEAD	C	ATLAS	D
ANCLOTE.	D	ANUNDE	E	ARDNAS	B	ARROYADA	D	ATLEE	C
FREQUENTLY		ANVIK	B	ARDTCO	B	ARROYO SECO	B	ATLOW	D
FLOODED		ANWAY	B	ARECIBO	A	ARSITE	D	ATMORE	B/D
ANCO	C	AOWA	B	AREDALE	B	ARTA	C	ATOKA	C
ANDERGEORGE	B	APACHE	D	ARENA	C	ARTESIA	D	ATOMIC	B
ANDERLY	C	APAKUIE	A	ARENA. DRAINED	C	ARTESIAN	D	ATRAC	B
ANDERS	C	APALACHEE	D	ARENALES	A	ARTNOC	B	ATRAVESADA	D
ANDERSON	B	APALO	B	ARENCTSVILLE	B	ARTCIS	C	ATRING	B
ANDOK	B	APAREJO	E	ARENOSA	A	ARUJO	B	ATRYPA	D
ANDOVER	D	APELDORN	D	ARENZVILLE	B	ARUNDEL	C	ATSION	C/D
ANDRADA	D	APEX	B	ARGALT	D	APVA	D	ATSION. TIDE	D
ANDREESON	C	APIASHA	D	ARGENT	D	ARVADA	D	FLOODED	
ANDREGG	B	APISON	B	ARGENTA	C	ARVANA	C	ATTELLA	D
ANDRES	B	APMAT	B	ARGONAUT	D	ARVESON	B/D	ATTER	A
ANDREWS	C	APMAY	D	ARGORA	E	ARVILLA	A	ATTERBERRY	B
ANDRUSIA	A	APCLLO	E	ARGYLE	E	ARVIN	B	ATTEWAN	B
ANDRY	D	APOPKA	A	ARIEL	C	ARZO	D	ATTEWAN. WET	D
ANDYS	B	APPANOOSE	D	ARIKARA	B	ASA	P	ATTICA	B
ANED	D	APPERSON	C	ARIHO	B	ASABEAN	B	ATTODYAC	B
ANELA	B	APPIAN	B	ARIPEKA	C	ASBILL	D	ATWATER	B
ANETH	B	APPIAN.	C	ARIPINE	A	ASCALON	B	ATWELL	D
ANETH. DRY	A	SALINE-ALKALI		ARIS	D	ASCAR	C	ATWOOD	B
ANGELICA	B/D	APPIAN. WET	C	ARISPE	C	ASCHOFF	E	AU GRES	B
ANGELINA	D	APPIAN. RECLAIMED	C	ARIZO	A	ASH SPRINGS	C	AUA	B
ANGELO	C	APPLEBUSH	B	ARKABUTLA	C	ASHART	D	AUBARQUE	D
ANGELUS	B	APPLEDELLIA	C	ARKANA	C	ASHBON	D	AUBBEENAUBBEE	B
ANGIE	D	APPLEGATE	C	ARKAQUA	C	ASHCROFT	B	AUBERRY	B
ANGLE	A	APPLETON	C	ARKDNA	E	ASHDALE	E	AUBREY	C
ANGLEN	C	APPLING	B	AFKPORT	R	ASHDOWN	B	AUBURN	D
ANGOLA	C	APRON	B	ARKSON	B	ASHE	B	AUBURNDALE	B/D
ANGORA	B	APT	B	ARKTON	C	ASHER	C	AUFCD	D
ANGOSTURA	B	APTAKASIC	E	APLAND	B	ASHFORD	D	AUGGIE	B
ANHALT	D	APOTOS	C	ARLE	C	ASHFORK	D	AUGSBURG	B/D
ANIAK	D	AQUILLA	A	ARLINGTON	C	ASHGROVE	D	AUGUSTA	C
ANIMAS	C	AQUINAS	C	ARLINGTON. THICK	E	ASHHURST	C	AUGUSTINE	B
ANINTO	D	ARABRAD	D	SOLUM		ASHIPPUN	C	AULD	D
ANITA	D	ARADA	B	ARLO	R	ASHKUM	B/D	AURA	B
ANKENY	B	ARAGON	C	ARLOVAL	A	ASHLAR	B	AURELIE	D
ANKLAM	D	ARAMBURU	C	ARPACH	D	ASHLEY	B	AURELIUS	B/D
ANKONA	D	ARANSAS	D	APMC0	C	ASHLD	B	AURDRA	C
ANNABELLA	B	ARAPAHOE	E/D	APMELLS	B	ASHMED	E	AUSMUS	D
ANNANDALE	C	ARAPIEN	C	ARKENDARIS	C	ASHMUN	D	AUSTIN	C
ANNAW	B	ARARAT	B	ARMENIA	D	ASHOLLER	D	AUSTINVILLE	B
ANNEMAINE	C	ARAT	D	ARMESA	B	ASHPORT	B	AUSTWELL	D
ANNIS	C	APAVAIPA	C	ARMESPAN	B	ASHTON	B	AUT	C
ANNIS. SALINE	B	ARAVE	D	ARMIESBURG	B	ASHUE	B	AUTDMBA	B
ANNIS. DRAINED	B	ARAVETON	B	ARMIJO	D	ASHUELDT	D	AUTRYVILLE	A
ANNISQUAM	C	ARBELA	C	ARMINGTON	D	ASHWOOD	C	AUXVASSE	D
ANNISTON	B	ARBIDGE	C	ARMISTEAD	C	ASKEW	C	AUZQUI	B
ANNONA	D	ARBOLES	C	ARMITAGE	C	ASOLT	D	AVA	C
ANCON	C	ARBONE	B	ARMD	B	ASOTIN	C	AVALON	B
ANOKA	B	ARBOR	B	ARMCINE	D	ASPARAS	B	AVANT	B
ANONES	C	ARBUCKLE	B	ARMONA	C	ASPEN	B	AVAR	D
ANOWELL	D	AREUCKLE. WET	C	ARMOUR	B	ASPERMONT	B	AVAWATZ	A
ANSARI	D	ARBURUA	C	ARMPUP	C	ASPERSON	C	AVENAL	B
ANSEL	B	ARBUS	B	ARMSTER	C	ASSATEAGUE	A	AVILLA	B
ANSELMO	B	ARCATA	B	ARMSTRONG	C	ASSININS	B	AVIS	A
		ARCKETTE	B	ARMUCHEE	C	ASSINNIODINE	B	AVOCA	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

AVON	C	BALDFIELD	C	BARDLEY	C	BATESON	B	BEAVERTON	B
AVONBURG	D	BALDHILL	B	BARELA	C	BATESVILLE	C	BECKER	B
AVONDA	B	BALDMOUNTAIN	B	BARFIELD	D	BATH	C	BECKET	C
AVONDALE	B	BALDOCK	D	BARFUSS	B	BATTERSON	D	BECKLEY	B
AVONYILLE	B	BALDOCK, GRAVELLY	C	BARGE	C	BATTLE CREEK	C	BECKMAN	D
AVTABLE	D	SUBSTRATUM,		BARGER	C	EATTLEMENT	B	BECKS	C
AUBRIG	D	DRAINED		BARIO	B	BATZA	D	BECKTON	D
AXIS	D	BALDOCK, SALINE	C	BARISHMAN	C	BAUDETTE	B	BECKTON, WELL	C
AXTELL	D	BALDOCK, SALINE	C	BARKCAMP	E	BAUER	C	DRAINED	
AYAR	D	BALDOCK, DRAINED	C	BARKELEV	B	BAUMAN	C	BECKVILLE	B
AYCOCK	B	BALDWIN	D	BARKERVILLE	C	BAUMGARD	B	BECKWITH	D
AYDELLOTTE	D	BALDY	B	BARKLEY	C	BAUSCHER	E	BECKWOURTH	C
AYERSVILLE	B	BALE	B	BARKOF	D	BAUX	B	BCRAFT	B
AYLMER	A	BALE, WET	D	BARLEYFIELD	E	BAUXSON	B	BECKREK	B
AYNOR	B/D	BALLACK	D	BARLING	C	BAXENDALE	B	BEDELL	B
AYON	B	BALLARD	E	BARLOW	B	BAXTER	B	BEDEN	D
AYDUB	C	BALLER	D	BARNABE	C	BAXTERVILLE	B	BEDFORD	C
AYR	B	BALLINGER	D	BARNARD	C	BAYAMON	B	BEDINGTON	B
AYRES	D	BALLTOWN	D	BARNELLCREEK	E	BAYARD	B	BEDKE	B
AYRSHERE	C	BALLVAR	B	BARNES	B	BAYBORD	D	BEDNER	C
AYSEES	B	BALLY	C	BARNESTON	B	BAYERTON	C	BEDSTEAD	C
AZAAR	C	BALM	D	BARNESTON.	A	BAYFIELD	C	BEDWYR	D
AZELTINE	B	BALMAN	B	BONGRAVELLY		BAYFIELD, WET	D	BEE	B
AZTALAN	C	BALMAN, SALINE.	C	BARNEY	D	BAYHORSE	D	BEEBE	A
AZTEC	B	FLOODED		BARNARDT	B	BAYLIS	R	BEECHER	C
AZTEC, HIGH RAINFALL	C	BALMLAKE	B	BARNHOT	D	BAYMEADE	A	BEECHGROVE	B
AZULE	C	BALMORHEA	C	BARNSDALL	B	BAYOU	D	BECHWOOD	C
AZWELL	C	BALON	B	BARNSTABLE	B	BAYOUDAN	D	BEEK	C
BAANISH	B	BALSORA	B	BARNUM	B	BAYSHORE	D	BEEMAN	C
BABB	B	BALTIC	D	BARODA	D	BAYSHORE, WET	B	BELEM	D
BABBINGTON	B	BALTIMORE	B	BARDID	A	MODERATELY WET		BEELINE	D
BABELTHUAP	B	BAMA	B	BARDID, WET	D	BAYSIDE	D	BEEMONT	C
BACA	B	BAMAC	A	BARRADA	D	BAYTOWN	B	BEENOM	D
BACA, FLOODED	C	BAMBER	B	BARRE	D	BAYUCOS	D	BEESKOVE	B
BACH	B/D	BANTSUH	B	BARRETT	D	BAYVI	D	BEETVILLE	B
BACHELOR	B	BANADERU	D	BARRIER	D	BAYVIEW	D	BEEZEE	B
BACHO	D	BANAT	B	BARRINGTON	E	BAWDODD	A	BEFAR	D
BACHUS	C	BANBURY	D	BARRON	B	BAZETTE	C	BEGAY	B
BACKBAY	D	BANCAS	C	BARRONETT	E/D	BAZILE	B	BEHANIN	B
BACKBONE	B	BANCER	D	ARRY	B/D	BEACH	D	BEHMOTOSH	C
BACLIFF	D	BANCROFT	B	BARSAC	C	BEAD	C	BEHRING	D
BACOBI	C	BANCY	D	BARSHAAD	D	BEADE	C	BEIGLE	B
BACONA	B	BANDAG	B	BARY	B	BEALAND	B	BEIRMAN	D
BADAXE	B	BANDERA	B	BARTINE	C	BEALES	B	BEISIGL	A
BADENA	B	BANDID	B	BARTLE	D	BEAN	D	BEJE	D
BADENAUGH	B	BANDON	C	BARTLEY	C	BEANTON	C	BEJUCOS	B
BADGE	B	BANE	A	BARTOME	D	BEANBLOSSOM	B	BELAIN	C
BADGERTON	B	BANGO	B	BARTON	B	BEANFLAT	C	RELATE	B
BADIN	C	BANGOR	B	BARTONFLAT	B	BEANLAKE	B	BELCHER	D
BADITO	C	BANGSTON	A	BARVON	B	BEANO	D	BELDEN	C
BADO	D	BANIDA	D	BARX	B	BEAR BASIN	B	BELDING	B
BADUS	C/D	BANKARD	A	BASCAL	B	BEAR CREEK	B	BELEN	D
BADWATER	B	BANKHEAD	B	BASCO	C	BEAR LAKE	D	BELFAST	B
BAGARD	B	BANKS	A	BASCOM	B	BEAR PRAIRIE	B	BELFIELD	C
BAGDAD	B	BANLIC	C	BASCOVY	D	BEARDALL	C	BELFORE	B
BAGGOTT	D	BANNEL	B	BASEHOR	D	BEARDEN	C	BELGARRA	C
BAGLEY	B	BANNER	C	BASH	D	BEARDSLEY	C	BELGRADE	B
BAHEN	B	BANNING	C	BASHAV	C	BEARDSTOWN	C	BELHAVEN	D
BAHIA	A	BANNION	C	BASHER	B	BEARGULCH	B	BELINDA	B
BAHL	C	BANNOCK	B	BASILE	D	BEARMOUTH	B	BELJICA	B
BAILE	D	BANTRY	A/D	BASIN	C	BEARSKIN	D	BELK	D
BAILEGAP	B	BAPOS	D	BASINGER	E/D	BEARSPRING	B	BELKNAP	C
BAILEYCREEK	C	BARABOO	E	BASINGER,	D	BEARTRAP	B	BELLAVISTA	C
BAILING	C	BARAGA	C	DEPRESSATIONAL	E	BEAVILLE	C	BELLE	B
BAINVILLE	C	BARANA	B	BASINGER, FLOODED	D	BEARWALLOW	C	BELLECHESTER	A
BAIRD HOLLOW	C	BARATARI	A/D	BASKET	B	BEASLEY	C	BELLEHELEN	D
BAIRD HOLLOW,	D	BARBAROSA	D	BASSEL	E	REASON	C	BELLENMINE	D
EXTREMELY COBBLY		BARBARY	D	BASSETT	E	BEATRICE	C	BELLEVILLE, PONDED	D
BAIRD HOLLOW,	B	BARBERT	D	BASSFIELD	B	BEAUCOUP	B/D	BELLEVUE	B
GRAVELLY		BARBOUR	B	BASTIAN	C	BEAUFORD	D	BELLICUM	B
BAJURA	D	BARBOURVILLE	B	BASTON	C	BEAUGHTON	D	BELLINGHAM	D
BAKEOVEN	D	BARCAVE	B	BASTROP	B	BEAUMONT	D	BELLINGHAM,	C
BAKER	C	BARCE	B	BASTSIL	B	BEAUREGARD	C	DRAINED	
BAKERSVILLE	D	BARCLAY	C	BATA	B	BEAUSITE	C	PELLPASS	D
BALAM	B	BARCO	B	BATAN	E	BEAUVAIS	B	BELLPINE	C
BALCOM	B	BARCUS	A	BATAVIA	B	BEAVERCREEK	B	BELLWOOD	D
BALD	C	BARD	D	BATEMAN	B	BEAVERDAM	C	BELMEAR	D
BALDER	D	BARDEN	C	BATES	B	BEAVERELL	B	PELMILL	B

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BELMONT	B	BERTRAM	B	BILLINGS.	B	BLACKNOLL	C	BLUE LAKE	A
BELMORE	B	BERTRAND	B	MODERATELY SLOW	B	BLACKOAR	B/D	BLUE STAR	B
BELPRE	C	BERVILLE	B/D	PERM	C	BLACKPIPE	C	BLUEBELL	C
BELSAC	B	BERWOLF	B	BILLYCREEK	C	BLACKPRINCE	B	BLUECHIEF	C
BELTED	D	BERYL	B	BILLYHAV	D	BLACKROCK	B	BLUECREEK	D
BELTON	C	BERZATIC	D	BILTMORE	A	BLACKSAN	B	BLUEDOME	C
BELTRAMI	B	BESEMAN	A/D	BIMMER	D	BLACKSPAR	D	BLUEFLAT	C
BELTSVILLE	C	BESHERM	C	PINCO	D	BLACKSPOT	D	BLUEGROVE	C
BELUGA	D	BESNER	B	BINDEL	B	BLACKSTON	B	BLUEGULCH	B
BELUGA, DRAINED,	C	BESSEMER	C	BINFORD	B	BLACKTHORN	B	BLUEHILL	C
SLOPING		BESSIE	D	BINGER	B	BLACKTOP	D	BLUEMON	C
BELVDIR	C	BESTROM	C	BINGHAM	B	BLACKWATER	D	BLUEJOINT	B
BELZAR	C	BETHANY	C	BINGHAMPTON	B	BLACKWELL	D	BLUENOSE	B
BEMIDJI	A	BETHEL	B	BINGHAMVILLE	D	BLADEN	D	BLUEPOINT	A
BEN LOMOND	B	BETHERA	D	BINNA	B	BLAG	D	BLUERIM	C
BENCHLEY	C	BETHESA	C	BINNSVILLE	D	BLAGO	D	BLUESLIDE	D
BENCLARE	C	BETHLEHEM	B	BINS	B	BLAINE	C	BLUESPRIN	C
BENDO	B	BETIS	A	BINTON	C	BLAIR	C	BLUESTONE	D
BENDER	E	BETONNIE	B	BINTON, RECLAIMED	B	BLAIRTON	C	BLUEWING	A
BENDIRE	C	BETRA	C	BIDYA	B	BLAKABIN	C	BLUFF	D
BENEVOLA	C	PETTERAVIA	C	BIPPIUS	B	BLAKE	B	BLUFFDALE	C
BENEWAH	D	BETTS	B	BIRCHBAY	C	BLAKELAND	A	BLUFFTON	C/D
BENFIELD	C	BEULAH	B	BIRCHFIELD	D	BLAKENEY	C	BLUFORD	C
BENGAL	C	BEVENT	A	BIRCHWOOD	C	BLAKEWELL	C	BLUM	C
BENGE	B	BEVERIDGE	D	BIRDW	B	BLADLOCK	D	BLY	B
BENHAM	B	BEVERLY	B	BIRDS	C/D	BLAMER	C	BLYBURG	B
BENIN	D	BEVERLY, GRAVELLY	A	BIRDSALL	D	BLANCA	B	BLYTHER	D
BENITO	D	BEV	C	BIRDSBORD	E	BLANCHARD	A	BOARDMAN	D
BENJAMIN	D	BEVLEYVILLE	B	BIRDSLEY	D	BLANCHE	B	BOARDTREE	C
BENKLIN	C	BEXAR	D	BIRDSVIEW	A	BLANCHESTER	B/D	BOASH	D
BENNAN	C	BEZO	D	BIRKBECK	B	BLANCOT	B	BOAZ	C
BENDDALE	B	BEZZANT	B	BIRMINGHAM	B	BLAND	C	BOBBITT	C
BENNINGTON	C	BIBB	C	BIRNEY	B	BLANDING	B	BOBILLO	A
BENRIDGE	B	RIBLESPRINGS	B	BIROME	C	BLANEY	B	BOBNBOD	C
BENSLEY	B	BICE	B	BISBEE	A	BLANKET	C	BOBS	D
BENSON	D	BICKERDYKE	D	BISCARO	D	BLANTON	A	BOBTAIL	C
BENTEE	C	BICKETT	D	BISCAY	B/D	BLANTON,	B	BOBTOWN	B
BENWY	B	BICKLETON	B	BISGANI,	B	MODERATELY WET	B/D	BOCA	D
BENZ	D	BICKMORE	C	MODERATELY WET		BLANON	C	BOCA, DEPRESSINAL	D
BEOR	D	BICONDOA	D	BISGANI, FLOODED	C	BLAPPERT	D	BOCA, TIDAL	D
BEOSKA	B	BICONDOA, DRAINED	C	BISHOP	D	BLAQUIERE	C	BOCK	B
BEOTIA	B	BIDDEFORD	D	BISMARCK	D	BLASDELL	A	BOCKER	D
BEOWAVE	B	BIDDLEMAN	B	BISODDI	D	BLASE	C	BOCKSTON	B
BEQUINN	B	BIDMAN	C	BISPING	F	BLASINGAME	C	BODE	B
BERCUMB	B	BIDWELL	B	BISSELL	B	BLAVDEN	D	BODECKER	A
BERDA	B	BIEBER	D	BISSONNET	D	BLAZBIRD	D	BODELL	D
BEREA	C	BIEDELL	D	BIT	C	BLAZON	D	BODEN	C
BERENICETON	B	RIEDSAW	C	BITTER	B	BLEAKWOOD	C	BODENBURG	B
BERGHOLZ	C	BIENVILLE	A	BITTER SPRING	B	BLEDSOE	C	BODINE	B
BERGLAND	D	BIG BLUE	D	BITTERROOT	C	BLEIBLERVILLE	D	BODORUMPE	C
BERGOUIST	B	BIG HORN	B	BITTERWATER	B	GLENCOE	D	BODOT	C
BERGSTROM	B	BIG TIMBER	D	BITTON	B	BLEND	D	BOEL	A
BERGSVIK	D	BIGARM	B	BIVANS	D	BLENDON	B	BOEL, OVERWASH	C
BERINO	B	BIGBEE	A	BIXBY	B	BLETHEN	B	BOELUS	A
BERIT	D	BIGBEND	B	BIXLER	C	BLEVINS	B	BOERNE	B
BERKS	C	BIGBROWN	C	BJORK	C	BLEVINTON	B	BOESEL	C
BERKSHIRE	B	BIGELOW	B	BLACHLY	B	BLEWETT	D	BOESEL, PROTECTED	B
BERLAKE	B	BIGGETY	B	BLACK BUTTE	B	BLICHTON	D	BOETTCHER	C
BERLIN	C	BIGFLAT	D	BLACK CANYON	D	BLICKENSTAFF	B	BOGAN	C
BERMESA	C	BIGFOOT	C	BLACK CANYON,	C	BLIMO	B	BOGART	B
BERMUDIAN	B	BIGFORK	C	DRAINED		BLIMSTER	C	BOGGS	C
BERNAL	D	BIGHAMS	B	BLACK RIDGE	D	BLINN	C	BOGGY	C
BERNALDO	B	BIGHILL	B	BLACKA	C	BLISS	C	BOGRAP	B
BERNARD	D	BIGLAKE	A	BLACKBURN	B	BLITZEN	C	BOGUE	D
BERNARDINO	C	BIGMEADOW	C	BLACKDRAW	D	BLOCKHOUSE	D	BOGUS	C
BERNARDSTON	C	BIGNELL	C	BLACKETT	B	BLDMFORD	B/D	BOHANNON	C
BERNHILL	B	BIGRIVER	B	BLACKFOOT	C	BLOOM	D	BOHEMIAN	B
BERNICE	A	BIGSHEEP	B	BLACKFOOT, DRAINED	B	BLOOMFIELD	A	BOHICKET	D
BERNING	C	BIGSPRING	D	BLACKHALL	D	BLOOMING	B	BOHNA	B
BERNDW	B	BIGWIN	C	BLACKHALL, WARM	C	BLOOMSDALE	B	BOHNLY	D
BERRYLAND	B/D	BIGWINDER	D	BLACKHAMMER	B	BLDR	C	BOHSACK	B
BERRYMAN	C	BJORJA	C	BLACKHAWK	D	BLDR, GRAVELLY	D	BOISTORT	B
BERSON	B	BIJOU	B	BLACKHOOF	D	SUBSTRATUM		BOJAC	B
BERTAG	C	BILBO	C	BLACKHORSE	C	BLOUNT	C	BOJO	D
BERTELSON	B	BILGER	D	BLACKLEED	B	BLOVERS	B	BOLAN	C
BERTHOUD	B	BILLETT	B	BLACKLEG	C	BLUCHER	C	BOLAR	C
BERTIE	B	BILLINGS	C	BLACKLOCK	D	BLUE EARTH	B/D	BOLD	B
BERTO	D			BLACKMAN	C	BLUE EARTH,	D	BOLENT	A
BERTOLOTTI	B			BLACKMOUNT	B	SLOPING	C	BOLES	C

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BOLICKER	B BORGES	D BRACKEN	B BREWER	C BROLLIAR	D C
BOLIO	D BORIANA	D BRACKETT	C BREWLESS	C BROMER	B B
BOLIVAR	B BORKY	C BPAD	D BREWSTER	D BROWIDE	
BOLLING	C BORNSTEDT	C BRADDOCK	B BREWTON	C BROMO	B B
BOLSA	C BORD	D BRADEN	B BRIBUTTE	D BRONAUGH	B B
BOLTON	B BORBEY	C BRADENTON	B/D BRICKEL	C BRONCHO	B B
BOLTUS	D BORREGO	D BRADENTON, FLOODED	D BRICKMILL	C BRONCHO, LOAMY	A A
BOMAR	C BORREGUERO	C BRADER	D BRICKTON	C SUBSTRATUM	
BOMBADIL	D BORSKI	B BRADSHAW	B BRICO	C BRONELL	B B
BOMBAY	B BORTH	C BRADSON	B BRIDGE	C BRONSON	B B
BOMOSEEN	C BORUP	B/D ERADWAY	D BRIDGECREEK	C BRONTE	C C
BON	B BORVANT	D BRADY	B BRIDGEHAMPTON	B BROOKE	D D
BONAIR	D BOSANKO	D BRADYVILLE	C BRIDGEPORT	B BROOKFIELD	B B
BONANZA	B BOSCO	B BRAFFITS	B BRIDGER	B BROOKINGS	B B
BONAPARTE	A BOSKET	B BFAGG	C BRIDGESON	D BROOKLYN	C/D C/D
BONCLAIR	B BOSLER	B BRAHAM	B BRIDGESON, DRAINED	C BROOKMAN	D D
BOND	D BOSD	D BRAILSFORD	C BRIDGET	E BROOKSHIRE	C C
BONDFARM	D BOSQUE	B BRAINERD	C BRIDGEWATER	B BROOKSIDE	C C
BONDMAN	D BOSSBURG	D BRAILLIER	D BRIEDWELL	B BROOKSTON	B/D B/D
BONDREANCH	D BOSSBURG, DRAINED	C BRAIM	C BRIEF	B BROOKSTON, STONY	D D
BONDEUL	C BOSTON	C BRAIMARD	E BRIER	D BROOKSVILLE	D D
BONE	D BOSTRUM	D BRAIMLETT	C BRIGGS	A BROOME	B B
BONEEK	B BOSTWICK	B BRAMWELL	C BRIGGSDALE	C BROPHTY	A/D A/D
BONEYARD	C BOSVILLE	D BRANCH	B BRIGGSVILLE	C BROSE	B B
BONFIELD	B BOSWELL	D BRANCROFT	C BRIGHTON	E/D BROSELEY	B B
BONFRI	C BOSWORTH	D BRAND	D BRIGHTWOOD	B BROSS	B B
BONG	A BOTELLA	B BRANDENBURG	A BRILEY	D BROUGHTON	D D
BONHAM	C BOTHWELL	B BRANDON	B BRILL	B BROWARD	C C
BONIFAY	A BOTHWI	C BRANDYWINE	C BRILLIANT	B BROWER	B B
BONILLA	B BOTON	B BRANFORD	B BRIMFIELD	C/D BROWNBEAR	C C
BONITA	D BOTTINEAU	C BRANHAM	C BRIMLEY	E BROWNDELL	D D
BONJEA	D BOTTLE	C BRANSCOMB	B BRIMSTONE	D BROWNELL	B B
BONN	D BOTTLEROCK	C BRANTFORD	B BRINEGAR	E BROWNFIELD	A A
BONNEAU	A BOULDER	B BRANTLEY	C BRINGMEE	B BROWNLEE	B B
BONNELL	C BOULDER LAKE	D BRANYON	D BRINKER	C BROWNRIGG	D D
BONNER	B BOULDER POINT	B BRASHEAR	C BRINKERT	C BROWNSCOMBE	C C
BONNERDALE	B BOULDERCREEK	B BRASSFIELD	B BRINKERTON	D BROWNSCREEK	B B
BONNET	B BOULDIN	B BRATTON	B BRINNUM	D BROWNSDALE	C C
BONNEVILLE	A BOULFLAT	C BRAUN	C BRINNUM, DRAINED	C BROWNSTO	B B
BONNICK	A BOUNCER	D BRAVANE	D BRIDES	E BROWNSVILLE	C C
BONNIE	C/D BOUNDARY	B BRAWLEY	A BRIDS	A BROWNTON	C/D C/D
BONNIE, PONDED	C BOURBON	B BRAXTON	C BRISBANE	B BDXON	B B
BONNYDOON	D BOURNE	C BRAY	B BRISCO	B BROYLES	B B
BONO	D BOUSIC	D BRAYTON	C BRISCOT	D BRUBECK	D D
BONSAI	D BOW	D BRAZILTON	D BRISOT, DRAINED	C BRUCE	B/D B/D
BONTA	B BOWBAC	C BRAZITO	A BRISKY	D BRUELLA	B B
BONTI	C BOWBELLS	B BRAZITO, THICK	B BRISTOW	D BRUELLA, HARD	C C
BONWIER	C BOWDISH	C SURFACE	D BRITTO	D SUESTRATUM	
BONWIER, GRADED	D BOWDLE	B BRAZITO, THICK	C BRITTON	D BRUFFY	B B
BONZ	C BOWDOIN	D SURFACE.	B BRITWATER	B BRUHEL	B B
BODFORD	C BOWDRE	C SALINE-ALKALI	B BROAD	C BRUIN	B B
BOOFUSS	D BOWEN	C BRAZON	C BROAD CANYON	B BRUMAN	B B
BOOKCLIFF	B BOWERS	C BRAZORIA	D BROADALBIN	C BRUMBAUGH	C C
BOOKER	D BOWES	B BRECKENRIDGE	B/D BROADAX	R BRUNCAN	D D
BOOKOUT	C BOWIE	B BRECKNOCK	R BROADBROOK	C BRUNDAGE	D D
BOOKWOOD	B BOWLAK	C BRECKSVILLE	C BROADHEAD	C BRUNEEL	D D
BOOMER	B BOWLUS	B BREECE	B BROADHURST	D BRUNELDA	D D
BOOMSTICK	D BOWMAN	C BREGAR	D BROADMOOR	C BRUNO	A A
BOOMTOWN	D BOWMANSVILLE	B/D BREIEN	D BROADUS	B BRUNSWICK	B B
BOONE	A BOWNS	C BREKO	B BROADWELL	B BRUNZELL	B B
BOONESBORO	B BOWSTRING	A/D BREMER	C BROBETT	C BRUSHCREEK	C C
BOONEVILLE	B BOXELDER	C BREMER, SANDY	E BROCK	B BRUSHCREEK	B B
BOONTON	C BOXFORD	C SUBSTRATUM	D BROCKET	C BRUSSELS	C C
BOONVILLE	C BOXVILLE	C BREMO	C BROCKGULCH	B BRUSSETT	B B
BOONVILLE	D BOXWELL	C BREMS	A BROCKLISS	A BRYAN	A A
BOOTH	C BOY	B BRENDA	C BROCKMAN	B BRYANT	B B
BOOTHMBAY	C BOYCE	D BRENHAM	C BROCKO	D BRYARLY	D D
BOOTJACK	D BOYD	D BRENNAN	B BROCKPORT	B BRYCAN	B B
BOOTS	A/D BOYER	B BRENNER	D BROCKROAD	C BRYCE	D D
BOQUILLAS	C BOYETT	B BRENT	D BROCKSBURG	B BRYMAN	B B
BORACHO	C BOYKIN	B BRENTON	E BROCKTON	D BRYSTAL	B B
BORAH	C BOYLE	D BRENTSVILLE	C BROCKWAY	B BUB	C C
BORAVALL	D BOYSAG	D BRENTWOOD	B BROCKWELL	B BUBUS	B B
BORDA	D BOYSEN	D BRESSA	C BRODDALE	C BUCAN	C C
BORDEAUX	B BOZE	B BRESSER	B BRODY	C BUCAN, GRAVELLY	D D
BORDEN	B BOZEMAN	B BREVARD	B BROE	B BUCHANAN	C C
BORDER	B BRABAS	D BREVATOR	C BRDGAN	B BUCHEL	D D
BOREALIS	D BRACE	C BREVORT	B/D BROGDON	B BUCHENAU	C C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

BUCHENAU, THICK	B	BURCHELL	C	CARO ROJO	C	CALODO	C	CANTEEN	E
SOLUM	B	BURDETT	C	CARDOSE	B	CALDOSA	C	CANTEY	D
BUCKARDO	C	BUREN	C	CAROT	D	CALDUSE	B	CANTINA	C
BUCKBAY	C	BURGESS	C	CABRILLO	C	CALPAC	B	CANTON	C
BUCKCREEK	C	BURGI	B	CABSTON	B	CALPEAK	D	CANTON BEND	B
BUCKEYE	C	BURIBURI	C	CACHE	D	CALPINE	B	CANTRIL	B
BUCKHALL	B	BURKE	C	CACIGUE	C	CALROY	B	CANTUA	B
BUCKHOUSE	B	BURKETOWN	C	CACTUSFLAT	C	CALUME	B	CANTUCHE	D
BUCKING	A	BURKEVILLE	D	CADEO	D	CALVERTON	C	CANUTID	B
BUCKLAKE	C	BURKHARDT	E	CADEVILLE	D	CALVIN	C	CANWALL	C
BUCKLAND	C	BURLEIGH	A/D	CADILLAC	A	CALVISTA	D	CANYON	D
BUCKLE	B	BURLESON	D	CADIZ	E	CALWOODS	D	CAPAC	C
BUCKLEBAR	B	BURLEWASH	D	CADMUS	B	CALZACORTA	D	CAPAY	D
BUCKLEY	D	BURLINGTON	A	CADOMA	D	CAMAGUEY	D	CAPE	D
BUCKLICK	C	BURMAN	D	CAESAR	A	CAMARGO	B	CAPE FEAR	D
BUCKLICK, THICK	B	BURNAC	D	CAGEY	C	CAMARILLO	C	CAPEMORN	D
SOLUM	B	BURNBORGH	B	CACLE	C	CAMARILLO, DRAINED	B	CAPERS	D
BUCKLON	D	BURNEL	C	CAGUABO	D	CAMAS	A	CAPERON	D
BUCKNELL	D	BURNETTE	C	CAGWIN	B	CAMAS, STONY	B	CAPHOR	B
BUCKNEY	B	BURNHAM	D	CAHABA	B	CAMATTA	D	CAPILO	C
BUCKPEAK	B	BURNSIDE	B	CAHONA	B	CAMBARGE	B	CAPISTRAND	B
BUCKS	B	BURNSVILLE	B	CAID	B	CAMBERN	C	CAPITAN	D
BUCKSHOT	B	BURNSWICK	B	CAINHOY	A	CAMBERT	C	CAPJAC	C
BUCKSKIN	C	BURNT LAKE	A	CAIRD	D	CAMBETH	C	CAFLEN	D
BUCKTON	B	BURNTRIVER	E	CAJALCO	C	CAMBRIA	B	CAPLES	D
BUDE	C	BURR	D	CAJETE	E	CAMBRIDGE	C	CAPLES, DRAINED	C
BUDIOL	D	BURRITA	D	CAJON, OVERWASH	A	CAMDEN	B	CAPDNA	C
BUDLEWIS	C	BURROWSVILLE	C	CAJON, LOAMY	A	CAMEEK	D	CAPDOSE	C
BUELL	S	BURSLEY	D	SUBSTRATUM		CAMELBACK	B	CAPPS	B
BUENA VISTA	B	BURSON	C	CAJON, SILTY	A	CAMEO	E	CAPSHAV	C
BUFFARAN	D	BURT	D	SUBSTRATUM		CAMERON	D	CAPTINA	C
BUFFCREEK	B	BURTON	B	CAJON, ALKALI,	A	CAMILLUS	B	CAPTIVA	B/D
BUFFINGTON	B	BURRELL	C	OVERWASH		CAMINO	C	CAPULIN	
BUFFMEYER	B	BUSBY	E	CAJON.	E	CAMPANA	B	CARACOLES	D
BUFFORD	C	BUSE	B	SALINE-ALKALI		CAMPBELL, MUCK	C	CARADAN	D
BUFTON	C	BUSHER	B	CAJON, COOL,	A	SUBSTRATUM		CARALAMPI	B
BURRIG	C	BUSHMAN	G	OVERWASH		CAMPBELL, DRAINED	B	CARBENGLE	B
BUICK	C	BUSHNELL	C	CAJON, GRAVELLY	A	CAMPBELLTON	C	CARBO	C
BUIST	E	BUSHVALLEY	D	CAJON, COOL	A	CAMPCCREEK	C	CARBOL	D
BUKO	B	BUSKA	B	CAJON, WARM	A	CAMPIA	B	CARDDONA	D
BUKO, WET	C	BUSSY	C	CALABAR	D	CAMPO	C	CARBONDALE	A/D
BUKREEK	B	BUSTER	E	CALARASAS	B	CAMPONE	C	CARCITY	D
BULAKE	D	BUSTI	C	CALAMINE	D	CAMSPASS	B	CARDENAS	D
BULKLEY	C	BUSYWILD	B	CALAMITY	D	CAMPUS	B	CARDIFF	B
BULL RUN	B	BUTANO	C	CALAMUS	A	CAMRODEN	C	CARDIGAN	B
BULL RUN, HARDPAN	C	BUTCHE	D	CALVERAS	E	CANA	C	CARDINGTON	C
SUBSTRATUM		BUTLER	D	CALVAM	E	CANAAN	C	CAPDON	D
BULL TRAIL	B	BUTLERTOWN	C	CALCO	E/D	CANADIAN	B	CAREFREE	D
BULLARDS	B	BUTTERFIELD	C	CALCOUSTA	B/D	CANADICE	D	CAREY	B
BULLCREEK	D	BUTTERMILK	B	CALCROSS	B	CANALOU	B	CAREY LAKE	B
BULLFLAT	B	BUTTERS	B	CALD	C	CANANDAIGUA	D	CARENT	B
BULLFOR	C	BUTTON	D	CALDER	D	CANASERAGA	C	CARGILL	C
BULLION	D	BUTTONHOOK	B	CALDERWOOD	D	CANAVERAL	C	CARIBEL	B
BULLNEL	C	BUTTONWILLOW	C	CALDWELL	C	CANBURN	D	CARIBOU	B
BULLDOCK	D	BUXIN	D	CALDWELL, DRAINED	B	CANDELARIA	B	CARIODCA	B
BULLREY	R	BUXTON, SOMEWHAT	D	CALE	B	CANDELERO	C	CARIS	C
BULLUMP	B	Poorly Drained		CALEAST	C	CANDERY	B	CARJO	C
BULLVARO	R	BUXTON, STONY	C	CALEP	B	CANDLER	A	CARLIN	D
BULLWINKLE	D	BUXTON, MODERATELY	C	CALEDONIA	E	CANDLESTICK	C	CARLINTON	C
BULLY	B	WELL DRAINED		CALENDAR	C	CANDOR	A	CARLISLE	A/D
BULOW	A	BUZN	A	CALEFA	C	CANE	C	CARLITO	D
SUNCOMBE	A	BYARS	D	CALHI	A	CANEADEA	D	CARLOS	A/D
BUNDO	B	BYBEE	D	CALHOUN	D	CANEK	E	CARLOTTA	B
BUNDORF	D	BYINGTON	C	CALICO	C	CANELO	D	CARLOW	D
BUNDY	C	BYLER	C	CALICOTT	A	CANEST	D	CARLSBAD	C
BUNDYMAN	C	RYLO	B	CALIFON	C	CANEYVILLE	C	CARLSBORG	A
BUNE JUG	C	BYNUM	C	CALIMUS	E	CANEZ	B	CARLSON	B
BUNKER	B	BYRAK	C	CALITA	B	CANFIELD	C	CARLSTROM	C
BUNKERHILL	D	BYRNIE	D	CALIZA	B	CANISTEC	E/D	CARLTON	C
BUNKWATER	C	CABALLO	E	CALKINS	C	CANISTED, STONY	D	CARMACK	B
BUNKY	C	CABARTON	D	CALLAO	C	CANIWE	B	CARMEL	C
BUNNELL	B	CABA	D	CALLAHAN	D	CANLON	D	CARMI	B
BUNSELMEIER	B	CABBART	C	CALLAN	C	CANNELL	B	CARMICHAEL	C
BUNTINGVILLE	C	CABSBART, STONY	D	CALLEGUAS	D	CANNING	B	CARMODY	C
BUNYAN	B	CABSBART, WARM	D	CALLINGS	C	CANNON	B	CARNASAW	C
BURBANK	A	CABEZCN	D	CALLISBURG	C	CANNONVILLE	D	CARNEGIE	C
BURCH	B	CABIN	B	CALLOWAY	C	CANOE	B	CARNERO	C
BURCHAM	B	CABINET	C	CALMAR	E	CANDVA	B/D	CARNEY	D
BURCHARD	B	CABLE	B/D	CALNEVA	C	CANTALA	B	CAROLINE	C

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CAROLLO	D	CATALPA	C	CENCOVE	B	CHARLOTTE	B/D	CHEWACLA	C
CARON	A/D	CATAMOUNT	D	CENIZA	B	CHARLTON	B	CHEWELAH	C
CARON, MARSHY	D	CATANO	A	CENTENARY	A	CHARNOCK	C	CHEYENNE	D
CARPENTER	B	CATARACT	B	CENTER	C	CHARNOCK	B	CHIA	D
CARR	B	CATAPINA	D	CENTER CREEK	C	MODERATELY WET	C	CHIARA	D
CARRACAS	D	CATASKA	D	CENTERBURG	C	CHARO	C	CHICANE	D
CARRANZA	B	CAUTAULA	B	CENTERFIELD	P	CHASE	C	CHICHANTNA	D
CARRCREEK	B	CATCHELL	C	CENTERVILLE	D	CHASEBURG	B	CHICKAHOMINY	D
CARRIZALES	A	CATELLI	B	CENTISSIMA	E	CHASEVILLE	A	CHICKAMAN	B
CARRIZO	A	CATERL	E	CENTRAL POINT	B	CHASKA	B/D	CHICKASAW	C
CARROLLS	D	CATH	C	CENTRALIA	B	CHASTAIN	D	CHICKASHA	B
CARRYBACK	C	CATHARPIN	C	CENTRALPEAK	C	CHATBURN	B	CHICKKREEK	D
CARSITAS	A	CATHAY	C	CEPBAT	D	CHATCOLET	B	CHICOLETE	C
CARSITAS, WET	B	CATHCART	B	CERESCO	B	CHATEAU	D	CHICOTE	D
CARSON	D	CATHEDRAL	D	CERINI	E	CHATFIELD	B	CHIEFLAND	B
CARSTAIRS	A	CATHHEEN	B	CERINI, ALKALI	C	CHATHAM	B	CHIGLEY	C
CARSTUMP	C	CATHERINE	C	CERLIN	C	CHATSWORTH	D	CHIKAMIN	C
CART	B	CATHLAMET	R	CERRILLOS	E	CHATT	C	CHILAD	C
CARTAGENA	C	CATHRD	A/D	CERRC	C	CHATUGE	D	CHILCOTT	D
CARTECAY	C	CATILLA	B	CESTNIK	C	CHAUMONT	D	CHILCOTT, GRAVELLY	D
CARTER	D	CATLA	D	CETRACK	R	CHAUNCEY	C	CHILCOTT, COOL	D
CARTERET	D	CATLETT	C/D	CHACHA	C	CHAUTAUQUA	C	CHILDLS	B
CARTHAGE	B	CATLIN	B	CHACON	C	CHAVIES	B	CHILGREN	C
CARUSO	C	CATMAN	D	CHAD	C	CHAWANAKEE	C	CHILMWIE	C
CARUTHERSVILLE	B	CATNIP	D	CHAFFEE	D	CHAYSDON	C	CHILI	B
CARVER	A	CATOCTIN	C	CHAGFIN	E	CHAZOS	C	CHILICOTLA	B
CARWILE	D	CATOSA	B	CHAIN	C	CHADELE	D	CHILKOOT	D
CARYTOWN	D	CATPOINT	A	CHAIRES	E/D	CHEAMA	D	CHILL	D
CARYVILLE	B	CATTYCREEK	R	CHAIRES,	D	CHEBOYGAN	B	CHILLUM	B
CASA GRANDE	C	CATTYCREEK,	A	DEPRESSATIONAL		CHECHI	D	CHILMARK	C
CASABONNE	B	GRAVELLY		CHAIX	B	CHECKER	C	CHILOQUIN	D
CASAGA	C	SUBSTRATUM		CHALCO	D	CHECKETT	D	CHILPEP	D
CASCADE	C	CATTO	D	CHALFONT	C	CHEDATNA	B	CHILSON	D
CASCAJO	A	CAUDLE	C	CHALKCREEK	P	CHEDEHAP	B	CHILTON	B
CASCAJO, COBBLY	S	CAUSEWA	C	CHALMERS	B/D	CHEDESKI	B	CHIMAYO	D
CASCILLA	S	CAUSEY	B	CHAMA, MODERATELY	B	CHESEY	C	CHIME	C
CASCO	S	CAVAL	B	CHAMA, MODERATE	E	CHEEKTOWAGA	D	CHIMENE	D
CASE	S	CAVANAUGH	C	CHAMA, MODERATE		CHEESEMAN	E	CHINAPINT	D
CASEY	D	CAVE	D	PERMEABILITY		CHEMALEM	C	CHINCAP	B
CASHEL	C	CAVEGULCH	B	CHAMA, COOL	C	CHEMALEIS	B	CHINCHALLO	D
CASHIERS	B	CAVEHILL	C	CHAMATE	B	CHEMULPUM	D	CHINCOTEAGUE	D
CASHION	D	CAVELT	D	CHAMBEAM	P	CHELAN	B	CHINEN	D
CASHMEPE	B	CAVENDISH	B	CHAMERPINO	C	CHELSEA	A	CHINIAK	A
CASHMONT	B	CAVO	D	CHAMBERLAIN	B	CHEMAWA	B	CHIND	C
CASITC	D	CAVODE	C	CHAMISE	D	CHEN	D	CHINO, DRAINED	B
CASLO	D	CAVOUR	D	CHAMPKANE	C	CHENA	A	CHINOOK	B
CASLO, MODERATELY	C	CAYA	D	CHAMPAGNE	B	CHENANGO	A	CHINVAR	C
NET		CAYAGUA	C	CHAMPION	B	CHENAULT	B	CHIPENDALE	D
CASMOS	D	CAYTON	C	CHANAC	B	CHENEGA	A	CHIPENHILL	D
CASPAR	B	CAYUGA	C	CHANCE	D	CHENEY	B	CHIPETA	D
CASPIANA	B	CAYUSE	B	CHANCELLOR	C	CHENNEY	C	CHIPLEY	C
CASS	B	CAZADERO	C	CHANDLER	B	CHENNEBY	C	CHIPMAN,	D
CASSIA	C	CAZADOR	B	CHANERY	C	CHENDWETH	B	SALINE-ALKALI	
CASSIA, MODERATELY	B	CAZENDOVIA	B	CHANNADON	D	CHEOAH	B	CHIPMAN,	C
WELL DRAINED		CEBOLIA	C	CHANNING	P	CHEQUEST	C	MODERATELY WET	
CASSIRO	B	CEROLLETA	C	CHANTA	E	CHERONI	D	CHIPMAN, DRAINED	D
CASSIRO, STONY	C	CEBONE	C	CHANTIER	D	CHERKSEE	D	CHIPOLA	
CASSOLAPY	C	CEBOYA	C	CHAPANOE	C	CHERRY	C	CHIPPOENY	D
CASTAIC	C	CECIL	B	CHAPERTON	C	CHERRY, CALCAREOUS	B	CHIPPEWA	D
CASTALIA	C	CEDA	B	CHAPIN	C	CHERRY, COOL	B	CHIRENO	D
CASTANA	A	CEDAR BUTTE	D	CHAPMAN	B	CHERRY SPRING	C	CHIRICAHUA	D
CASTELL	C	CEDAR MOUNTAIN	D	CHAPOT	B	CHERRYHILL	B	CHIRPCHATTER	B
CASTELLEIA	B	CEDARAN	D	CHAPPELL	A	CHERUM	B	CHISCA	D
CASTELLO	B	CEDARBLUFF	C	CHAPPUIS	C	CHESAW	A	CHISMORE	D
CASTEPHEN	C	CEDARCREEK	C	CHAQUA	B	CHESHIRE	B	CHISOLM	A
CASTILE	S	CEDARFALLS	A	CHAPPE	C	CHESHMINA	C	CHISPA	B
CASTINO	C	CEDARGAP	B	CHARCOL	B	CHESMINNUS	B	CHISTOCINA	B
CASTINO, NONSTONY	D	CEDAPHILL	B	CHARC	B	CHESTATEE	B	CHITINA	C
CASTLE	D	CEDARPASS	B	CHARDOTON	C	CHESTER	B	CHITTUM	D
CASTLEVALE	D	CEDONIA	B	CHAPETTE	C	CHESTERTON	D	CHITWOOD	D
CASTNER	D	CEEK	B	CHARGO	E	CHESTNUT	B	CHIVATO	C
CASTO	C	CELACY	C	CHARLTON	C	CHESTONIA	D	CHIAUKUM	B
CASTON	B	CELESTE	D	CHARLEBOIS	B	CHESUNCOOK	C	CHIWAWA	B
CASTRO	D	CELETON	D	CHARLEBOIS, WET	C	CHETCO	D	CHOADES	C
CASTROVILLE	B	CELINA	C	CHARLES	C	CHETEK	B	CHOBEE	B/D
CASUSE	D	CELIOD	C	CHARLESTON	C	CHETWYND	E	CHOBEE,	D
CASVARE	D	CELLAR	D	CHARLEVOIX	B	CHIVAL	C	CHOBEE,	
CASWELL	B	CELSOSPRINGS	C	CHARLDS	E	CHEVELDON	C	CHOBEE,	
CATALINA	B	CEMBER	C	CHARLDS, WET	D	CHEVIOT	B	DEPRESSINAL	

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CHOSEE, LIMESTONE	D	CLALLAM	C	CLIPPER	D	COKEL	B	COLVIN, OVERBLOWN, C
SUBSTRATUM		CLAM GULCH	D	CLIPPER, DRAINED	C	COKER	D	SALINE
CHOCOOLOCDO	B	CLAMO	C/D	CLODINE	D	COKESBURY	D	COLWOOD
CHOCK	D	CLAMP	D	CLONTARF	E	COKEVILLE	B	COLY
CHOCORUA	D	CLANA	A	CLDQUALUM	C	COLAND	B/D	COLVER
CHOICE	D	CLANALPINE	C	CLQUATO	E	COLBAR	C	COMAD
CHOOP	D	CLANTON	C	CLQUET	B	COLBERT	D	COMAR
CHOPTIE	D	CLAPPER	B	CLOSKEY	C	COLBURN	C	COMBE
CHORALMONT	B	CLAREMORE	D	CLOTHO	C/D	COLBY	B	COMBS
CHOSKA	B	CLARENCE	D	CLOUD PEAK	C	COLDREEK	B	COMER
CHOTEAU	C	CLARENDON	C	CLOUD RIM	B	COLDENT	C	COMETA
CHOWAN	D	CLARESON	C	CLOUDCROFT	D	COLLE	C	COMFORT
CHRIS	C	CLAREVILLE	C	CLOUDLAND	C	COLEMAN	C	CONFREY
CHRISMAN	D	CLARINDA	D	CLOUDUGH	D	COLEMANTOWN	C/D	CONFREY, PONDED
CHRISTIAN	C	CLARION	B	CLOVELLY	D	COLESTINE	C	COMITAS
CHRISTIANA	C	CLARITA	D	CLOVER SPRINGS	B	COLFAX	C	COMLY
CHRISTIANBURG	C	CLARK	R	CLOVERDALE	D	COLHILL	B	COMMERCE
CHRISTINE	D	CLARK FORK	A	CLOVERLAND	C	COLIBRO	B	COMMSKI
CHRISTOFF	C	CLARKELEN	B	CLOVIS	B	COLINAS	B	COMO
CHRISTY	C	CLARKRANGE	C	CLOWERS	B	COLITA	D	COMORAEI
CHRDRER	B	CLARKSBURG	C	CLOWERS, WET	C	COLLAMER	C	COMDDORE
CHRDRME	C	CLARKSDALE	C	CLOWFIN	B	COLLARD	B	COMDRO
CHRYSLER	C	CLARKSVILLE	B	CLUFF	C	COLLAYOMI	B	COMPASS
CHUALAR	B	CLARNO	B	CLUNIE	C	COLBRAN	D	COMPTCHE
CHUBBS	C	CLATO	E	CLURDE	P	COLBRAN, COBBLY	C	COMSTOCK
CHUCKANUT	B	CLATSOP	D	CLURDO	B	COLLEGEDALE	C	COMUS
CHUCKAWALLA	B	CLaunch	B	CLYDE	E/D	COLLEGiate	D	CONA
CHUCKLES	B	CLAVERACK	C	CLYMER	E	COLLETT	C	CONABY
CHUCKRIDGE	D	CLAVICON	C	COACHELLA	B	COLLETT, DRAINED	C	CONALB
CHUGCREEK	C	CLAWSON	C	COACHELLA, WET	C	COLLIER	A	CONANT
CHUGTER	B	CLAYBURN	B	COAHUILA	B	COLLINGTON	B	CONASAUGA
CHUIT	B	CLAYSPRINGS	D	COAL CREEK	D	COLLINS	C	CONATA
CHULITNA	B	CLAYTON	B	COAL BANK	B	COLLINSTON	B	CONBOY
CHUMALL	B	CLE ELUM	C	COALDALE	D	COLLINSVILLE	D	CONCEPCION
CHUMMY	D	CLEAR LAKE	D	COALDRAW	D	COLLINWOOD	C	CONCHAS
CHUMSTICK	D	CLEAR LAKE,	C	COALMONT	C	COLMA	B	CONCHO
CHUPADERA	C	STRATIFIED	C	COAMO	C	COLMDR	B	CONCONNULY
CHURCH	D	SUBSTRATUM	C	COARSEGOLD	C	COLNEVEE	B	CONCORD
CHURCHILL	D	CLEAR LAKE,	C	COATSBURG	D	COLD	B/D	CONDIA
CHURCHVILLE	D	MODERATELY WET		COBAT	B	COLD, DRAINED	B	CONDIE
CHURN	B	CLEARBROOK	D	CCRATUS	C	COLD, NONFLOODED	B	CONDIT
CHUSKA	D	CLEARFIELD	C	COBB	B	COLOCKUM	B	CONDNC
CHUTE	A	CLEARFORK	D	COBBFSORK	D	COLDMA	A	CONE
CIALES	D	CLEARWATER	D	COBEN	D	COLOMBO	B	CONECUH
CIBEQUE	B	CLEAVAGE	D	COREY	E	COLDNA	C	CDNEJO
CIBO	D	CLEAVER	D	COBLE	D	COLONIE	A	CDNEJO, WET
CIBOLA	B	CLEAVWOR	D	COBDC	C	COLONVILLE	C	CDNEJO, GRAVELLY
CID	C	CLEBIT	D	COBRE	C	COLORADO	B	SUBSTRATUM
CIDRAL	C	CLEGG	B	COBURG	C	COLOROCK	D	CONESTOGA
CIENEBA	C	CLEGHORN	C	COCHETOPA	C	COLOROW	B	CONESUS
CIEND	D	CLEMAN	B	COCHINA	D	COLSO	D	CONETDE
CIERVO, ALKALI	D	CLEMENTINE	C	COCHITI	C	COLSSE	A	CONGAREE
CIERVO, ALKALI,	D	CLEMENTINE,	B	COCHMAN	C	COLP	C	CONGER
WET		DRAINED		COODA	A	COLRAIN	B	CONGER, COBBLY
CIERVO, RECLAIMED	C	CLEMS	B	COODCRIE	C	COLSAVAGE	C	SUBSTRATUM
CIFIC	C	CLEMVILLE	B	COCOLALLA	D	COLTER	B	CONGLE
CIMARRON	C	CLENDENEN	D	COCOLALLA, DRAINED	C	COLTHORP	D	CONI
CINCINNATI	C	CLEONE	B	CODLEY	B	COLTON	A	CONIC
CINCO	A	CLEORA	B/C	CODORUS	C	COLTROOP	C	CONLEN
CINDERHURST	D	CLERF	C	COODQUIN	D	COLTS NECK	B	CONLEY
CINEBAR	B	CLERGERN	B	CODYLAKE	B	COLUMBIA, MUCK	B	CONNEAUT
CINNADALE	D	CLERMONT	D	COE	A	SUBSTRATUM	B	CONNEL
CINNAMON	B	CLEVELAND	C	COERGCK	D	COLUMBIA, DRAINED.	B	CONNERTON
CINTRONA	D	CLEVERLY	B	COESSE	C/D	CLAY SUBSTRATUM	C	CONOSTA
CIPRIANO	D	CLICK	A	COFF	C	COLUMBIA,	C	CONDTON
CIRAC	B	CLIFFDELL	B	COFFEEN	B	MODERATELY WET	B	CONOVER
CIRCLEBACK	A	CLIFFDOWN	B	CGGDN	B	COLUMBIA, DRAINED	B	CONDWINGD
CIRCLEBAR	C	CLIFFHOUSE	C	CGNA	B	COLUMBIA, FLOODED	C	CONPEAK
CIRCLEVILLE	C	CLIFFORD	C	COGSWELL	C	COLUMBIA, CLAY	C	CONRAD
CISCO	B	CLIFSDAND	B	COHAGEN	D	SUBSTRATUM	B	CONRDE
CISNE	D	CLIFTERSON	B	COHASSET	E	COLUMBIA, SLOPING	B	CONSEJO
CISPUS	B	CLIFTON	B	COHOCTAH	B/D	COLUMBINE	A	CONSER
CITADEL	C	CLIFTY	B	COHOCTAH, SANDY	D	COLUMBUS	C	CONSTABLE
CITICO	B	CLIMARA	D	SUBSTRATUM	C	COLUSA	C	CONSTANCIA
CITRONELLE	D	CLIMAX	D	COMOE	B	COLVARD	B	CONSUMO
CLACKAMAS	D	CLIME	C	COILS	C	COLVILLE	D	CONTACT
CLAIBORNE	B	CLINETOP	D	CCIT	D	COLVILLE, DRAINED	C	CONTEE
CLAIRE	A	CLINT	C	COKEDEALE	D	COLVIN	C/D	CONTIDE
CLAIREMONT	B	CLINTON	B	COKEDEALE, DRAINED	C	COLVIN, SALINE	C	CONTINE

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

CONTINENTAL	C	CORRALITOS, SILTY	B	COVERS	B	CREVA	D	CUBCREEK
CONTO	B	SUBSTRATUM	C	COWESTGLEN	B	CREVASSÉ	A	CUBERANT
CONTRA COSTA	C	CORRECO	C	COVETA	C	CREVISCREEK	C	CUCAMUNGO
CONTRARY	B	CORRIGAN	D	COWGIL	B	CREWS	D	CUCHILLAS
CONVENT	C	CORSON	C	COWHORN	B	CRIDER	B	CUCHO
COODERS	B	CORTA	D	COWICHE	B	CRIMS	D	CUDAHY
COOK	D	CORTADA	B	COWLAKE	B	CRINKER	C	CUDAHY, DRAINED
COOKPORT	C	CORTEZ	D	COWLITZ	A	CRIPPIN	B	CUDDEBACK
COOLBRITH	C	CORTINA	B	COWOOD	D	CRISFIELD	C	CUERDA
COOLIDGE	B	CORTINA, THIN	A	COWSLY	C	CRISTO	C	CUERO
COOLVILLE	C	SURFACE		COWTON	C	CRISTO, LOAMY	B	CUERVO
COOMBS	B	CORUNNA	B/D	COX	D	CRISTORAL	B	CUESTA
COONSKIN	C	CORVIN	B	COXLAKE	D	CRITCHELL	B	CUEVA
COOPER	B	CORWITH	B	COXVILLE	D	CRITTENDEN	B	CUEVITAS
COOSAW	B	CORY	C	COXWELL	C	CROATAN	D	CUEVOLAND
COOTER	C	CORYDON	D	COY	D	CROCKER	A	CULBERTSON
COPAKE	B	COSAD	C	COYANOSA	D	CROCKETT	D	CULDESAC
COPALIS	C	COSER	D	COYATA	C	CROESUS	C	CULLEN
COPANO	D	COSEY	B	COYET	A	CROFTON	B	CULLEOKA
COPASTON	D	COSH	C	COYLE	B	CROGHAN	B	CULP
COPELAND	B/D	COSHDOCTON	C	COYNE	B	CROKE	B	CULPEPER
COPELAND,	D	COSKI	B	COYOTECKEEK	E	CROMWELL	A	CULTUS
DEPRESSATIONAL		COSTILLA	A	COZAD	F	CRONKHITE	C	CULVING
COPENHAGEN	B	COSUNNES	C	COZBERG	B	CRONKS	C	CUMBERLAND
COPENHAGEN	D	COTACO	C	COZTUR	D	CROOKED	D	CUMBRES
COPITA	B	COTAIL	B	CRARTREE	C	CROOKED CREEK	D	CUMLEY
COPPER RIVER	D	COTANT	D	CRACKERCREEK	B	CROOKED CREEK,	C	CUMMINGS
COPPER RIVER,	B	COTATI	C	CRACKLER	E	DRAINED		CUMMISKEY
LACUSTRINE		COTEAU	C	CRADDOCK	B	CROOKED CREEK,	C	CUNARD
SUBSTRATUM		COTHA	C	CRADLEBAUGH	D	FLOODED	B	CUNDICK
COPPER RIVER, TILL	B	COTITO	B	CRADLEBAUGH.	C	CRADKSTON	B	CUNDIYO
SUBSTRATUM		COTO	B	SALINE-ALKALI		CROOM	C	CUNNINGHAM
COPPER RIVER,	B	COTOPAXI	A	CRADLEBAUGH.	C	CROPLEY	D	CUPCO
SILTY SUBSTRATUM		COTT	B	DRAINED		CROPPER	D	CUPOLA
COPPER RIVER.	B	COTTER	B	CRAFT	B	CROQUIB	D	CUPPER
GRAVELLY		COLTERAL	B	CRAFTON	C	CROSBY	C	CUPPLES
SUBSTRATUM		COTTELE	D	CRAGGEY	D	CROSIER	D	CUPPY
COPPERCREEK	B	COTTONEVA	C	CRAGO	E	CROSS	D	CURABITH
COPPEREID	D	COTONTTHOMAS	B	CRAGOLA	D	CROSSPLAIN	C	CURANT
COPPERTON	B	COTTONWOOD	C	CRAGOSSEN	D	CROSSTELL	D	CURDLI
COPPOCK	B	COTTRELL	C	CRAIG	E	CROSSVILLE	B	CURECANI
COPSEY	D	COTULLA	D	CRAIGMILE	B/D	CROSWELL	A	CURMHOLLOW
COQUAT	D	COUCH	D	CRAIGSVILLE	B	CROT	D	CURDB
COUILLE	D	COUGARBAY	D	CRAMER	D	CROTON	D	CURRAN
CORA	D	COUGHANDUR	C	CRAMONT	C	CROUCH	B	CURRIER
CORAL	C	COULEEDAM	D	CRANE	B	CROW	C	CURRITUCK
CORALLAKE	B	COULSTONE	B	CRANECKEEK	C	CROW CREEK	B	CURTIN
CORBETT	B	COULTERG	B	CRANFILL	B	CROW HILL	C	CURTIS CREEK
CORBILT	B	COULTERVILLE	D	CRANLLER	B	CROWCAMP	D	CURTIS SIDING
CORBIN	B	COUNCELOR	B	CRANSTON	B	CROWFLATS	B	CURTISTOWN
CORCEGA	C	COUNCIL	B	CRARY	C	CROWFOOT	B	CUSHENBURY
CORDELL	D	COUNTRYMAN	C	CRASH	B	CROWHEART	C	CUSHING
CORDES	B	COUNTS	D	CRATEP LAKE	B	CROWLEY	D	CUSHMAN
CORDESTON	B	COUPEE	B	CRATERMO	C	CROWNEST	D	CUSHMOOL
CORDOVA	C/D	COUPEVILLE	C	CRAVEN	C	CROWSHAW	B	CUSICK
CORDY	B	COURT	B	CRAWFOPD	D	CROWTHER	B	CUSTCO
CORIFF	B/D	COURTHOUSE	D	CRAWLEYVILLE	B	CRODYDON	B	CUSTER
CORINTH	C	COURTLAND	B	CREAL	C	CROZIER	C	CUSTER, DRAINED
CORKSTONE	D	COURTNEY	D	CREASEY	C/D	CRUCES	D	CUTAWAY
CORLENA	A	COURTROCK	B	CREDO	B	CRUCKTON	B	CUTHAND
CORLETT	A	COURVILLE	B	CREED	C	CRUICKSHANK	C	CUTHBERT
CORLEY	B/D	COUSE	C	CREEDMOOR	C	CRUISER	B	CUTHBERT, GRADED
CORMANT	A/D	COUSSHATTA	B	CREEL	C	CRUMARINE	B	CUTOFF
CORNELIA	A	COUTIS	B	CREEMON	B	CRUME	B	CUTSHIN
CORNELIUS	C	COVE	D	CREFORK	C	CRUMP	D	CUTZ
CORNILL	B	COVELAND	D	CREIGHTON	B	CRUMP, DRAINED	C	CUYAMA
CORNICK	D	COVELAND, DRAINED	C	CRELDON	C	CRUNKER	B	CUYON
CORNING	C	COVELLO	C	CREN	B	CRUNKVAR	A	CYAN
CORNISH	C	COVERT	A	CREDEL	D	CRUST	D	CYCLONE
CORNUTT	C	COVEYTOWN	C	CRESAL	B	CRUTCH	C	CYLINDER
CORNVILLE	B	COVILLE	B	CRESBARD	C	CRUTCHER	C	CYNRIC
CORILLA	D	COVING	C	CRESCO	C	CRUZE	C	CYNTHIANA
CORONA	B	COVINGTON	D	CRESKEN	B	CRYLUHA	C	CYNTHIANIA
CORNACA	B	COWAN	B	CRESPIN	C	CRYSTAL LAKE	B	CYPHER
CORDZAL	C	COWARTS	C	CREST	C	CRYSTAL SPRINGS	D	CYRIL
CORZO	A	COWCO	B	CRESTLINE	B	CRYSTALBUTTE	E	CZAR
COPRENING	D	COWDEN	D	CRESTMAN	D	CRYSTALCREEK	B	DABNEY
CORRAL	C	COWDREY	C	CRESTVALE	C	CUATE	C	DABOB
CORRALITOS	A	COWEEHAN	D	CPETE	C	CUBA	B	DACKER

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

DACONO	B	DARLAND	B	DECKERVILLE.	C	DELLO. CLAY	B	DESCHELL	
DACONO, COBBLY	C	DARLEY	C	DRAINED		SUBSTRATUM	C	DESCHUTES	C
SUBSTRATUM		DARLING	B	DECLO	B	DELLROSE	B	DESCOT	C
DACORE	B	DARMSTADT	D	DECOLNEY	B	DELLS	C	DESEED	C
DACOSTA	D	DARNELL	C	DECORDOVA	B	DELLWOOD	A	DESERET	C
DADE	A	DARNEN	B	DECRAM	C	DELMA	C	DESHA	C
DADINA	D	DARCH	C	DECROSS	B	DELMITA	C	DESHLER	C
DAGAN	B	DARR	B	DECY	E	DELMONT	B	DESKAMP	C
DAGFLAT	C	DARRET	C	DEDAS	D	DELNORTE	C	DESNET	B
DAGLUM	D	DARROCH	B	DEDMOUNT	C	DELORD	D	DESOLATION	B
DAGOR	B	DARROCH, BEDROCK	C	DEDRICK	D	DELOSS	B/D	DESPAIN	B
DAGUAO	C	SUBSTRATUM		DEE	C	DELPH	A	DESTAZO	B
DAGUEY	C	CARROUZETT	C	DEECREE	B	DELPHI	B	DESTER	C
DAHAR	C	DAPSIL	C	DEFAN	C	DELPHILL	C	DETER	C
DAHLQUIST	B	DARST	C	DEEMER	B	DELPIEDRA	D	DETUR	B
DAICK	D	DART	A	DEEPCUT	D	DELPLAIN	D	DETRA	B
DAIGLE	C	DARTMOUTH	B	DEEPEEK	D	DELPOINT	C	DETROIT	C
DAILEY	A	DARVEY	B	DEEPWATER	E	DELRAY	B/D	DEUNAH	D
DAILEY, LOAMY	B	DARWIN	C	DEER CREEK	C	DELRAY.	D	DEV	A
SUBSTRATUM		DASHER	D	DEER PARK	A	DEPRESSIONAL		DEVADA	D
DAINT	R	DASSEL	B/D	DEERFIELD	B	DELIDGE	B	DEVEN	D
DAKENT	B	DAST	B	DEERFORD	D	DELSON	C	DEVILS	D
DAKOTA	B	DATELAND	B	DEEPHORN	C	DELTADO	C	DEVILSCREEK	C
DALBO	B	DATEMAN	C	DEERLOGGE	C	DELTON	B	DEVILSGAIT	D
DALBY	D	DATIL	E	DEERTON	A	DELWIN	A	DEVILSGAIT.	B
DALCAN	C	DATINO	D	DEERTRAIL	C	DELYNIA	A	DRAINED,	
DALCO	D	DATINO, STONY	B	DEEPWOOD	B/D	DEMAR	D	OCCASIONALLY	
DALE	B	DATWYLER	C	DEETZ	A	DEMAST	E	DEVILSGAIT.	B
DALECREEK	C	DAULTON	C	DEFENPAUGH	B	DEMENT	B	DRAINED	
DALEVILLE	D	DAVEY	B	DEFIANCE	D	DEMING	B	DEVINE	C
DALHART	B	DAVEY, WARM	A	DEFLEP	E	DEMKY	D	DEVISADERD	C
DALIAN	B	DAVIDELL	B	DEFCRD	A/D	DEMNER	B	DEVDE	D
DALIG	B	DAVIDSON	B	DEGARMO	D	DEMOGUL	B	DEVOIGNES	D
DALKENA	C	DAVIS	B	DEGNER	B	DEMONA	C	DEVOIGNES, DRAINED	C
DALLAM	B	DAVISON	R	DECOLA	B	DEMONTREVILLE	B	DEVOIGNES.	
DALLARDSVILLE	C	DAVTONE	B	DEGRAND	B	DEMOPOLIS	C	PROTECTED	
DALLESPORT	B	DAVES	C	DEGREY	D	DEMOPOLIS, COBBLY	D	DEVOL	B
DALTON	C	DAWHOO	B/D	DFHANA	E	DEMOSS	D	DEVORE	B
DALUPE	B	DAWSON	A/D	DEHART	E	DEMPSEY	B	DEVRIES	C
DALZELL	C	DAWTONIA	E	DEHAVEN	B	DEMPSTER	B	DEWAR	D
DAMASCUS	B/D	DAXTY	C	DEHILL	B	DENOUD	B/D	DEWEY	D
DAMERON	B	DAY	D	DEHL INGER	B	DENAUD	B/D	DEWEYVILLE	D
DAMEWOOD	C	DAYBELL	A	DEJARNET	B	DENAY	B	DEWMINE	D
DAMLUIS	C	DAYSCHOOL	B	DEKALE	C	DENBAR	C	DEWVILLE	B
DAPON	D	DAYTON	D	DEKOM	B	DENBY	C	DEXTER	B
DANA	B	DAYTONA	B	DEKOVEN	D	DENCO	D	DIA	C
DANAHER	C	DAYVILLE	C	DEL REY	C	DENHAWKEN	D	DIA, WET, SALINE	D
DANAVORE	B	DAZE	C	DELA	E	DENISON	C	DIA, WET	D
DANCY	B/D	DE MASTERS	B	DELAMETER	A	DENMAN	C	DIABLO	D
DANDAN	C	DEACON	B	DELANCO	C	DENMARK	D	DIAGULCH	B
DANDREA	C	DEADFALL	C	DELAND	A	DENNIS	C	DIAMANTE	B
DANDRIDGE	D	DEADHORSE	C	DELANEY	A	DENNOT	E	DIAMOND	D
DANFORTH	B	DEADMAN	B	DELAND	E	DENNY	D	DIAMOND SPRINGS	C
DANGBERG	D	DEADWOOD	D	DELASSUS	C	DENROCK	D	DIAMONDVILLE	C
DANIA	B/D	DEADYON	B	DELCOME	D	DENTON	D	DIANEV	C
DANJER	D	DEAMA	D	DELDCTA	D	DENURE	B	DIANDA	D
DANKO	D	DEAN	B	DELECO	D	DENVER	C	DIASPAR	B
DANLEY	C	DEANDALE	D	DELENA	D	DEPALT	D	DIATEE	B
DANN	C	DEARBORN	E	DELECN	C	DEPCOR	B	DIAZ	C
DANMEMORA	D	DEARYTON	C	DELEPLAIN	D	DEPOE	D	DIBBLE	C
DANSKIN	B	DEATMAN	C	DELETTE	C	DEPORT	D	DIBOLL	D
DANT	D	DEAVER	C	DELFINA	B	DEPPY	D	DICK	A
DANVERS	C	DEBAB	C	DELFT	B/D	DEPUTY	C	DICKERSON	D
DANVILLE	C	DEBENGER	C	DELGADO	D	DERA	B	DICKEY	B
DAPHNEDALE	C	DEBEQUE	E	DELHI	A	DERALLO	B	DICKINSON, MAPC25	B
DAPOINT	C	DERONE	D	DELICIAS	B	DERB	C	DICKINSON, TILL	A
DARBONNE	B	DEBODRAH	D	DELKS	C/D	DERBY	A	SUBSTRATUM	
DARBY	C	DEBS	E	DELL	C	DERECHO	B	DICKINSON, MAAT>50	B
DARCO	A	DEBUTE	C	DELLEKER	B	DERINDA	C	DICKINSON, MAAT<50	B
DARDANELLE	S	DECAN	C	DELLO, OVERVASH	A	DERLY	D	DICKINSON, MAAT<50	B
DARDEN	A	DECANTEL	D	DELLO, SALINE	C	DEROUX	C	DIERSEN	D
DARDOON	B	DECATHON	C	DELLO, GRAVELLY	D	DERR	C	DIETRICH	C
DARE	D	DECATUR	B	SUBSTRATUM, WET		DERRICK	B	DIGBY	B
DARFUR	B/D	DECCA	B	DELLO,	A	DES MOINES, DRY	B	DIGGER	C
DARGOL	D	DECCA, NONGRAVELLY	C	SALINE-ALKALI		DES MOINES, COBBLY	C	DIGHTON	B
DARIEN	C	DECHEL	D	DELLO, MODERATELY	C	DESAN	A		
DARKBULL	B	DECKER	C	WET		DESART	C		
DARKCANYON	C	DECKERVILLE	D	DELLO, DRAINED	A	DESATCYA	C		
DARL	C					DESCALABRADO	D		

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DIGIORGIO	B	DOLAND	B	DOUGAN	C	DUCHESNE	B	DURFEE	C
DILANSON	D	DOLBEE	C	DOUGCITY	B	DUCKHILL	D	DURHAM	B
DILL	B	DOLBEE, SANDY	B	DOUGCLIFF	D	DUCKREE	B	DURKEE	C
DILLARD	C	SUBSTRATUM	B	DOUGH	D	DUCKSTON	A/D	DURDC	B
DILLEY	B	DOLEKEI	B	DOUGHERTY	A	DUCO	D	DURRSTEIN	D
DILLWYN	A	DOLEN	B	DOUGHTY	B	DUDA	A	DURST	C
DILMAN	C	DOLES	C	DOUGLAS	R	DUDGEN	D	DUSLER	C
DILTON	D	DOLLAR	C	DOUGVILLE	E	DUDLEY	D	DUSTON	A
DILTS	D	DOLLARD	C	DOUHIDE	D	DUEL	A	DUTCHESS	B
DIMAL	C	DOLLARHIDE	D	DOURO	B	DUELK	A	DUTEK	A
DIMEBOX	D	DOLLYCLARK	C	DOVER	E	DUETTE	A	DUTTON	C
DIMMICK	D	DOLMAN	C	DOVRAY	C/D	DUFF	B	DUVAL	B
DIMO	B	DOLPH	C	DOW	B	DUFFAU	B	DUXBURY	A
DIMYAW	C	DOLUS	C	DOWAGIAC	B	DUFFER	C	DUZEL	C
DINA	C	DOME	B	DOWDE	E	DUFFERN	A	DWIGHT	D
DINCO	B	DOWELL	B	DOWELLTON	D	DUFFIELD	B	DWRSHAK	B
DINES	B	DOMENGINE	C	DOWNATA	D	DUFFSON	B	Dwyer	A
DINEVO	B	DOMERIE	B	DOWNER	E	DUFFYMTN	C	DYE	D
DINGLE	C	DOMEZ	B	DOWNEY	B	DUFORT	B	DYKE	B
DINGLISHNA	D	DOMINGUEZ	C	DOWNEVILLE	D	DUFUR	B	DYLAN	D
DINGMAN	C	DOMINIC	B	DOWNS	E	DUGGINS	C	DYRENG	D
DINKELMAN	B	DOMINO	C	DOYCE	B	DUGOUT	D	EACHMUS	B
DINKELS	B	DOMINSON	A	DOYCE, LOAMY	C	DUGWAY	C	EACHUSTON	D
DINNEN	B	DOMO	B	SUBSTRATUM	C	DUKES	A	EAD	C
DINSDALE	B	DONA ANA	B	DOYCE, MODERATELY	C	DULAC	C	EAGAR	B
DINUBA	C	DONAHUE	C	WET	C	DULCE	D	EAGLECONE	B
DINWOODY	B	DONALD	C	DOYCE, SANDY	C	DULEYLAKE	C	EAGLEPASS	D
DINZER	B	DONALDSON	B	SUBSTRATUM	D	DULLES	D	EAGLEROCK	B
DIOBSUD	C	DONAVAN	B	DOYLESTOWN	D	DULUTH	B	EAGLEVILLE	D
DIOXICE	B	DONERAIL	C	DOYN	D	DUMAS	B	EAGLEWING	B
DIPMAN	D	DONEY	C	DRA	C	DUMFRIES	B	EAKIN	B
DIPSEA	B	DONICA	A	DRAGE	B	DUMMERSTON	B	EALY	B
DIQUE	B	DONICA, LOAMY	B	DRAGON	C	DUMONT	E	EAPA	B
DIREGO	D	SURFACE	B	DRAGSTON	C	DUN GLEN	B	EARCREE	B
DISABEL	C	DONIPHAN	B	DRAKE	B	DUNBAR	D	EARLE	D
DISAUTEL	B	DONKEHILL	D	DRAKNAB	A	DUNBARTON	D	EARLMONT	D
DISCO	B	DONLDNTON	C	DRALL	E	DUNBRIDGE	B	EARLMONT, DRAINED	C
DISHNER	D	DONNA	D	DRANYON	B	DUNC	C	EARP	B
DISHMAN	C	DONNAN	C	DPAPER	C	DUNCAN	D	EARSMAN	D
DISTELL	C	DONNARDO	B	DRAX	E	DUNCANNON	B	EASBY	D
DISTERHEFF	C	DONNEL	B	DRAX, WET	C	DUNCKLEY	B	EASLEY	C
DISTON	C	DONNELLY	A	DREDGE	E	DUNCOM	D	EASPUR	B
DISWOOD	D	DONNER	C	DRESDEN	B	DUNDAS	B/D	EAST FORK	C
DITCHCAMP	C	DONNING	D	DRESSLER	C	DUNDAY	A	EAST LAKE	A
DITHOD	C	DONNYBROOK	D	DPEWING	D	DUNDEE	C	EASTABLE	B
DITNEY	C	DODDLELINK	B	DREWS	B	DUNELLEN	B	EASTCAN	B
DIVERS	B	DOOLEY	C	DREXEL	B	DUNFORD	C	EASTCHOP	A
DIVIDE	B	DOLIN	D	DRIFTWOOD	C/D	DUNGENESS	B	EASTGATE	B
DIVOT	C	DOONE	B	DRIGGS	B	DUNKIRK	E	EASTLAND	B
DIX	A	DOOR	B	DRISCOLL	C	DUNLAP	C	EASTON	D
DIXALETA	D	DOOWAK	A	DIRT	B	DUNLATOP	B	EASTPORT	A
DIXBORD	B	DORA	B/D	DRIVER	C	DUNMORE	B	EASTWELL	D
DIXIE	C	DORAN	C	DROEM	C	DUNN	A	EASTWOOD	D
DIXMONT	C	DORB	C	DROYAL	C	DUNNING	D	EATON	D
DIXON	B	DORCHESTER	B	DRUM	C	DUNNLAKE	D	EAUGALLIE	B/D
DIXONVILLE	C	DORERTON	B	DRUMMER	B/D	DUNNVILLE	E	EAUGALLIE,	D
DIVOU	C	DORMONT	C	DRUMMOND	D	DUNDIR	B	DEPRESSATIONAL	
DDAK	B	DORNA	B	DRURY	B	DUNPHY	C	EAUPLEINE	B
DDAKUM	B	DORDOSHIN	D	DRY CREEK	C	DUNPHY, DRAINED	B	EBA	C
DDOBINS	C	DORDOTHEA	C	DRY LAKE	C	DUNPHY, HARDPAN	B	EBAL	B
DOBBS	C	DOROVAN	D	DRYADINE	C	SUBSTRATUM	EBBERT	C/D	
DOBEL	D	DORPER	D	DRYBURG	B	DUNSMUIR	B	EBBS	B
DOBENT	C	DORRANCE	A	DRYDEN	B	DUNSMUIR,	C	EBIC	B/C
DOBROW	D	DORS	B	DRYN	C	DONGRAVELLY	C	EBODA	B
DOBY	D	DORSET	B	DRYVALLEY	C	DUNTON	C	EBODA, STONY	C
DOCAS	B	DOSAMIGOS	D	DU PAGE	B	DUNUL	A	EBON	C
DOCDEE	D	DOSPALOS	D	DUANE	E	DUPEE	C	EBRO	D
DOCENA	C	DOSS	C	DUART	C	DUPLIN	C	ECCLES	B
DOCKERY	C	DOSSMAN	B	DUBAKELLA	C	DUPD	C	ECHARD	D
DOCPAR	B	DOTEN	D	DUBAKELLA,	C	DUPONT	D	ECHAN	A
DOCT	C	DOTHON	B	GRAVELLY	C	DUPREE	D	ECHEMOOR	C
DODES	B	DOTLAKE	D	DUBAKELLA, COBBLY	C	DURADOS	A	ECKEPT	D
DODGE	B	DOTSERO	B	DUBAY	B	DURALDE	C	ECKLEY	B
DODGEVILLE	B	DOTTA	B	DUBBS	B	DURAND	B	ECKMAN	B
DODSON	C	DOTY	B	DUBBS, FLOODED	C	DURANGO	B	ECKRANT	D
DOEL	C	DOUCETTE	B	DUBINA	C	DURANT	D	ECKVOLL	B
DOGER	A	DOUDLE	B	DUBLON	E	DURAZO	A	ECLIPSE	C
DOGIECREEK	B	DOUDS	B	DUBOIS	C	DURBIN	D	ECOLA	C
DOGUE	C	DOUGAL	D	DUBUQUE	B	DURELLE	B	ECON	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

ECONFINA	A	ELBOWLAKE	B	ELRICK	B	ENDOCHVILLE	C	ESTER	D
ECTOR	D	ELBURN	B	ELRIN	F	DRAINED	B	ESTER.	D
EDALGO	C	ELBUTTE	C	ELROSE	B	ENDLA	C	ESTERO	D
EDDINGS	B	ELCO	P	ELS	A	ENDN	C	ESTES	D
EDDS	B	ELD	B	ELSAH	B	ENDREE	D	ESTESLAKE	C
EDDY	C	ELDEAN	P	ELSIE	E	ENOS	C	ESTHERVILLE	B
EDEN	C	ELDER	B	ELSBINBORD	B	ENOSBURG	C	ESTO	B
EDENBOWER	D	ELDER HOLLOW	P	ELSMERE	A	ENSENADA	B	ESTRELLA	B
EDENTON	C	ELDERON	B	ELSTON	B	ENSIGN	D	ETACH	C
EDFRO	D	ELDERON, STONY	A	ELTREE	B	ENSLEY	B/D	ETCHEN	C
EDGAR	B	ELGIN	B	ELTSAC	D	ESTPOM	B	ETELKA	C
EDGE	D	ELDON	B	ELVE	B	ENTENTE	B	ETHAN	C
EDGEHILL	C	ELDORADO	B	ELVEDERE	C	ENTERO	D	ETHANIA	B
EDGELEY	C	ELDRIDGE	C	ELVERS	B/D	ENTERPRISE	B	ETHELMAN	B
EDGEMONT	B	ELECTRA	C	ELVIPA	B/D	ENTIAT	D	ETHETE	B
EDGEWATER	C	ELEROY	B	ELWELL	C	ENTMOOT	C	ETHETE, SALINE	C
EDGEWICK	C	ELEVA	B	ELWHA	C	ENVILLE	C	ETHRIDGE	C
EDGINGTON	C/D	ELFCREEK	C	ELWOOD	C	ENVOL	D	ETIL	A
EDINA	D	ELFRIDA	B	ELY	P	ENZIAN	D	ETOE	B
EDINBURG	C	ELGEE	A	ELYSTAN	B	EOJ	C	ETOILE	D
EDISTO	C	ELHINA	C	ELZINGA	P	EDA	D	ETOWAH	B
EDLIN'	B	ELIJAH	C	EMBAL	A	EPHRAIM	C	ETOWN	B
EDLOE	B	ELINDIO	C	EMBARGO	C	EPHRATA	B	ETSEL	D
EDMINSTER	D	ELIOAK	C	EMDEN	B	EPIKOM	D	ETTA	B
EDMONDS	D	ELIZA	D	EMBERTON	C	EPLEY	C	ETTER	B
EDMORE	D	ELK	B	EMBLEM	B	EPOKE	B	ETTERSBURG	B
EDMUND	D	ELK HOLLOW	B	EMERY	P	EPDT	B	ETTRICK	B/D
EDMUNDSTON	B	ELK MOUNTAIN	B	EMBUDDO	F	EPFOUETTE	R/D	EU BANKS	C
EDNA	D	ELKA	C	EMDENT	D	EPPING	D	EUCLID	C
EDNEYTOWN	B	ELKADER	B	EMDENT, BEDROCK	C	EPSIE	D	EUDORA	B
EDNEYVILLE	B	ELKCREEK	C	SUBSTRATUM,	C	EPVIP	D	EUER	B
EDDM	C	ELKHART	B	DRAINED	C	EGUIS	D	EUFALA	A
EDROY	D	ELKHILLS	B	EDENT, DRAINED	C	ERA	B	EUMARLEE	C
EDSON	C	ELKHORN	E	EMERALD	P	EPAKATAK	C	EULONIA	C
EDWARDS	B/D	ELKINS	D	EMERALDA	D	ERAM	C	EUNOLA	C
EEL	B	ELKINSVILLE	P	EMERSON	P	ERAMOSH	D	EUREKA	D
EELCOVE	D	ELKMOUND	D	EMIGRANT	C	ERBER	C	EUSIO	C
EELPOINT	D	ELKNER	B	EMIGRATION	T	ERCAN	B	EUSTIS	A
EEP	C	ELKOL	D	EMILY	E	EPD	D	EUTAW	D
EFFIE	C	ELKRIDGE	B	EMLIN	C	ERICSON	C	EVADALE	D
EFFINGTON	D	ELKSEL	C	EMMA	C	FFIE	C	EVANGELINE	C
EGAM	C	ELKTON	C/D	EMMERT	A	ERIN	B	EVANS	B
EGAN	B	ELLABELLE	D	EMMET	B	ERNEM	D	EVANSHAM	D
EGAS	D	ELLEDGE	C	EMMONS	P	ERNEST	C	EVANSTON	B
EGEBERT	D	ELLEN	F	EMDRY	E	ERNO	B	EVANSVILLE	B/D
EGEBERT, STRATIFIED	C	ELLETT	D	EMCT	P	ERRAMOUSPE	C	EVANT	D
SUBSTRATUM		ELLIBER	A	EMPEDRADO	B	EPVIDE	C	EVARD	B
EGEBERT, MODERATELY	C	ELLICOTT	A	EMPEYVILLE	C	ESACABOSA	C	EVARD	B
WET		ELLINGTON	B	EMPIRE	B	ESCALANTE	B	EVART	D
EGEBERT, DRAINED	C	ELLINOR	C	EMFORIA	C	ESCAMBIA	C	EVENDALE	C
EGEBERT, SANDY	C	ELLIOTT	C	EMRICK	B	ESCANABA	A	EVERETT	A
SUBSTRATUM		ELLIOTTSVILLE	B	EMRD	C	ESCARDO	C	EVERETT, HARD	B
EGEBERT, SLOPING	C	ELLIS	D	ENAP	B	ESCONDIDO	C	SUESTRATUM	B/D
EGELAND	B	ELLSFORDE	B	ENBAR, WET	D	ESCRADO	C	EVERGLADES	B
EGINBENCH	C	ELLISVILLE	B	ENCAMPMENT	E	ESHAMY	B	EVERLY	B
EGLIN	A	ELLOAM	D	ENCHANTED	R	ESLENDO	D	EVERMAN	C
EGYOT	D	ELMREE	D	ENCIERRO	D	ESMEPALDA	B	EVERSON	D
EICKS	C	ELLSWORTH	C	ENCINA	P	ESMOND	B	EVERWHITE	C
EIGHTLAIR	D	ELLUM	C	ENDCAV	C	ESPARTO	P	EVESBORD	A
EIGHTMILE	D	ELLZEY	B/D	ENDERS	C	ESPTELIE	B/D	EVIRIDGE	B
EILERSEN	B	ELM LAKE	A/C	ENDERSBY	E	ESPIL	D	EWA	B
EITZEN	B	ELMDALE	B	ENCICOTT	C	ESPINAL	A	EWA, BEDROCK	C
EKAH	C	ELMENDORF	D	ENDLICH	B	ESPINDSA	B	SUBSTRATUM	C
EKALAKA	B	ELMINA	C	FNDSA	C	ESPINT	D	EVALL	A
EKIM	C	ELMIRA	A	ENERGY	P	ESPLIN	D	EXCELSIOR	B
EKRUB	D	ELMONT	P	ENET	P	ESPY	C	EXCHEQUER	D
EL DARA	B	ELMORE	B	ENFIELD	B	ESQUATZEL	B	EXCLOSE	B
EL PECO	C	ELMPRIDGE	C	ENGELHARD	B/D	ESRD	D	EXEL	C
EL RANCHO	B	ELMVILLE	B	ENGETT	A	ESRD, MODERATELY	C	EXETER	C
EL SOLVD	C	ELMWOOD	C	ENGLE	B	WET		EXETER, THICK	B
ELAM	A	ELNIDO	C	FNGLEWOOD	C	ESS	B	SOLUM	A
ELAM, HARDPAN	S	ELNORA	B	ENKO	C	ESSAL	B	EXETTE	B
SUBSTRATUM		ELOCHEMAN	B	ENKO, OVERBLOWN	B	ESSEN	C	EXIRA	B
ELANDCO	B	ELOCIN	D	ENLDE	D	ESSEX	C	EXLINE	D
ELBA	C	ELDIKA	B	ENNING	D	ESSEXVILLE	A/D	EXRAY	D
ELBAVILLE	B	ELDMA	C	ENNIS	B	ESTACADO	B	EXUM	C
ELBERT	D	ELPM	D	ENDCH	C	ESTACION	B	EXYAK	C
ELBETH	B	ELPEDRO	B	ENDOCHVILLE	D	ESTATE	C	EVERROS	C
ELBON	B	ELRED	B/D			ESTELLINE	B	EYLAU	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

EYOTA	A	FARRAGUT	C	FETTIC	D	FLATRON	D	FORKWOOD	B
EVRE	D	FARRAR	B	FETZER	C	FLATTOP	D	FORMADER	C
EZBIN	B	FARRELL	B	FEZ	C	FLAXTON	B	FORMAN	B
FABIUS	B	FARRENBURG	C	FIANDER	D	FLEAK	D	FORMDALE	B
FACEVILLE	B	FARROT	C	FIANDER, DRAINED	C	FLEER	A/D	FORNEY	D
FACEY	B	FARSON	B	FIAT	C	FLEISCHMANN	D	FORNR	C
FACTORY	C	FARSON, WET	C	FIDALGO	C	FLEMING	C	FORREST	C
FACTORY, MOIST	B	FARVA	C	FIDDLER	C	FLEMINGTON	D	FORSEER	B
FADDIN	D	FARVANT	D	FIDDLETON	B	FLETCHER	B	FORSEY	B
FADDLL	B	FASHING	D	FIDDYMENT	D	FLEWSIE	B	FORSGREN	C
FAGAN	C	FASKIN	B	FIELD	C	FLEX	D	FORSYTH	A
FAGASA	C	FATHOM	A	FIELDCREEK	B	FLO	A	FORT COLLINS	B
FAHEY	B	FATIMA	B	FIELDING	B	FLOOR	D	FORT MEADE	A
FAIM	C	FATTIG	C	FIELDON	B/D	FLOKE	D	FORT MOTT	A
FAIM, MOIST	B	FAUNCE	A	FIFER	D	FLOM	B/D	FORT ROCK	C
FAIRBANKS	B	FAUNSDALE	D	FIFIELD	C	FLOMATON	A	FORTANK	C
FAIRBURN	D	FAUQUIER	C	FILION	D	FLOHOT	B	FORTESQUE	C/D
FAIRCHILD	C	FAUSSE	D	FILIRAN	D	FLOODWOOD	B	FORTUNA	C
FAIRDALE	B	FAVRET	C	FILLMORE	D	FLORAHOME	A	FORTWINGATE	C
FAIRFAX	B	FAVIN	B	FINCASTLE	C	FLORALA	C	FORTYFOUR	C
FAIRFIELD	B	FAX	C	FINCH	C	FLORENCE	C	FORVIC	C
FAIRHAVEN	B	FAXON	B/D	FINCHFORD	A	FLORESVILLE	C	FORWARD	B
FAIRLIE	D	FAVETTE	B	FINDOUT	D	FLORIDANA	B/D	FOSS	B
FAIRLO	B	FAVETTEVILLE	B	FINGAL	C	FLORIDANA,	D	FOSSILON	A/D
FAIRMOUNT	D	FAVWOOD	C	FINGEROCK	D	FLORIDANA, FLOODED	D	FOSSUM	C
FAIRPLAY	B	FE	D	FINLAND	C	FLORIDANA, DEPRESSATIONAL	D	FOSTER	B
FAIRPOINT	C	FEARS	B	FINLEY	B	FLORIN	C	FOSTORIA	D
FAIRPORT	C	FEATHERLEGS	B	FINLEYPOINT	B	FLORISSANT	C	FOUNTAIN	D
FAIRWAY	C	FEATHERSTONE	D	FINNERTY	D	FLORITA	B	FOUR STAR	C
FAIRDYELL	C	FEDJI	A	FIND	B	FLOTAG	B	FOUR STAR, DRAINED	B
FAIRYLAWN	D	FEDORA	B/D	FINDL	C	FLOWELL	C	FOURCHE	B
FAJARDO	C	FEDSCREEK	B	FIONE	B	FLOWERE	B	FOURLOG	D
FALAYA	D	FELAN	B	FIPADA	C	FLOYD	B	FOURME	B
FALBA	D	FELCHER	B	FIREBALL	B	FLUETSCH	B	FOURMILE	B
FALCON	D	FELDA	B/D	FIREBOX	B	FLUGLE	B	FOX	B
FALFA	C	FELDA.	D	FIRESTEEL	B	FLUKER	C	FOXCREEK	D
FALFURRIAS	A	DEPRESSATIONAL	D	FIRESTONE	C	FLUVANNA	C	FOXCREEK, DRAINED	C
FALK	C	FELICITY	A	FIRMAGE	6	FLYBOW	D	FOXHOME	B
FALKIRK	B	FELIPE	D	FIRO	D	FLYGARE	B	FOXNDUNT	C
FALKNER	C	FELIZ	B	FIRKDE	E	FLYNN	B	FOXOL	D
FALLBROOK	B	FELKER	B	FIRSTVIEW	C	FLYNNCOVE	B	FOXTON	C
FALLCREEK	C	FELLOWSHIP	D	FIRTH	C	FOAD	C	FOXWORTH	A
FALLERT	B	FELDR	B	FIRTH, DRAINED	B	FOARD	D	FRADDLE	E
FALLON	C	FELT	B	FISHERMAN	D	FOEHLIN	B	FRAILEY	B
FALLON, NONFLOODED	B	FELTA	C	FISHERS	B	FOIDEL	B	FRAILTON	D
FALLSAM	D	FELTHAM	B	FISHFIN	D	FOLA	B	FRAM	B
FALLSTINGTON	B/D	FELTNER	D	FISHHOOK	D	FOLDALH	B	FRANCIS	A
FALOMA	D	FELTON	B	FISHLAKE	D	FOLEY	D	FRANCISCAN	C
FALSEN	A	FELTONIA	B	FISHMOT	C	FOLLET	D	FRANCISQUITO	C
FALULA	D	FENCE	B	FISHROCK	D	FONSENG	C	FRANCITAS	D
FANAL	C	FENDALL	C	FISHTRAP	D	FONDA	D	FRANSEN	B
FANCHER	C	FENELON	C	FISK	P	FONDIS	C	FRANKFORT	C
FANDANGLE	C	FENN	D	FITCHVILLE	C	FONNER	B	FRANKIRK	B
FANDDV	D	FENSTER	B	FITZGERALD	B	FONS	B	FRANKLIN	B
FANG	B	FENWICK	C	FITZHUGH	E	FONTANA	B	FRANKSTOWN	B
FANNIN	B	FENWOOD	B	FIVEBLOCK	C	FONTREEN	B	FRANKTOWN	D
FANNO	C	FERA	C	FIVEMILE	B	FOPIANO	D	FRANKVILLE	B
FANSHAW	B	FERDELFORD	C	FIVEMILE, SALINE	C	FORADA	B/D	FRATERNIDAD	D
FANTZ	C	FERDINAND	C	FIVEDOH	B	FORAKER	D	FRAVAL	C
FANU	B	FEREBEE	D	FIVEPIPE	D	FORBAR	D	FRAVAL, GRAVELLY	B
FAPS	C	FERGUS	B	FIVES	B	FORBES	C	FRAZER	C
FARAWAY	D	FERN CLIFF	B	FIVESPRINGS	C	FORBESVILLE	C	FRAZERTON	B
FARB	D	FERNANDO	B	FLACO	C	FORBING	D	FRED	C
FARBER	B	FERNCREEK	D	FLAGG	B	FORD	D	FREDENSBOORG	C
FARGO	D	FERNDALE	B	FLAGLER	B	FORDICE	B	FREDERICK	B
FARISITA	D	FERNET	D	FLAGSTAFF	D	FORDNEY	A	FREDON	C
FARLAND	B	FERNHAVEN	B	FLAK	C	FORDNEY, WET	C	FREDONIA	C
FARLOW	B	FERNLEY	C	FLAMBEAU	B	FORETRAN	C	FREDONVER	C
FARLOW, HIGH	C	FERNOV	B	FLAMING	A	FORDUM	D	FREE	B/D
RAINFALL		FERNPOINT	B	FLANAGAN	B	FORDVILLE	B	FREEBURG	C
FARNELL	B	FERNWOOD	B	FLANDREAU	B	FORELAND	D	FREECE	D
FARMINGTON	C	FERRELO	B	FLANE	C	FORELLE	B	FREEDOM	C
FARNSWORTH	D	FERRIS	D	FLANLY	B	FORESMAN	B	FREEDOM, SALINE	B
FARNTON	D	FERROBURRO	D	FLASHER	D	FORESTBURG	A	FREEHOLD	B
FARNHAM	B	FERRON	D	FLAT HORN	B	FORESTDAL	D	FREELAND	C
FARNHAMTON	C	FERTALINE	D	FLATHEAD	B	FORESTER	C	FREEMAN	B
FARNUF	B	FERTEG	C	FLATIORS	C	FORESTON	C	FREEMANVILLE	B
FARNUF, WET	C	FESTINA	B	FLATNOSE	B	FORGAY	B	FREEDON	B
FARNUM	B	FETT	D	FLATONIA	D	FORK	C	FREER	C

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FREEST	C	FULSHEAR	C	GAPCOT	D	GED	D	GILISPIE	D
FREESTONE	C	FULSTONE	C	GAPD	D	GEE	C	GILLAND	C
FREETOWN	D	FULTON	D	GAPD, DRAINED	C	GEEBURG	C	GILLENDER	D
FREEWATER	B	FULTS	D	GAPPAYER	B	GEEMORE	C	GILLIAM	C
FREEZENER	P	FULWIDER	D	GARPER	B	GEERTSEN	B	GILLIGAN	B
FREEZEDOUT	B	FUNTER	D	GARED	B	GEFO	A	GILLSBURG	C
FRELSBURG	D	FUQUAY	B	GARRUTT	B	GEISEL	B	GILMAN	C
FREMONT	C	FURNISS	D	GARCEND	C	GEKE	C	GILMORE	B
FREN	B	FURSHUR	D	GARCS	D	GELKIE	B	GILPAR	B
FRENCH	C	FURY	D	GARDENS	C	GEM	C	GILPIN	C
FRENCHCREEK	B	FURY, DRAINED	C	GARCIA	C	GEM, STONY	D	GILRDY	C
FRENCHJOHN	C	FUSULINA	D	GARCITAS	C	GEMID	C	GILSTON	B
FRENCHMAN	B	FUSUVAR	D	GAPCON	D	GEMSON	B	GILT EDGE	D
FRENCHTOWN	D	GAASTRA	C	GARDELLA	P	GENAW	D	GIMLETT	B
FRESHWATER	D	GABALDON	B	GAPCENA	A	GENEGRAF	B	GINAT	D
FRESNO,	D	GABBS	C	GARDINEP	B	GENESEE	B	GINEX	D
SALINE-ALKALI		GABBVALLY	D	GARDNER'S FORK	C	GENEVA	B	GINGER	D
FRESNO, THICK	C	GABEL	C	GARDNERVILLE	C	GENDA	D	GINI	B
SOLUM		GABICA	D	GARDONE	A	GENOLA	B	GINLAND	D
FREWA	B	GABIND	D	GAREY	B	GENTILLY	D	GINNIS	C
FREZNJK	D	GACEY	D	GARFAN	C	GENTRY	D	GINSER	C
FRIANA	D	GACHADO	D	GARFIELD	C	GEOCONDA	C	GIRARD	D
FRIANT	D	GACIBA	D	GARHILL	C	GECHROCK	B	GIRARDOT	D
FRIDLO	C	GADDES	C	GARIPE	C	GEORGECREEK	B	GIRD	B
FRIEDLANDER	C	GADDY	A	GARITA	R	GEORGETOWN	D	GIST	D
FRIEDMAN	C	GADSDEN	D	GARLAND	R	GEORGEVILLE	B	GITAKUP	C
FRIENDS	C	GADSDEN, WET	C	GARLET	E	GEORGIA	C	GITAM	D
FRIENDSHIP	A	SUBSTRATUM		GARLOCK	B	GEPPORD	D	GIVIN	C
FRIES	D	GADWELL	C	GARMON	C	GEPP	B	GLACIERCREEK	A
FRIESLAND	B	GAGEBY	B	GARKDRE	B	GEPPERT	C	GLADDEN	B
FRIJOLCS	B	GAGETO-N	B	GARNEL	D	GERALD	D	GLADEL	D
FRINOLE	C	GAGIL	B	GARNER	D	GERPER	D	GLADEVILLE	D
FRINES	C	GAHEE	P	GARNES	B	GERDRUM	D	GLADEWATER	D
FRIO	S	GAIE	D	GARD	D	GERING	E	GLADSTONE	B
FRIONA	C	GAILA	B	GARR	P	GERLACH	D	GLADWIN	A
FRITION	C	GAINES	C	GARRETSON	B	GERLANE	B	GLASGOV	C
FRIPP	A	GAINESBORD	C	GARRETT	A	GERLSE	B	GLASSNER	D
FRISCO	B	GAINESVILLE	A	GARRISON	E	GERLE	B	GLEAN	B
FRISITE	B	GALATA	D	GARPOCHALES	D	GERMANTOWN	B	GLEASON	B
FRITZ	B	GALBRETH	D	GARSID	P	GERMANY	E	GLEE	C
FRIZZELL	C	GALCHUTT	C	GARTCN	C	GERMER	C	GLEN	B
FROBEPG	D	GALE	P	GARVESON	C	GERONI	E	GLENBAP	B
FRODD	D	GALEN	P	GARVIN	D	GERRAPD	C	GLENBAR, WET	C
FROHMAN	C	GALEPP	B	GARWIN	B/D	GERRARD, DRAINED	E	GLENBLAIR	C
FROLIC	S	GALESTINA	C	GARZA	P	GERST	D	GLENBROOK	D
FROLIC,	C	GALESTOWN	A	GARZONA	D	GESSE	E	GLENCAIR	E
FLEVATION<5000		GALEY	B	GAS CREEK	D	GESNER	R/D	GLENCAIRN	C
FROLIC, FLOODED	C	GALILFE	C	GASCENDAE	D	GESTPIN	B	GLENCAIRN, WET.	C
FRONDORF	B	GALISTED	C	GASIL	R	GETAWAY	B	GLENCOE	B/D
FRONTENAC	B	GALISTED,	D	GASQUE	B	GETCHELL	C	GLENCOE, PONDED	D
FRONTIER	C	SALINE-ALKALI		GASSAWAY	D	GETTYS	C	GLENDALE	B
FRONTON	D	GALLAND	C	GAZZVILLE	C	GETZVILLE	D	GLENDALE, WET	C
FROST	D	GALLATIN	C	GASTON	C	GENTER	C	GLENDALE, RARELY	C
FROZARD	C	GALLEGOS	B	GAT	P	GEYSEN	C	FLOODED	B
FRUITA	B	GALLEN	B	GATES	P	GIBBLER	C	GLENDERSON	B
FRUITFIELD	A	GALLIA	E	GATESCN	C	GIBBON	B	GLENDRORA	A/D
FRUITHURST	C	GALLIME	B	GATEVIEW	B	GIBBONSCKE	C	GLENDRORA	B
FRUITLAND	S	GALLION	B	GATEWAY	C	GIBES	D	GLENEDEN	D
FRUITLAND,	C	GALLMAN	B	GATEWOOD	C	GIENEY	C	GLENEDEN	D
MODERATELY WET		GALLUP	B	GATLIN	B	GIBWELL	C	GLENFORD	B
FRUITLAND, WET	C	GALOO	C/D	GATOR	D	GIBSONVILLE	D	GLENFORD	C
FRYE	C	GALT	D	GATTON	P	GIDEON	C	GLENHALL	B
FRYEBURG	B	GALVA	P	GAULDY	B	GIDEON	C	GLENHAN	B
FT. DRUM	C	GALVESTON	A	GAULEY	C	GIELOB	C	GLENMEN	B
FT. GREEN	D	GALEVZ	C	GAVEL	C	GIFFORD	D	GLENMORA	C
FUBAR	C	GALVIN	D	GAVILAN	C	GIGGEP	C	GLENMORA	C
FURBLE	D	GALWAY	B	GAVINS	D	GILA	B	GLENNALLEN	C
FUEGD	C	GAMBLER	B	GAVIOTA	D	GILBERT	D	GLENOMA	B
FUEGOSTA	D	GAMBOA	B	GAY	B/D	GILBOA	B	GLENPOOL	A
FUERA	C	GAMGEE	C	GAYLESVILLE	D	GILBY	B	GLENRIO	D
FUGAWEE	B	GANADO	D	GAYLORD	C	GILCMPIST	A	GLENROSE	B
FUGHES	C	GANCE	C	GAYNCR	C	GILCO	B	GLENROSS	D
FULCHER	C	GANDO	D	GAYVILLE	D	GILCREST	B	GLENSTED	D
FULDA	C/D	GANIS	D	GAZELLE	D	GILEAD	C	GLENTON	B
FULLAW	C	GANNETT	D	GAZOS	C	GILES	B	GLENTON, WET	C
FULLEP	D	GANSNER	C	GAZWELL	C	GILFORD	B/D	GLENTOSH	A
FULLERTON	B	GANSNER, PONDED	D	GEARMART	A	GILFCRD.	D	GLENVIEW	B
FULMER	D	GANY	B	GEARY	B	STRATIFIED	B	GLENVILLE	C
FULMER, DRAINED	C	GAPBUTTE	B	GEBSN	B	SUBSTRATUM	B	GLENYON	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

GLOHM	C	GOOSEFLATS	D	GRANGEVILLE.	E	GRELLTON	B	GUAYABOTA	D
GLORIA	D	GOODSMUS	B	DRAINED	E	GRENADA	C	GUAYAMA	C
GOUCESTER	A	GORDO	B	GRANGEVILLE.	E	GRENADIER	B	GUBE	C
GLOVER	C/D	GORE	D	OCCASIONALLY		GRENVILLE	E	GUBEN	E
GLYNDON	B	GOREEN	D	FLOODED		GRESHAM	C	GUCKEEN	C
GLYNN	C	GORGAS	D	GRANILE	E	GRETDIVID	B	GUDGEL	C
GLYNWOOD	C	GORGONIO	A	GRANMOUNT	C	GREWINGK	C	GUDGREY	B
GLYPHS	B	GORHAM	B/D	GRAND	D	GREYBACK	B	GUELPH	B
GOBAR	B	GORIN	C	GRANSHAW	F	GREYBO	B	GUEMES	B
GOBERNADOR	D	GORING	C	GRANT	R	GREYBULL	C	GUENDC	C
GOBINE	B	GORMAN	C	GRANTFORK	D	GREYEAGLE	D	GUENTHER	B
GOBLE	C	GORSKEL	D	GRANTHAM	D	GREYS	B	GUERNSEY	C
GOBLIN	D	GORST	D	GRANTSBURG	C	GRIBBLE	D	GUERO	C
GOCHEA	B	GORUS	B	GRANTSDALE	B	GRIDELL	D	GUERRERO	A
GODDARD	B	GORZELL	B	GRANVILLE	B	GRIDGE	D	GUEST	D
GODDE	D	GOSA	B	GRANYON	B	GRIDLEY	C	GUFFEY	C
GODDING	C	GOSHEN	B	GRANZAN	B	GRIETA	B	GUFFIN	D
GODECKE	D	GOSMUTE	D	GRAPEVINE	B	GRIEVES	F	GUGUAK	D
GODFREY	D	GOSINTA	C	GRAPIT	E	GRIFITH	D	GUILDER	C
GODWIN	D	GOSLIN	B	GRASHUL	C	GRIFFY	S	GUISER	B
GOEMMER	C	GOSNEY	D	GRASMERE	B	GRIFTON	C	GULER	B
GOESLING	B	GOSPER	B	GRASSNA	E	GRIGSBY	B	GULF	D
GOESSEL	D	GOSPORT	C	GRASSVAL	D	GRIGSTON	E	GULKANA	B
GOFFPEAK	B	GOSS	B	GRASSVALLEY	D	GRIMM	A	GULNARE	D
GOGBECIC	B	GOSUMI	D	GRASSY BUTTE	A	GRIMM, STONY	B	GUMBLE	D
GOL	D	GOTEBO	B	GRASSYCONE	A	GRIMSLY	B	GUMBOOT	D
GOL	C	GOTHAM	A	GRAT	D	GRIMSTAD	E	GUMBOOT, DRAINED	C
GOL. NONSTONY	C	GOTHARD	C	GRATTAN	A	GRIMSTONE	B	GUNBARREL, SALINE	D
GOL. GRAVELLY	C	GOTHENBURG	D	GRAFEELS	C	GRINA	D	GUNBARREL, DRAINED	A
GOLCONDA	C	GOTHIC	C	GRADEN	D	GRINDALL	D	GUND	C
GOLD CREEK	D	GOTHO	C	GRAVELTON	E/D	GRINDBROOK	C	GUNDY	C
GOLDBERG	D	GOTHO. MODERATELY	B	GRAVIER	B	GRINDSTONE	C	GUNLOCK	C
GOLDENDALE	B	WET		GRAYPERT	B	GRINK	C	GUNN	B
GOLDFINCH	D	GOTHO. COOL	B	GRAYCALM	A	GRINROD	C	GUNNEL	D
GOLDHEAD	B/D	GOULDING	D	GRAYFORD	B	GRISDALE	B	GUNSIGHT	B
GOLDHILL	D	GOULDSBORO	D	GRAYLAND	D	GRISWOLD	B	GUNSONE	D
GOLDHILL. LOAMY	C	GOURDIN	C	GRAYLAND, DRAINED	C	GRITNEY	C	GUNSTOCK	C
SUBSTRATUM		GORLEY	C	GRAYLING	A	GRIVER	C	GUNTER	B
GOLDLAKE	B	GOVE	B	GRAYLOCK	A	GRIVER, WET	D	GUP	C
GOLDMAN	C	GOWEN	B	GRAYLOCK, STONY	B	GRIVER, DRAINED	B	GURDANE	C
GOLDMIRE	C	GOWKER	C	GRAYPOINT	B	GRIZZLY	B	GURDON	C
GOLDRIDGE	B	GOWTON	B	GRAYPOINT, WET	C	GRUBBETTE	B	GURLEY	C
GOLDRUN	A	GOZEM	D	GRAYROCK	C	GROGAN	B	GURNEY	B
GOLDSBORO	B	GRABE	B	GRAYS	B	GROOM	C	GUSTIN	D
GOLDSTON	C	GRABLE	B	GRAYSILL	C	GROSECLOSE	C	GUSTSPRING	B
GOLDSSTREAM	D	GRACEMONT	C	GRAZER	C	GROSS	C	GUTHRIE	D
GOLDSSTREAM, THAWED	B	GRACEMORE	C	GREAT BEND	E	GROSSWELL	C	GUY	B
GOLDUST	C	GRACEVILLE	B	GREDGE	D	GROTON	A	GUYAN	C
GOLDAVALE	B	GRADCO	C	GREEN BLUFF	E	GROTTE	B	GUYANDOTTE	B
GOLDAVALE, NONSTONY	C	GRADON	C	GREEN CANYON	B	GPTTO	A	GUYTON	D
GOLDOVEIN	C	GRADY	D	GREEN RIVER	C	GROUSECREEK	B	GWENA	D
GOLDYKE	D	GRAFEN	B	GREEN RIVER,	P	GROUSEVILLE	C	GWIN	D
GOLETA	B	GRAFF	D	STRONGLY SALINE		GROVE	A	GWIN, GRAVELLY	C
GOLIAD	C	GRAHAM	D	GREEN RIVER.	P	GROVECITY	B	GWINLY	D
GOLLAHER	D	GRAIL	C	FLOODED		GROVENA	B	GWINNETT	B
GOLSUM	C	GRAINOLA	D	GREENBRAE.	C	GROVER	B	GYMER	C
GOLTRY	A	GRALEY	D	GREENBRIAER	B	GROVETON	B	GYNELLE	A
GOLVA	B	GRALIC	B	GREENCREEK	B	GROWDEN	C	GYPNEVEE	B
GOMERY	B	GRAN	D	GREENDALE	B	GROWLER	B	GYSTRUM	C
GOMEZ	B	GRANATH	B	GREENE	A	GROWTON	B	HAAR	D
GONYICK	B	GRANBY	A/D	GREENFIELD	B	GRUBBS	D	HAARVAR	D
GONZAGA	C	GRANDE RONDE	D	GREENFIELD.	C	GRUBSTAKE	B	HACCKE	C
GODCH	D	GRANDFIELD	B	HARDPAN	C	GRUENE	D	HACK	B
GODDING	D	GRANDMORE	B	SUBSTRATUM		GRULLA	D	HACKBERRY	B
GODDINGTON	D	GRANDPON	B	GREENHALGH	B	GRUMMIT	D	HACKERS	B
GODDLAND	B	GRANDVIEW	C	GREENHORN	D	GRUNDY	C	HACKROY	D
GODLOW	B	GRANDVIEW, DRAINED	B	GREENLEAF	E	GRUVER	C	HACKWOOD	B
GODDMAN	B	GRANER	B	GREENLEE	B	GRYGLA	B/D	HADAR	B
GODDNGHT	A	GRANGE	C	GREENMAN	C	GSCHWEND	B	HADENCREEK	C
GODDPASTER	D	GRANGEMONT	C	GREENOUGH	B	GUADALUPE	B	HADES	B
GODDPICH	B	GRANGEVILLE.	B	GREENSON	C	GUAJE	D	HADLEY	B
GODDSPRINGS	D	DRAINED, SLOPING	B	GREENTON	C	GUAM	D	HADSELVILLE	D
GODDWILL	B	GRANGEVILLE.	C	GREENVILLE	B	GUANANI	B	HAFLINGER	A
GODDWIN	B	SALINE-ALKALI.		GREENVINE	D	GUANABANO	C	HAGEN	B
GODLAWAY	C	WET		GREENWATER	A	GUANAJIBO	C	HAGENBARTH	B
GOOSE CREEK	B	GRANGEVILLE.	B	GREENWAY	B	GUANICA	D	HAGER	D
GOOSE CREEK, WET	C	SALINE-ALKALI		GREENWOOD	A/D	GUARD	C	HAGERMAN	C
GOOSE LAKE	D	GRANGEVILLE.	B	GREHALEM	B	GUARDLAKE	A	HAGERSTOWN	C
GOOSEBURY	B	MODERATELY WET		GRELL	D	GUAYABA	A	HAGGA	D

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

HAGGA	C	HANIPOE, BEDROCK	C	HARSHA	P	HAWI	B	HEIMDAL
SALINE-ALKALI		SUBSTRATUM	C	HARSLAW	C	HAWICK	A	HEINSAV
HAGGERTY	B	HANIS	C	HARSTINE	C	HAWKEYE	A	HEISETON
HAGSTADT	C	HANKINS	C	HARSTON	B	HAWKINS	C	HEISETON, STONY
HAGUE	A	HANKS	B	HART	D	HAWKSBILL	B	HEISETON,
HAIG	C/D	HANKSVILLE	D	HART CAMP	D	HAWKSNEST	C/D	SALINE-ALKALI
HAIGHTS	B	HANKSVILLE,	C	HARTER	C	HAWKSPRINGS	B	HEISLER
HAIKU	B	NONFLOODED	C	HARTFORD	A	HAWKSTONE	B	HEIST
HAILMAN	B	HANLON	E	HARTIG	B	HAWLEY	B	HEITT
HAIRE	C	HANLY	A	HARTILL	C	HAWLEY	A	HEIZER
HAIRE, BEDROCK	D	HANNA	B	HARTLAND	B	HAXTUN	B	HELDT
SUBSTRATUM		HANNAHATCHEE	E	HARTLESS	B	HAYBOURNE	B	HELEMAND
HAKKER	C	HANNING	B	HARTLETON	E	HAYCRICK	C	HELENA
HALACAN	D	HAND	C	HAPTNIT	C	HAYDEN	B	HELENDALE
HALAWA	B	HANOVER	C	HARTSBURG	E/D	HAYESTON	B	HELLGATE
HALBERT	D	HANS	C	HARTSELLS	B	HAYESVILLE	B	HELLMAN
HALCOTT	C/D	HANSEL	C	HARTSHORN	B	HAYESVILLE, STONY	C	HELM
HALDER	C	HANSA	B/D	HARTVILLE	C	HAYFIELD	B	HELMER
HALE	D	HANSON	B	HARTWELL	D	HAYFORD	C	HELMER, GRAVELLY
HALE, DRAINED	C	HANTHO	B	HARVARD	E	HAYHOOKE	D	SUBSOIL
HALEDON	C	HANTZ	D	HARVESTER	E	HAYMARKET	D	HELMER, THIN
HALEIWA	B	HANTZ, DRY	C	HARVEY	B	HAYMOND	B	SURFACE
HALEY	B	HAP	B	HARFY, BEDROCK	C	HAYMONT	B	HELMER, SEVERELY
HALF MOON	B	HAPGOOD	B	SUBSTRATUM, DRY	D	HAYNESS	B	ERODED
HALFADAY	A	HAPJACK	D	HARWOOD	C	HAYNIE	B	HELMICK
HALFWAY	D	HAPNEY	C	HASKILL	B	HAYPRESS	A	HELTZ
HALII	B	HAPPLE	B	HASKINS	C	HAYRACK	C	HELVETIA
HALIMAILE	B	HAPUR	D	HASSEE	D	HAYSPUR	D	HELY
HALL	B	HARAHAH	D	HASSELL	C	HAYSUM	B	HEMBRE
HALL RANCH	C	HARAHI	C	HASTINGS	B	HAYTER	B	HEMCROSS
HALLANDALE	B/D	HARANA	B	HAT	C	HAYTI	D	HEMINGFORD
HALLANDALE, TIDAL	D	HARBORD	B	HATBORD	D	HAYWIRE	B	HEMPSTEAD
HALLCREEK	A	HARCANY	B	HATCH	C	HAYWOOD	B	HENCO
HALLECK	C	MARCO	B	HATCH, GRAVELLY	D	HAZEL	C	HENDERSON
HALLECK, GRAVELLY	B	HARCOT	B/D	HATCHERY	C	HAZELAIR	D	HENDON
SUBSTRATUM		HARDEMAN	B	HATCHET	B	HAZEN	E	HENDRICKS
HALLETTSVILLE	D	HARDESTY	B	OVERBLOWN, THICK		HAZLEHURST	C	HENDY
HALLISON	C	HARDHAT	B	SOLUM		HAZLETON	B	HENEFER
HALLORAN	C	HARDING	D	HATCHET, GRAVELLY	C	HAZTON	D	HENHOT
HALSEY	C/D	HARDISTER	B	HATCHET, OVERBLOWN	C	HEADLEY	R	HENKIN
HALSO	D	HARDOL	B	HATCHET, COSBY	C	HEADQUARTERS	B	HENLEY
HAMACER	A	HARDSCRAPPABLE	D	HATCHIE	C	HEAKE	D	HENLINE
HAMAKUAPOKO	B	HARDTRIGGER	E	HATERHUS	E	HEALDTON	F	HENNEL
HAMAR	A/D	HARDY	C	HATERTON	D	HEALING	E	HENNEKE
HAMBLEN	C	HARGILL	B	HATHAWAY	B	HEARNE	C	HENNEPIN
HAMBONE	B	HARGREAVE	C	HATLEY	C	MEARNE, GRADED	D	HENNESSY
HAMBRIGHT	D	HARJO	D	HATLIFF	C	HEATH	C	HENNEWAY
HAMBURG	B	HARKERS	C	HATMAKEF	C	HEATHCDAT	C	HENNEY
HAMBY	C	HARKEY	B	HATPEAK	C	MEATLY	A	HENNINGS
HAMDEN	B	HARKNESS	C	HATTIE	C	HEATCH	A	HENNINGSEN
HAMEL	C	HARLAN	B	HATTON	C	HEBRONNVILLE	B	HENRIETTA
HAMERLY	C	HARLEM	C	HATUR	C	HEBER	A	HENRIVILLE
HAMILTON	B	HARLEM, CHANNELLED	D	HATWAI	D	HEBERT	C	HENRY
HAMLET	B	HARLESTON	C	HAUBSTADT	C	HEBO	D	HENSHAW
HAMLIN	B	HARLINGEN	D	HAUG	E/D	HEERON	R	HENSLEY
HAMMACK	B	HARLOW	D	HAUGAN	B	HECETA	D	HENSON
HAMMONTON	B	HARMEHL	C	HAULINGS	D	HECHTMAN	D	HEPLER
HAMPSHIRE	C	HARMONY	C	HAUNCHEE	D	HECKER	R	HEPPSIE
HAMPSON	C	HARNEY	B	HAUZ	C	HECKISON	D	HERAKLE
HARE	C/D	HAROL	B	HAVALA	B	HECLA	A	HERBERT
HARRUB	B	HARPER	D	HAVANA	B	HECTOR	D	HERBMAN
HANTAH	C	HARPERSVILLE	D	HAVELOCK	B/D	HEDGE	D	HERD
HANA	A	HARPETH	B	HAVEN	E	HEDDOES	C	HEREFORD
HANAGITA	D	HARPOLE	B	HAVERDAD	E	HEDDX	C	HERITO
HANAKER	C	HARPS	B/D	HAVERDAD.	C	HEDRICK	B	HERKIMER
HANALEI	C	HARPSTER	B/D	MODERATELY SALINE		HEDSTROM	B	HERLONG
HANAMAUU	B	HART	B	HAVERHILL	D	HEDEVILLE	D	HERM
HANCEVILLE	B	HARQUA	C	HAVERLY	C	HEECHEE	B	HERMANTOWN
HAND	B	HARRAH	E	HAVERMON	B	HEELY	B	HERMERING
HANDPAH	D	HARRIET	D	HAVERSDN	B	HEESER	B	HERMISTON
HANDRAN	A	HARRIMAN	E	HAVILAND	B	HEFED	B	HERMON
HANDSBORO	D	HARRIMAN, WET	C	HAVILLAH	B	HEFLIN	B	HERNANDEZ
HANDY	C	HARRINGTON	C	HAVINGDON	C	HEGLAR	R	HERNDON
HANEY	B	HARRIS	D	HAVRE	B	HEGNE	D	HERD
HANFORD	B	HARRISBURG	C	HAVRE, SALINE	C	HEIDEL	B	HERDD
HANGARD	D	HARRISON	E	HAVRE, MODERATELY	C	HEIDEN	D	HERRICK
HANDOO	B	HARRISVILLE	C	NET		HEIDTMAN	C	MERSH
HANTOWN	B	HARROUN	D	HAVRELON	B	HEIGHTS	B/D	MERSHAL
HANIPOE	B	HARSAN	B	HAW	B	HEIL	D	HERTY

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HESCH	B	HILLSBORD	B	HOLDERMAN	C	HODDVIEW	B	HOWELL	C
HESPER	B	HILLSDALE	B	HOLDERNES	C	HOOGDAL	C	HOWLAND	C
HESPERIA	B	HILLTD	B	HOLDINGFORD	C	HOOKS	B	HOWSON	B
HESPERUS	B	HILLWOOD	B	HOLDRGE	B	HOKSAN	A	HOYE	B
HESSEL	B/D	HILMAR	D	HOLILLIPAH	A	HOKTON	C	HOYLETON	C
HESSELBERG	D	HILMAR, DRAINED	B	HOLLAND	B	HOOLEHUA	B	HOYPUIS	A
HESSELTINE	B	HILMOE	C	HOLLANDLAKE	B	HODLY	C	HOYTVILLE	D
MESSING	B	HILDO	A	HOLLINGER	E	HOOPAL	D	HOACHUCA	B
HESSLAN	C	HILDOLO	D	HOLLIS	C/D	HOOPER	D	HUALAPAI	C
MESSON	C	HILT	B	HOLLISTER	D	HODPESTON	B	HUE	B
HETERNA	C	HILTON	B	HOLLOMAN	D	HOOLITE	D	HUBBARD	A
HETTINGER	C/D	HINCKLEY	A	HOLLOMEX	B	HOOSAN	B	HUBBARDTON	D
HEUSSER	C	HINDES	C	HOLLOW	C	HOSEGOW	B	HUBBELL	B
HEVELTON	C	HINESBURG	C	HOLLOWAY	E	HOOSIC	A	HUBERLY	D
HEWITT	D	HINKER	C	HOLLOWTREE	C	HOOSIERVILLE	C	HUBERT	B
HEXT	B	HINKLE	D	HOLLY	B/D	HODSIMBIM	B	HUBLERSBURG	E
HEYDER	B	HINMAN	C	HOLLY, PONDED	D	HOOT	D	HUCKLEBERRY	C
HEYDLAUFF	B	HINSDALE	D	HOLLY SPRINGS	D	HOOTEN	D	HUCKLEBERRY, HIGH	B
HEYTOU	B	HIRAMSBURG	C	HOLLYWELL	B	HOPCO	C	RAINFALL	
HEZEL	B	HIRIDGE	D	HOLLYWOOD	D	HOPDRAW	A	HUDNUT	B
HI VISTA	C	HIRSCHDALE	C	HOLMAN	A	HOPEKA	D	HUDSON	C
HIARC	C	HISEGA	C	HOLMDEL	C	HOPKINS	B	HUECO	C
HIBAR	C	HISKEY	B	HOLMES	B	HOPLAND	B	HUEL	A
HIBBARD	C	HISLE	D	HOLDHAN	B	HOPLEY	B	HUENEME	C
HIBBING	C	HITCHCOCK	B	HOLOMUA	B	HOPSONVILLE	C	HUENEME,	B
HIBERNIA	C	HITILD	A	HOLOPAV	B/D	HOQUIAM	B	MODERATELY WET	
HISBRETTEN	B	HITT	B	HOLOPAV,	C	HORD	B	HUENEME, DRAINED	B
HICKMAN	B	HIVAL	D	DEPRESSIONAL	B	HOREB	C	HUERFAND	D
HICKORY	C	HIVAN	D	HOLOPAV,	D	HOREB, GRAVELLY	B	HUEY	D
HICKS	B	HIVASSEE	B	FREQUENTLY		SUBSTRATUM		HUFFINE	B
HICKSVILLE	B	HIVOOD	A	FLOODED		HORNELL	D	HUFFMAN	B
HICKSVILLE.	C	HIXTON	B	HOLSINE	E	HORNING	B	HUFFTON	B
BEDROCK		HOADLY	C	HOLSTEIN	B	HORNITOS	D	HUGGINS	C
SUBSTRATUM		HOBACKER	B	HOLSTON	B	HORNSBY	C	HUGHES	B
HICOTA	B	HOBAN	B	HOLT	B	HORNSVILLE	C	HUGESVILLE	C
HIDALGO	B	HOBBS	B	HOLTER	B	HORROCKS	B	HUGO	B
HIDATSA	B	HOBCAW	D	HOLTL	B	HORSECAMP	D	HUGUS	B
HIDEAWAY	D	HOBEE	A	HOLTON	C	HORSERIDGE	B	HUGUSTON	D
HIDEWOOD	B/D	HOBBERG	C	HOLTVILLE	C	HORSESHOE	B	HUICHICA	C
HIERRO	B	HOBIT	C	HOLYKE	C/D	HORSETHIEF	B	HUICHICA, PONDED	D
HIGGINS	D	HODO	D	HOMA	C	HORSLEY	D	HUIKAU	A
HIGGINSVILLE	C	HODOG	D	HOME CAMP	C	HORST	B	HUKILL	B
HIGH GAP	C	HODONNY	D	HOMELAKE	B	MORTONVILLE	B	HULETT	B
HIGHAMS	D	HOBSON	C	HOMELAND	C	HOSKIN	C	HULLS	C
HIGHBANK	C	HODBUCKEN	D	HOWER	B	HOSKINNINI	D	HULLT	B
HIGHCAMP	B	HOCAR	D	HOMESTAKE	C	HOSLEY	D	HULUA	D
HIGHFIELD	B	HOCHEIM	B	HOMESTEAD	B	HOSMER	C	HUM	B
HIGHHORN	B	HOCKINSON	D	HOMEWOOD	C	HLOSSICK	B	HUMACAD	B
HIGHMORE	B	HOCKINSON.	C	HOMME	C	HOSTAGE	B	HUMATAS	C
HIGHPOINT	D	MODERATELY WET	B	HOMME, MODERATELY	B	HOT LAKE	C	HUMBARGER	B
HIGHROCK	D	HOCKINSON, DRAINED	B	WET		HOTAW	C	HUMBIG	C
HIGHTOWER	C	HOCKLEY	C	HOMOSASSA	D	HOTCREEK	D	HUMBIRD	B
HIGHWOOD	C	HOCKLEY, GRADED	D	HONAUNAU	C	HOTEL	C	HUMBOLDT	D
HIMIMANU	B	HODA	C	HONCUT	B	HOTSPRINGS	B	HUMBOLDT,	B
HIIBNER	C	HODEDDO	C	HONDALE	D	HOUDEK	B	MODERATELY WET,	
HIKO PEAK	B	HODENPYL	B	HONDHO	B	HOUGH	B	SALINE-ALKALI	
HIKO SPRINGS	B	HODGE	A	HONEYDE	B	HOUGHTON	A/D	HUMBOLDT,	B
MILAIRE	B	HODGINS	B	HONEYDEW	C	HOUGHTON, PONDED	D	MODERATELY WET,	
MILAND	B	HODGSON	C	HONEYGROVE	B	HOUGHTONVILLE	C	SALINE	
MILDEBRECHT	C	HOEHNE	A	HONEYJONES	B	HOUK	C	HUMBOLDT, DRAINED,	B
MILDRETH	D	HOFFLAND	D	HONEYVILLE	C	HOULA	B	STRONGLY SALINE	
MILEA	D	HOFFMANVILLE	C	HONKER	D	HOULKA	D	HUMBOLDT, DRAINED,	B
MILES	B	HOFFSTADT	B	HONLAK	C	HOURGLASS	B	NONSALINE	
HILGER	B	HOFLY	C	HONLAK, DRAINED	B	HOUSE MOUNTAIN	D	HUMBOLDT,	B
HILGRAVE	B	HOGADERO	B	HONLU	B	HOUSER	D	MODERATELY WET	
HILIGHT	D	HOGANSBURG	B	HONN	B	HOUSEROCK	D	HUMBOLDT, DRAINED	B
MILINE	D	HOGBACK	C	HONOBIA	C	HOUSTAKE	C	HUNDUN	B
HILLBRICK	D	HOGG	C	HONOKAA	A	HOUSTON	D	HUME	C
HILLCO	B	HOGMALAT	D	HONOLUA	B	HOUSTON BLACK	D	HUMESTON	C/D
HILLEMANN	C	HOGRIS	B	HONOMANU	A	HOVDE	D	HUNKER	C
HILLERY	C	HOM	B	HONONEGAH	A	HOVEN	D	HUMMINGTON	C
HILLET	B/D	HOMMANN	C	HONOLIULI	B	HOVENHEEP	C	HUMPHREYS	B
HILLFIELD	B	HOKO	C	HONTAS	B	HOVERT	D	HUMPTULIPS	B
HILLGATE	D	HOLBORN	C	HONTDON	B/D	HOVEY	C	HUMSKEL	C
HILLIARD	B	HOLBROOK	B	HONUAULU	A	HOWARD	A	HUN	B
HILLIARD.	C	HOLCOMB	D	HOOD	B	HOWARDSVILLE	A	HUNCHBACK	D
MODERATELY WELL		HOLDAWAY	D	HOOODE	B	HOWCAN	B	HUNDRAV	D
DRAINED		HOLDEN	B	HODDOO	D	HOWCREE	C	MUNEWILL	B
HILLON	C	HOLDER	B	HODDSPORT	C	HOWE	C	HUNGRY	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

HUNNTON	C	ILDECARE	B	IPISH	C	JACAGUAS	B	JEMENY	D
HUNSINGER	B	ILDEFONSO	B	IPSON	B	JACANA	D	JEKLEY	C
HUNTERS	B	ILES	C	IPSWICH	D	JACEE	C	JELLICO	C
HUNTERSVILLE	B	ILIFF	C	IRA	C	JACINTO	B	JEMEZ	C
HUNTINGER	C	ILILI	D	IREDELL	C/D	JACKET	A	JENA	B
HUNTING	C	ILION	D	IRELAND	C	JACKLAND	C	JENKINS	C
HUNTINGTON	B	ILLABOT	C	IRENE	E	JACKMAN	D	JENKINSON	D
HUNTMOUNT	B	ILLAHEE	B	IPETEBA	B	JACKNIFE	B	JENKS	B
HUNTPOCK	B	ILLER	B	IRIGUL	D	JACKPORT	C	JENNESS	B
HUNTSBURG	D	ILLITO	D	IRMULCO	E	JACKPOT	D	JENNINGS	C
HUNTSVILLE	B	ILTON	C	IRON BLOSSOM	C	JACKS	C	JENNY	D
HUPP	B	ILWACO	B	IRON MOUNTAIN	C	JACKSON	E	JENOR	C
HURDS	B	IMA	B	IRON RIVER	D	JACKTONE	D	JERAG	D
HURLBUT	C	IMBLER	B	IRON RIVER	D	JACOB	D	JERAULD	D
HURLEY	D	IMLAY	D	IRON SPRINGS	B	JACOBSEN	D	JEROME	D
HURRICANE	C	IMMIG	C	IRON SPRINGS	B	JACODY	C	JERRY	C
HURRY BACK	B	IMMIGRANT	C	IRONTON	C	JACOT	B	JERRYSLU	C
HURRYBACK	B	IMMOKALEE	B/D	IRONDALE	D	JACQUES	C	JERU	B
MURST	D	IMMOKALEE,	D	IRONDYKE	B	JACQUITH	C	JERVAL	B
HURWAL	E	IMPERIAL	D	IRONSPRINGS	B	JACRATZ	D	JESREL	D
HUSE	D	IMODENE	D	IRONTON	B/D	JACWIN	B	JESSE CAMP	B
MUSKA	D	IMONIL	B	IRQUOIS	C	JADIS	B	JESSIETOWN	B
MUSSA	D	IMPACT	A	IRRADDY	C	JAFIA	B	JESSO	C
MUSSA, CLAYEY	C	IMPERIAL	D	IRRIGON	D	JAGUEYES	B	JESSUP	C
SUBSTRATUM		INARAJAN	D	IRSON	D	JAL	E	JETCOP	D
MUSSA, MODERATELY WET	C	INARAJAN,	C	IPVINE	D	JALMAR	A	JETSTER	C
MUSSA, DRAINED	B	STRATIFIED SUBSTRATUM		IRVINGTON	C	JAMES	D	JETT	B
MUSELL	B	INAVALE	A	IRWIN	C	JAMES CANYON	C	JEVETS	C
MUSSMAN	D	INCELL	D	ISABELLA	E	JAMES CANYON,	B	JENETT	B
MUSUM	R	INCHAU	C	ISAN	A/D	DRAINED		JIGGS	B
HUTCHINSON	C	INCHELIUM	E	ISANTI	A/D	JAMESTON	C/D	JIGSAW	C
HUTCHLEY	D	INCY	A	ISELL	B	JANISE	C	JILSON	D
HUTSON	B	INDART	C	ISELLA	B	JANISE, OVERBLOWN,	B	JIM	C
HUTT	D	INDEX	A	ISPI PISHI	C	DRAINED		JIMBO	B
HUTTON	D	INDIADOMA	D	ISHPEMING	A	JANSEN	B	JINCREEK	C
HUXLEY	C	INDIAN CREEK	D	ISIDOR	D	JANUDE	B	JIMEK	C
HYUINK	R	INDIANO	C	ISKAT	C	JANUDE, CLAY	C	JIMENEZ	C
HYALL	C	INDIANOLA	A	ISKAT, COOL	D	SUBSTRATUM		JINLAKE	B
HYANNIS	B	INDIO	B	ISLAND	E	JARAB	D	JIMMERSOON	C
HYAS	B	INDELTON	B	ISLES	C	JARBOE	D	JIMSAGE	B
HYATTVILLE	C	INDUS	D	ISLES, SLUGH	A/D	JARDIN	D	JIMTOWN	C
HYDABURG	D	INEZ	D	ISLOTE	E	JAREALES	D	JIPPER	B
HYDE	B/D	INFERNAL	D	ISMAY	B	JARITA	C	JIVAS	B
HYDER	D	INGALLS	B	ISMC	C	JARMILO	E	JOACHEM	D
HYDRO	C	INGENIO	B	ISCLDE	A	JAROLA	C	JOB	C
HYE	B	INGERSOLL	B	ISDM	B	JAROSO	B	JOBS	C
HYLOC	D	INGRAM	D	ISTER	C	JARRE	B	JOEPEAK	D
HYMAS	D	INKLER	B	ISTDKPDGA	B/D	JARRON	D	JOCAL	B
HYPAIRIE	B	INKOM	D	ITANO	C	JARVIS	E	JOCITY	B
HYRUM	B	INKOM, DRAINED	C	ITASCA	B	JASCO	D	JOCITY, LOAMY	C
HYSHAM	D	INKOSR	D	ITAT	B	JASON	D	SURFACE	
HYSHOT	D	INKS	D	ITCA	D	JASPER	B	JOCKO	B
HYTOP	D	INKSTER	B	ITACA	C	JACUCAS	A	JOCERO	
HYZEN	D	INLDW	C	ITMANN	C	JACUCAS, SALINE	C	JOEL	B
IAO	B	INMACHUK	D	ITME	A	JAUIGA	B	JOEMRE	B
IBERIA	D	INMAN	C	ITSWODT	B	JAVA	B	JOENEY	D
ICARIA	D	INMO	A	IUKA	C	JAWBONE	D	JOES	B
ICENE	D	INNINGER	C	IVA	C	JAY	C	JOEVAR	B
ICESLEW	D	INPENDENCE	B	IVAN	B	JAYAR	C	JOHNS	C
ICHBD	D	INSAK	D	IVANELL	C	JAYBEE	D	JOHNSEBURG	D
ICHEWICKNEE	D	INSIDERT	C	IVANHCE	D	JAYEL	D	JOHNSON	B
ICICLE	B	INSKIP	C	IVEP	B	JAYEM	R	JOHNSTON	D
IDA	B	INSULA	D	IVERSEN	C	JAYNES	D	JOHNSTOWN	B
IDABEL	B	INTERIOR	B	IVES	B	JEAGER	C	JOHNSWOOD	B
IDAHOME	B	INTON	P	IVES, WET	D	JEAN	A	JOHTOM	D
IDAMONT	R	INVERNESS	B	IVIE	A	JEAN LAKE	B	JOICE	D
IDEE	C	INVERSIEL	C	IVINS	C	JEANERETTE	D	JOINEP	B
IDLEWILD	D	INVILLE	B	IVVWILD	C	JEBE	R	JOKDOWSKI	B
IDLEWILD, DRAINED	C	JO	B	IXIAN	C	JEBO	B	JOLAN	C
IMON	B	IOLEAU	C	IVERS	D	JEDBURG	C	JOLIET	D
IGDELL	C	IONA	B	IZAGORA	C	JEDD	C	JOLLY	
IGERT	C	IONIA	B	IZAR	D	JEDDITO	C	JONALE	B
IGNACIO	C	IOSCO	B	IZEE	C	JEDDITO,	R	JONAS	B
IGO	D	JOSEPA	D	IZO	A	SALINE-ALKALI		JONATHAN	B
IGUALDAD	D	IDLTA	B	IZOD	D	JFDDO	C/D	JONCA	C
IMLEN	B	IPAGE	A	IZUSER	B	JEFFERS	B/D	JONDA	B
IJAM	D	IPANO	C	JAPU	B	JEFFERSON	B	JONES	B
ILACHETOMEL	D	IPAVA	B	JABU, WET	C	JEFFREY	B	JONEVILLE	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

JONNIC	C	KAHANA	B	KAPLAN	D	KEEI	D	KERMIT	A
JOPLIN	C	KAHANUI	D	KAPOC	B	KEEKEE	B	KERNAN	C
JOPPA	B	KAHLER	B	KAPOMSIN	D	KEEL	C	KERR	B
JORAIBI	B	KAHLDTUS	B	KAPTURE	B	KEELDAR	B	KERRDAM	D
JORDAN	D	KAHOLA	B	KAPUHKANI	D	KEELE	B	KERRFIELD	B
JORGE	B	KAHUA	D	KARAMIN	A	KEELER	B	KERRICK	B
JORNHAM	B	KAIDERS	B	KARANKAWA	D	KEELINE	B	KERRYVILLE	C
JORY	B	KAIKLI	D	KARBANA	C	KEENE	C	KERSHAW	A
JORY, STONY	C	KAILUA	A	KARCAL	D	KEENO	C	KERSICK	D
JOSBURG	C	KAIMU	A	KARDE	B	KESE	D	KERSTON	A/D
JOSEPH	C	KAINALIU	A	KARHEEN	D	KEESEA	C	KERT	C
JOSEPHINE	B	KAIPOIDOI	B	KARLAN	C	KEESIAN	B	KESSLER	C
JOSHUA	C	KAIWIKI	A	KARLIN	A	KEETER	C	KESSON	D
JOSIE	B	KALAE	B	KARLO	D	KEEWATIN	C	KESTERSON	D
JOSLIN	B	KALALOCH	B	KARLSBURG	E	KEG	B	KESWICK	C
JOSSET	C	KALAMA	C	KARLSRUHE	E	KEGEL	D	KETCHLY	B
JOURDANTON	B	KALAMAZOO	B	KARLSTAD	A	KEGEL, DRAINED	C	KETCHUM	B
JOWEC	D	KALAPA	B	KARLUK	D	KEGONSA	B	KETONA	D
JOY	B	KALAUPAPA	D	KARMA	E	KEMAR	D	KETTENBACH	C
JUAB	B	KALEETAN	B	KARNAK	D	KEMENA	C	KETTLE	B
JUANA DIAZ	B	KALEETAN, TILL	C	KARNES	E	KEHOE	S	KETTLEBELLY	B
JUBILEE	D	SUBSTRATUM	B	KARDC	B	KEIGLEY	P	KETTELMAN	C
JUBILEE, DRAINED	B	KALIFONSKY	D	KARPP	D	KEISER	B	KETTELMAN,	B
JUDA	B	KALIGA	E/D	KARRO	B	KEITH	B	GPABELLY	
JUDD	C	KALIGA, FLOODED	D	KARS	A	KEITHVILLE	C	KETTMER	D
JUDELL	B	KALIHI	D	KARSHNER	D	KEKABA	E	KEUTERVILLE	B
JUDICE	D	KALISPELL	B	KARTA	C	KEKAKE	D	KEVANTON	C
JUDITH	B	KALKASKA	A	KARTAR	B	KEKAWAKA	B	KEVIN	C
JUDKINS	C	KALLIO	C	KASEBERG	D	KEKL	C	KEWACH	C
JUDSON	B	KALMARVILLE	B/D	KASHWITNA	B	KELLER	C	KEWAUNEE	C
JUDY	C	KALMIA	B	KASKI	E	KELLERBUTTE	E	KEVEENAW	A
JUG	B	KALO	C	KASOTA	C	KELLY	D	KEYA	B
JUGET	D	KALDKO	D	KASSLER	A	KELSEY	B	KEYES	D
JUGHANDLE	B	KALDNA	C	KASSON	C	KELSD	C	KEYESPOINT	D
JUGSON	C	KALSIN	D	KATAMA	B	KELTNR	B	KEYNER	C
JULES	B	KALSTED	B	KATEMCY	C	KELTYS	B	KEYPORT	C
JULESBURG	B	KAMACK	B	KATHER	C	KELVIN	C	KEYSTONE	A
JULIN	D	KAMAKDA	B	KATO	E/D	KENAH	D	KEZAN	D
JUMBO	B	KAMAN	D	KATSEAMES	D	KEMAN	B	KEZAR	C
JUMPCREEK	C	KAMADA	B	KATULA	C	KEMMERER	C	KIAKUS	C
JUMPE	B	KAMADE	B	KATY	D	KEMOD	B	KIAN	C
JUMPER	C	KAMATO	C	KATEBLAY	B	KEMP	C	KIAWAH	B/D
JUMPMORE	B	KAMAY	D	KAUDER	D	KEMPSVILLE	E	KIBBLE	B
JUMPOFF	C	KAMELA	C	KAUFMAN	D	KENAI	C	KIBESILLAH	C
JUNALUSKA	B	KAMIE	B	KAUKAUNA	C	KENANSVILLE	A	KICKAPOO	B
JUNCAL	C	KAMPVILLE	C	KAUPO	A	KENDAIA	C	KICKERVILLE	B
JUNCDS	D	KAMRAR	E	KAUPPI	B	KENDALL	B	KIDD	D
JUNCTION	B	KANACKEY	D	KAVETT	D	KENDALLVILLE	B	KIDDER	B
JUNEAU	B	KANAKA	B	KAVDN	B	KENDRICK	A	KIDMAN	B
JUNG	D	KANAPAHIA	B/D	KAWAIHAE	C	KENEFICK	B	KIEHL	C
JUNGO	B	KANARANZI	B	KAWAIHAPI	B	KENESAW	B	KIESEL	C
JUNIPERBUTE	A	KANARRA	D	KAWBANGAM	C	KENMDR	B	KIETZKE	D
JUNIPERO	B	KANASKAT	E	KAWICH	A	KENN	B	KIEV	B
JUNIUS	C	KANAWHA	B	KAWKAWLN	C	KENNAN	B	KIKI	C
JUNKETT	C	KANDALY	A	KAYHNE	C	KENNEBEC	B	KIKONI	B
JUND	A	KANDIK	B	KAYO	E	KENNER	D	KILAGA	C
JUNQUITOS	C	KANDOTA	B	KEAAU	D	KENNEWICK	B	KILARC	D
JUNTURA	D	KAKE	B	KEAHUA	B	KENNEY	A	KILAUEA	B
JUPITER	B/D	KANEBREAK	C	KEALAKEKUA	A	KENNEY LAKE	C	KILBURN	B
JURA	D	KANEDE	B	KEALIA	D	KEND	D	KILCHIS	D
JURVANNAH	C	KANEPUU	B	KEANSBURG	D	KENOMA	D	KILDOR	C
JUSTESEN	C	KANER	A	KEAPL	C	KENDOTRAIL	C	KILFOIL	C
JUSTESEN, LOAMY	B	KANG	C	KEARNS	B	KENRAY	A	KILGORE	D
SUBSTRATUM		KANGAS	A	KFARSARGE	P	KENSAL	B	KILKENNY	B
JUSTIN	B	KANID	B	KEATING	C	KENSETT	B	KILLARNEY	C
JUVA	B	KANIKSU	B	KEAUAKAHA	D	KENSPUR	B	KILBUCK	C/D
JUVAN	D	KANIHA	C	KEAWAKAPU	B	KENT	D	KILDDUFF	B
KAALUALU	A	KANKAKEE	B	KEBLEP	B	KENUSKY	D	KILLEY	D
KACHEMAK	B	KANLEE	C	KECH	D	KENYON	B	KILLEY, MODERATELY C	C
KACHESS	B	KANONA	D	KECKC	B	KEC	B	WET	
KADE	D	KANOSH	C	KECKSROAD	C	KEOKUK	B	KILLINGTON	D
KADLETZ	B	KANTISHNA	D	KEDA	B	KEODAH	C	KILLPACK	C
KADOKA	B	KANUTCHAN	D	KEDDIE	C	KEOTA	B	KILMANAGH	C
KAENA	D	KANZA	D	KEDRON	C	KEOWNS	B/D	KILWER	C
KAFING	B	KAPAA	B	KEE	P	KEPLER	C	KILMEROUE	C
KAGMAN	C	KAPAPALA	B	KEECHELUS	C	KERBER	B	KILN	D
KAGMAN, VERY	B	KAPAPALA, BEDROCK	C	KEECHI	C	KERBY	B	KILDA	A
GRAVELLY		SUBSTRATUM		KEEFA	B	KERHAYDEN	B	KILDHANA	A/A/C
KAHALUU	D	KAPIN	C	KEEPERS	C	KERL	B	KILOWAN	C

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KILWINNING	D	KITTITAS	D	KODRA	C	KRESSON	C	LACONNER	C
KIM	S	KITTITAS, DRAINED	C	KOEHLER	C	KREYENHAGEN	B	LACOCHEE	D
KIM, SALINE	C	KITTREDGE	B	KOELKE	B	KRIER	D	LACDSTE	C
KIMAWA	B	KITTSON	C	KOEPKE	B	KPIEST	D	LACOTA	B/D
KIMBALL	D	KIVA	A	KOEPLING	C	KRON	D	LACRESCENT	B
KIMBERLINA	B	KIWANIS	P	KCETHER	D	KROTO	B	LACROL	D
KIMBERLY	B	KIZHUYAK	P	KOFA	D	KRUBATE	B	LACY	D
KIMBROUGH	D	KJAR	D	KOFA, SALINE	C	KRUEGER	B	LADD	B
KIMMERLING	D	KLABER	D	KOFFGO	B	KRUM	D	LADELLE	B
KIMO	C	KLAKER, DRAINED	C	KOGISH	D	KRUSE	B	LADERLY	C
KIMPER	B	KLADNICK	A	KOMALA	B	KUBE	B	LADNER	D
KINA	D	KLADNICK, STONY	B	KCLAN	A	KUBLER	C	LADOGA	B
KINAN	B	KLAMATH	D	KOKEE	B	KUBLI	D	LADRON	B
KINCHELODE	D	KLANELNEECHENA	D	KCKERNOT	C	KUCERA	B	LADUE	B
-KINCO	A	KLANELNEECHENA,	C	KORO	B	KUCK	C	LADYCOMB	D
KINDER	C	KLACISTRINE		KOKCAHI	D	KUDLAC	D	LADYSMITH	D
KINDIG	B	SUBSTRATUM		KOKCAHI, STONY	B	KUML	D	LAFE	D
KINDY	C	KLAPATCHME	C	KOKOMO	B/D	KUKAIAU	A	LAFITTE	D
KINESAVA	B	KLAUS	C	KOLAR	D	KUKAIAU, BEDROCK	C	LAG	B
KINGDON	B	KLAWASI	D	KOLBERG	C	SUBSTRATUM		LAGITOS	C
KINGFISHER	B	KLAWASI,	B	KOLEKOLE	C	KULA	B	LAGLORIA	B
KINGHORN	D	LACISTRINE		KOLIN	C	KULLIT	B	LAGNAF	B
KINGILE	C	SUBSTRATUM		KOLLS	D	KULSHAN	C	LAGONDA	C
KINGINGHAM	C	KLAWATTI	C	KULLUTUK	D	KUKA	B	LAGRANGE	D
KINGMAN	D	KLAWHOP	B	KOLDA	C	KUNATON	D	LAGROSS	A
KINGMONT	B	KLAYENT	C	KOLOB	B	KUNAYOSH	A	LAGUNITA	A
KINGS	D	KLECKNER	C	KOLOR, STONY	C	KUNIA	B	LAGUNITA, WET	C
KINGSBURY	D	KLEINBUSH	C	KLOLOKLOLO	B	KUNUWEIA	B	LAHAINA	B
KINGSDOWN	B	KLEJ	B	KLOLOPOKI	E	KUNZ	B	LAHONTAN	D
KINGSLAND	A/D	KLICKER	C	KOMO	E	KUNZLER	B	LAHRITY	C
KINGSLY	B	KLICKITAT	E	KONA	D	KUPREANOF	B	LAIDIG	C
KINGSPOND	B	KLICKSON	B	KONAWA	E	KUPREANOF,	C	LAIDLAW	C
KINGSTON	B	KLINE, COBBLY	E	KONEPT	D	MODERATELY WET		LAIL	C
KINGSVILLE	A/D	KLINE, PROTECTED	C	KONEFT, DRAINED	C	KUREB	A	LAIRD	B
KINGTAIN	B	KLINESVILLE	C/D	KONNER	D	KURO	D	LAIRDSVILLE	D
KINKEAD	C	KLINGER	B	KONNER, DRAINED	C	KURTH	C	LAJARA	D
KINKEL	C	KLISKON	C	KONDCTI	C	KURTZ	C	LAJITAS	D
KINKEL, GRAVELLY	B	KLISTAN	S	KONDCTI, STONY	B	KUSHNEAHIN	D	LAKE	A
KINKORA	D	KLONDIKE	D	KONSIL	B	KUSKOKWIM	D	LAKE, CLAYEY	C
KINMAN	C	KLONE	B	KOOLAU	C	KUSLINA	D	SURFACE	D
KINNEAR	B	KLOODCHMAN	C	KOONICH	A	KUTCH	C	LAKE CHARLES	C
KINNEY	B	KLOODCH	C	KOONTZ	D	KUTLER	C	LAKE CREEK	B
KINROSS	A/D	KLOODCHIE	B	KOODSHARE	P	KUY	A	LAKE JANEE	B
KINSMAN	C	KLOTEN	D	KOOSKIA	C	KVICHAK	B	LAKEFIELD	B
KINSTON	B/D	KLUG	B	KOTENAI	P	KWEQ	A	LAKEHELEN	C
KINTA	D	KLUM	C	KOPIE	D	KYBURZ	B	LAKEHURST	A
KINTON	C	KLUMP	B	KOPPERL	E	KYDAKA	D	LAKELAND	A
KINZEL	B	KLUTINA	S	KOPPES	A	KYDESTEA	D	LAKEMONT	D
KIOMATIA	A	KNAPKE	B	KORCHEA	B	KYLF	D	LAKEPORT	B
KIONA	B	KNAPPA	B	KORENT	C	KYLER	C	LAKESHORE	D
KIOTE	B	KNAPPTON	S	KCRNMAN	P	KZIN	D	LAKESIDE	B
KIPER	B	KNEELAND	C	KORDAGO	C	LA BRIER	D	LAKESCL	B
KIPLING	D	KNEP	C	KORONIS	E	LA FARGE	B	LAKETON	C
KIPPEN	A	KNICKERBOCKER	A	KORTTY	E	LA FONDA	E	LAKEVIEW	C
KIPSON	D	KNIESLEY	C	KOSCIUSKO	E	LA GRANDE	C	LAKEWIN	B
KIRBY	A	KNIFFIN	C	KOSETH	B	LA HOGUE	B	LAKWOOD	A
KIRBYVILLE	B	KNIGHT	B/D	KESMOS	D	LA LANDE	B	LAKI	B
KIRK	D	KNIK	B	KESSE	E	LA PALMA	C	LAKIN	A
KIRKENDALL	C	KNIKLIK	B	KOSSUTH	B/D	LA POSTA	B	LAKCA	B
KIRKHAM	C	KNIPPA	C	KOSZTA	B	LA PRAIRIE	B	LAKDMA	D
KIRKLAND	D	KNOB HILL	B	KOTO	D	LA ROSE	B	LAKRIDGE	C
KIRKSEY	C	KNOETOP	C	KOTZMAN	B	LABENZO	B	LALAAU	A
KIRKVILLE	C	KNOCO	D	KOURY	C	LABETTE	C	LALINDA	B
KIRLEY	C	KNOKE	B/D	KOVICH	D	LABISH	D	LALLIE	D
KIRTLEY	C	KNOLLE	B	KOVEN	B	LABKEY	B	LALOS	B
KIRVIN	C	KNOSS	C	KOYNIK	D	LAEBORITA	B	LAH	D
KIRVIN, GRADED	D	KNOTT	D	KOVYUFUK	P	LABOU	D	LAHA	C
KISATCHIE	D	KNOWLES	B	KRACKLE	B	LABDUNTY	D	LAMANGA	C
KISHONA	B	KNOX	B	KPADE	E	LABRE	B	LAHAR	B
KISHONA, ALKALI	C	KNULL	B	KRAKON	D	LABSHAFT	D	LAMARSH	C
KISRING	C	KNUTSEN	B	KRAM	D	LABU	D	LAMARTINE	C
KISSRING, WET	D	KOBAR	C	KRANSKI	B	LAUCK	B	LAHATH	D
KISSICK	C	KOBEM	B	KRANZBURG	B	LACAMAS	D	LAHAVA	B
KISTIAN	B	KOBEL	D	KRATKA	B/D	LACERDA	D	LAMBERT	B
KITCHELL	B	KOCH	D	KRAUSE	E	LACHAPELLA	D	LAMBETH	B
KITCHEN CREEK	B	KOCH, DRAINED	C	KREAMER	C	LACITA	B	LAMBMAN	D
KITI	D	KODAK	B	KREBS	E	LACKAWANNA	C	LAMBRING	B
KITSAP	C	KODAK, NONFLOODED	C	KPEM	A	LACKS	C	LAMEDEER	B
KITTEPLL	D	KODIAK	B	KREMLIN	E	LACLEDE	B	LAMINGTON	D

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

LANKIN	B	LARIAT	B	LAVINA	D	LEETONIA	C	LEW	B/C
LAMO	C	LARIM	E	LAVON	C	LEEVAN	C	LEWBEACH	D
LAMOILLE	B	LARIMER	B	LAWAI	P	LEFOR	B	LEWDLAC	D
LAMOND	B	LARIOSCAMP	D	LAWEN	B	LEGALL	B	LEWIS	B
LAMONI	C	LARKIN	B	LAVET	B/D	LEGault	D	LEWISBERRY	C
LAMONT	B	LARKSON	C	LAVET,	B	LEGGETT	C	LEWISBURG	C
LAMONTA	D	LARMINE	C	SALINE-ALKALI		LEGLER	B	LEWISTON	C
LAMOOSE	D	LAROQUE	B	LAWLER	E	LEGORE	P	LEWISVILLE	B
LAMOTTE	B	LAROSE	D	LAWNDALE	E	LEHEV	C	LEWKALB	C
LAMOUR	C	LARRUPIN	B	LAWNWOOD	B/D	LEHIGH	C	LEX	B
LAMPASAS	D	LARRY	D	LAWNWOOD,	D	LEMANS	D	LEXINGTON	B
LAMPHIER	B	LARRY, DRAINED	C	DEPRESSONAL		LEMHR	P	LEXTON	B
LAMPSHIRE	D	LARSON	D	LAWRENCE	C	LEICESTER	C	LEYBA	B
LAMSON	B/D	LARTON	A	LAWRENCEVILLE	C	LEIDL	C	LEYDEN	C
LANARK	B	LARUE	A	LAWSHE	D	LEIGHCAN	B	LIBBINGS	D
LANCASTER	B	LARUSH	B	LAWSON	C	LEILEMUA	B	LIBEG	B
LANCE	B	LARVIE	D	LAWTHER	D	LEISY	B	LIBERAL	D
LAND	C	LAS	C	LAWTON	C	LELA	D	LIBORY	A
LAND, DRAINED	B	LAS ANIMAS	C	LAWVER	E	LELAND	D	LIBRARY	D
LANDAVASO	B	LAS FLORES	D	LAX	C	LEMAH	A	LIBUSE	C
LANDCO	C	LAS LUCAS	B	LAXAL	B	LEMBOS	C	LICHA	B
LANDER	C	LAS POSAS	C	LAXTON	C	LEMCO	C	LICK	B
LANDES	B	LAS VEGAS	D	LAYCOCK	B	LEMERT	D	LICKDALE	D
LANDLOW	C	LASA	A	LAYDINT	C	LEMETA	D	LICKING	C
LANDMAN	B	LASALLE	D	LAYTON	A	LEMING	C	LICKSKILLET	D
LANDSEND	C	LASAUUSES	D	LAVVIEW	D	LEMITAR	D	LIDAN	C
LANE	C	LASCO	B	LAZAN	D	LEMM	B	LIDDELL	B/D
LANESBORO	C	LASIL	D	LAZEAR	D	LEMOLO	D	LIDDIEVILLE	B
LANEXA	D	LASKA	B	LE BAR	B	LEMOND	B/D	LIDY	P
LANEY	B	LASSEL	C	LE SUEUR	B	LEMONEX	C	LIEBERMAN	B
LANG	C	LASSEN	D	LEA	C	LEMOORE	C	LIEN	D
LANGFORD	C	LASSITER	E	LEADER	B	LEMPIRA	B	LIESNOI	D
LANGHEI	B	LASTANCE	B	LEADORE	B	LEN	C	LIGGET	B
LANGLADE	B	LATAH	D	LEADPOINT	C	LENA	A/D	LIGHTNING	D
LANGLOIS	D	LATAH, HIGH	C	LEADVALE	C	LENA, FLOODED	D	LIGNUM	C
LANGOLA	B	RAINFALL, DRAINED		LEADVILLE	B	LENAPAH	D	LIGON	D
LANGRELL	B	LATAH, DRAINED	C	LEAF	D	LENAAWE	B/D	LIGURTA	B
LANGSPRING	B	LATAMCO	C	LEAFRIVER	A/D	LENAAWE, PONDED	D	LIMEN	A
LANGSTON	B	LATAMCO, WET	D	LEAFU	C	LENBERG	C	LIMHUE	B
LANGTRY	D	LATANIER	D	LEAGUEVILLE	B/D	LENNEP	C	LIKES	A
LANIER	A	LATCH	A	LEAKSVILLE	D	LENOIR	D	LILAH	A
LANIGER	B	LATENE	B	LEAL	B	LENZ	B	LILBERT	B
LANIGER, GRAVELLY	C	LATES	C	LEALANDIC	D	LENZ, STONY	C	LILBOURN	B
LANKBUSH	B	LATEX	C	LEANNA	D	LENZ, VERY STONY	C	LILLINGS	B
LANKIN	C	LATHAM	D	LEANTO	D	LENZBURG	B	LILLINGTON	C
LANKTREE	C	LATHER	D	LEAPS	C	LEO	A	LILLYLANDS	C
LANDAK	B	LATHROP	B	LEATHAM	C	LEOLA	B	LILTEN	C
LAMONA	B	LATIGO	B	LEATHERMAN	D	LEON	B/D	LILY	C
LANSDALE	B	LATINA	D	LEAVENWORTH	C	LEONARD	D	LIM	C
LANSDOWNE	C	LATIUM	D	LEAVERS	P	LEONARDO	B	LIMA	B
LANSING	B	LATOM	D	LEAVITT	B	LEONARDTOWN	D	LIMBER	B
LANTERN	B	LATONIA	E	LEAVITTYVILLE	B	LEONI	B	LIMERILN	D
LANTS	B	LATOUACHE	D	LEBAM	P	LEGUIEU	D	LIMERICK	C
LANTON	D	LATOUR	B	LEEANON	C	LERDAL	C	LIMERIDGE	D
LANTON, LOW PRECIPITATION	C	LATOURELL	B	LEBEOU	D	LERDO	C	LINKING	B
LANTONIA	B	LATTAS	D	LEBEC	B	LEROY	B	LIMON	C
LANTRY	B	LATTY	D	LEBD	P	LERROW	C	LIMON, WET	D
LANTZ	D	LAUDERDALE	D	LEERSACK	C	LESARA	B	LIPONES	B
LANVER	D	LAUDERHILL	B/D	LECK KILL	B	LESHO	C	LIMPIA	C
LANYON	C	LAUFER	D	LECRAG	D	LESLIE	D	LINCO	B
LAP	D	LAUGENDUR, LOAMY	C	LEDFORD	B	LESON	D	LINCOLN	A
LAPARITA	C	LAUGENDUR, SILTY	B	LEDGEFORK	A	LESPATE	C	LINDAAS	C/D
LAPDUN	B	SUBSTRATUM		LEDOUNT	D	LESTER	B	LINDALE	C
LAPED	D	LAUGENDUR, DRAINED	B	LEDDW	B	LESWILL	E	LINDELL	C
LAPEER	B	LAUGHLIN	C	LEDUB	C	LETA	C	LINDEN	B
LAPHAM	A	LAUMAIA	B	LEDWITH	B	LETCHE	D	LINDER	B
LAPINE	A	LAUREL	D	LEE	B/D	LETHA	C	LINDLEY	C
LAPLATTA	C	LAURELWOOD	B	LEEBENCH	D	LETHENT	D	LINDRITH	B
LAPON	D	LAUREN	B	LEEDS	C	LETFNY	A	LINDSIDE	C
LAPORTE	D	LAURENTZEN	B	LEEFIELD	C	LETON	D	LINDSTROM	B
LAPOSA	C	LAVACREEK	B	LEFKO	C	LETORT	B	LINDY	C
LAPWAI	B	LAVALLEE	B	LEEKD, WARM	C	LETRI	B/D	LINE	B
LARAND	B	LAVATE	B	LEELANAU	B	LETTIA	B	LINEVILLE	C
LARCHMDUNT	B	LAVEAGA	C	LEEMONT	A	LEVASY	C	LINGANDRE	B
LARDELL	C	LAVEEN	B	LEEPER	D	LEVELTON	D	LINHART	A
LAREDO	B	LAVENTANA	B	LEERAY	D	LEVETON, DRAINED	C	LININGER	C
LARES	C	LAVERKIN	C	LEESBURG	B	LEVIATHAN	C	LINKER	B
LARGO	B	LAVIC	B	LEESVILLE	B	LEVY	D	LINKUP	D
								LINKVILLE	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

LINLITHGO	B	LODI	B	LOPEZ	D	LOZAND	B	LYLES	B/D
LINNE	C	LODICO	D	LOPWASH	B	LOZIER	D	LYMAN	C/D
LINNET	C	LODO	D	LORACK	B	LUALUALEI	D	LYMANSON	C
LINNEUS	B	LOFFTUS	C	LORADEL	C	LUANA	B	LYME	C
LINO	B	LOFTON	D	LORAIN	C/D	LUAP	C	LYNCH	C
LINDYER	B	LOGAN	D	LORAN	E	LUBBOCK	B	LYNCHBURG	C/C
LINROSE	C	LOGDELL	B	LORAY	A	LURECHT	C	LYNDEN	C
LINSLAW	D	LOGGERT	B	LORDSTOWN	C	LUCAS	D	LYNN HAVEN	B/D
LINT	E	LOGHOUSE	B	LOREAUVILLE	C	LUCE	C	LYNNBOW	D
LINTON	B	LOGGING	D	LORELLA	C	LUCELADE	B	LYNNNDYL	A
LINVELDT	B	LOGY	B	LOPENA	C	LUCERNE	E	LYNNE	B/D
LINVILLE	B	LOHLER	C	LCRENZO	B	LUCERO	B	LYNNVILLE	C
LINWELL	C	LOHMILLER	C	LCPETTO	B	LUCIEN	C	LYNNWOOD	A
LINWOOD	A/D	LOHNES	A	LCRING	C	LUCILE, MODERATELY	C	LYNX	B
LIPAN	D	LOHSMAN	C	LCRMAN	D	WET	LYNXCREEK		
LIPKE	D	LOIRE	F	LCRTA	E	LUCILE, DRAINED	E	LYONMAN	B
LIPPINCOTT	B/D	LOKEN	C	LOS ALAMOS	C	LUCKENBACH	C	LYONS	D
LIPPITT	C	LOKERN	C	LOS BANDS	C	LUCKIAMUTE	D	LYNSVILLE	B
LIRIOS	B	LOKERN,	D	LOS GATOS	C	LUCKY	C	LYRA	D
LISADE	B	SPLINE-ALKALI.		LOS GUINEOS	C	LUCKY STAR	E	LYRE	B
LISAM	D	WET		LOS OSOS	C	LUCKYRICH	P	LYSTAIR	B
LISBON	B	LOKERN.	D	LOS ROBLES	B	LUCY	A	LYTELL	B
LISCO	C	SALINE-ALKALI		LOS TANOS	C	LUD	D	LYVILLE	B
LISCOMB	B	LOKSEE	B/D	LOKSANTVILLE	C	LUDDEN	D	LYX	B
LISK	B	LOLAK	D	LOSEE	B	LUDINGTON	B	MABANK	D
LISMAS	D	LOLALITA	E	LOSTEASIN	C	LUDLOW	C	MABEL	C
LISMORE	B	LOLEKAA	E	LOSTCREEK	B	LUEDERS	C	MABEN	C
LITCHFIELD	A	LOLETA	C	LCSTINE	F	LUFKIN	D	MABI	D
LITMGOW	C	LOLITE	D	LOSTFCINT	C	LUGERT	P	MABRAY	D
LITIMBER	B	LOLO	E	LCSTSING	B	LUGOFF	B	MACAR	B
LITTLE	D	LOLDN	E	LOSTVALLEY	C	LUMDN	B	MACAREEND	D
LITRO	D	LOLGPKEAK	A	LOSTWELLS	B	LUKE	C	MACE	B
LITTLE HORN	C	LOMA	C	LOSTWELLS, WET	C	LURIN	C	MACEDONIA	B
LITTLE POLE	D	LOMAKI	B	LOTHAIR	C	LULA	B	MACFARLANE	B
LITTLE WOOD	B	LOMALTA	D	LCTT	C	LULING	D	MACHETE	C
LITTLEAXE	B	LOMART	E	LCTUS	C	LULUDE	C	MACHIAS	B
LITTLEBEAR	B	LOMAX	B	LCTUSPDINT	C	LUMBEE	B/D	MACHUELDO	D
LITTLEJOHN	C	LOMETA	C	LOU	B	LUMBERLY	B	MACK	R
LITTLENAN	C	LOMILL	D	LOUDEPBACK	C	LUMMER	B	MACK, LOAMY	C
LITTLETON	B	LOMIRA	B	LOUDCA	C	LUMMI	D	SUBSTRATUM	D
LITTSAN	C	LOMITAS	D	LOUDONVILLE	C	LUMPI, DRAINED	C	MACKEN	
LITZ	C	LOMOINE	C	LOUELLA	B	LUMMUS	C	MACKERRICHER	D
LIV	D	LOMOND	B	LOUGHBORD	C	LUNA	C	MACKEY	C
LIVEDSK	B	LOMCAB	B	LOUIE	C	LUNDBR	D	MACKSBURG	B
LIVEPHORE	B	LOMDO	C	LOUIECREEK	E	LUNDES	C	MACHEAL	B
LIVIA	D	LONDONDERRY	C/D	LOUIN	D	LUNDY	D	MACOMB	B
LIVINGSTON	D	LONE	C	LOUISA	B	LUNING	A	MACOMBER	C
LIVONA	B	LCNE ROCK	E	LOUISBURG	B	LUNT	C	MACON	B
LIZE	B	LONEGEAR	D	LOUP	D	LUPE	B	MADALIN	D
LIZZANT	B	LONELY	C	LCUPLDUP	E	LUPINTO	E	MADAWASKA	B
LLANDS	C	LONEPINE	B	LOURDES	C	LUPINTO, SALINE	C	MADDEN	C
LOARC	R	LONERIDGE	C	LOUSCOT	C	LUPODYOMA	B	MADDOCK	A
LOBDELL	B	LONESTAR	E	LOUVIERS	D	LUPPINO	D	MADELIA	B/D
LOSELVILLE	C	LONETREE	A	LOVFJOY	C	LUTPN	A/D	MADELINE	D
LOBEPG	C	LONEWOOD	B	LOVELACE	E	LUTPN, PONDED	D	MADERA	D
LOBERT	B	LONGCREEK	D	LOVELAND	C	LURA	C/D	MADGE	B
LOBITOS	C	LONGFORD	C	LEVELAND,	D	LURAY	C/D	MADILL	B
LOBD	D	LONGJIM	D	ELEVATION>6500		LURNICK	C	MADISON	B
LOBURN	D	LONGLOIS	E	LOVELL	D	LUSETTI	B	MADONNA	C
LOCANE	D	LONGMARE	D	LOVELOCK	C	LUSK	C	MADRAK	C
LOCEY	C	LONGMONT	C	LOVELOCK,	C	LUTA	B	MADRAS	C
LOCHLDOSSA	C	LONGRIE	B	SALINE-ALKALI	C	LUTAK	B	MADRID	B
LOCHSA	B	LONGVAL	B	LOVELOCK, DRAINED	C	LUTE	D	MADRCNE	C
LOCKE	B	LONGVIEW	C	LOVEWELL	E	LUTH	C	MADUREZ	B
LOCKERY	C	LONGIAN	F	LOVLTIE	C	LUTHER	B	MAES	B
LOCKERY, COBBL:	D	LONGIAN, COBBLY	C	LCWELL	C	LUTIE	E	MAGALLON	B
LOCKHART	R	SUBSTRATUM		LCVERCREEK	A	LUTON	D	MAGDALENA	D
LOCKPORT	B	LONBN	B	LOWNBIS	B	LUTZEBLDH	E	MAGEBS	B
LOCKTON	B	LORINA	B	LOWRY	P	LUVERNE	C	MAGGIN	C
LOCKWOOD	B	LONNKE	B	LOWS	E/D	LUXOR	D	MAGHILLS	B
LOCKWOOD, WET	C	LONTI	D	LOWVILLE	B	LUZENA	D	MAGIC	D
LOCDO	C	LOOKINGGLASS	C	LCX	C	LYBROOK	D	MAGINNIS	D
LOCODA	D	LOOKOUT	C	LOXLEY	A/D	LYDA	D	MAGNA	D
LOCUST	C	LOOMER	D	LOYAL	B	LYDICK	B	MAGNET	C
LODALLEY	D	LOOWIS	D	LOYALTON	D	LYERLY	D	MAGNDR	C
LODAR	D	LGONY	C	LOYSVILLE	D	LYFDPD	C	MAGNUS	C
LODE	B	LOPER	C	LOZA	D	LYKENS	C	MAGOTHA	D

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MAGOTSU	D	MANAWA	C	MARGO	B	MARYSTOWN	C	MAY	B
MAGUAYO	C	MANBURN	D	MARIA	E	MASADA	C	MAY DAY	D
MAHALA	D	MANCELONA	A	MARIANA	C	MASARDIS	A	MAYACAMA	C
MAHALASVILLE	B/D	MANCHESTER	A	MARIAS	D	MASARYK	A	MAYBELL	A
MAHAN	C	MANDAN	B	MARIAVILLE	D	MASCAMP	D	MAYBERRY	C
MAHANA	B	MANDARIN	C	MARICAO	B	MASCARENAS	C	MAYSERO	D
MAHASKA	B	MANDERFIELD	B	MARICOPA	B	MASCHETAH	B	MAYBID	D
MAHOGAN	C	MANDEVILLE	B	MARIETTA	C	MASCOTTE	B/D	MAYDOL	B
MAHONING	D	MANDY	C	MARILLA	C	MASCOTTE.	D	MAYER	B/D
MAHOOSUC	A	MANET	B	MARIMEL	C	DEPRESSIONAL		MAYES	D
MAHTOMEDI	A	MANFRED	D	MARIMEL. DRAINED	B	MASET	B	MAYFIELD	B
MAHTOWA	C/D	MANGUM	D	MARINA	B	MASHAM	D	MAYFLOWER	C
MAHUKONA	B	MANHATTAN	A	MARINE	C	MASHEL	B	MAYGER	C
MAIA	B	MANHEIM	C	MARION	D	MASHULAVILLE	B/D	MAYHEN	D
MAIDEN	C	MANI	C	MARIPO	R	MASKELL	B	MAYMEAD	B
MAILE	A	MANIKAN	B	MARIPOSA	C	MASON	B	MAYMEN	D
MAINSTAY	D	MANILA	C	MARISCAL	D	MASONFORT	D	MAYNARD LAKE	A
MAITLAND	B	MANISTEE	A	MARISSA	C	MASONTOWN	D	MAYD	B
MAJADA	B	MANITA	C	MARKES	D	MASSACK	C	MAYODAN	B
MAJUBA	C	MANITOWISH	B	MARKESAN	B	MASSACK. DRAINED	B	MAYORTH	C
MAKAALAE	B	MANLEY	B	MARKET	D	MASSADONA	D	MAYQUEEN	B
MAKAH	B	MANLIUS	C	MARKEY	A/D	MASSANETTA	E	MAYSDDRF	B
MAKALAPA	D	MANN	B/D	MARKHAM	C	MASSANUTTEN	E	MAYSPPINGS	B
MAKAPILI	B	MANNING	B	MARLAKA	D	MASSBACH	B	MAYTAG	D
MAKAWAO	B	MANDOGUE	D	MARLAND	C	MASSENA	C	MAYTOWN	C
MAKANELI	B	MANDR	B	MARLEPASS	D	MASIE	D	MAYVILLE	B
MAKENA	B	MANSELO	B	MARTON	C	MASTERSON	B	MAYWOOD	B
MAKI	C	MANSFIELD	D	MARLA	D	MATA	C	MAZARN	C
MAKIKI	B	MANSIC	B	MARLAKE	D	MATAGORDA	D	MAZASKA	C/D
MAKLAK	A	MANSKER	B	MARLPORD	B	MATAMOROS	C	MAZDALE	B
MAKOTI	B	MANSONIA	B	MARLEAN	B	MATANUSKA	E	MAZOURKA	C
MAL	C	MANTACHIE	C	MARLETT	B	MATANZAS	E	MAZUMA	B
MALA	B	MANTECA	C	MARLOW	C	MATAPEAKE	B	MC CORT	B
MALABAR	B/D	MANTED	C/D	MARLTON	C	MATAWAN	C	MCAFEE	C
MALABAR.	D	MANTER	B	MARMARTH	B	MATCHER	A	MC ALLEN	B
DEPRESSIONAL		MANTON	B	MARMARTH. COOL	C	MATFIELD	C	MC ALLISTER	C
MALABAR.	D	MANU	C	MARNA	C/D	MATGO	D	MC ALPIN	C
FREQUENTLY		MANVEL	B	MAROSA	B	MATHENY	B	MCREE	C
FLOODED		MARVEL. SALINE	C	MAPDTZ	C	MATHERS	B	MCBETH	D
MALABON	C	MANZANAR	C	MARPA	C	MATHERTON	B	MCBETH. SALINE	C
MALACHY	B	MANZANITA	C	MARPLEEN	D	MATHESON	B	MCBETH. DRAINED	C
MALAGA	B	MANZANITA.	B	MARQUETTE	A	MATHIAS	B	MCBIGGAM	C
MALAGA, STONY	A	GRAVELLY	C	MARQUEZ	C	MATHIS	C	MCBRIDE	B
MALAMA	A	MANZAND	B	MAPR	E	MATHISTON	C	MCCAFFERY	A
MALARGO	B	MANZANOLA	C	MARRIOTT	E	MATHON	B	MCCAIN	C
MALAYA	D	MAPLE MOUNTAIN	B	MARROWBONE	C	MATLACHA	C	MCCAULEB	B
MALBIS	B	MAPLECREST	B	MARSDEN	B	MATNEFLAT	B	MCCALL	B
MALCOLM	B	MAPLEHILL	C	MARSEILLES	B	MATOY	C	MCCALLY	D
MALDEN	A	MAPLETON	C	MARSELL	B	MATTAMUSKEET	D	MCCAMMON	C
MALEZA	B	MAPLETON. STONY	C/D	MARSHALL	B	MATTAN	D	MCCANN	B
MALHEUR	C	MARACK	C	MARSHAN	B/D	MATTAPEX	C	MCCAREY	C
MALIBU	D	MARAGUEZ	B	MARSHBROOK	D	MATTAPONI	C	MCCRAN	B
MALIN	C	MARANA	B	MARSHDALE	D	MATUNUCK	D	MCCARTHY	B
MALJAMAR	B	MARATHON	B	MARSHDALE. DRAINED	C	MAU	C	MCCASH	C
MALLORY	C	MARBLE	A	MARSHFIELD	E/D	MAUBILA	C	MCCLAVE	C
MALM	C	MARBLECREEK	B	MARSING	E	MAUDE	E	MCLEARY	D
MALMESA	D	MARBLEMOUNT	B	MART	B	MAUDLIN	B	MCCELLIAN	B
MALO	B	MARBLEMOUNT	C	MARTEL	D	MAUGHAN	C	MCLOUD	C
MALOTERRE	D	CHANNERY	C	MARTELLA	C	MAUKEY	C	MCCLURE	C
MALOTT	B	MARCADO	D	MARTIN	C	MAUMEE	A/D	MC COIN	D
MALOVY	B	MARCELINAS	D	MARTIN PENA	D	MAUNABO	D	MC COLL	D
MALPAIS	B	MARCELLON	C	MARTINECK	D	MAUPIN	C	MC GILLUM	B
MALSTROM	B	MARCELLTA	B	MARTINEZ	D	MAUREPAS	D	MC CONNEL	B
MALVERN	C	MARCIJAL	D	MARTINI	B	MAURERTOWN	D	MC CONNEL. FLOODED	A
MAMALA	D	MARCLAY	D	MARTINSBURG	E	MAURICE	B	MC COOK	B
MAMDU	C	MARCOLA	C	MARTINSDALE	B	MAURY	E	MC CORNICK	C
MANAHAA	C	MARCONI	C	MARTINSON	C	MAUVAINS	C	MC CORT	B
MANAHAWKIN	D	MARCOTT	C	MARTINSVILLE	B	MAYCO	C	MC CODY	C
MANANA	C	MARCOU	B	MARTINTON	C	MAYEPICK	C	MC CREE	B
MANARD	D	MARCUM	C	MARTIS	E	MAYIF	E/D	MC CRORY	D
MANARD. GRAVELLY	C	MARCUS	B/D	MARTISCO	B/D	MAWAE	A	MC CROSSET	B
SUBSTRATUM		MARCUSE	D	MARTY	B	MAVER	B	MC CULLOUGH	B
MANASSA	C	MARCY	D	MARUMSCO	C	MAX	B	MC CULLY	C
MANASSAS	B	MARDIN	C	MARVAN	D	MAXCREEK	B/D	MC CUMBER	B
MANASTASH	C	MARENKO	C/D	MARVELL	B	MAXEY	C	MC CUNE	D
MANATEE	B/D	MARESUA	B	MARVIN	C	MAXFIELD	B/D	MC CURDY	C
MANATEE.	D	MARGATE	B/D	MARVYN	B	MAXTON	R	MC CUTCHEN	D
DEPRESSIONAL		MARGERUM	B	MARY	C	MAXVILLE	B	MC DADE	C
MANATEE. FLOODED	D	MARGIE	C	MARYSLAND	B/D	MAXWELL	D	MC DANIEL	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

MCDERMOTT	B	MECKLENBURG	C	MERDEN	D	MIKIM. WET	C	MINNEOSA	B
MCDOLE	B	MECOSTA	A	MEREDITH	B	SUBSTRATUM	C	MINNEQUA	C
MCDONALD	C	MEDA	E	MERETA	C	MIKKALO	C	MINNETONKA	D
MCDONALDSVILLE	C/D	MEDANO	D	MERGEL	B	MILACA	C	MINNETONKA, SILTY	C/D
MCDUFF	C	MEDARY	C	MERIDIAN	B	MILAN	B	SUBSTRATUM	
MCELMOD	C	MEDBURN	B	MERINO	E	MILBURY	C	MINNEWAUKAN	A/D
MCELROY	B	MEDCO	D	MERKEL	E	MILBY	B	MINNIEICE	D
MCEWEN	B	MEDFORD	B	MEPLIN	D	MILCAN	C	MINNIEPEAK	A
MCFADDEN	B	MEDFRA	D	MERMONTAU	D	MILDPED	C	MINNIEPEAK.	B
MCAFIA	C	MEDICINE	B	MEPHILL	B/D	MILES	R	OVERBLOWN.	
MCFARLAND	B	MEDLEY	B	MEFNA	B	MILFORD	B/D	GRAVELLY	
MCFAUL	C	MEDLIN	D	MEROS	A	MILHAM	B	MINNIEPEAK.	B
MCGAFFEY	B	MEDOMAK	D	MERRICK	E	MILITARY	B	OVERBLOWN	
MCGARR	C	MEDDRA	E	MERRILL	C	MILL HOLLOW	B	MINNIEVILLE	C
MCGARVEY	C	MEDWAY	E	MEPRILLAN	C	MILLADORE	C	MINNIMAUD	CCC
MCGARY	C	MEEGERNOT	B	MERRIMAC	A	MILLARD	B	MINNITH	CC
MCGEMEE	C	MEEGERO	E	MERRITT	C	MILLBORD	D	MINNYE	R
MCGILVERY	D	MEEHAN	R	MERRITT, CLAYEY	B	MILLBROOK	B	MINDA	CC
MCGINNIS	C	MEERS	R	SUBSTRATUM,		MILLBURN	B	MINOCQUA	B/D
MCGINTY	B	MEETEETSE	D	DRAINED		MILLER	D	MINTER	D
MCGIRK	C	MEGALOS	D	MERRITT, DRAINED	B	MILLERLAKE	B	MINTO	C
MCGIRK, LOW PRECIPITATION	D	MEGETT	D	MERSHON	C	MILLERLUX	D	MINU	D
MCGOWAN	B	MEGUIN	C	MEPTON	E	MILLERTON	D	MINVALE	B
MGRATH	B	MEHLHORN	C	MERTZ	C	MILLERVILLE	A/D	MINVEND	D
MCGREW	B	MEIKLE	D	MEFWIN	A/D	MILLETT	B	MINWELLS	C
MCGUFFEY	D	MEISS	D	MESA	B	MILLGROVE	B/D	MION	D
MCGUIRE	B	MEKINOCK	D	MESCAL	C	MILLHEIM	C	MIPPON	CC
MCHENRY	U	MELAKBA	C	MESCALERO	C	MILLHI	D	MIRABAL	CC
MCILWAINE	B	MELAND	C	MFSEI	D	MILICH	D	MIRACLE	C
MCINTOSH	B	MELBOURNE	B	MESPUN	A	MILLICOMA	C	MIRAGE	C
MCINTYRE	B	MELPY	E	MESSER	C	MILLIGAN	C	MIRANAR	B
MCIVY	C	MELD	C	MET	B	MILLING	D	MIRANDA	D
MCKAMIE	D	MELDER	B	METANDRA	E	MILLINGTON	B/D	MIRES	A
MCKAY	C	MELGA	D	METCALF	D	MILLIS	C	Mires, STONY	B
MCKEE	D	MELHOMES	D	METEA	B	MILLPAW	C	MIRKWOOD	D
MCKEETH	B	MELITA	A	METH	C	MILLPOT	B	MIRROR	C
MCKELVIF	A	MELLENTHIN	D	METIGOSHE	B	MILLRACE	B	MIRROR LAKE	A
MCKENNA	D	MELLOR	D	METCLUES	B	MILLROCK	A	MISAD	B
MCKENNA, DRAINED	C	MELLOR, STRATIFIED	C	METRE	D	MILLSAP	D	MISENHEIMER	C
MCKENZIE	D	SUBSTRATUM		METZ	B	MILLSDALE	B/D	MISHAK	D
MCKINLEY	B	MELLOTT	B	MFXICO	D	MILLSHOLM	D	MISHAK, DRAINED	C
MCKINNEY	C	MELOCHE	D	MEXISPRING	D	MILLSITE	B	MISSION	D
MCKNIGHT	B	MELOLDAN	C	MEYSTRE	R	MILLVILLE	R	MISSISQUOI	A
MCLAIN	C	MELROSE	C	MHDON	D	MILLWOOD	D	MISSLER	B
MCLAUPIN	B	MELTON	D	MIAWI	E	MILNER	B	MISSOULA	D
MCLEOD	B	MELVILLE	B	MIAMIAN	C	MILOK	B	MITCH	B
MCLoughlin	B	MELVIN	D	MICANOPI	C	MILPITAS	C	MITCH, RARELY	C
MCMEEHAN	C	MENALOOSE	C	MICCO	P/D	MILREN	C	FLOODED	
MCMILLE	B	MEMPHIS	B	MICHELSON	B	MILTON	C	MITCHELL	B
MCMULLIN	D	MENAHGA	A	MICHIGAMME	C	MILVAR	C	MITIWANGA	C
MCHURDIE	C	MENARD	B	MICKEY	D	MIMBRES	P	MITKOF	D
MCMURRAY	D	MENASHA	D	MICROY	C	MIMOSA	C	MITKOF, MODERATELY	C
MCMURRAY, DRAINED	C	MENBO	C	MIDAS	C	MINA	B	WET	
MCNARY	D	MENCEBOURE	C	MIDCO	A	MINALODSA	B	MITRE	C
MCNEAL	P	MENDELTNA	D	MIDDLE	C	MINAM	B	MITRING	C
MCNULL	C	MENDELTNA.	B	MIDDLEBURY	E	VINAT	B	WITTEN	B
MCNULTY	B	LACUSTRIE		MIDDLEMARCH	B	MINATARE	D	MIVIDA	B
MCPAUL	B	SUBSTRATUM		MIDDLETOWN	B	VINCHEY	B	MIZEL	D
MCPHIE	B	MENDENHALL	D	MIDDLEWOOD	D	VINCHUMINA	D	MDAB	D
MCQUARRIE	D	MENDI	B	MIDELIGHT	P	VINCO	B	MOAG	D
MCOUSEEN	C	MENDOCINDO	B	MIDESSA	B	VINDEGO	C	MOANO	D
MCRAE	B	MENDON	E	MIDFORK	E	MINDEN	B	MOAPA	C
MCRAVEN	C	MENDOTA	E	MIDLAND	D	VINE	B	MOAULA	A
MCTAGGART	B	MENEFFEE	D	MIDMONT	C	VINEOLA	A	MOBATE	D
MCVEGAS	D	MENFRD	B	MIDNIGHT	D	VINER	D	MOBEETIE	B
MCVICKERS	C	MENILO	D	MIDD	A	VINERAL	C	MOBERG	B
MEAD	D	MENO	C	MIDRAW	D	VINEPAL MOUNTAIN	C	MOBL	B
MEADIN	A	MENOKEN	C	MIDVALE	C	VINERSVILLE	B	MOBRIDGE	B
HEADLAND	C	MENDMINEE	A	MIDWAY	C	VINESINGER	C	MOCA	D
MEADOWBROOK	B/D	MENTO	C	MIERHILL	C	VINETA	C	MOCAREY	D
MEADOWCREEK	C	MENTOR	B	MIFRUF	B	VINGO	C	MOCHO	B
MEADOLLOWAKE	C	MENZEL	B	MIESEN	C	VINGUS	D	MOCKLEP	B
MEADOWVILLE	B	MEOUON	C	MIFFLIN	B	VINIDOKA	C	MOCHONT	B
MEANS	C	MER ROUGE	E	MIGEYN	B	VINKLER	D	MOCTILEME	C
MEARES	D	MERCED	D	MIGUEL	D	VINLITH	D	MODA	D
MECAN	P	MERCEDES	D	MIKE	D	VINNEHA	C	MODALE	C
MECHANICSBURG	C	MERCER	C	MIKESELL	C	VINNEISKA	P	MODDNA	B
MECKESVILLE	C	MERGEY	C	MIKIM	B	VINNEOPA	B	MODESTO	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

MODJESKA	B	MONTCALM	A	MORTENSON	C	MUIR	E	MYDMA, WET	B
MODKIN	C	MONTE	B	MORTENSON, COBBLY	D	MUIRKIRK	E	MYRA	C
MODDC	C	MONTE CRISTO	D	MORTON	B	MUKILTED	D	MYRICK	C
MODYON	C	MONTECITO	B	MORVAL	B	MUKILTED, DRAINED	C	MYRTLE	B
MDE	B	MONTEGRANDE	D	MOSBY	C	MULAT	D	MYSTEN	A
MOEN	C	MONTELL	D	MOSCA	B	MULDOON	B	MYSTIC	C
MOENKOPIE	D	MONTELLO	C	MOSCOW	C	MULDPOW	D	NAALEHU	B
MOEPITZ	B	MONTEOCHA	D	MOSEL	C	MULETT	D	NAALEHU, BEDPOCK	C
MOFFAT	B	MONTEOLA	D	MCSSES	B	MULGON	B	SUBSTRATUM	
MOGG	D	MONTEROSA	D	MOSSES, BOULDERY	C	MULHALL	B	NABESNA	D
MOGLIA	C	MONTESA	C	MOSHANNON	B	MULHOLLAND	B	NACHES	B
MOGOLLON	B	MONTEVALLO	D	MOSHEIM	D	MULHOP	D	NACHUSA	B
MOGOTE	C	MONTEZ	B	MOSHER	D	MULKEY	C	NACIMENTO	C
MOHALL	B	MONTGOMERY	D	MOSHERVILLE	C	MULLICA	C	NACLINA	D
MOHAVE	B	MONTICELLO	B	MOSHUP	C	MULLIG	B	NACOGDOCHES	B
MOHAWK	B	MONTIETH	B	MOSIDA	B	MULLINS	D	NADA	D
MOHOCKEN	C	MONTILID	C	MOSINEE	B	MULLYON	D	NADEAU	B
MOIESE	B	MONTMORENCI	B	MOSLANDER	D	MULSHOE	C	NADINA	D
MOINES	C	MONTNEVA	C	MOSMAN	D	MULSTAY	C	NADRA	D
MOINGONA	B	MONTOSO	B	MOSO	E	MULT	C	NAEGELIN	D
MOJO	C	MONTOUR	D	MOSQUET	D	MULTEV	B	NAFF	B
MOKELOUNNE	D	MONToya	D	MOSROC	D	MULTNOMAH	B	NAGITSY	C
MOKENA	C	MONTPELLIER	C	MOCSSYROCK	B	MULTPOR	A	NAGLE	B
MOKIAK	B	MONTROSS	C	MOSWELL	D	MUNDAL	C	NAGROM	C
MOKINS	D	MONTVALE	D	MOTA	E	MUNDELEIN	B	NAHA	C
MOKO	D	MONTVERDE	B/D	MOTEN	C	MUNDEN	E	NAHATCHIE	C
MOKULEIA	B	MONTWEL	C	MOTLEY	B	MUNDOS	B	NAHMA	B/D
MOLALLA	B	MONTWEL, ALKALI	B	MOTDOUA	D	MUNDT	C	NAHON	D
MOLAND	B	MONUE	B	MOTT	B	MUNI	D	NAHRUB	D
MOLAS	D	MONVERO	A	MOTTLAND	B	MUNISING	B	NAHUNTA	C
MOLCAL	B	MOODY	B	MOTTO	D	MUNJOR	B	NAIWA	B
MOLENA	A	MOODOO	B	MOTTSVILLE	A	MUNK	C	NAKAI	B
MOLION	D	MODOLACK	A	MOULTON	C	MUNNELL	B	NAKARNA	B
MOLLICY	C	MOONLIGHT	B	MOULTRIE	D	MUNSET	D	NAKINA	B/D
MOLLMAN	B	MOONSHINE	D	MOUND	C	MUNSON	D	NAKNEK	D
MOLLYVILLE	D	MOONSTONE	C	MOUNDHAVEN	A	MUNUSCONG	B/D	NAKUCHNA	D
MOLLY	B	MOONVILLE	B	MOLNDPRAIRIE	B/D	MURAD	B	NALAKI	C
MOLOKAI	B	MOOREVILLE	C	MOUNDPRAIRIE,	D	MURANCH	C	NALDO	B
MOLSON	B	MOOSE RIVER	D	PONDED		MURDO	B	NALL	D
MOLYNEUX	B	MOOSED	C	MOUNDVILLE	A	MURDOCK	C	NAMBE	R
MOMOLI	B	MOOSELAKE	A/D	MOUNT HOME	B	MUREN	B	NAMELA	C
MONA	B	MOOSHAUNEE	C	MOUNT LUCAS	C	MURNEN	B	NAMEOKI	D
MONACAN	C	MOOSILAUKE	C	MOUNTADAMS	B	MURDC	D	NAMON	B
MONACHE	B	MOOPANA	D	MOUNTAINSOY	D	MURPHY	C	NAMUR	D
MONAD	B	MOPANG	B	MOUNTAINBURG	E	MURRIETA	D	NANAMKIN	A
MONADNOCK	B	MOQUAH	B	MOUNTAINEER	C	MURRILL	B	NANCY	B
MONAHANS	B	MORA	C	MOUNTAINVIEW	C	MURTIP	B	NANIAK	D
MONARDA	D	MORADO	C	MOUNTAINVILLE	B	MURVILLE	A/D	NANKIN	C
MONASTERIO	C	MORALES	D	MOUNTMED	D	MUSCATINE	E	NANNY	B
MONAVILLE	B	MORAN	E	MOUNTED.	C	MUSE	C	NANNYTON	B
MONBUTTE	C	MORANCH	B	MODERATELY WET	C	MUSELLA	B	NANSEMOND	C
MONCHA	B	MORAPDS	C	MOUNTVIEW	B	MUSICK	B	NANSENE	B
MONDAMIN	C	MORD	C	MOUZON	D	MUSINIA	B	NANSEPSEP	C
MONDEY	C	MOREAU	D	MOVILLE	C	MUSKEGO	A/D	NANSUS	D
MONDDVI	B	MOREHEAD	C	MOWATA	D	MUSKEGO, MARSHY	D	NANTAHALA	B
MONEE	D	MOREHOUSE	D	MOWEBA	B	MUSKEGO, CLAY LOAM	D	NANTUCKET	C
MONGAUP	C	MORELAND	D	MOWER	C	SUBSTRATUM		NANUM	B
MONICO	C	MORENO	C	MDWICH	D	MUSKELLUNGE	D	NAPA	D
MONIDA	C	MORET	D	MOXEE	D	MUSKINGUM	C	NAPIER	B
MONIERCO	D	MOREY	D	MOYERS	C	MUSKOGEE	C	NAPLENE	B
MONITEAU	C/D	MORFITT	B	MOYERSON	D	MUSDFARE	C	NAPOLEON	A/D
MONITOR	C	MORGALA	C	MCYINA	D	MUSQUIZ	C	NAPPANEE	D
MONJEAU	D	MORGANFIELD	B	MT. AIRY	A	MUSSEL	B	NAPTOWNE	B
MONOCLINE	C	MORIARTY	D	MT. CARROLL	B	MUSSELSHELL	B	NARANJITO	C
MONOGRAM	B	MORICAL	C	MT. HOOD	B	MUSSERHILL	C	NARANJO	C
MONONA	B	MORLEY	C	MT. OLIVE	C	MUSSEY	B/D	NARCISSE	C
MONONGAHELA	C	MORLING	D	MT. VERNON	C	MUSTANG	A/D	NARCODSSEE	C
MONROE	B	MORMON MESA	D	MUCARA	D	MUTNALA	B	NARD	B
MONROEVILLE	C/D	MOROCO	B	MUCKALEE	D	MUZZLER	D	NAREL	B
MONSE	B	MORDNI	D	MUD SPRINGS	C	MYAKKA	B/D	NARGAR	B
MONSERATE	C	MORDP	C	MUDCO	D	MYAKKA,	D	NARK	C
MONSERATE, THIN	D	MORPH	B/D	MUDLAVIA	B	DEPRESSIONAL	D	NARLON	D
SURFACE		MORRILL	B	MUDRAY	D	MYAKKA, TIDAL	D	NARNETT	B
MONSON	C/D	MORRIS	C	MUES	C	MYATT	D	NARON	B
MONTAGUE	D	MORRISON	B	MUFF	C	MYERS	D	NARRAGANSETT	B
MONTALTO	C	MORRISTOWN	C	MUG	D	MYERSVILLE	B	NARRAGUINNEP	D
MONTARA	D	MORROW	C	MUGGINS	C	MYFORD	D	NARROWS	D
MONTAUK	C	MORSE	D	MUGHOUSE	C	MYLREA	C	NARTA	D
MONTBORNE	C	MORSET	B	MUGHUT	C	MYDMA	A	NARU	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

NASER	B	NEHALEM, FLOODED	C	NEHALBIN, MUCK	D	NIKAL	B	NDONAN	D
NASH	B	NEHAR	B	SUBSTRATUM	D	NIKEY	B	NDPAH	C
NASHMEAD	B	NEHAR, STONY	C	NEHALBIN, PONDED	D	NIKFUL	B	NORA	B
NASHMOA	C	NEIBER	C	NEWALLA	D	NIKISHKA	B	NORAD	B
NASHVILLE	B	NEICE	B	NEWANNA	C	NIKLASON	B	NORBERT	D
NASHWAUK	C	NEILTON	A	NEWARK	C	NIKOLAI	D	NORBORNE	B
NASKEAG	C	NEISSENBERG	C	NEWARK, PONDED,	D	NIKLAND	C	NORCAN	C
NASON	C	NEKIA	C	NEWARK, PONDED,	D	NILER	C	NORD	B
NASON, GRAVELLY	B	NEKKEN	B	COOL		NILRAP	B	NORDBY	B
NASS	D	NEKOMA	B	NEWALKUM	B	NIMBRO	B	NORDEN	B
NASSAU	C	NELDORE	D	NEWAYGO	B	NIMERICK	C	NORDIC	B
NASSET	B	NELLA	B	NEWBELL	B	NIMMO	D	NORDICOL	B
NATAGA	A	NELLIS	B	NEWBEPG	B	NIMROD	C	NORDNESS	B
NATAL	D	NELMAN	C	NEWBERG, WET	C	NIMS	C	NORFOLK	B
NATANK	C	NELSCOTT	C	NEWBEPN	C	NIMUE	B	NORFORK	D
NATCHEZ	B	NELSE	B	NEWBERRY	C	NINCH	B	NORGE	B
NATCHITOCHES	D	NELSON	C	NEWBON	B	NINEKAR	D	NORGD	D
NATHALE	C	NEMADJI	E	NEWCO	D	NINEMILE	D	NORKA	B
NATHROP	C	NEMAH	D	NEWCOMB	A	NINEPIPE	B	NOPKOOL	B
NATHROP, NONSTONY	B	NEMAH, DRAINED	C	NEWDALE	B	NIVEVEH	B	NORLAND	B
NATHROP, COBBLY	B	NEMICO	D	NEWELL	B	NINIGRET	B	NORMA	D
NATI	C	NEMOTE	A	NEWELLTON	D	NICBELL	C	NORMA, DRAINED	C
NATIONAL	B	NEMOURS	C	NEWFIELDS	B	NIOTA	D	NORMANGEE	D
NATKIM	B	NENANA	E	NEWFLAT	D	NIOTAZE	C	NORMANIA	B
NATOMAS	B	ENNDO	C	NEWFPK	D	NIPE	B	NOROB	C
NATRDY	D	NEOLA	D	NEWFOUND	C	NIPINTUCK	D	NORREST	C
NATUPITA	B	NEOTOMA	B	NEWGLARUS	E	NIPPT	B	NORRIS	D
NAUKATI	D	NEPALTO	A	NEWHAN	A	NIPSUM	C	NORRISTON	A
NAUMBURG	C	NEPESTA	B	NEWHOUSE	B	NIRA	B	NORTE	C
NAUVOO	B	NEPHI	C	NEWKIPK	D	NIRAC	C	NORTEZ	C
NAVACA	D	NEPONSET	C	NEWLANDS	E	NIRE	C	NORTH POWDER	C
NAVAJO	D	NEPPEL	B	NEWLANDS, WARM	C	NISENE	E	NORTHBCRO	C
NAVAN	D	NEPTUNE	A	NEWLIN	B	NISMNA	C/D	NORTHCASTLE	B
NAVASAN	A	NERESON	B	NEWNAN	C	NISHNA, PONDED	D	NORTHCOTE	C/D
NAVIDAD	B	NESBITT	B	NEWNATA	C	NISHON	D	NORTHDALE	C
NAVINA	B	NESDA	E	NEWPASS	C	NISQUALLY	A	NORTFIELD	D
NAVO	D	NESHAMINY	B	NEWPORT	C	NISULA	E	NORTHMORE	C
NAWNEY	D	NESHOMA	C	NEWRY	B	NITCHLY	B	NORTHRUP	C
NAWT	D	NESIKA	B	NEWSKAH	E	NITTAW	D	NORTHSTAR	C
NAXING	B	NESIUS	A	NEWSON	A/D	NIU	B	NORTHWATER	B
NAYE	C	NESKAHI	B	NEWSPOCK	B	NIULII	C	NORTHWOOD	B/D
NAYPED	B	NESKOWIN	C	NEWSTEAD	C	NIWANA	B	NOTON	C
NAYRIB	D	NESO	D	NEWTON	A/D	NIWOT	C	NORTONVILLE	C
NAZ	B	NESPELEM	C	NEWTCNIA	B	NIX	D	NORWELL	C
NAZATON	B	NESS	D	NEWTOWN	C	NIXA	C	NORWICH	D
NEABSCO	C	NESSEL	E	NEWULM	B	NIXON	B	NORWOOD	B
NEBAGO	C	NESTER	C	NEWVIENNA	B	NIXONTON	B	NOSRAC	B
NEBEKER	C	NESTORIA	C/D	NEWVILLE	D	NIZINA	A	NOTAL	D
NEBGEN	D	NESTUCCA	D	NEYGAT	C	NDARK	B	NOTCHER	B
NERISH	B	NET	C	NEZ PERCE	C	NODE	D	NOTI	D
NEBONA	D	NETARTS	P	NGARDMAU	E	NOBLE	B	NOTNED	B
NECANICUM	B	NETCONG	B	NGARDDK	B	NOBLETON	C	NOTSPIER	D
NECESSITY	C	NETO	E	NGATPANG	C	NOBOOCO	R	NOTTAWA	B
NECHE	C	NETOMA	P	NGEDEBUS	A	NOBSCOT	A	NOTTER	B
NECONDA	C	NETRAC	A	NGERSUL	C	NOBUCK	C	NOTUS	C
NECTAR	C	NETTLES	C	NGEFUNGGR	D	NOCKEN	C	NOTUS, DRAINED	B
NEDA	C	NETTLETON	C	NIJAGARA	C	NODDAWAY	B	NOQUE	D
NEDERLAND	B	NEUBERT	B	NIJAPADA	B	NODEN	B	NOVACAN	D
NEEDLE	D	NEUNS	C	NIAPT	E	NOODINE	B	NOVARK	B
NEEDLE PEAK	C	NEURALIA	C	NIRES	B	NOELKE	D	NOVARY	D
NEEDLE PEAK, LOAMY	B	NEURALIA, SANDY	B	NIBLEY	C	NOGL	C	NOVATO	D
SUBSTRATUM		SUBSTRATUM		NIBSCN	D	NOHILI	D	NOVINA	B
NEEDLE PEAK,	9	NEUSKE	B	NICANDP	D	NOKASIPPI	R/D	NOVATA	B
OCCASIONALLY		NEVADANILE	C	NICHOLFLAT	D	NOKAY	C	NOVEN	B/D
FLOODED		NEVADCR	E	NICHOLIA	D	NOKHU	C	NOODY	B
NEEDLETON	B	NEVARC	C	NICHOLS	P	NDLAM	B	NOYER	B
NEEDLEYE	C	NEVAT	B	NICHOLSON	C	NDLICHUCKY	B	NOYES	C/D
NEEDMORE	C	NEVEE	B	NICHOLVILLE	C	NDLIN	B	NOYO	C
NEELEY	B	NEVERSINK	D	NICKEL	B	NDOLD	D	NOYSON	C
NEEN	C	NEVILLE	B	NICKIN	E	NDLTEN	C	NUAHS	B
NEEN, WET	D	NEVILLE, WET	C	NICKSVILLE	C	NDMARA	C	NUBY	D
NEEN, DRAINED	B	NEVIN	B	NICODEMUS	B	NDOME	D	NUBY, DRAINED	C
NEENAH	C	NEVINE	B	NICODEMUS, FLOODED	C	NDOMIE	B	NUBY, PROTECTED	C
NEER	B	NEVKA	C	NICOLAS	A	NDNDALTON	B	NUC	C
NEESES	C	NEVOYER	D	NICOLLET	B	NDNDPAHU	D	MUCKDLS	B
NEESOPAH	B	NEVTAH	C	NIDO	C	NDNPAREIL	D	NUCLA	B
NEFF	C	NEVU	C	NIELSEN	D	NDOK	C	NUCES	C
NEGLEY	B	NEW CAMBRIA	C	NIGHTHAWK	E	NDOKACHAMPS	D	NUEVA	B
NEHALEM	B	NEHALBIN	E/D	NIHILL	E	NDOKSACK	C	NUFF	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

NUGENT	A	OCONALUFTEE	B	OLD CAMP	D	OPENLAKE	D	OSAKIS	B
NUKRUH	D	OCONEE	C	OLDENBURG	E	OPEQUON	C	OSBORN	C
NULEY	B	OCINTO	B	OLDHAM	C/D	OPHIR	C	OSBORN, MODERATELY D	D
NULLIGAN	S	OCONSTA	D	OLDS	D	OPIMIKAO	D	WET	
NUMA	B	OCQUEOC	A	OLDSFERRY	C	OPLIN	C	OSCAR	
NUNDA	C	OCQUEOC.	B	OLDSHAR	B/D	OPPIO	D	OSCURA	
NUNEMAKER	D	MODERATELY WET		OLDSMAR,	D	OPPIO, STONY	C	OSGOOD	
NUNICA	C	OCDRAIG	D	DEPRESSIONAL		OQUAGA	C	OSHA	
NUNN	C	OCTAGON	B	OLELO	B	OQUIN	C	OSHAWA	
NUNN, MODERATELY WET	B	OCTAVIA	B	OLENO	D	OORA	C	OSHKOSH	
NUNNSTON	C	ODAS	D	OLENTANGY	A/D	ORACLE	D	OSHONE	
NUPART	D	ODELL	B	OLEQUA	B	ODRAGAN	D	OSHTEMO	
NUPPER	D	ODEM	A	OLETE	C	ODRID	C	OSIER	
NURKEY	B	ODENSON	D	OLEX	E	ODRAN	B	OSITO	C
NUSS	D	ODERMOTT	C	OLF	D	ORANGE	D	OSKA	C
NUTALL	D	ODERMOTT, STONY	B	OLGA	C	ORANGEBURG	B	OSMUND	B
NUTIVOLI	A	ODESSA	D	OLI	E	ORANGEVALE	B	OSO	C
NUTLEY	C	ODIN	C	OLIAGA	C	ORCAP	C	OSOBB	D
NUTRAS	C	ODNE	D	CLICAL	B	ORCAS	D	OSOLL	D
NUTRISOD	B	ODO	B	OLIN	B	ORCHARD	B	OSORIDGE	D
NUVALDE	B	ODONNELL	C	OLINDA	E	ORKY	B	OSOTF	D
NUYODE	C	ODELP	B	OLIPHANT	B	ORD	B	OSSIAN	B/D
NYALA	B	DEST	B	OLIVENHAIN	D	ORDNA	D	OSSIPEE	D
NYE	B	DESTERLE	C	OLIVIR	C	ORDNANCE	C	OST	B
NYJACK	C	OFFENBACHER	C	OLJETO	A	ORDWAY	D	OSTLER	C
NYMORE	A	OGARTY	B	OLLEI	D	OREANA	B	OSTRANDER	E
NYSERVA	B	OGEECHEE	B/D	OLLIERIVAS	D	OREANNA	B	OSWALD	D
NYSSA	C	OGEMAW	C/D	OLMITZ	D	OREJAS	C	OTANYA	B
NYSSATON	B	OGILVIE	B/D	OLMDS	C	ORELIA	D	OTEAM	C
NYSWINGER	D	OGLALA	B	OLMSTED	E/D	ORELLA	D	OTERO	
O'BRIEN	B	OGLE	B	OLNES	B	ORENDA	C	OTHELLO	C/D
O'NEILL	B	OGLESBY	D	OLNEY	E	ORENEVA	C	OTISCO	A
DAHE	B	OGRAL	B	OLDAVA	B	ORFFORD	B	OTISVILLE	A
DAK GLEN	B	OHACO	C	OLOKUI	C	ORHOOD	D	OTLEY	B
DAK GROVE	B	OMANA	C	OLMOUNT	C	ORICTO	B	OTOMO	C
DAKALLA	B	OHIA	A	OLOMPALI	D	ORIDIA	D	OTTOOLE	C
DAKBORD	C	OMOP	C	OLOT	C	ORIF	A	OTTER	
DAKDALE	B	OMSCOW	B	OLOTANIA	E	ORIGO	B	OTTERHOLT	B
DAKDEN	D	OIDEM	A	OLPE	E	ORINDCO	C	OTTERSON	A
OAKES	B	OJATA	D	OLSON	C	ORIO	B/D	OTTMAR	B
OAKHILL	B	OJIBWAY	C	OLTON	C	ORION	C	OTTOKEE	A
OAKMURST	D	OJITO	C	OLUSTEE	B/D	ORITA	B	OTTOSSEN	B
OAKLAND	C	OJITOS	B	OLYIC	B	ORIZABA	C	OTTUMWA	D
OAKLET	C	OKANDGAN	B	OLYMPIC	B	ORIZABA, DRAINED	B	OTWAY	
OAKLIMETER	C	OKATON	D	OMADJ	B	ORLA	B	OTWELL	
OAKVILLE	A	OKAW	D	OMAK	C	ORLAND	B	OTWIN	
OAKWOOD	B	OKAY	B	OMEGA	A	ORLANDO	A	OUACHITA	C
OANAPUKA	B	OKEE	B	OMENA	B	ORLIE	C	OUARD	D
OASIS	B	OKEECHOBEE	B/D	OMID	B	ORMAS	R	ODULA	
OATLANDS	B	OKEELANTA	B/D	OMNI	D	ORMISTON	C	DUPICO	C
OATMAN	B	OKEELANTA,	D	OMPO	C	ORMSBY	C	DURAY	B
OATUU	D	DEPRESSATIONAL		OMSTOTT	C	ORNAUAN	R	DUSLEY	C
OBAN	C	OKEELANTA, TIDAL	D	OMULGA	C	ORO FINO	B	OUTERKIRK	B
OBANION	C	OKEELANTA, FLOODED	D	ONA	C	ORG GRANDE	D	OUTLET	C
OBARO	B	OKEETEE	D	ONAMIA	E/D	ORGNEGREN	D	OUTLOOK	D
OBEN	C	OKEMAH	C	ONQUI	B	ORONOCO	B	OUTLOOK, DRAINED	C
OBISPO	D	OKIOTA	D	ONARGA	D	OROSE	C	OVALL	C
OBRAST	D	OKLARED	B	ONASON	C	OROVADA	B	OVAN	D
OBRAY	D	OKLARK	B	ONAVA	D	ORPARK	C	OVANDO	A
OBSCURITY	B	OKLAWAHA	B/D	ONAWAY	E	ORPHA	A	OVERGAARD	C
OBSERVATION	C	OKO	D	ONDAWA	B	ORPHANT	D	OVERLAND	C
OBURN	D	OKO, STONY	C	ONECO	B	ORR	B	OVEPLY	C
OCALE	C	OKOBOJI	B/D	ONEIL	B	ORR, GRAVELLY	C	OVERTON	D
OCAMBEE	C	OKOBOJI, PONDED	D	OMEONTA	C	SUBSTRATUM	C	CVIATT	B
OCANA	B	OKOLONA	D	ONITA	C	ORRUB	D	OVID	C
OCCOOU N	B	O REEK	D	NITE	C	ORVILLE	C	OVINA	B
OCCKUM	B	OKRIST	B	ONKEYO	B	O SA	A	OWANKA	C
OCEANET	D	OKTAHA	B	ONOTA	D	ORSET	B	OWEGO	D
OCEANO	A	OKTIBBEHA	D	ONSLOV	B	ORSINO	A	OWEN CREEK	C
OCHEYEDAN	B	OLA	C	ONTARIO	B	ORTEGA	A	OWENS	D
OCHLOCKNEE	B	OLAA	A	ONTEORA	C	ORTELLO	B	OWENTOWN	B
OCHO	D	OLAC	D	ONTKO	C	ORTING	D	OWHI	D
OCHOCO	C	OLANCHA	B	ONTONAGON	D	ORTIZ	C	OWINZA	B
OCHOOPEE	B/D	OLAND	B	ONYX	D	ORTON	B	OWLCAN	B
OCIE	C	OLANTA	B	OOKALA	A	ORWASH	A	OWOSSO	B
OCILLA	C	OLASHES	B	OODSEN	A	ORWET	A/D	OWSEL	B
OCKLEY	B	OLATHE	D	OPAL	A	ORWIG	B	OWYHEE	B
OCDEE	B/D	OLBUT	D	OPELIKA	D	ORWOOD	B	OXBOW	C
					D	OSAGE	D	OXCOREL	D

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OXENDINE	D PALIX	E PAPALOTE	C PATIO	C PELEE	B
OXERINE	C PALLS	C PAPINEAU	C FATIT CREEK	B PELELIU	D
OXFORD	D PALM BEACH	A PAPOOSE	B PATNA	B PELHAM	B/D
OXHEAD	B PALMA	B PARA	B PATOS	C PELIC	D
OXLEY	C PALMAR	D PARACHUTE	B PATOUTVILLE	C PELION	B/D
OXWALL	D PALMAREJO	C PARADISE	C PATRICIA	B PELKIE	A
OYHUT	C PALMER CANYON	B PARADOX	E PATRICK	B PELLA	B
OYLEN	C PALMERDALE	B PARANAT	C PATROLE	C PELLEJAS	B
OZAMIS	D PALMETTO	B/D PARANAT, DRAINED.	B PATTANI	D PELLICER	D
OZAN	D PALMETTO,	D SALINE	PATTEE	B PELONCILLO	D
OZAUKEE	C DEPRESSONAL	D PARASOL	S PATTENBURG	B PELTIER	C
OZETTE	C PALMICH	B PARCELAS	C PATTER	B PEMBERTON	B
CZIAS	D PALMS, OVERWASH	A/D FARCHIN	D PATTERSON	C PEMBROKE	B
PAAIKI	B PALMS, MAAT>50	A/D PARCHIN, COOL	C PATTON	E/D PEMENE	B
PAALDA	B PALMS, MAAT<50	A/D PARDALOE	D PAUL	B PEMI	C
PAAUHAW	A PALMS, PONDED	D PARDEE	D PAULDING	D PENA	B
PABLD	D PALMS, SANDY	A/C PARDEEVILLE	E PAULINA	D PENAPON	D
PACHAPPA	B SUBSTRATUM	C PAREHAT	C PAULSON	B PENASCO	D
PACHECO	C PALMS, GRAVELLY	A/D PARENT	E/D FAULVILLE	B PENCE	B
PACHECO, DRAINED	B SUBSTRATUM	B PARIATO	D PAUMALU	B PEND DREILLE	D
PACIFICO	C PALMYRA	B PARIETTE	C PAUNSAUGUNT	D PENDANT	D
PACK	C PALO	D PARISA	C PAUSANT	B PENDARVIS	C
PACKARD	B PALODOURD	B PARISIAN	D PAUWELA	C PENDEN	C
PACKER	B PALDMARIN	B PARKALLEY	E PAVAIAI	C PENDER	D
PACKHAM	B PALOMAS	B PARKAY	E PAVANT	D PENDERGRASS	D
PACKTRAIL	C PALOMINO	D PARKDALE	F PAVER	B PENDLETON	C
PACKWOOD	D PALON	B PARKE	B PAVILLION	B PENDPOY	D
PACO	C PALOPINTO	D PARKER	E PAVO	B PENELAS	D
PACOLET	B PALOS VERDES	D PARKFIELD	C PAVOHRDD	B PENNEY	D
PACTOLA	B PALOUSE	B PARKHILL	B/D PAWCATUCK	B PENGILLY	B/D
PACTOLUS	A PALS GROVE	B PARKINSON	E PAWHUSKA	C PENGRA	C
PADDOCK	C/D PALUXY	B PARKS	E PAWLING	B PENINSULA	B
PADEN	C PAMISON	B PARKVIEW	B PAWNEE	D PENISTAJA	B
PADILLA	C PAMILICO	D PARKVILLE	C PAXICO	B PENITENTE	B
PADINA	B PAMDA	B PARKWOOD	E/D PAXTON	C PENLAW	C
PADRES	B PAMSDEL	C PARLEYS	R PAUVILLE	B/D PENN	C
PADRONES	B PAMUNKEY	R PARLIN	C PAYETTE	B PENNEKAMP	A
PADUCAH	B PANAMA	P PARLG	B PAYMASTER	B PENNELL	D
PADUS	B PANAEWA	B PAWELE	C PAYNE	C PENNEY	A
PAESL	B PANAK	B PAMELOW	C PAYNECREEK	B PENNICHUCK	B
PAGARI	B PANAMA	B PARMENTER	E PAYSON	D PENNSUCO	C
PAGEBROOK	D PANAHINT	B PARMLEFD	C PEACHAM	D PENDOVER	B
PAGINA	C PANASOFFKEE	C/D PARNELL	C/D PEACHLAND	D PENROSE	D
PAGODA	C PANCHERI	B PARCUAT	E PEARL	D PENTHOUSE	D
PAGOSA	C PANDO	S PARR	B PEARL HARBOR	D PENTZ	D
PAGUATE	C PANDOAH	C PARRAN	D PEARSOLL	C PENWELL	A
PAHAKA	B PANDORA	B/D PARRISH	C PEASLEY	D PENWOOD	A
PAHKEE	B/D PANDURA	D PARRITA	C PEASPEAR	C PENZANCE	C
PAHRANAGAT	C PANE	B PARSHALL	B PEAVINE	C PEDGA	C
PAHRANAGAT, VERY POORLY DRAINED	D PANGBORN	D PARSPIPPANY	C/D PEAWICK	D PEDE	D
PAHURANGE	C PANGUITCH	B PARSONS	D PEBBLEPOINT	C PEOM	D
PAHREAH	C PANHANDLE	B PARTLOW	D PECATONICA	D PEOM, DRAINED	C
PAHROC	D PANHILL	B PARTCV	D FECKHAM	C PEOLA	C
PAHUMP	C PANIGDUE	B PARTPI	C PECKISH	D PEONE	D
PAHSIMEFOI	B PANIJOQUE, WET	B PARTRIDGE	A PECOS	D PEONE, DRAINED	C
PAIA	B PANITCHEN	C PASAGSHAK	D PECTURE	D PEORIA	D
PAICE	D PANKY	B PASCO	D PEDCAT	C PEDTONE	B/D
PAILO	B PANMOD	C PASCO, DRAINED	C PEDEE	C PEPAL	B
PAINESVILLE	C PANOCHE	C PASCO SECO	D PEDERNALES	C PEPOON	D
PAINT	D PANOCHE,	B PASQUETTI	D PECIGO	C PEPPER	D
PAISLEY	D SALINE-ALKALI.	C PASQUETTI.	C PEDLEFORD	C PEPTON	D
PAIT	B WET	MODERATELY WET	C PEDOLI	B PEQUAMING	A
PAJARA	C PANOLA	PASQUETTI, DRAINED	C PEDRICK	C PEQUEA	B
PAJARITO	B PANOR	B/D PASQUITANK	B/D PEDRO	C PEQUOP	B
PAJUELA	B PANORAMA	B PASS CANYON	D PEEBLES	C PERALTA	C
PAKA	B PANOSA	B PASSAR	C PEEKO	D PERAZZO	B
PAKALA	B PANSEY	B PASSCREEK	C PEEL	B PERCETON	B
PAKINI	B PANTANO	D FASTERN	D PEELER	D PERCHAS	D
PALACIOUS	D PANTEGO	D PASTIK	C PEERLESS	A PERCILLA	D
PALAFDX	C PANTERA	B/D FASTORIUS	B PEETZ	C PERCIVAL	C
PALANUSH	C PANTHER	B PASTURA	D PEEVER	C PERCDUN	C
PALAPALAI	B PANTON	D PATAHA	C PEEVYNELL	C PERCY	B/D
PALATINE	B PAOLA	D PATCHIN	D PEGLEG	D PERDIN	C
PALAU	B PADLI	A PATE	C PEGLER	B PERELLA	B/D
PALAZZO	C PAPAA	F PATELZICK	D PEGRAM	C PERELLA,	B
PALBOONE	C PAPAC	D PATENT	C PEKAY	C MODERATELY WET	B
PALINDR	C PAPAGUA	C PATHHEAD	C PEKIN	C PERHAM	B
PALISADE	B PAPAI	C PATILLAS	E PELAHATCHIE	B PERICO	B
		A PATILD	B PELAN		

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PERIDGE	B	PHILO	B	PINELLAS	B/D	PLASKETT	D	POKEGEMA	B
PERILLA	B	PHILOMATH	D	PINELLI	B	PLATA	B	POKEMAN	C
PERINOS	C	PHING	D	PINETOP	C	PLATEA	C	POKER	C
PERITA	C	PHIPPS	C	PINETUCKY	B	PLATNER	C	POKERGAP	B
PERKINS	C	PMLISS	D	PINETUCKY, GRADED	C	PLATO	C	POKEY	C
PERKS	A	PHOEBE	B	PINEVAL	B	PLATORD	B	POLACCA	C
PERLA	C	PHOENIX	D	PINEVILLE	B	PLATTE	B	POLALLIE	C
PERLOR	D	PHYS	B	PINEZ	E	PLATTE, WET	D	POLAR	B
PERMA	B	PIANKESHAW	B	PINGREE	D	PLATTE, CHANNELLED	D	POLATIS	C
PERN	B	PIASA	D	PINHOOK	B/D	PLATTIVILLE	B	POLAWANA	A/D
PERNITAS	C	PIBLER	D	PINICON	B	PLAYCO	B	POLE	D
PERNDG	D	PICABO	C	PINITOS	E	PLAYER	D	POLECREEK	D
PERNTY	D	PICACHO	C	PINKEL	C	PLAYMOOR	C/D	POLELINE	B
PERQUIMANS	D	PICANTE	D	PINKHAM	A	PLAZA	C	POLEPATCH	A
PERREAU	B	PICAYUNE	B	PINKSTON	B	PLEASANT	C	POLEY	C
PERRIN	B	PICEANCE	C	PINNACLES	C	PLEASANT, PONDED	D	POLEY, COBBLY	D
PERRINE	D	PICKAWAY	C	PINNEBOD	A/D	PLEASANT GROVE	E	POLICH	C
PERRINTON	C	PICKENS	D	PINNOBIE	B	PLEASANT VALE	B	POLKING	D
PERRY	D	PICKETT	C	PINO	C	PLEASANT VIEW	B	POLLARD	C
PERRYPARK	B	PICKFORD	D	PINCLE	B	PLEASANTON	B	POLLASKY	B
PERRYVILLE	B	PICKNEY	A/D	PINON	D	PLEDGER	D	POLLUX	C
PERSANTI	C	PICKNEY, FLOODED	D	PINONES	D	PLEGOMIR	D	POLLY	B
PERSAYO	D	PICKRELL	D	PINRIDGE	B	PLEINE	D	POLO, MODERATELY	C
PERSHING	C	PICKTON	A	PINSPRING	C	PLEIOVILLE	C	SLOW PERM	
PERSIS	B	PICKUP	C	PINTAS	B	PLEITO	C	POLO, MODERATE	B
PERT	D	PICKWICK	B	PINTLAR	B	PLEVNA	D	PERMEABILITY	
PERU	C	PICO	B	PINTO	C	PLINCO	B	POLONIO	B
PERVINA	B	PICOSA	C	PIKTURA	A	PLITE	B	POLSON	B
PERWICK	C	PIDCOKE	D	PINTWATER	D	PLOME	E	POLUM	B
PESADERO	D	PIDINEEN	D	PIOCHE	D	PLOVER	C	POMADE	D
PESCAR	C	PIE CREEK	D	PIOPOLIS	C/C	PLUCK	C	POMAN	C
PESHASTIN	B	PIEGON	B	PIPELINE	D	PLUMAS	E	POMAT	C
PESHEKEE	D	PIERIAN	B	PIPEP	C	PLUMMER	B/D	POMAT, DRY	B
PESMO	C	PIERKING	D	PIFESTONE	B	PLUSH	B	POMELLO	C
PESMORE	C	PIERPONT	C	PIPPIN	A	PLUTOS	B	POMERENE	C
PESO	C	PIERRE	D	PIRD	B	PLYMOUTH	A	POMFRET	A
PESOWYO	C	PIERSONTE	A	PIPODEL	B	POALL	C	POMO	B
PETACA	D	PIERZ	B	PIROUETTE	D	POARCH	B	POMONA	B/D
PETAL	C	PIETOWN	B	PIRUM	B	POBER	C	POMONA,	D
PETAN	D	PIGTAIL	C	PISGAH	C	POCALLA	A	DEPRESSIONAL	
PETEE TNEET	D	PIIHONUA	A	PISHKUN	B	POCAN	B	POMPANO	B/D
PETERMAN	D	PIKE	B	PISMO	D	POCASSET	B	POMPANO,	D
PETERMAN, SANDY	C	PIKEVILLE	B	PIT	D	POCATELLO	E	DEPRESSIONAL	
SUBSTRATUM,		PILABO	E	PITCHER	R	POCCATY	D	POMPANO, FLOODED	D
ALKALI		PILCHUCK	C	PITCD	D	POCKER	C	POMPEII	D
PETERS	D	PILCHUCK,	A	PITNEY	C	POCOLA	D	POMPNIO	C
PETERSON	B	PROTECTED		PITTMAN	C	POCOMOKE, PONDED	B/D	POMPTON	C
PETESCRELK, STONY	B	PILINE	D	PITTSFIELD	E	POCOMOKE, DRAINED	B	POMROY	C
PETESCREEK,	C	PILLIKEN	B	PITTSTOWN	C	POCONO	B	PONCA	B
GRAVELLY		PILLOT	B	PITZER	C	PODEN	E	PONCEA	D
PETRIE	D	PILLSBURY	C	PIUTE	D	PODMOR	C	PONCHA	A
PETROLIA	C/D	PILOT PEAK	D	PIVOT	A	PODO	D	PONCIANO	C
PETROS	D	PILOT ROCK	C	PIXLEY	D	PODUNK	B	POND	D
PETSPRING	D	PILOTPEAK	D	PIZENE	E	PCDUS	C	POND CREEK	B
PETTICOAT	B	PILTDOWN	B	PLACEDO	D	POE	C	PONDER	D
PETTIGREW	B/D	PILTZ	C	PLACENTIA	D	POGAL	C	PONIL	D
PETTUS	C	PIMA	B	PLACERITOS.	E	POGANEAB	C	PONINA	D
PETTY	B	PIMER	F	SALINE, DRAINED		POGANEAB, CLAYEY	D	PONZZO	C
PEVETO	A	FINAL	D	PLACERITOS.	C	SUBSTRATUM		PONTO	B
PEWAMO	C/D	PINALENO	B	SALINE-ALKALI		POGANEAB, SALINE	D	PONTOTOC	B
PEYTON	B	PINANT	B	PLACERITOS.	B	POGANEAB, HIGH	D	PONZER	D
PFEIFFER	B	PINATA	C	MODERATELY WET		RAINFALL		POOCHAK	B
PHAGE	B	PINAVETES	A	PLACERITOS. WET	C	POGANEAB, STRONGLY	D	POOKU	B
PHALANX	B	PINBIT	B	PLACERITOS.	B	SALINE		POOLER	D
PHANTOM	C	PINCHER	C	CRAINED		POGANEAB.	D	POOLEVILLE	C
PHARD	B	PINCHOT	B	PLACID	B/D	FREQUENTLY		POORCAL	B
PHARR	B	PINCKNEY	C	PLACID.	D	FLOODED		POORMA	B
PHEBA	C	PINCONNING	R/D	DEPRESSIONAL		POGANEAB.	D	POOSE	D
PHEENEY	C	PINE FLAT	B	PLACID. FREQUENTLY	D	SALINE-ALKALI		POOTATUCK	B
PHELAN	D	PINEAL	D	FLOODED		POGUE	B	POPASH	D
PHELPS	B	PINEBUTTE	B	PLACITAS	C	POHAKUPU	B	POPE	B
PHERSON	B	PINECREEK	B	PLACK	D	PCIN	D	POPHERS	C
PHIFERSON	C	PINEDA	B/D	PLAINBO	A	POINDEXTER	E	POPLE	C/D
PHILBON	D	PINEDA.	D	PLAINFIELD	A	POINSETT	B	POPLIMENTO	C
PHILDER	D	DEPRESSIONAL		PLAISTED	C	POINT	C	POPOSHIA	B
PHILIPPA	C	PINEDALE	B	PLANK	D	POINT ISABEL	C	POPOTOSA	B
PHILIPSBURG	B	PINEQUEST	B	PLANKINTON	D	POISONCREEK	D	POPLETON	A
PHILLCHER	B	PINEMURST	B	PLAND	E	POJO	C	POQUETTE	A
PHILLIPS	C	PINEISLE	B	PLANTATION	B/D	POJOAQUE	B	POQUITA	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

POODONOCK	C	PREMIER	B	PUNCHBOWL	D	QUINLIVEN	C	RAMRDD
PORFIRIO	C	PRENTISS	C	PUNG	C	QUINN	B/D	RAMSDELL
PORRETT	D	PRESA	B	PUNGO	D	QUINNEY	C	RAMSDELL, DRAINED
PORRONE	B	PRESHER	B	PUNDHU	A	QUINTANA	B	RAMSEY
PORT	B	PRESTO	B	PUNISIT	C	QUINTO	D	RAMSHORN
PORT BYRON	B	PRESTON	A	PUNTA	B/D	QUINTON	C	RANA
PORTAGE	D	PREWITT	B	FUNILLA	B	QUITERIA	B	RANCE
PORTAGEVILLE	D	PREY	C	PURCELLA	B	QUITMAN	C	RANCHOSECO
PORTALES	B	PRICE	B	PURCHES	C	QUIVERA	C	RANDADO
PORTALTD	B	PRIDA	C	PURDAM	C	QUONSET	A	RANDALL
PORTERFIELD	C	PRIDHAM	D	PURDY	D	QUOPANT	D	RANDCORE
PORTERS	B	PRIESTLAKE	B	PURETT	B	QUOSATANA	D	RANDMAN
PORTERVILLE	D	PRIETA	D	PURGATORY	C	RABBITEX	B	RANDOLPH
PORTHILL	D	PRIM	D	PURNER	D	RABER	C	RANDS
PORTIA	C	PRIMEAUX	C	PUROB	D	RABIDEUX	B	RANDSEBURG
PORTIND	C	PRIMEN	D	PURSLEY	B	RABUN	B	RANGE
PORTLAND	D	PRIMGHAR	B	PURVES	D	RACE	B	RANGER
PORTMOUNT	E	PRINCETON	B	PUSHMATAHA	C	RACINE	B	RANPUFF
PORTNEUF	B	PRINEVILLE	C	PUSTDI	B	RACKER	A	RANSLO
PORTOLA	B	PRING	B	PUTNAM	D	RACOMBES	E	RANDOM
PORTSMOUTH	B/D	PRINGLE	D	PUTNEY	B	RACDON	C/D	RANSTEIN
PORUM	D	PRITCHARD	C	PUTT	C	RAD	B	RANTOUL
POSANT	D	PRITCHETT	C	PUTTSTER	C	RAD, LACUSTRINE	C	RAPATEE
POSEN	B	PROCHASKA	A/D	PUU OO	A	SUBSTRATUM	B	RAPELJE
POSEY	B	PROCTOR	B	PUU OPAE	B	RAD, FLOODED	C	RAPH
POSEYVILLE	C	PROGRESSO	C	PUU PA	A	RADDLE	B	RAPHO
POSITAS	D	PROMISE	D	PUU PA, NONSTONY	E	RADER	D	RAPIDAN
POSKIN	C	PROMO	D	PUUKALA	D	PADERSBURG	B	RAPLEE
POSO	B	PRONG	C	PUUDNE	C	RADFORD	B	RAPPAHANNOCK
POSOS	C	PROPHETSTOWN	B/D	PULLYUP	B	RADLEY	B	RAPSOM
POST	D	PROSPECT	B	PYBURN	D	RADNR	C	RARDEN
POTAMUS	B	PROSPER	B	PYLE	B	RAFAEL	D	RARICK
POTCHUB	C	PROSSER	C	PYLON	D	RAFTON	D	RARITAN
POTEET	C	PROTIVIN	C	PYOTE	A	RAFTRIVER	C	RASBAND
POTELL	B	PROUT	C	PYRAPID	D	RAGLAN	B	RASILLE
POTH	C	PROUTY	C	PYRMONT	D	PAGNAR	B	RASSER
POTLATCH	C	PROVIDENCE	C	PYRMONT, BEDROCK	C	RAGNEL	B	RASSET
POTOMAC	A	PROVIG	C	SUBSTRATUM	RAGO	C	RASTUS	
POTRATZ	C	PROVO BAY	D	PYEWELL	D	RAGPIE	D	RATAKE
POTSDAM	C	PROW	D	QUAFEND	C	RAGSDALE	B/D	RATHBUN
POTTER	C	PRUDY	D	QUAKER	C	RAGSDALE, OVERWASH	B	RATHDRUM
POTTINGER	B	PRUE	B	QUAKERTOWN	C	RAGTOWN	C	RATLAKE
POTTS	B	PRUITTON	B	QUAM	B/D	RAHAL	C	RATLEFLAT
POTTSBURG	B/D	PRUNIE	D	QUAMON	A	RAHM	C	RATLIFF
POUDRE	D	PRYOR	C	QUANDER	B	RAHWORTH	B	RATON
POUDJADE	D	PSUGA	B	QUANTICO	B	RAIL	D	RATSOW
POULSBQ	D	PTARMIGAN	C	QUARLES	B	RAILCITY	A	RATTLER
POUNCEY	D	PUAPUA	D	QUARTZBURG	C	RAINBOW	C	RATTO
POVERTY	D	PUAULU	A	QUARTZVILLE	C	RAINEY	C	RATTO, STONY
POVEY	B	PUCHYAN	B	QUARZ	B	RAINIER	C	RAUB
POWDER	B	PUDDLE	E	QUATAMA	C	RAINO	D	RAUGHT
POWDERHORN	C	PUERCO	D	QUAY	C	RAINS	B/D	RAUVILLE
POWDERWASH	C	PUERTA	D	QUAZO	B	RAINS, FLOODED	D	RAUZI
POWEEN	C	PUERTECITO	D	QUEALMAN	D	RAINSBORD	C	RAVALLI
POVELL	C	PUETT	D	QUEALY	C	PAINSVILLE	B	RAVALLI, BEDROCK
POVER	B	PUFFER	D	QUEBRADA	D	RAIRDENT	B	SUBSTRATUM
POWERLINE	C	PUGET	D	QUEENY	C	RAISIO	C	RAVEN
POWLEY	D	PUGET, PROTECTED	C	QUEETS	D	RAKANE	C	RAVENDALE
POWMENT	C	PUGSLEY	C	QUEMADO	B	RAKE	D	RAVENELL
POWAHKEE	B	PUMI	B	QUENZER	C	RAKIED	C	RAVENNA
POWATKA	C	PUMIHUAU	D	QUERC	D	RALEIGH	D	RAVENSWOOD
POY	D	PUICE	C	QUERENCIA	E	RALLD	D	RAVIA
POYGAN	D	PULA	C	QUETICO	D	RALLS	B	RAVOLA
POYNOR	B	PULATAT	C	QUICKSELL	C	RALPH	B	RAWAH
POZO	C	PULASKI	B	QUICKSILVER	D	RALPHSTON	B	RAWE
POZO BLANCO	B	PULCAN	C	QUICKVERT	D	RALSEN	D	RAVLES
PRAG	C	PULEMU	B	QUIDEN	C	RAMADERD	B	RAVLINS
PRAIRIEVILLE	B	PULEXAS	B	QUIENSABE	B	RAMBLA	C	RAWSON
PRAMISS	C	PULLMAN	D	QUIETUS	C	RAMBOUILLET	B	RAVSONVILLE
PRATHER	C	PULPIT	C	QUIGLEY	C	RAMELL	D	RAYBURN
PRATLEY	C	PULS	D	QUIHI	C	RAMIRES	C	RAYEX
PRATT	A	PULSIPHER	D	QUILCENE	C	RAMEL	C	RAYFORD
PREACHER	B	PULTNEY	C	QUILLAYUTE	B	RAMONA	C	RAYLAKE
PREAKNESS	B/D	PUMEL	D	QUILLOTOSA	D	RAMONA, HARD	B	RAYMONDVILLE
PREATORSON	B	PUMEL, NONGRAVELLY	C	QUILT	D	SUBSTRATUM	C	RAYNE
PREBISH	C/D	PUMPER	B	QUIMA	B	RAMPART	B	RAYNSFORD
PREBLE	D	PUNA	A	QUINCY	A	RAMPARTER	B	RAYNHAM
PRELO	B	PUNALUU	D	QUINLAN	C	RAMPS	B	RAYNOLDSON
							C	RAYOHILL

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

RAYPOL	C	REDSTONE	A	RENOX	B	RICOT	C	RITIDIAN
RAZ	D	REDSUN	D	RENshaw	B	RICREST	B	RITNER
RAZITO	A	REDTHAYNE	B	RENSLOW	B	RIDD	C	RITO
RAZOR	C	REDTON	B	RENSSELAER	B/D	RIDDLE	B	RITTER
RAZORBA	B	REDVALE	C	RENSSELAER.	C	RIDENBAUGH	D	RITTMAN
RAZORT	B	REDVIEW	B	NONSTRATIFIED		RIDGE	B	RITZ
RAZSUN	D	REDVIEW, WET	C	SUBSTRATUM		RIDGEBURY	C	PITZ. DRAINED
READING	B	REDVINE	C	RENTILL	E	RIDGECREST	C	RITZCAL
READINGTON	C	REDWASH	D	RENTON	D	RIDGEDEALE	B	RITZVILLE
READLYN	B	REE	B	RENTON, DRAINED	C	RIDGEELAND	B/D	RIVALIER
REAGAN	B	REEBOOK	D	RENTSA	D	RIDGEELAWN	B	RIVERDALE
REAKOR	B	REED	D	RENTZEL	C	RIDGEELAWN, WET	D	RIVERHEAD
REAL	D	REED, DRAINED	C	REPARADA	D	RIDGEELITE	D	RIVERROAD
REALLIS	B	REED, PROTECTED	C	REPP	B	RIDGEPORT	B	RIVERSIDE
REAP	D	REEDER	B	REPART	B	RIDGEVIEW	D	RIVERTON
REARDAN	C	REEDER, COOL	C	REPUBLIC	B	RIDGEVILLE	B	RIVERVIEW
REAVILLE	C	REEDSBURG	C	RESCUE	E	RIDGEWOOD	C	RIVIERA
REAVIS	B	REEDSPORT	C	RESNER	B	RIDIT	C	RIVIERA.
REBA	C	REEDY	D	RESORT	D	RIDLEY	C	DEPRESSATIONAL
REBEL	B	REEFRIDGE	D	RESOTA	A	RIDOTT	C	RIVIERA, LIMESTONE
RECAPTURE	B	REELFOOT	C	RESTING	C	RIEDEL	B/D	B/D
RECK	D	REEPO	C	RESTON	D	RIEDTOWN	C	SUBSTRATUM
RECLUSE	B	REESE	C	RET	D	RIEPE	C	RIVIERA, LIMESTONE
RED BAY	B	REESER	C	RETRIEVER	D	RIESEL	C	D
RED BLUFF	C	REESVILLE	C	RETROP	C	RIETBROCK	C	RIVRA
RED BLUFF,	B	REEVES	B	RETRYDE	C	RIFLE	A/D	D
GRAVELLY		REFLECTION	B	REVA	D	RIGA	D	RIXIE
RED BUTTE	B	REFUGE	C	REVEL	C	RIGDON	C	RIXON
RED HILL	B	REGAL	B/D	REVENTON	B	RIGGINS	C	RIZ
RED HOOK	C	REGAN	B/D	REVERE	B/D	RIGGS	D	RIZOZO
RED ROCK	B	REGENT	C	REVIT	C	RIGLEY	B	ROANE
RED SPUR	B	REGGAD	A	RWARD	B	RIGOLETTE	C	ROAHIDE
REDARROW	D	REGGEAR	D	REXBURG	B	RILEY	B	ROANKE
REDBANK	B	REGGEAR, COOL	C	REXFORD	C	RILLA	B	ROARING
REDBELL	B	REGNAPS	C	REXPONT	D	RILLIND	B	ROB RDY
REDBIRD	B	REGNIER	D	REXROR	A	RILLITO	B	ROBANA
REDBOW	C	REHBURG	C	REYAE	B	RIMER	C	ROBBS
REDBY	B	REHFIELD	B	REYES	D	RIMINI	A	ROBCO
REDCAMERON	D	REHFIELD	C	REYNOSA	B	RIMROCK	D	ROBFR
REDCAN	D	REHM	C	REYWAT	D	RIMTON	C	ROBERTSDALE
REDCAP	B	REICES	B	REZAVE	D	RIN	B	ROBERTSVILLE
REDCHEIF	C	REICHEL	B	RHAME	B	RINCON	C	ROBIN
REDCLIFF	C	REIFF	B	RHEA	B	RINDA	D	ROBINETTE
REDCLOUD	B	REILLY	A	RHINEBECK	D	RINDGE, DRAINED	C	ROBINSONVILLE
REDCO	D	REINA	D	RHOADES	D	RINDGE.	D	ROBOZO
REDCREEK	D	REINACH	B	RHODME	C	RINEARSON	B	ROBROOST
REDDALE	D	REINER	B	RHODMETT	C	RINEY	B	ROBSON
REDDICK	B/D	REKOP	D	RHODMETT, STONY	C	RING	C	ROBY
REDDING	D	RELAN	B	RHONE	B	RINGLE	B	ROCA
REDEYE	B	RELAY	B	RIB	B/D	RINGLING	A	ROCHE
REDFEATHER	D	RELIANCE	C	RIBERA	C	RINGO	D	ROCHELLE
REDFIELD	B	RELIZ	D	RIBHILL	B	RINGWOOD	B	ROCHER
REDFIELD, WET	C	RELLEY	B	RICCO	D	RINKER	C	ROCHESTER
REDFLAME	B	RELSOB	B	RICEBORO	B/D	RIO	D	ROCIO
REDDOUSE	B	RELUCTAN	C	RICECROSS	B	RIO ARRIBA	D	ROCK CREEK
REDIG	B	REMBERT	D	RICERT	B	RIO DIABLO	C	ROCK RIVER
REDINGTON	D	REMEDIOS	C	RICETON	B	RIO GRANDE	B	ROCKABIN
REDLAKE	D	REMLAP	C	RICEVILLE	C	RIO LAJAS	A	ROCKAWAY
REDLANDS	B	REMLIK	A	RICH	C	RIO PIEDRAS	B	ROCKBRIDGE
REDLEVEL	C	REMMIT	B	RICH, WET	D	RIOBLANCHO	C	ROCKCASTLE
REDLodge	D	REMNOY	D	RICHARDSON	B	RICONCHO	C	ROCKDALE
REDMANSON	B	REMOTE	B	RICHENS	C	RIOLINDA	C	ROCKDALE
REDMOND	C	REMSEN	D	RICHEY	C	RION	B	ROCKERS
REDMOUNT	B	REMUNDA	C	RICHFIELD	B	RIPEC	D	ROCKFIELD
REDNIK	B	REMUS	B	RICHFORD	A	RIPLEY	B	ROCKFORD
REDNIK, NONSTONY	C	RENbac	D	RICHLAND	B	RIPLEY,	C	ROCKHOUSE
REDNUN	C	RENCALSON	C	RICHMOND	D	SALINE-ALKALI.	C	ROCKINCHAIR
REDOLA	B	RENCOT	D	RICHSUM	B	WET	D	ROCKLIN
REDOMA	B	RENFROM	D	RICHTER	B	RIPON	B	ROCKLY
REDONDO	B	RENICK	D	RICHVALE	B	RIPPLE	B	ROCKOA
REDPop	C	RENISH	C	RICHVIEW	C	RIPPOWAM	C	ROCKTON
REDPORT	B	RENNER	B	RICHVILLE	C	RIRIE	B	ROCKWELL
REDRIDGE	B	RENNIE	D	RICHWOOD	B	RISBECK	B	B/D
REDRIVER	C	RENNIE, DRAINED	C	RICKER	A	RISLEY	B	ROCKWOOD
REDROB	C	RENNIE, PROTECTED	C	RICKETTS	C	RISLEY, STONY	D	ROCKY FORD
REDSPEAR	D	RENO	D	RICKMAN	C	RISUE	D	ROCKYBAR
REDSPRINGS	B	RENODHILL	C	RICKMORE	C	RISWOLD	B	RODAD
REDSPRINGS, GRADED	D	RENOL	C	RICKREALL	D	RITA	D	RODELL
REDSTOE	B	RENOVA	B	RICKS	A	RITCHY	D	RODEO

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RODIE	B	ROSENDALE	C	RUBY	B	SARENYO	B	SAMINIEGO	C
RODMAN	A	ROSENWALL	D	RUBYHILL	C	SABINA	C	SAMISH	D
RODRDF	D	ROSEVILLE	B	RUCH	B	SABINE	A	SAMMAMISH	D
ROEBUCK	D	ROSEWOOD	A/D	RUCKER	F	SABLE	B/D	SANDIST	D
ROELLEN	D	ROSEWOOD, WET	D	RUCKLES	D	SAC	B	SANDR	D
ROEMER	C	ROSEWORTH	D	RUCLICK	C	SACHEEN	A	SAMSEL	D
ROETEX	D	ROSHE SPRINGS	D	RUDD	D	SACHETT	C	SAMPSON	B
ROFISS	B	ROSHE SPRINGS,	C	RUDDELEY	D	SACO	D	SAMSIL	D
ROGAN	B	DRAINED	B	RUDEEN	C	SACRAMENTO	D	SAMSULA	B/D
ROGERSON	D	ROSHOLT	B	RUDYARD	C	SACTUS	D	SAN ANDREAS	B
RGERT	D	ROSINE	B	RUELDOFF	E	SACUL	C	SAN ANTON	B
ROGRUBE	B	ROSITAS	A	RUELLA	B	SADDLE	C	SAN ANTONIO	C
RDGE	B	ROSITAS, CLAYEY	C	RUFUS	D	SADDLEBACK	C/D	SAN ARCADIO	C
RDHAN	D	SUBSTRATUM		RUGAR	C	SADDLEGAP	B	SAN BENITO	B
ROHNERVILLE	B	ROSITAS, LOAMY,	C	RUGG	E	SADDLEROCK	D	SAN EMIGOID	B
ROHONDA	C	WET		RUGLES	F	SADER	D	SAN GERMAN	D
ROHRERSVILLE	D	ROSITAS, WET	C	RUME	D	SADIE	C	SAN ISABEL	A
ROIC	D	ROSLYN	B	PUEDDO	C	SADLER	C	SAN JOAQUIN	D
ROJO	C	ROSMAN	B	RUINPOINT	B	SAFFELL	E	SAN JON	C
ROLETT	C	ROSENEY	B	RUIZ	A	SAG	B	SAN JOSE	B
ROLFE	C	ROSS	B	RUKO	D	SAGANING	A/D	SAN JUAN	A
ROLIE	D	ROSSBURG	B	RULE	E	SAGASER	B	SAN LUIS	C
ROLISS	B/D	ROSSFIELD	B	RUMBLECREEK	B	SAGE	D	SAN MATEO	B
ROLLA	C	ROSSMOOR	B	RUMBO	C	SAGECREEK	B	SAN MIGUEL	D
ROLLINGSTONE	C	ROSSMOYNE	C	RUMFORD	D	SAGEDALE	C	SAN SABA	D
ROLDC	D	ROSWELL	A	RUMLEY	B	SAGEHILL	B	SAN SEBASTIAN	B
POLOFF	C	ROSY	B	RUMNEY	C	SAGEMOOR	B	SAN SIMEON	D
ROMBERG	B	ROTAMER	E	RUMPAH	D	SAGERS	B	SAN TIMOTED	C
ROMBO	C	ROTAN	C	RUMPLE	C	SAGERTON	C	SAN YSIDRO	D
ROME	B	ROTHICAN	B	RUMUNG	C	SAGLE	C	SANCHEZ	D
ROMEO	D	ROTHIEMAY	C	RUNE	C	SAGO	D	SANCLEMENTE	D
ROMERO	D	ROTHSAY	B	RUNEBERG	C/D	SAGOUSPE	C	SANDALL	C
ROMGAN	C	ROTINOM	P	RUNGE	P	SAGOUSPE, DRAINED	B	SANDBRANCH	B
ROMIA	B	ROTO	C	RUNN	D	SAGUACHE	B	SANDCREEK	D
ROMINE	S	ROTTULEE	C	RUPLF	C	SAHALIE	B	SANDERSON	B
ROMINELL	C	ROUBIDEAU	C	RUPLEY	A	SAHARITA	B	SANDHILL	B
ROMINELL	B/D	ROUEN	C	RUSCO	C	SAID	B	SANDIA	B
ROMSTOCK	B	ROUGHCREEK	D	RUSCO, PONDED	D	SAIDO	E	SANDOSE	A
ROMULUS	D	FOUGHLOCK	E	RUSE	D	SAILBOAT	C	SANDOVAL	D
RONAN	D	ROUGHMOUNT	C	PUSH	E	SAILBOAT, DRAINED	B	SANDIDGE	A
POND	C	ROUND BUTTE	D	RUSHMORE	E/D	SAIPAN	B	SANDSPRING	B
PONDEAU	A/D	ROUNDABOUT	C	RUSHTOWN	A	SAL	D	SANDUN	B
RONDELL	B	ROUNDARN	E	RUSHVILLE	F	SALARAD	D	SANDUSKY	D
PONDOWA	B	ROUNDHEAD	B/D	RUSG	B	SALACON	D	SANDVIEW	P
RONNEBY	C	ROUNDOR	C	RUSDON	C	SALAL	C	SANDWASH	C
RONSEL	B	FOUNDTOP	C	RUSS	F	SALAMATOF	D	SANDWICK	B
RONSON	B	FOUNDUP	C	RUSSELL	E	SALANDER	B	SANELI	D
RODNEY	D	ROUNDY	C	RUSSIAN	E	SALAS	C	SANFORD	B
RODSET	C	ROUSSEAU	A	RUSSLER	C	SALCHAKET	B	SANGER	D
ROOSEVELT	C	ROUTON	D	RUSTICO	P	SALCO	B	SANGO	C
RODT	B/D	ROUTT	C	RUSTIGATE	C	SALEM	B	SANMEDRIN	B
RODTL	C	ROYAL	D	RUSTON	R	SALERATUS	C	SANIBEL	B/D
ROPER	B/D	ROWDEN	C	PUSTY	B	SALERNO	B/D	SANILAC	B
ROSALIE	B	ROWDY	E	RUTAE	B	SGALA	C	SANJE	B
ROSAMOND	B	ROWE	D	PUTERSVILLE	C	SALIDA	A	SANLOREN	B
ROSAMOND,	C	ROWEI	D	PUTHERFORD	C	SALINAS	B	SANPETE	B
SALINE-ALKALI,		ROWEWA	C	PUTLAND	C	SALISBURY	C	SANPITCH	C
FLOODED		ROWLAND	C	RUTLEGE	E/D	SALIX	B	SANDPIL	D
ROSANE	D	ROWLEY	C	RYAN	D	SALKUM	B	SANSARC	D
ROSANKY	C	ROXAL	D	RYAN PARK	B	SALLISAW	B	SANTA	D
ROSARIO	C	ROXANA	B	RYARK	A	SALLYANN	C	SANTA CLARA	C
ROSCOE	D	ROXBURY	B	RYCD	C	SALMO	C/D	SANTA FE	D
ROSCOMMON	A/D	ROXER	S	RYDE	C	SMON	B	SANTA ISABEL	D
ROSE CREEK	C	ROXTON	D	RYDER	C	SALDNIE	D	SANTA LUCIA	C
ROSE CREEK,	B	ROY	B	RYDOLPH	C	SALT CHUCK	A	SANTA MARTA	C
DRAINED		ROYAL	B	RYEGATE	C	SALT LAKE	D	SANTA VNEZ	D
ROSE VALLEY	D	POYCE	C	RYELL	B	SALTAIR	D	SANTANA	D
ROSEBERRY	D	ROYGORGE	D	RYELL, SALINE	D	SALTER	B	SANTANELA	D
ROSEBLOOM	D	ROYOSA	A	YPEPATCH	C	SALTERY	D	SANTAQUIN	A
ROSEBOROUGH	B	ROYST	C	RYER	C	SALTESE	D	SANTAROSA	B
ROSEBUD	B	ROYSTONE	E	RYKER	B	SALTINE	C	SANTEE	D
ROSEBURG	B	ROZA	C	RYMAN	C	SALTON	D	SANTIAGO	B
ROSEDHU	B/D	ROZELLVILLE	B	RYORP	C	SALUDA	C	SANTIAM	C
ROSEGLEN	B	ROZETTA	B	RYPOC	B	SALVISA	C	SANTO	B
ROSEHAVEN	B	ROZLEE	C	RYUS	B	SALZER	D	SANTO TOMAS	B
ROSEHILL	D	RUARK	B/D	SAAR	C	SALZER, PROTECTED	C	SANTONI	D
ROSELAND	B	PUBLICON	A	SABANA	C	SAMBA	D	SANWELL	B
ROSELLA	D	PUBICO	C/D	SABANA SECA	C	SAMBrito	B	SAPEHA	B
ROSELM	D	RUBSON	B	SARE	B	SAMDAY	D	SAPELO	D

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

SAPINERO	B	SAWTOWN	C	SCOTCH	D	SEITZ	C	SHAKER	C
SAPKIN	C	SAWYER	C	SCOTCO	A	SEJITA	D	SHAKESPEARE	C
SAPPHIRE	C	SAXBY	D	SCOTIA	B	SEKIL	B	SHAKOPEE	C
SAPPINGTON	B	SAXON	C	SCOTT	D	SEKIU	D	SHALAKE	C
SARA	D	SAY	B	SCOTT LAKE	D	SELAH	C	SHALAKO	D
SARAGOSA	B	SAYBROOK	B	SCOTTCAS	E	SELBIT	B	SHALBA	D
SARAHSSVILLE	D	SAYDAB	C	SCOTTIES	E	SELDEN	C	SHALCAR	D
SARALEGUI	B	SAVERS	A	SCOTTSVILLE	C	SELEVIN	D	SHALCAR, DRAINED	C
SARANAC	C/D	SAYLES	D	SCOUT	E	SELFRIFFE	B	SHALCLEAV	D
SARANAC, GRAVELLY SUBSTRATUM	C	SAYLESVILLE	C	SCRABLERS	P	SELIA	C	SHALET	D
SARAPH	D	SAYNER	A	SCRANTON	A/D	SELIGHMAN	D	SHALONA	B
SARATON	C	SAYPO	C	SCRATO	B	SELKIRK	C	SHALPER	D
SARAZAN	C	SAZI	C	SCRIBA	C	SELLER	B	SHAM	D
SARBEN	B	SCALA	B	SCRIENER	C	SELLERS	B/D	SHAMB	B
SARCILLO	D	SCALADE	D	SCRIVER	B	SELMA	B/D	SHAMEL	B
SARDINIA	C	SCALLEY	B	SCROGGIN	C	SELMAC	D	SHAMOCK	C
SARDIS	C	SCAMMAN	B	SCULLIN	C	SELON	B	SHANAHAN	B
SARGEANT	D	SCANDARD	D	SCUPPERNONG	D	SELTI	B	SHANDEP	B/D
SARILDA	C	SCANTIC	D	SEABROOK	C	SELWAY	B	SHANE	D
SARITA	A	SCAPONIA	B	SEAFIELD	E	SEMIAMHOOD	D	SHANGHAI	C
SARKAR	D	SCAR	B	SEAFORTH	B	SEMIAMHOOD, DRAINED	C	SHANGHAI, DRAINED	B
SARNSDA	B	SCARBORD	B	SEAGATE	A/D	SEMINOLE	D	SHANKLER	A
SARONA	B	SCARIBOU	B	SEAGOVILLE	D	SEMPER	C	SHAND	B
SARPY	A	SCARPER	C	SEALY	B	SEN	B	SHANTA	B
SARTELL	A	SCATLAKE	D	SEAHAN, STRONGLY	C	SENCHERT	C	SHARATIN	B
SARUCHE	D	SCAVE	C	SEALYMAN	B	SENECAVILLE	B	SHARESNOUT	C
SASABE	C	SCHAFFENAKER	A	SEAHAN, MODERATELY	C	SENSABAUGH	B	SHARKEY	D
SASALAGUAN	C	SCHELLER	A	SEAHAN, WET	C	SEQUATCHIE	E	SHARLAND	B
SASCO	B	SCHAMBER	A	SEADQUEST	C	SEQUIDIA	A	SHARDON	B
SASKA	B	SCAMP	C	SEAP	E	SERDEN	A	SHARPS	C
SASVAMCO	B	SCAPVILLE	C	SEARING	E	SERENE	C	SHARPSBURG	B
SASSAFRAS	B	SCATTTEL	C	SEARLA	B	SEROOC	A	SHARROTT	D
SASSER	B	SCHAUSON	B	SEARLES	C	SERPEN	C	SHARVANA	C
SATAGO	D	SCAWANA	D	SEARSPORT	D	SERPENTAND	B	SHASER	B
SATANKA	C	SCENCHO	D	SEARSVILLE	D	SERPOND	C	SHASKIT	C
SATANTA	B	SCERRARD	D	SEASTRAND	D	SERRAND	D	SHASTA	B
SATATTON	D	SCHLEY	B	SEATON	B	SERVILLETA	D	SHASTINA	B
SATELLITE	C	SCHMUTZ	B	SEATTLE	D	SESAME	C	SHATRUCE	C
SATILLA	D	SCHEEBLY	D	SEATTLE, DRAINED	C	SESPE	C	SHATTA	C
SATIN	C	SCHEIDER	B	SEAVERSON	D	SESSIONS	C	SHATTUCK	B
SATSTOP	B	SCHNIPPER	C	SEAWILLD	B	SESSUM	D	SHAUISON	B
SATT	C	SCHOORSON	C	SEBAGO	D	SET	C	SHAVAND	B
SATTLEV	B	SCHNORBUSH	B	SEBASTIAN	D	SETH	C	SHAVASH	C
SATTRE	B	SCHOODSON	C	SEBASTOPOL	C	SETTERS	D	SHAYER	B
SATURN	B	SCHOENS	A	SEBEWA	E/D	SETTLEMENT	D	SHAWA	B
SATUS	B	SCHOFIELD	C	SEGREE	D	SETTLEMAYER	C	SHAWAND	A
SAUCEL	D	SCHOHARIE	C	SEBRING	B/D	SETTLEMAYER,	D	SHAWMUT	B
SAUCIER	C	SCHOLLE	B	SEBUUD	B	SALINE-ALKALI	D	SHAY	D
SAUDE	B	SCHOODDIC	D	SECCA	C	SETTLEMAYER,	D	SHAYLA	D
SAUGATUCK	C	SCHOOLCRAFT	B	SECESH	B	FLOODED	C	SHEAR	C
SAUGUS	B	SCHOOLEY	D	SECONSET	C	SETTLEMAYER, COOL	D	SHEAVILLE	D
SAUK	B	SCHOOLEY, DRAINED	C	SECRET CREEK	B	SETTLEMAYER,	E	SHERBANG	D
SAULICH	D	SCHOOLEY.	C	SECURITY	C	CHANNELED	C	SHEBEON	C
SAUM	B	PROTECTED	C	SED	C	SEVAL	C	SHEDADO	C
SAUNDERS	D	SCHOOLHOUSE	D	SECALE	D	SEVENMILE	B	SHEDD	C
SAURIN	C	SCHOOLNER	D	SECFIELD	C	SEVERN	B	SHEDHORN	C
SAUTER	B	SCHRADER	D	SEDGWAY	E	SEVIER	D	SHEECAL	B
SAUVIE	D	SCHRAP	D	SEDILLO	B	SEVILLE	D	SHEEGE	D
SAUVIE, MODERATELY WET	C	SCHRIER	B	SEDMAR	D	SEVVY	E	SHEEK	B
SAVRICK	B	SCHROCK	E	SEDRWOODLEY	C	SEWANEE	B	SHEEP CREEK	C
SAUVIE, PROTECTED	B	SCHROON	B	SEDWELL	C	SEWARD	B	SHEEPCAN	B
SAUVOLA	C	SCHUELKE	C	SEEDSKADEE	D	SEWELL	C	SHEEPHEAD	C
SAUZ	B	SCHULINE	B	SEELEZ	A	SEXTON	C/D	SHEEPROCK	A
SAVAGE	C	SCHUMACHER	B	SEELOVERS	C	SEYMOUR	D	SHEEPSLOT	B
SAVAGETON	D	SCHUSTER	B	SEELYEVILLE	A/D	SEZNA	D	SHEETIRON	C
SAVANNAH	C	SCHYULER	B	SEELYEVILLE.	D	SHAAK	C	SHEFFIELD	D
SAVENAC	C	SCIO	B	SLOPING	B	SHABLISS	D	SHEFFIT	D
SAVO	C	SCIOTOVILLE	C	SEEPRID	B	SHACK	B	SHEFFLEIN	B
SAVDA	B	SCISM	C	SEES	C	SHADELAND	C	SHELBIANA	B
SAVONA	C	SCITICO	C	SEEWEE	B	SHADELEAF	C	SHELBURNE	C
SAWABE	D	SCITUATE	C	SEFFNER	C	SHADOW	B	SHELBY	B
SAWATCH	B/D	SCLDME	B	SEGIDL	D	SHADYGROVE	C	SHELBYVILLE	B
SAWBUCK	B	SCDAP	B	SEGNO	C	SHAFFTON	B	SHELD	B
SAWCREEK	C	SCOBAY	C	SEGUIN	B	SHAFTER	D	SHELL	B
SANDUST	B	SCOGGIN	D	SEGURA	D	SHAGEL	D	SHELLABARGER	B
SAWMILL	B/D	SCODN	D	SEHOME	C	SHAGNASTY	C	SHELLBLUFF	B
SAWTELL	C	SCOTENNEY	B	SEHORN	D	SHAKAMAK	C	SHELLCREEK	C
SANTELPEAK	D	SCORUP	C	SEIS	C	SHAKAN	C	SHELDRAKE	A

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

SHELLROCK	A	SHOTGUN	C	SIMON	B	SKYHIGH	C	SNOWDANCE.
SHELMADINE	D	SHOTWELL	D	SIMONA	D	SKYKOMISH	B	MODERATELY WET
SHELOCTA	B	SHOUNS	B	SIMONIN	B	SKYLICK	B	SNOWDON
SHELTON	C	SHOWALTER	C	SIMONTON	E	SKYLINE	D	SNOWLIN
SHENA	D	SHOWALTER, STONY	B	SIMPARK	D	SKYMOR	D	SNOWMORE
SHENANDOAH	D	SHOWLOW	C	SIMPATICO	B	SKYROCK	D	SNOWSHOE
SHENKS	B/D	SHREE	E	SIMPSON	C	SKYVILLAGE	D	SNOWSLIDE
SHENDON	B	SHREYDER	B	SIMS	D	SKYWAY	B	SNOWVILLE
SHENVAL	B	SHRESBURY	C/D	SINA	C	SLAB	D	SNUFFUL
SHEP	B	SHRINE	B	SINAMOX	B	SLAETOWN	B	SOAKPAK
SHEPAN	C	SHROE	C	SINCLAIR	C	SLACKS	C	SOAPCREEK
SHEPPARD	A	SHROUTS	D	SINGATSE	D	SLAGLE	C	SOAPLAKE
SHEPSTER	D	SHUBUTA	C	SINGERTON	B	SLAPJACK	B	SOAR
SHERANDO	B	SHUE	C	SINGLETREE	C	SLATERY	C	SOBEGA
SHERAR	C	SHUKASH	A	SINGSAAS	B	SLAUGHTER	C	SOBOBA
SHERBURNE	C	SHUKSAN	C	SINKER	C	SLAUGHTERVILLE	B	SOBOL
SHERIDAN	B	SHULE	C	SINKSON	E	SLAVEN	C	SOBRANTE
SHERLESS	B	SHULLSBURG	C	SINLOC	C	SLAW	C	SOBSON
SHERLOCK	B	SHUMLA	C	SINNICE	E	SLAYTON	D	SOCORRO
SHERM	D	SHUNWAY	D	SINNIGAN	D	SLEEPER	C	SODA
SHERMORE	B	SHUPERT	C	SINTON	B	SLEETH	C	SODA LAKE
SHERRY	B/D	SHURLEY	A	SINUK	D	SLICKROCK	B	SODA LAKE, WET
SHERRY, STONY	D	SHUSTER	C	SIDN	B	SLIDECREEK	B	SODABAY
SHERRYL	B	SHUTTLE	B	SIOUX	A	SLIDELL	D	SODASPRING
SHERWOOD	B	SI	C	SIDUXON	R	SLIGHTS	C	SODERVILLE
SHEVLIN	C	SIBELIA	B	SIPPLE	B	SLIGTING	C	SODHOUSE
SHIDLER	D	SIBLEY	B	SIPSEY	B	SLIKOK	D	SODUS
SHIELDS	C	SIBBLEYVILLE	B	SIPPAK	A	SLIMBUTTE	B	SOELBERG
SHIFFER	C	SICKLES	B/D	SIRI	B	SLINGER	B	SOEN
SHILLY	C	SICKLESTEETS	B	SIRDCO	C	SLIPBACK	B	SOFIA
SHILDH	B/D	SIDDOWAY	A	SIRREF	D	SLIPMAN	B	SOFTSCRABBLE
SHIMA	C	SIDELL	B	SIRPETTA	C	SLOAN	B/D	SOFTSCRABBLE,
SHIMMON	C	SIDLAKE	C	SISK	C	SLOCAGE	D	RARELY FLOODED
SHINAKU	D	SIDON	C	SISKIYOU	E	SLOCUM	C	SOGI
SHINAGARA	D	SIEBEN	B	SISSETON	F	SLUICE	C	SOGN
SHINDLER	C	SIEBERT	A	SISSON	P	SLUKA	C	SOGO
SHINER	C	SIECHE	C	SISTERS	A	SLY	E	SOGZIE
SHINGLE	D	SIELD	D	SITAR	E	SMACKOUT	B	SOHAPPY
SHINGLEMILL	D	SIEROCLIFF	C	SITDOWN	A	SMALL	C	SOJUR
SHINGLETOWN	C	SIERRA	B	SITES	C	SMALLCONE	D	SOLAK
SHINKEE	C	SIERRAVILLE	B	SIWELL	C	SMARTS	B	SOLAND
SHINNPEAK	D	SIESTA	D	SIXBEACON	E	SMHAUG	B	SOLDATNA
SHINROCK	C	SIEVERS	C	SIXMILE	C	SPEDLEY	D	SOLDIER
SHIOTON	C	SIFTON	B	SIZER	B	SHELTER	C	SOLDUC
SHIOYA	A	SIG	D	SKAGGS	C	SMILEY	B/D	SOLEDAD
SHIPLEY	B	SIGNAL	C	SKACIT	D	SPILEYVILLE	D	SOLIER
SHIPLEY,	C	SIGURD	B	SKAGWAY	C	SPILDO	C	SOLIS
SALINE-ALKALI		SIKESTON	B/D	SKAHA	A	SMITHBORD	D	SOLLEKS
SHIPPA	D	SILAS	B	SKALAN	C	SPITHDALE	B	SOLLER
SHIPROCK	B	SILAS, WET	C	SKAMANIA	B	SMITHNECK	C	SOLID
SHIPS	D	SILAS, GRAVELLY	C	SKAMO	C	SMITHNECK, DRAINED	B	SOLOMON
SHIPSHE	B	SUBSTRATUM		SKANFE	C	SMITHTON	D	SOLONA
SHIRK	C	SILAWA	B	SKANID	D	SMITHVILLE	B	SOLWAY
SHIRLEY	B	SILCOX	B	SKATE	B	SMITHWICK	D	SOMBORDORO
SHIRO	C	SILENT	D	SKEDADDLE	D	SHOCREEK	C	SOMBRERO
SHIRTAIL	B	SILER	B	SKEIN	D	SMOKEY	C	SOMERS
SHIVELY	B	SILERTON	B	SKELLLOCK	B	SMCLAN	C	SOMERVELL
SHIVIGNY	B	SILHOUETTE	C	SKELON	C	SMYRNA	B/D	SOPSEN
SHIVLUM	B	SILI	C	SKELTON	E	SNAG	B	SONAHNPIL
SHOALS	C	SILKIE	D	SKERRY	C	SNAHOPISH	E	SONDOA
SHOAT	D	SILSTDID	A	SKIPC	E	SNAKE	C	SONLET
SHOBA	D	SILVA	C	SKIDMORE	B	SNAKE HOLLOW	A	SONOCAN
SHOPEG	C	SILVER	C	SKINNER	E	SNAKELUM	B	SONDITA
SHOESTRING	B	SILVER CREEK	D	SKIPANON	B	SNAKER	D	SONDMA
SHOKEN	D	SILVERADO	B	SKIPDPA	D	SNAPP	C	SONDMA, MODERATELY
SHONKIN	D	SILVERBELL	C	SKIYOU	B	SNREAD	D	B
SHONTIK	C	SILVERBON	D	SKKOMISH	D	SNEFFELS	C	SONDMA, SALINE,
SHOOFLIN	D	SILVERCHIEF	C	SKKKOMISH, DRAINED	C	SNELL	C	DRAINED
SHOOFLY	D	SILVERCLIFF	B	SKOLY	E	SNELLING	B	SONDMA, STRATIFIED
SHOOK	C	SILVERDALE	A	SKOOKUM	C	SNELLMAN	B	SUBSTRATUM
SHOOKER	C	SILVERN	A	SKOS	D	SNIDER	C	SONDMA, DRAINED,
SHOREEK	C	SILVERTON	C	SKOWHEGAN	E	SNOMISH	D	SLIGHTLY SALINE
SHOREWOOD	C	SILVIES	D	SKULL CREEK	C	SNOMO	C	SONDMA, DRAINED,
SHORIM	C	SIMAS	C	SKULLGULCH	C	SNODK	D	FLOODED
SHORT CREEK	C	SIMCOE	C	SKULLWAK	D	SNPOC	E	SONDMA, DRAINED
SHORTCUT	C	SIMEON	A	SKUNPAH	E	SNQUALMIE	C	SONORA
SHORTHORN	D	SIMEROI	B	SKUTUM	C	SNOTOWN	B	SONTAG
SHORTYORK	C	SIMMONT	C	SKYPERG	C	SNOW	B	SOOLAKE
SHOSHONE	C	SIMODA	C	SKYHAVEN	C	SNOWDANCE	D	SOONAHBE

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SODNAKER	C	SPINEKOP	B	STABLER	B	STEUBER	B	STRELNA, SILTY	B
SODSAP	C	SPINEKOP, SALINE	C	STADY	B	STEVENS	B	SUBSTRATUM	
SOPER	C	SPINEKOP,	C	STAFFORD	C	STEVENSON	B	STREVELL	B
SOQUEL	B	MODERATELY WET		STAGECOACH	B	STEWART	D	STRICKER	B
SORENSEN	B	SPINKS	A	STAHL	C	STEWAL	D	STRICKLAND	C
SORF	C	SPINLIN	C	STAKE	C	STICKNEY	C	STRINGAM	B
SORRENTO	B	SPINNEY	B	STALEY	B	STIDHAM	B	STRINGTOWN	B
SORTER	D	SPIRES	D	STALLINGS	C	STIEN	B	STRINGTOWN, GRADED	C
SORUM	D	SPIRIT	C	STAMBAUGH	B	STIGLER	D	STROLE	C
SOSA	C	SPIRO	B	STAMFORD	D	STILES	C	STROM	C
SOSTIEN	D	SPIVEY	B	STAMP	D	STILGAR	B	STROMAL	B
SOTIM	B	SPLAWN	C	STAMPEDE	D	STILL	B	STRONGHOLD	B
SOUGHE	D	SPLENDORA	C	STAN	B	STILLMAN	B	STRONGHURST	B
SOULAJULE	C	SPLITEN	D	STANDLEY	C	STILLWATER	D	STROUPE	C
SOUTHACE	B	SPLITRO	D	STANDUP	B	STILSKIN	C	STROZI	C
SOUTHAM	D	SPLITTOP	C	STANEY	D	STILSON	B	STRYCH	B
SOUTHFORK	D	SPOFFORD	D	STANFIELD	C	STIMCA	B	STRYKER	C
SOUTHGATE	D	SPOFMORE	C	STANISLAUS	C	STIMSON	D	STUBBLEFIELD	C
SOUTHMOUNT	C	SPOKANE	C	STANISLAUS, WET	D	STINES	B	STUBBS	C
SOUTHridge	B	SPOKEL	B	STANROD	C	STINGAL	B	STUCKY	B
SOUTHWICK	C	SPONSELLER	B	STAPALOOP	B	STINGDRN	D	STUDEBAKER	B
SOCAN	B	SPPOOL	D	STAPLES	B/D	STIPE	C	STUKEL	D
SOCAN, SOMEWHAT POORLY DRAINED	C	SPDODNER	C/D	STAPLETON	B	STIRK	D	STUMBLE	A
SPAAS	D	SPOTSYLVANIA	C	STAPP	C	STIRRUP	B	STUMPP	D
SPACE CITY	A	SPOTTSWOOD	B	STARBUCK	D	STIRUM	B/D	STUMPTOWN	B
SPADE	B	SPRABAT	B	STARDO	E	STIRUM, PONDED	D	STUNNER	B
SPADRA	B	SPRAY	B	STARHOPE	D	STISSING	C	STUNTZ	C
SPAGER	D	SPRECKELS	C	STARICHKOF	D	STIVERSVILLE	R	STURGEON	B
SPALDING	D	SPRIGGS	C	STARKEY	C	STOCKADE	B/D	STURGILL	D
SPANA	D	SPRING	C	STARKS	C	STOCKBRIDGE	C	STURKIE	B
SPANAWAY	A	SPRINGDALE, STONY	A	STARLEY	D	STOCKEL	D	STUTTGART	D
SPANEL	D	SPRINGER	B	STARMAN	D	STOCKLAND	B	STUTZMAN	C
SPANG	B	SPRINGERVILLE	D	STARVEDOUT	C	STOCKPEN	D	STUTZMAN, WET	D
SPANGENBURG	C	SPRINGFIELD	D	STASER	B	STODA	B	STUTZVILLE	C
SPANGENBURG, PONDED	D	SPRINGGULCH	B	STATE	E	STODICK	D	STYERS	D
SPANGLER	C	SPRINGLAKE	A	STATELINE	D	STOHLMAN	D	STYX	B
SPARANK	D	SPRINGMEYER	B	STATLER	B	STOKES	D	SUAK	C
SPARHAM	D	SPRINGSTEEN	C	STATZ	D	STOKLY	B	SUAACO	D
SPARKHULE	D	SPRINGWATER	C	STAVELY	B	STOMAR	C	SUBLETTE	B
SPARMO	B	SPROUT	D	STAYTON	D	STONEBERGER	D	SUBLIGNA	B
SPARR	C	SPUD	C	STECDAH	B	STONEHAM	B	SUBWELL	B
SPARTA, SILTY CLAY	B	SPUDROCK	C	STECUM	C	STONEHEAD	C	SUCARNOOCHEE	D
LOAM SUBSTRATUM		SPUKWUSH	B	STEED	A	STONEICK	B	SUCCESS	A
SPARTA, LOAMY	A	SPUR	B	STEEDMAN	D	STONELL	B	SUCHES	B
SUBSTRATUM		SPURGER	C	STEEDMAN, STONY	C	STONER	B	SUDBURY	B
SPARTA, MAAT>50	A	SPURLOCK	B	STEEKEE	C	STONEVILLE	B	SUDDUTH	C
SPARTA, MAAT<50	A	SQUALICUM	B	STEELE	C	STONEWALL	C	SUDLEY	B
SPARTA, BEDROCK	A	SQUALLY	B	STEENS	C	STONEWELL	A	SUDWORTH	B
SUBSTRATUM		SOQUA	B	STEPCAN	C	STONO	B/D	SUPERIT	C
SPASPREY	C	SQUACREEK	D	STESE	B	STONYFORD	D	SUEY	B
SPEAKER	C	SQUAROCK	C	STEEVER	B	STONKMDR	C	SUFFIELD	C
SPREAKS	A	SQUAUTIP	C	STEFF	C	STORDEN	B	SUFFOLK	B
SPEARFISH	D	SQUIRES	C	STEGALL	C	STORLA	B	SUGAKOOL	B
SPEARHEAD	B	ST. ALBANS	B	STEIGER	A	STORMITT	B	SUGARBOWL	B
SPEARMAN	B	ST. ANTHONY	B	STEILACOM	C	STOTT	C	SUGARDEE	B
SPEARVILLE	C	ST. AUGUSTINE	C	STEINAUER	B	STOUGH	C	SUGARLOAF	B
SPECIE	B	ST. AUGUSTINE,	B	STEINBECK	B	STOUT	D	SUGLD	B
SPACK	D	ORGANIC		STEINSBURG	C	STOVHD	C	SUISUN	D
SPECTACLE	C	SUBSTRATUM		STEIWER	C	STOWE	C	SULA	B
SPECTER	C	ST. CHARLES	B	STELLA	C	STOWELL	D	SULLIVAN	B
SPEELYAI	D	ST. CLAIR	D	STELLAR	C	STOY	C	SULLY	B
SPEER	B	ST. ELMO	A	STEMBER	C	STRADER	C	SULDAF	B
SPEIGLE	B	ST. GEORGE	B	STEMILT	C	STRAHAN	B	SULPHURA	D
SPENARD	D	ST. GEORGE, SALINE	C	STEMLEY	C	STRAIGHT	C	SULSAVAR	C
SPENCER	B	ST. GEORGE, WET	D	STEMPLE	B	STRANLINE	B	SULTAN	C
SPENLO	B	ST. HELENS	B	STENDAL	B	STRANDQUIST	B/D	SUMAN	B/D
SPENS	A	ST. IGNACE	D	STEPHEN	C	STRAT	B	SUMAS	B
SPERRY	C/D	ST. JOHNS	B/D	STEPHENVILLE	B	STRATFORD	B	SUMATRA	B
SPEXARTH	C	ST. JOHNS,	D	STEPROCK	B	STRATTON	C	SUMINE	C
SPHINX	D	DEPRESSIONAL		STEPSTONE	B	STRAW	B	SUMMERFIELD	D
SPICER	B/D	ST. LUCIE	A	STEPTOE	B	STRAWN	B	SUMMERS	B
SPICERTON	D	ST. MARTIN	D	STERLING	B	STREATOR	B/D	SUMMERTON	B
SPICEWOOD	C	ST. MARYS	B	STERLINGTON	B	STRELNA	C	SUMMerville	D
SPIKE	B	ST. NICHOLAS	D	STERRETT	D	STRELNA,	B	SUMMIT	C
SPILLCOD	B	ST. ONGE	B	STETSON	B	LACUSTRINE		SUMMITVILLE	C
SPILLVILLE	B	ST. PAUL	B	STETTER	D	SUBSTRATUM	B	SUMPF	D
SPILOCK	D	ST. THOMAS	D	STEUBEN	B	SUBSTRATUM	B	SUMTER	C
								SUMTERVILLE	C

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

SUNYA	D	SWANTOWN	D	TACOMA	D	TANQUE	B	TEHAMA	C
SUN	D	SWANVILLE	C	TACONIC	C/D	TANSEM	B	TEHRAN	A
SUNAPEE	B	SWANWICK	D	TACODOSH	B/D	TANTALUS	B	TEIGEN	C
SUNBURG	B	SWAPPS	C	TADLOCK	B	TANTILE	C/D	TEJA	D
SUNBURST	C	SWARTWOOD	C	TAFFOM	B	TANWAX	D	TEJABE	B
SUNBURY	B	SWARTZ	D	TAFOYA	C	TANWAX, DRAINED	C	TEJANA	B
SUNCITY	D	SWASEY	D	TAFT	C	TANYARD	C	TEKENINK	B
SUNCOOK	A	SWASTIKA	C	TAFTOWN	B	TAOPI	B	TEKISON	C
SUND	C	SWAUK	D	TAFUNA	A	TAPCO	D	TEKLANKA	A
SUNDANCE	B	SWAYNE	C	TAGGART	C	TAPIA	B	TEKOA	C
SUNDAY	A	SWEATHMAN	C	TAGLAKE	E	TAPICITODES	D	TEKOA, EXTREMELY	B
SUNDELL	B	SWEDE	E	TAHKENITCH	E	TAPPAN	E/D	STONY	B
SUNDOWN	A	SWEEN	C	TAHOMA	E	TARA	B	TEL	B
SUNEV	B	SWEENEY	B	TAHOUA	D	TARBORO	A	TELCHER	B
SUNFIELD	B	SWEET	C	TAHQOUTS	B	TARGHEE	C	TELECAN	B
SUNLIGHT	D	SWEETAPPLE	B	TAINTOR	C/D	TARKINGTON	C	TELEFONO	C
SUNNYHAY	D	SWEETGRASS	B	TAJD	C	TARKIO	D	TELEMON	D
SUNNYSIDE	B	SWEETWATER	D	TAKEUCHI	C	TARKLIN	C	TELEPHONE	D
SUNNYVALE	C	SWEITBERG	C	TAKILMA	B	TARLOC	B	TELESCOPE	A
SUNRAY	B	SWEITING	C	TAKOTNA	B	TARNACH	D	TELFER	A
SUNRISE	C	SWEM	C	TAKPOCHAD	D	TARNAV	B	TELFERNER	D
SUNSET	B	SWENDA	E	TALAG	D	TAPPLEY	D	TELL	B
SUNSHINE	C	SWIFT	B	TALAMANTES	E	TARR	A	TELLER	B
SUNSWET	C	SWIFT CREEK	B	TALANTE	D	TARRANT	D	TELLICO	B
SUMUP	D	SWIFTON	B	TALAPUS	E	TARRETE	D	TELLMAN	B
SUNY	D	SWIMLEY	C	TALBOTY	C	TARRYALL	C	TELLURA	C
SUDMI	C	SWIMS	B	TALCO	D	TARRYTOWN	C	TELOS	C
SUP	B	SWINGLER	B	TALCOT	B/D	TASAYA	C	TELSTAD	C
SUPAN	B	SWINGLER, WET.	C	TALIHINA	D	TASCOSA	B	TEMAN	B
SUPERIOR	D	STRONGLY SALINE	C	TALKETNA	E	TASSEL	D	TEMBLDR	D
SUPERSTITION	A	SWINGLER, WET	C	TALLA	C	TASSELMAN	D	TEMESCAL	D
SUPERVISOR	C	SWINK	D	TALLAC	E	TASSO	B	TEMO	C
SUPPLEE	B	SWINOMISH	C	TALLADEGA	C	TATAI	C	TEMPLE	C
SUR	C	SWINT	B	TALLAPOOSA	C	TATE	B	TEMPLETON	B
SURFSIDE	D	SWISBOR	D	TALLEYVILLE	B	TATERHEAP	B	TEMVIK	B
SURGEM	C	SWISSELM	E	TALLOWBOX	C	TATIYEE	C	TENABO	D
SURGH	B	SWISSTAG	B	TALLS	E	TATLUM	D	TENAHA	B
SURNUF	B	SWISSVALE	D	TALLULA	E	TATOUCHIE	B	TENAS	C
SURPLUS	C	SWITCHBACK	C	TALLY	B	TATTON	D	TENCEE	D
SURPRISE	B	SWITZERLAND	B	TALMAGE	B	TATUM	E	TENDOY	D
SURRENCY	D	SWOPE	C	TALMO	A	TAUNTON	C	TENERIFFE	A
SURRETT	C	SWORMVILLE	C	TALMOON	C	TAVARES	A	TENEX	C
SURVEYORS	B	SWYBERT	C	TALOKA	D	TAWAH	B	TENINO	C
SURVYA	C	SYBLON	D	TALPA	D	TAWAS	A/D	TENMILE	C
SUSANNA	C/D	SYCAMORE,	B	TALQUIN	P/D	TAWCAW	C	TENNO	D
SUSANVILLE	D	MODERATELY WET,	C	TALUCE	D	TAYLOR	C	TENDRIO	B
SUSIE CREEK	C	SALINE	C	TAMA	E	TAYLOR CREEK	C	TENDT	C
SUSITNA	B	SYCAMORE,	C	TAMAMA	D	TAYLORSFLAT	B	TENPIN	D
SUSQUEHANNA	D	MODERATELY WET,	C	TAMALCO	D	TAYLORSFLAT,	C	TENRAG	B
SUTA	B	CLAYEY SUBSTRATUM	C	TAMALPAIS	C	SALINE-ALKALI	TENSAS	D	
SUTCLIFF	B	SYCAMORE,	C	TAMANEEN	E	TAYLORSVILLE	C	TENSED	C
SUTHER	C	MODERATELY WET	C	TAMBA	D	TAZLINA	A	TENSLEEP	B
SUTHERLAND	D	SYCAMORE, DRAINED	B	TAMELY	B	TEAGULF	C	TENSNDR	B
SUTHERLIN	C	SYCAMORE, FLOODED	C	TAMPLAT	D	TEAKEAN	B	TENVORRD	D
SUTKIN	B	SYCAMORE, CLAY	B	TAMFORD	D	TEALSON	D	TED	B
SUTLEY	B	SUBSTRATUM	C	TAMMANY CREEK	B	TEALWHIT	D	TEDCULLI	B
SUTPHEN	D	SYCAN	A	TAMMING	E	TEANAWAY	B	TEPETE	D/D
SUTRO	C	SYCLE	B	TAMP	E	TEAPO	C	TEQUESTA	B/D
SUTTLER	B	SYCOLINE	D	TAMPICO	E	TEASDALE	B	TERADA	B
SUTTON	B	SYENITE	C	TANAMA	D	TEASPOON	D	TERBIES	B
SUVER	D	SYLACAUGA	D	TANANA	D	TEBAY	E	TERENCE	B
SUWANEE	B	SYLCO	C	TANANA, THAWED	E	TEBBS	E	TERESA	D
SVEA	S	SYLVAN	B	TANANA, MODERATELY	C	TEBO	E	TERINO	D
SVENSEN	B	SYLVANIAH	C	WET		TECHADO	D	TERLAN	D
SVERDRUP	B	SYLVESTER	B	TANASEE	B	TECHICK	B	TERLCO	B
SWAGER	C	SYLVIA	C	TANAZZA	E	TECO	E	TERLINGUA	D
SWAINOW	B	SYMCO	C	TANBARK	D	TECOLOTE	B	TERMINAL	D
SWAKANE	D	SYMERTON	B	TANDY	D	TECOMAR	D	TERMO	D
SWALER	D	SYNAREP	E	TANEUM	E	TECPDA	D	TERMOTE	B
SWALESLIVER	D	SYRACUSE	B	TANEY	C	TEDRW	B	TERDUGE	D
SWAMPYDRAW	B	SYRENE	B/D	TANGAIR	C	TEEL	B	TERRA CEIA	B/D
SWAN	D	SYFETT	C	TANGI	C	TEELER	B	TERRA CEIA, TIDAL	D
SWANBOY	D	TABECCHEDING	C	TANGLE	C	TEEMAT	B	TERRA CEIA,	D
SWANDAD	B	TABERNASH	B	TANNA	D	TEESTO	D	FREQUENTLY	
SWANLAKE	S	TABLE MOUNTAIN	B	TANNAHILL	B	TEETERS	C	FLOODED	
SWANNER	D	TAELER	D	TANNER	C	TEEWINDT	D	TERRAD	C
SWANSEA	D	TABOR	D	TANNER, LOW	D	TEFTON	C	TERRETTON	D
SWANSON	C	TACAN	B	PRECIPITATION		TEGURU	D	TERRETTON, STONY	C
SWANTON	C/D	TACHI	D	TANDP	E	TEHACHAPI	C	TERRIL	B

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

TERRO	C	THURLONI	C	TINTON	A	TCLTEC	C	TORSIDO	D
TERRY	C	THURLOW	B	TINYTOWN	B	TOLUCA	B	TORTUGAS	D
TERT	D	THURMAN	A	TIOCANO	D	TOLVAR	B	TORULL	D
TERWILLIGER	C	THURMONT	B	TIODA	B	TOMAH	B	TOSCA	B
TESAJO	B	THWOOD	C	TIPPAH	C	TOHAWK	A	TOSSER	B
TESSFIVE	D	TIAGOS	B	TIPECANOE	B	TOIALES	D	TOSTON	C
TETHRICK	B	TIAK	C	TIPPER	C	TOMASAKI	C	TOTAVI	A
TETON	C	TIKAN	B	TIPPERARY	A	TOPIST	C	TOTELAKE	B
TETONIA	B	TIKIBITS	B	TIPIPAH	B	TOBAP	C	TOTEM	B
TETONKA	C/D	TIKS	C	TIPO	C	TOBSTONE	B	TOTIER	C
TETONVIEW	D	TIKSON	B	TIPTON	B	TOOME	B	TOTO	B/D
TETONVILLE	D	TIBURONES	D	TIPTONVILLE	B	TOREL	D	TOTTEN	C/D
TETONVILLE.	C	TICA	D	TIPTOP	B	TOERA	C	TOUCHET	C
GRAVELLY		TICE	B	TIRO	C	TOERA, CEMENTED	D	TOUEY	B
TETOTUM	C	TICELL	D	TISEURY	B	SUBSTRATUM		TOULA	C
TEVIS	B	TICHNDR	D	TISCH	D	TOIMICHI	A	TOULON	B
TEM	C	TICINO	C	TISDALE	C	TOOMKA	B/D	TOURN	C
TEVA	B	TICKAPOO	D	TISHAR	B	TOOTLEY	B/D	TOURNQUIST	B
TEX	B	TICKASON	B	TISONIA	D	TONS	C	TOURS	B
TEXANA	D	TIDINGS	B	TISWORTH	C	TONSHERRY	C	TOUTLE	A
TEXARK	D	TIDWELL	D	TITUS	E/D	TONTY	D	TOUTLE, FLOODED	B
TEXLINE	B	TIERRA	D	TITUSVILLE	C	TONALEA	C	TOVAR	C
TEXROY	B	TIERRANEGRE	B	TIVOLI	A	TONASKET	B	TOWAVE	B
TEZUMA	C	TIESIDE	D	TIVY	C	TONATA	D	TOWHEE	D
THACKER	D	TIETON	B	TCA	B	TONCANA	B	TOWER	B
THACKERY	B	TIFFANY	P/D	TCADLAKE	B	TONEY	D	TOWNLEY	C
THADEH	C	TIFFTON	B	TOANC	E	TONGE RIVER	C	TOWNSEND	C
THAGE	C	TIGER CREEK	E	TOAND	E	TONIO	B	TOWSAMGY	B
THATCHER	B	TIGERON	B	TOBICO	A/D	TONKA	C/D	TOXAWAY	B/D
THATUNA	C	TIGIT	C	TOBIN	E	TONKAVAR	A	TOY	D
THAYNE	B	TIGIWON	B	TOEISM	C	TONKAWA	A	TOYAH	B
THEBES	B	TIGLEY	B	TOELER	E	TONKEY	B/D	TOYUSKA	B
THEBO	D	TIGON	D	TOBOSA	C	TONKIN	B	TOZE	B
THEDALUND	C	TIGUA	D	TOBY	E	TONKIN, MODERATELY	C	TRABUCC	C
THEEDE	C	TIJERAS	B	TOCAL	C	WET		TRACHUTE	B
THEENAS	C	TIKI	D	TOCALOMA	C	TONKS	C	TRACK	D
THEODOR	D	TILFER	B/C	TOCCAN	B	TONOPAH	A	TRACK, DRAINED	C
THEON	N	TILFORD	B	TOCCOA	B	TONOP	C	TRACOSA	D
THERESA	B	TILLEDA	B	TOCK	C	TONOWEK	B	TRACY	B
THERIOT	D	TILLICUM	B	TOCOI	B/D	TONRA	B	TRADEDOLLAR	B
ATHERO	D	TILLMAN	C	TODDLER	E	TONSINA	E	TRAER	B/D
ATHERMOPOLIS	D	TILLMONT	B	TODDSTAV	D	TONTI	C	TRAG	D
THMESS	B	TILLOU	C	TODDVILLE	B	TONUCO	D	TRAG, COOL	C
THETFORD	A	TILMA	C	TODDS	C	TOOLES	D	TRAHAM	C
THETIS	B	TILLED	C	TOEHEAD	B	TOOLESBORO	B	TRAIL	A
THIEFRIVER	B/D	TILTON	E	TGEJA	B	TOOMES	D	TRAILAMP	D
THIEL	B	TIMBALIER	D	TOEM	C	TOONE	C	TRAILCREEK	C
THIESSEN	C	TIMBERG	C	TOGCHA	E	TOONE, LOAMY	E	TRAILHEAD	B
THIKE	D	TIMBERHEAD	B	TOGNONI	D	SUBSTRATUM, STONY		TRAINER	B
THIOKOL	B	TIMBERLY	E	TOGO	E	TOP	C	TRAITORS	D
THIRST	D	TIMPERVILLE	B	TCGUS	D	TOPKEKI	D	TRAMPAS	C
THISTLEBURN	B	TIKALIN	D	TCMDNA	C	TOPEMAN	D	TRAMWAY	B
THISTLEDEW	B	TIMBUCTOO	C	TCINI	C	TOPIA	D	TRANQUILAR	C
THOENY	D	TIMENTWA	B	TOINE	E	TOPLIFF	B	TRANSYLVANIA	B
THOMAS	B/D	TIKHILL	D	TCISNOT	B/D	TOPONCE	C	TRAPPER	B
THOMMILL	B	TIMHUS	B	TCISNOT, PONDED	D	TOPPENISH	D	TRAPPIST	C
THOMS	D	TIMKEN	D	TOIVABE	C	TOPPENISH, DRAINED	C	TRAPPS	B
THORNBURGH	B	TIMMERMAN	B	TOKAY	B	TOPPER	E	TRASK	C
THORNDALE	D	TIMMONS	B	TOKEEN	C	TOPSEY	C	TRAVELERS	D
THORNDIKE	C/D	TIKAMUTE	C	TOKLAT	D	TOQUEVILLE	D	TRAVER	B
THORNICK	D	TIKANOGOS	B	TOKKER	D	TOQUI	D	TRAVERTINE	C
THORTON	D	TIKANOGOS,	C	TOKKUL	C	TOOUP	A	TRAVESSILLA	D
THOROUGHFARE	B	MODERATELY WELL		TOLANY	B	TOP	D	TRAVIS	C
THORP	C/D	DRAINED		TOLEY	B	TORROY	A	TRAVSON	D
THOUT	C	TIIMER	D	TOLEDO	D	TORCHLIGHT	C	TRAWICK	B
THON	B	TIJULA	B	TOLEX	D	TORDIA	D	TRAY	C
THONSON	B	TIKA	C	TOLICHA	C	TOREX	B	TREADWAY	D
THRASH	B	TIJAJA	B	TOLKE	P	TORMUNTA	C	TREATY	B/D
THREADGILL	B	TINAMOU	C	TOLL	A	TORNEY	D	TREBLE	C
THREECHOP	B	TINDAHAY	B	TOLLGATE	B	TORNILLO	B	TREBLDC	D
THREEDOT	D	TINDAHAY, GRAVELLY	A	TOLHOUSE	D	TORNING	B	TREBOR	C
THREEK	C	TINE	A	TOLMAN	D	TORODA	B	TREEKDR	C
THREEMILE	B	TINEMAN	B	TOLNA	E	TORONTO	C	TREEKDR, NONSTONY	C
THREETOP	C	TINEMAN, WET	C	TOLD	B	TORPEDO LAKE	D	TREEN	D
THROCK	C	TINGEY	B	TOLONIER	B	TORREON	C	TREGO	C
THULEPAH	C	TINKER	C	TCLSONA	D	TORREDN, COBBLY	D	TREHARNE	C
THUNDERLAND	B	TINN	D	TOLSONA, TILL	B	TORRES	A	TRELK	B
THUNDERBIRD	D	TINNIN	A	SUBSTRATUM	B	TORRO	B	TRELONA	D
THURBER	D	TINSLEY	A	TOLSTCI	D	TORRY	B/D	TREMANT	D

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

TREMBLES	B	TRUSCREEK	B	TURSON	C	UHLAND	B	UTABA	A
TREMBLES,	C	TRUSSEL	C	TURTON	D	UMLIG	B	UTALINE	B
MODERATELY WET		TRUVAR	D	TUSAYAN	C	UMLORN	C	UTE	D
TREMONA	C	TRYON	D	TUSCAN	D	UINTA	B	UTICA	B
TREMP	A	TSALI	C	TUSCARAWAS	C	UKIAH	D	UTLEY	B
TREMPLEAU	B	TSCHICOMA	B	TUSCAWILLA	C	ULA	C	UTSO	B
TRENARY	B	TSIRKU	C	TUSCOLA	B	ULEN	B	UTUADO	B
TRENHOLM	D	TSOSIE	B	TUSCOSSO	B	ULIDA	D	UVADA	D
TRENT	B	TUB	C	TUSCUMBIA	D	ULLDA	B	UVALDE	B
TRENTON	D	TUBAC	C	TUSEL	B	ULM	C	UVI	B
TREDON	D	TUBERET	C	TUSIP	B	ULRANT	B	UWALA	B
TREP	B	TUCANNON	C	TUSK	B	ULRIC	C	UWHARRIE	B
TRES HERMANOS	B	TUCKAHOE	E	TUSKAHDMA	D	ULRICHER	B	UZONA	D
TRESANO	B	TUCKER	C	TUSKEEGO	C/D	ULTRA	D	VABEM	D
TRESED	C	TUCKERMAN	D	TUSLER	B	ULUPALAKUA	B	VABUS	C
TRESTLE	B	TUCSON	B	TUSOUTEE	E	ULY	B	VACHERIE	C
TRETTEN	B	TUCUMCARI	B	TUSSY	D	ULYSSES	B	VADAHO	D
TREVINO	D	TUFFIT	C	TUSTELL	C	UMA	A	VADER	B
TREVLAC	B	UFFDO	D	TUSTIN	E	UMAPINE	D	VADNAIS	C
TREY	A	TUGHILL	D	TUSTUMENA	E	UMAPINE, DRAINED	C	VADD	B
TRIANGLE	D	TUJUNGA	A	TUTE	B	UMATILLA	B	VAEDA	D
TRIBBEEY	C	TUREY	C	TUTHILL	B	UMBARG	C	VAIDEN	D
TRICON	C	TUKUHNICK	C	TUTNI	E	UMBERLAND	D	VAILTON	B
TRIO	C	TUKWILA	D	TUTTLE	C	UMIAT	D	VAIVA	D
TRID, NONSTONY	B	TUKWILA, DRAINED	C	TUTUILLA	C	UMIKOA	B	VALBY	C
TRIDELL	B	TULA	C	TUTWILER	P	UMIL	D	VALCO	C
TRIGGER	D	TULANA, DRAINED	B	TUWEEP	B	UMPA	B	VALCREEK	B
TRIGO	D	TULANA, NONFLOODED	C	TUXEKAN	B	UMPCCDS	D	VALCREST	C
TRIMAD	B	TULARE	D	TWEBA	D	UMPUMP	B	VALDEZ, CLAYEY	D
TRIMBLE	B	TULARGO	E	TWEBA, MODERATELY	B	UNA	D	SUBSTRATUM	
TRIMMER	C	TULAROSA	B	WET		UNADILLA	B	VALDEZ, SALINE	D
TRINIDAD	D	TULASE	B	TWEBA, DRAINED	C	UNAKA	B	VALDEZ, CLAYEY	C
TRINITY	D	TULCH	B	TWEEDY	C	UNAKWIK	D	SURSTPATUM,	
TRIO	D	TULECAN	C	TWEENER	D	UNAKEP	B	SALINE	
TRIOMAS	B	TULELAKE	D	TWICK	D	UNCAS	D	VALDEZ, DRAINED	C
TRIPIT	C	TULIA	B	TWIG	D	UNCOMPAGRE	D	VALDOSTA	A
TRIPLEN	B	TULIK	B	TWILIGHT	B	UNDERWOOD	B	VALE	B
TRIPOLI	B/D	TULLAHASSEE	C	TWIN CREEK	B	UNDUSK	B	VALENCIA	B
TRIPP	B	TULLER	D	TWINING	C	UNGERS	B	VALENT	A
TRISTAN	B	TULLOCK	C	TWINSI	C	UNICOI	C	VALENTINE	A
TRITON	D	TULLY	C	TWISSELMAN	C	UNION	C	VALERA	C
TRIX	B	TULOSO	D	TWISSELMAN,	D	UNIONDTOWN	B	VALHALLA	A
TROCKEN	B	TUMAC	B	SALINE-ALKALI-		UNIONVILLE	B	VALKARIA	B/D
TROJAN	B	TUMALO	C	WET		UNISON	B	VALKARIA,	D
TROMP	C	TUMARION	D	TWISSELMAN,	D	UNIUS	D	DEPRESSATIONAL	
TRONSEN	B	TUMBLETON	C	SALINE-ALKALI		UNIVEGA	D	VALLAN	D
TROOK	B	TUMTUM	D	TWOMILE	C/D	UNLIC	B	VALLE	B
TROOK, SALINE	C	TUNBRIDGE	C	TWOTOP	E	UNSEL	B	VALLECITOS	D
TROPAL	D	TUNEHILL	D	TYBO	D	UNSON	B	VALLEONO	B
TROPIC	B	TUNICA	D	TYEE	D	UPDEGRAFF	B	VALLERS	C
TROSJI	D	TUNIS	D	TYGART	D	UPDIKE	D	VALLEYCITY	D
TROSKY	B/D	TUNITAS	C	TYGH	C	UPSATA	E	VALMAR	C
TROUGHS	D	TUNK	A	TYLER	D	UPSHUR	D	VALMONT	C
TROUP	A	TUNKHANNOCK	A	TYNDALL	C	UPSON	B	VALMY	B
TROUT CREEK	C	TUNNEL	B	TYNDALL, DRAINED	B	UPSON, STONY	C	VALNOR	C
TROUT RIVER	A	TUNNISON	D	TYNER	A	UPSPRING	D	VALDIS	B
TRUDALE	C	TUOMI	B	TYONEK	D	UPSTEER	B	VALPAC	C
TRUDATER	C	TUPELO	D	TYRE	A/D	UPTMOR	C	VALSETZ	C
TROUTVILLE	B	TUPUKNUK	D	TYRONE	C	UPTON	C	VALTO	D
TROVE	B	TUQUE	B	TYSON	B	UPVILLE	B	VALTON	B
TROXEL	B	TURBEVILLE	C	TYZAK	D	URACCA	B	VALVERDE	B
TRUAX	B	TURBOTVILLE	C	UANA	D	URBANA	C	VAMER	D
TRUBLE	C	TURBYFILL	B	UBANK	B	URBO	D	VAMONT	D
TRUCE	C	TURK	C	UBAR	D	UREAL	D	VAMP	C
TRUCHOT	C	TURKEYSPRINGS	B	UBEFBFE	C	UPICH	C/D	VAN DUSEN	B
TRUCKEE	C	TURLEY	B	UBIK	B	URIPNES	D	VAN HORN	B
TRUCKEE, DRAINED	B	TURLIN	B	UBLY	B	URIPNES, GRAVELLY	C	VAN NOSTERN	C
TRUCKTON	B	TURLOCK	D	UCHEE	A	URLAND	C	VAN WAGONER	D
TRUDAU	B	TURMOUND	D	UCOLD	D	URNE	B	VANAJO	D
TRUDE	A	TURNBACK	C	UCOPIA	R	URNESS	B/D	VANANDA	D
TRUEFISSURE	B	TURNBULL	D	UDAMO	B	URSA	C	VANBRUNT	C
TRUESDALE	C	TURNER	B	UDEL	D	URSINE	D	VANCE	C
TRUHDY	D	TURNERCREST	C	UDELOPE	D	URTAH	C	VANDA	D
TRULAE	D	TURNERVILLE	B	UDOLPHO	B/D	URWIL	C	VANDALIA	D
TRULDON	C	TURNEY	B	UFFENS	B	USAL	C	VANDAMME	B
TRUMAN	B	TURRAH	C	UFFENS, FLOODED	C	USAL, GRAVELLY	B	VANDAMORE	B
TRUMBULL	D	TURRET	B	UGAK	D	USHAR	B	VANDERGRIFT	C
TRUMP	D	TURRIA	B	UHALDI	B	USINE	A	VANDERHOFF	C
TRUNK	D	TURRIA, WET	C	UHL	B	USK	C	VANDERLIP	A

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

VANEPPS	C	VERDE	C	VILLY. DRAINED	B	WABASSO	B/D	WALES. OVERBLOWN	C
VANET	D	VERDEL	D	VILDY	C	WABASSO.	D	WALFORD	B/D
VANG	B	VERDICO	D	VIKVILLE	D	DEPRESSORAL		WALHALLA	B
VANGUARD	C	VERDIGRIS	B	VINA	B	WABASEKA	D	WALKE	C
VANNETER	C	VERDUN	D	VINCENNES	C/D	WABEK	A	WALKNOLLS	D
VANNI	B	VERENDRYE	B/D	VINCENT	C	WABEN	B	WALKON	C
VANNOY	C	VERGAS	C	VINCOM	C	WABUSKA	C	WALL	B
VANOCKER	B	VERGENNES	C	VINDICATOR	D	WACA	B	WALLA WALLA	B
VANOSS	B	VERHALEN	D	VINEGARDOON	C	WACAHODTA	D	WALLACE	B
VANPETTEN	B	VERICK	C	VINEYARD	C	WACOTA	B	WALLEN	B
VANSICKLE	D	VERITAS	B	VINGO	B	WACOUTA	B/D	WALLER	B/D
VANSON	B	VERJELES	C	VINING	C	WADAMS	B	WALLINGTON	C
VANSTEL	B	VERLAND	D	VININI	D	WADDOUPS	B	WALLKILL	C/D
VANTAGE		VERLOT	D	VINITA	C	WADELL	B	WALLKILL.	B/D
VANVDR	B	VERMEJO	D	VINJE	B	WADENA	B	NONFLOODED	
VANWYPER	C	VEPMILLION	C	VINLAND	D	WADENILL	B	WALLOWA	C
VANZANDT	C	VERMISA	D	VINSAD	C	WADER	C	WALLROCK	C
VAQUERO	D	VERNADO	D	VINSON	E	WADESPRINGS	C	WALLSBURG	D
VARCO	D	VERNAL	B	VINT	B	WADLEIGH	D	WALLSON	B
VARDEN	B	VERNALIS	B	VINT, WET	C	WADMALAW	D	WALLUSKI	C
VARRELUM	B	VERNDALE	B	VINTAS	A	WADSWORTH	C	WALNETT	C
VARRELUM, CLAY LOAM	C	VERNIA	A	VINTON	E	WAGES	B	WALONG	B
SUBSTRATUM		VERNON	D	VIOLA	D	WAGNER	D	WALPOLE	C
VARGAS	C	VERNORIA	B	VIDONT	C	WAGONBOX	D	WALREES	C
VARICK	D	VERO	B/D	VIRATON	C	WAGONTIRE	D	WALSH	B
VARINA	C	VERO, DEPRESSORAL	D	VIRDEN	B/D	WAGRAM	A	WALSTEAD	B
VARNA	C	VERSHERE	C	VIRGELLE	C	WAHA	C	WALTERS	B
VARNEY	B	VERSON	C	VIRGIL	B	WAHATOYA	C	WALTERSHOW	B
VARRO	B	VERTEL	D	VIRGIN PEAK	D	WAHEE	D	WALT	D
VARYSBURG	B	VERTREES	B	VIRGIN RIVER	C	WAHGUYME	D	WALUM	B
VASA	B	VES	B	VIRKULA	C	WAHIAWA	B	VALVAN	B
VASHTI	C	VESEY	B	VIRTUE	C	WAHKULI	C	VALVILLE	B
VASQUEZ	C	VESPER	D	VISTA	B	WAKEENA	B	WAMBA	D/C
VASSALSORD	D	VESSER	C	VITALE	C	WAHLIKE	B	WAMBA. DRAINED	C
VASSAR	B	VESSILLA	D	VITZTHUM	D	WAHOOD	D	WANDUSKA	A/C
VASSETT	B	VESTA	B	VIUDA	D	WAHPETON	C	WAMEGO	C
VASTINE	C	VFSTABURG	A/D	VIUM	D	WAHREKDAM	C	WAMIC	B
VASTINE,	D	VESTON	D	VIVES	B	WAHSTAL	D	WAMPOO	D
SALINE-ALKALI		VETA	B	VIVI	B	WAHTIGUP	B	WAMPSVILLE	B
VAUCLUSE	C	VELAL	B	VIXEN	B	WAHTUM	D	WANAGAN	B
VAUGHAN	D	VETEADO	C	VIZCAINO	D	WAHWEAP	D	WANBLEE	D
VAUGHNSVILLE	C	VEYD	D	VIZCAPPOINT	D	WAIAHA	D	WANDA	B
VAY	B	VIA	B	VLASATY	C	WAIAKOA	C	WANDO	A
VAYAS	D	VIAN	B	VLECK	D	WAIALEALE	D	WANETTA	B
VEAL	B	VIBLE	A	VLY	C	WAIALUA	B	WANILLA	C
VEATCH	B	VIDO	B	VOATS	E	WAIAWA	D	WANN	B
VEATCH, STONY	C	VIBORAS	D	VOCA	C	WAIHUNA	C	WANNACOTT	B
VEAZIE	A	VIBORG	E	VODEPHMAIER	B	WAIKALOA	B	WANOGA	D
VEBAR	B	VICEE	B	VOIGHT	B	WAIKANE	B	WANOPIE	C
VECONT	D	VICK	C	VOLACORA	B	WAIKAPU	B	WANSER	D
VEEDUM	D	VICKERY	C	VOLASH	B	WAIKOMO	D	WANSER. DRAINED	B
VEET	B	VICKING	B	VOLBORG	D	WAILUKU	B	WAPAL	A
VEGA	C	VICKING, DRY	D	VOLCC	D	WAIMEA	B	WAPAL. BEDROCK	B
VEGA ALTA	B	VICKSBURG	B	VOLENTE	C	WAINEE	B	SUBSTRATUM	
VEGA BAJA	C	VICKTON	B	VOLINIA	B	WAINDOLA	B	WAPAL. BEDROCK	B
VEKOL	D	VICTINE	D	VOLKMAR	B	WAIPAHU	C	SUBSTRATUM	
VEKOL. COOL	C	VICTOR	B	VOLNEY	B	WAISKA	B	WAPATO	D
VELASCO	D	VICTORIA	D	VOLPERIE	C	WAITS	B	WAPELLO	B
VELDA	B	VICTORVILLE	B	VOLTA	D	WAKE	D	WAPI	D
VELDKAMP	B	VICTORY	E	VOLTAGE	B	WAKEEN	B	WAPINITIA	B
VELMA	B	VICU	C	VOLTAIRE	D	WAKEFIELD	B	WAPPING	B
VELDW	B	VIDA	C	VOLTAIRE, DRAINED	C	WAKELAND	C	WAPPINGER	B
VELVA	B	VIDAURI	D	VOLTAIRE, GRAVELLY	C	WAKEPISH	B	WAPPO	D
VENA	C	VIDRINE	D	SUBSTRATUM	C	WAKITA	D	WAPSHILLA	B
VENABLE	D	VIEJA	D	VOLUSIA	C	WAKONDA	B	WAPSIE	B
VENADITO	D	VIENNA	B	VONA	B	WAKONDA. TILL	C	WAPTUS	C
VENANGO	C	VIEQUES	E	VONALEE	B	SUBSTRATUM		WARBA	B
VENAPASS	D	VIGAR	C	VONASON	B	WAKULLA	A	WARDRORO	A
VENATOR	C	VIGIA	D	VOORHIES	C	WALCAN	C	WARDELL	C
VENETA	D	VIGNOLD	C	VORE	B	WALCOTT	B	WARDEN	B
VENEZIA	D	VIGO	D	VOSBURG	B	WALDBILLIG	B	WARDENOT	A/C
VENICE	C	VIGUS	B	VOSS	B	WALDECK	C	WARDWELL	C
VENLIO	D	VIKING	D	VOSSET	B	WALDEN	D	WARE	B
VENTRIS	D	VIL	D	VULCAN	C	WALDO	D	WAREAGLE	B
VENTURE	D	VILAS	A	VYLACH	D	WALDORF	C/D	WAREHAM	C
VENUM	D	VILLA	B	WAAS	E	WALDPORT	A	WARM SPRINGS	D
VENUS	B	VILLA GROVE	B	WABANICA	C	WALDRON	D	WARM SPRINGS.	C
VERBOORT	D	VILLEGREEN	C	WABASH	D	WALDROUP	D	AINED, CLAY	
VERCLIFF	C	VILLY	D	WABASHA	D	WALES	B	SUBSTRATUM	

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WARM SPRINGS.	C	WAUPECAN	B	WELD	C	VETTERHORN	C	WIBAUX	B
DRAINED. ALKALI		WAUQUIE	B	WELDA	C	WETZEL	D	WICHITA	C
WARM SPRINGS.	C	WAURICA	D	WELLER	C	NEVERTON	B	WICHUP	D
DRAINED		WAUSEON	B/D	WELLINGTON	D	NEWELA	B	WICKAHONEY	D
WARM SPRINGS. COOL	C	WAUTOMA	B/D	WELLMAN	B	NEWOKA	C	WICKENBURG	D
WARMAN	B/D	WAVELAND	B/D	WELLS	B	NEYERS	C/D	WICKERSHAM	B
WARMAN, GRAVELLY	A/D	WAVELAND.	D	WELLSBORO	C	WEYMOUTH	B	WICKETT	C
SUBSDIL		DEPRESSIONAL		WELLSCREEK	B	WHAKANA	B	WICKHAM	B
WARNEKE	D	WAVERLY	B/D	WELSED	C	WHALAN	B	WICKIUP	C
WAINERS	C/D	WAVERSEE	B	WELLSTON	B	WHALEY	D	WICKSBURG	B
WARNOCK	B	WAWINA	A	WELLSVILLE	B	WHARTON	C	WICUP	C
WARRENTON	D	WAX	C	WELLTON	B	WHATCOM	C	WIDEMAN	A
WARSAW	B	WAXPOOL	D	WELDY	C	WHATELY	D	WIDEN	C
WARSING	B	WAYAH	B	WELRING	D	WHEATLEY	A/D	WIDTSOE	B
WARNICK	A	WAYBE	D	WELSUM	D	WHEATRIDGE	B	WIEHL	C
WASA	D	WAYCUP	B	WELTER	D	WHEATVILLE	B	WIELAND	C
WASATCH	A	WAYDEN	D	WEMPLE	B	WHEELER	B	WIERGATE	D
WASCO	B	WAYLAND	C/D	WENAS	D	WHEELERVILLE	B	WIFFO	B
WASDA	B/D	WAYMOR	B	WENAS. DRAINED	C	WHEELING	B	WIGGLER	D
WASEPI	B	WAYNECO	D	WENATCHEE	C	WHEELON	D	WIGGLETON	B
WASHBURN	D	WAYNESBRO	B	WENDANE	C	WETROCK	C	WIGTON	A
WASHINGTON	B	WAYNETOWN	C	WENDANE. DRAINED	B	WETSTONE	C	WILABA	B
WASHINGTON, WET	C	WEA	B	WENDOVER	D	WHICHMAN	B	WILBANKS	D
SUBSTRATUM		WEASH	C	WENDTE	D	WHIDBEY	C	WILBRAHAM	C
WASHOE	B	WEATHERFORD	B	WENDNA	C	WHILPHANG	D	WILBUR	B
WASHOUGAL	B	WEAVER	C	WENTWORTH	B	WHIPPANY	C	WILBURTON	B
WASHTENAW	C/D	WEAVERVILLE	B	WEOGUFKA	C	WHIPPLE	D	WILCO	C
WASILLA	D	WEBB	C	WEPO	C	WHIPSTOCK	C	WILCOX	D
WASIOJA	B	WEBBRIDGE	B	WERELD	B	WHIRLO	B	WILCOXSON	C
WASKISH	D	WEBBTOWN	C	WERLOG	C	WHISKEYDICK	C	WILDALE	C
WASKOV	C	WEBER	B	WERNER	D	WHISPERING	C	WILDCAT	D
WASPD	D	WEBILE	C	WERNOCK	B	WHISTLE	B	WILDERNESS	C
WASSAAC	B	WEBSTER	B/D	WESCONNELL	D	WHIT	B	WILDGEN	B
WASSIT	D	WEDEKIND	D	WESDY	C	WHITAKER	C	WILDHORSE	A
WATAB	C	WEDERTZ	B	WESFIL	D	WHITE HOUSE	C	WILDORS	C
WATAMA	C	WEDGE	A	WESIX	D	WHITE STORE	D	WILDWOOD	D
WATAUGA	B	WEDLAR	C	WESKA	D	WHITE SWAN	D	WILE	C
WATCHABOB	C	WEDOWEE	B	WESLEY	B	WHITECAP	D	WILEY	B
WATCHAUG	B	WEED	B	WESO	B	WHITECLOUD	B	WILHITE	C/D
WATCHUNG	D	WEEDING	D	WESPAC	D	WHITECOW	B	WILHOIT	B
WATERBURY	D	WEEDMARK	B	WESPAC. SANDY	C	WHITECROSS	D	WILKES	C
WATERCANYON	B	WEEKIWACHEE	D	SUBSTRATUM	C	WHITEFISH	B	WILKESON	B
WATEREE	B	WEEKS	C	WESSEL	C	WHITEFORD	B	WILKINS	D
WATERMAN	D	WEEKSVILLE	B/D	WESTBROOK	D	WHITEHALL	B	WILL	B/D
WATERTOWN	A	WEENA	D	WESTBURY	C	WHITEHILLS	C	WILLABY	C
WATERVILLE	B	WEEPAN	C	WESTBUTTE	C	WHITEHORN	D	WILLACY	B
WATKINS	B	WEESATCHE	B	WESTCAMP	C	WHITEHORSE	B	WILLAKENZIE	C
WATKINS RIDGE	B	WEGA	B	WESTCREEK	B	WHITEKNOB	B	WILLAMAR	B
WATO	B	WEHADKEE	D	WESTE	C	WHITELAKE	B	WILLAMETTE	B
WATONGA	D	WEIGANG	C	WESTERVILLE	B	WHITELEMAN	D	WILLAMETTE. WET	C
WATODOPAH	B	WEIGLE	D	WESTFORK	D	WHITEPEAK	D	WILLANCH	D
WATROUS	B	WEIKERT	C/D	WESTHAVEN	B	WHITERIVER	C	WILLAPA	C
WATSEKA	B	WEIMER	D	WESTHAVEN.	C	WHITEROCK	D	WILLARD	B
WATSON	C	WEINBACH	C	SALINE-ALKALI	C	WHITESBORD	C	WILLETTE	A/D
WATSONIA	D	WEINGART	D	WESTINDIAN	C	WHITESBURG	C	WILLHILL	C
WATSONVILLE	D	WEINGARTEN	C	WESTLAKE	D	WHITESON	D	WILLHO	D
WATT	D	WEIR	D	WESTLAND	B/D	WHITESTONE	B	WILLIAMS	B
WATTDN	C	WEIRMAN	C	WESTMORE	C	WHITETHORN	B	WILLIAMSBURG	B
WATUSI	C	WEIRMAN. WET	D	WESTMORELAND	B	WHITEWATER	D	WILLIAMSON	C
WAUBAY	B	WEIRMAN.	A	WESTON	D	WHITEWOLF	A	WILLIAMSPORT	C
WAUBEEK	B	NONFLOODED		WESTOVER	B	WHITEWOOD	C/D	WILLIAMSTOWN	C
WAUBERG	D	WEISBURG	C	WESTPHALIA	B	WHITEWOOD.	B/D	WILLIAMSVILLE	C
WAUBONSIE	B	WEISER	B	WESTPLAIN	D	NONFLOODED	B	WILLIMAN	B/D
WAUCEDAH	D	WEISHAUPT	D	WESTPORT	A	WHITEWRIGHT	C	WILLIS	C
WAUCHULA	B/D	WEISSENFELS	C	WESTPORT. THIN	B	WHITING	B	WILLISTON	C
WAUCHULA.	D	WEITAS	B	SURFACE		WHITINGER	C	WILLOW CREEK	B
DEPRESSIONAL		WEITCHPEC	C	WESTSHORE	D	WHITELEY	B	WILLOWDALE	B
WAUCOBA	D	WEKODA	D	WESTVACO	C	WHITLOCK	B	WILLOWEMOC	C
WAUCOMA	B	WELAKA	A	WESTVIEW	B	WHITMAN	D	WILLOWMAN	B
WAUCONDA	B	WELBY	B	WESTVILLE	B	WHITNEY	C	WILLOWS	D
WAUKEE	B	WELCH	D	WESTWEGO	D	WHITORE	B	WILWOOD	A
WAUKEGAN	B	WELCH. GRAVELLY	B	WESWIND	C	WHITSOL	B	WILMA	B
WAUKENA	D	SUBSTRATUM.	B	WESWOOD	B	WHITSON	D	WILMER	C
WAUKON	B	DRAINED		WETA	D	WHITTIER	B	WILMINGT	D
WAULD	C	WELCH. RARELY	B	WETHERSFIELD	C	WHITWELL	C	WILMONT	B
WAUMAC	B	FLOODED. DRAINED		WETHHEY	C	WHOBREY	C	WILMONT	B
WAUMBEC	B	WELCH. DRAINED	C	WETHHEY. DRAINED	A	WHOLAN	B	WILPAR	C
WAUNA	C	WELCHLAND	B	WETMORE	D	WHORLED	C	WILPDINT	D
WAUPACA	B/D	WELCOME	B	WETSAY	C	WHY	B	WILSHIRE	A

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Exhibit A-1, continued: Hydrologic soil groups for United States soils

WILSON	D	WISHARD	C	WOODS CROSS	D	WYNDOSE	D	VEGEN	B
WILSONGULCH	B	WISHBONE	B	WOODSEYE	D	WYCENA	B	VEGAS	C
WILSONVILLE	D	WISHEYLU	C	WOODSFIELD	C	WYOMING	A	VELJACK	B
WILSDR	B	WISHKAH	D	WOODSIDE	B	WRENE	B	YELLOWBAY	B
WILST	C	WISHKAH, DRAINED	C	WOODSLAKE	D	WYSOCKING	C/D	YELLOWHOUND	B
WILTON	B	WISKAN	C	WOODSON	D	XANA	E	YELLOWROCK	A
WINADA	C	WISKIFLAT	B	WOODSTOCK	C/D	XANADU	B	YELLOWSTONE	D
WINBERRY	C	WISNER	B/D	WOODSTOWN	C	XAVIER	B	YELM	C
WINCHESTER	A	WISTER	C	WOODTELL	D	XENIA	B	YEHASSEE	C
WINCHUCK	C	WITBECK	B/D	WOODVILLE	D	XEND	B	VENCE	C
WIND RIVER	B	WITEFELS	B	WOODWARD	B	XERTA	C	VENLO	B
WINDCOAT	D	WITHAM	D	WOODWEST	D	XERXES	D	VERNAB	A
WINDER	B/D	WITHEE	C	WOOFUS	D	XICA	C	VEDMAN	B
WINDER,	D	WITHERBEE	A/D	WOOLPER	C	XINE	C	VEOPIM	B
DEPRESSATIONAL		WITHERELL	D	WOOLSEY	B	XIPE	D	VERINGTON	A
WINDHAM	B	WITHERS	C	WOOLSTALF	B	XIPE, MODERATELY	C	VERMO	B
WINDICREEK	A	WITT	B	WOOLSTED	B	WET		YESUM	B
WINDMILL	B	WITTEN	D	WOODSOCKET	B	XMAN	D	YETTEM	B
WINDSOR	A	WITTENBERG	B	WOODSY	C	YACOLT	B	YETULL	A
WINDTHORST	C	WITZEL	D	WOOSTER	C	YAGO	C	YIGO	B
WINDWHISTLE	C	WIX	C	WORCESTER	C	YAHANA	C	YIPDR	B
WINDWHISTLE, WARM	B	WIXOM	B	WORDEN	C	YAHARA	C	YLIG	C
WINDY	B	WOCKLEY	C	WORF	D	YAHNE	C	YOB	C
WINDYPOINT	B	WODA	D	WORFKA	D	YAHOLA	B	YOCHEM	C
WINEG	B	WODEN	B	WORFMAN	D	YAHOO	D	YOCKEY	C
WINEMA	C	WOODSKOW	C	WORFSTONE	C	YAINAX	B	YODER	B
WINETTI	B	WOODSKOW, DRAINED	B	WORK	C	YAKI	D	YODY	C
WINEVADA	C	WOHLY	B	WORK, GRAVELLY	B	YAKIMA	B	YOHURT	D
WINFALL	B	WOLCO	C	WORLAND	C	YAKUS	D	YOKAYO	D
WINFIELD	B	WOLCOTT	B/D	WORLEY	D	YAKUTAT	A	YOKOHL	D
WING	D	WOLDALE	D	WORMSER	C	YALELAKE	B	YOKUT	B
WINGATE	B	WOLDALE, DRAINED	C	WOROCK	D	YALESVILLE	C	YOLLABOLLY	D
WINGER	B/D	WOLF	B	WORSHAM	D	YALLANI	B	YOLD	B
WINGINAW	D	WOLF POINT	C	WORTH	C	YALMER	B	YOLODO	D
WINGVILLE	D	WOLFCREEK	B	WORTHEN	B	YANAC	C	YONBA	B
WINIFRED	C	WOLFESON	C	WORTHING	D	YANHILL	C	YONDONT	B
WINK	B	WOLFESON, WET	D	WORTMAN	D	YAMO	B	YONGES	D
WINKEL	D	WOLFEY	C	WORTMAN, SANDY	A	YANSAY	D	YONNA	D
WINKLEMAN	C	WOLFPEN	A	WOWKA	D	YANA	B	YORBA	D
WINKLEMAN, WET	D	WOLFTEVER	C	WRANGELL	D	YANCY	D	YORK	C
WINKLER	B	WOLLARD	C	WRANGO	A	YANKEE	D	YORKTOWN	D
WINLER	D	WOLLENT	D	WRAYHA	D	YANKTON	B	YORKTREE	C
WINLO	D	WOLOT	B	WREDAH	B	YANUSH	B	YORKVILLE	D
WINN	C	WOLVERINE	A	WRENCOE	D	YAP	B	YOST	D
WINNEBAGO	B	WOMACK	C	WRENMAN	C	YAPOAH	B	YOST, DRAINED	C
WINNECONNE	C	WOO	B	WRENTHAM	C	YAOUI	B	YOUUD	D
WINNECOOK	C	WOO, OVERWASH	C	WRIGHT	C	YAOQUINA	D	YOGA	B
WINNEMUCCA	B	WOO, WET	C	WRIGHTMAN	C	YAOQUINA, DRAINED	C	YOGA, SANDY	D
WINNESHEIK	B	WOOD RIVER	D	WRIGHTSBORD	C	YARCO	D	SUBSTRATUM	
WINNETT	D	WOODBECK	B	WRIGHTSVILLE	D	YARDLEY	C	YOUJAY	D
WINNSBORO	D	WOODBINE	B	WRIGHTWOOD	B	YARTS	B	YOUNMAN	C
WINDM	D	WOODBRIDGE	C	WUKOKI	B	YATAHONEY	C	YOUNGSTON	B
WINONA	D	WOODBURN	C	WURSI	A	YATAHONEY, STONY	D	YOUNGSTON, WET	C
WINOSKI	B	WOODBURY	D	WULFERT	D	YATES	D	YOURAME	B
WINOPEE	B	WOODCOCK	B	WUNJEWY	B	YAUCO	C	YOUTLKUE	D
WINRIDGE	D	WOODFORD	D	WUPATKI	D	YAUHANNAH	B	YOVIMPA	D
WINSHIP	C	WOODGULCH	A	WURNO	C	YAUPON	D	YPSI	C
WINSPECT	B	WOODHALL	C	WURSTEN	B	YANDIM	D	YRIBARREN	D
WINSTON	B	WOODHURST	C	WURTSBORD	C	YANHEE	B	YSIDORA	C
WINT	D	WOODIN	C	WYALUSING	D	YAYKEY	B	YTURBIDE	A
WINTERFIELD	A/D	WOODINGTON	B/D	WYANDOTTE	D	YAXON	B	YTURRIA	A
WINTERHAVEN	B	WOODINVILLE	D	WYANT	C	YEAGER	A	YUBA	D
WINTERIDGE	B	WOODINVILLE.	C	WYARD	B	YEARY	C	YUKO	D
WINTERS	C	DRAINED		WYARNO	B	YEATES HOLLOW	B	YUKON	D
WINTERSBURG	C	WOODLAWN	B	WYATT	C	YEATES HOLLOW,	C	YULEE	D
WINTERSET	C	WOODLEAF	C	WYCOLD	C	LOAMY SUBSTRATUM,		YUNES	D
WINTHROP	A	WOODLY	B	WYE	B	STONY		YUNQUE	C
WINTLEY	B	WOODLYN	D	WYEAST	D	YEATES HOLLOW,	C	YURM	D
WINTON	C	WOODMANSIE	B	WYETH	B	LOAMY SUBSTRATUM		YTRUE	D
WINTONER	B	WOODMERE	B	WYEVILLE	C	YEATES HOLLOW,	C	YUVAS	D
WINU	C	WOODMONT	C	WYICK	D	STONY		ZAAK	D
WINZ	D	WOODPASS	B	WYKEHAM	B	YEATES HOLLOW,	C	ZABA	B
WIOTA	B	WOODROCK	C	WYKOFF	B	NONSTONY		ZACA	D
WIPPLE	C	WOODROW	B	WYMAN	E	YEATES HOLLOW, DRY	C	ZACHARIAS	B
WIRT	B	WOODROW,	C	WYMORE	D	YEATES HOLLOW,	C	ZACHARY	C
WISCOM	D	SALINE-ALKALI		WYNDEMERE	B	COBBLY		ZACK	D
WISE	C	WOODROW,	C	WYNN	B	YEATON	C	ZADOG	A/D
WISEMAN	A	OCCASIONALLY		WYNNVILLE	C	YECROSS	A	ZADVAR	D
WISFLAT	D	FLOODED		WYNONA	C	YEDLICK	B	ZAFRA	B

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ZAGG	C	ZOMMER	D
ZAHILL	C	ZOLA	C
ZAHL	B	ZOLFO	C
ZAIKY	C	ZOLTAY	C
ZAKME	D	ZOOK	C/D
ZALCO	A	ZOOK, SILTY	C
ZALDA	D	SUBSTRATUM	
ZALLA	A	ZORRA	D
ZAMORA	B	ZORRAVISTA	A
ZAMSCAN	B	ZOYER	D
ZANBUR	B	ZURER	C
ZANE	B	ZUFELT	C
ZANEIS	B	ZUKAN	D
ZANESVILLE	C	ZULCH	D
ZANGO	D	ZUMAN	D
ZAPA	C	ZUMAN, PROTECTED	C/D
ZAPATA	C	ZUMBRO	A
ZARK	C	ZUMWALT	C
ZATDVILLE	C	ZUNDELL	C
ZAU	C	ZUNHALL	C
ZAVALA	B	ZUNI	D
ZAVCO	C	ZURICH	B
ZAYANTE	A	ZWICKER	C
ZAZA	D	ZWIEFEL	C
ZEALE	B	ZWINGLE	D
ZEB	B	ZYGORE	E
Zeba	B	ZYME	D
ZECANYON	C	ZYMER	B
ZEEBAR	B	ZYNBAR	B
ZEeka	C	ZYNBAR, TILL	C
ZEELNOT	B	SUBSTRATUM	
ZEESIX	C	ZYPLAR	D
ZEGRO	C	ZYZYL	B
ZEIBRIGHT	B	ZYZZI	D
ZELL	B	ZYZZUG	D
ZEN	C		
ZENDA	C		
ZENI	C		
ZENIFF	B		
ZENITH	B		
ZENKER	B		
ZENDD	B		
ZENOR	B		
ZENORIA	C		
ZEDMCNT	A		
ZEONA	A		
ZEORELY	B		
ZEPHAN	C		
ZEPHYR	D		
ZEPP	B		
ZER	B		
ZERK	B		
ZERKER	B		
ZEVADEZ	C		
ZIA	B		
ZIBATE	D		
ZIEGENFUSS	D		
ZIEGLER	C		
ZIGWEID	B		
ZILABUY	D		
ZILLAH	D		
ZILLAH, DRAINED	C		
ZILLION	B		
ZILLMAN	B		
ZIMMERMAN	A		
ZINEB	B		
ZING	C		
ZINZER	S		
ZINZER, SALINE	C		
ZION	C		
ZIPP	D		
ZIPPEL	B/D		
ZIRAM	D		
ZITA	B		
ZITTAU	C		
ZOAR	C		
ZOATE	D		
ZOE	D		
ZDESTA	D		

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**Hydrology Training Series
Module 104
Runoff Curve Number Computations**

CERTIFICATION OF COMPLETION

This is to certify that

completed Hydrology Training Series
Module 104 – Runoff Curve Number Computations,

on _____ and should be credited with 2 hours of training.
Date _____

Signed _____
Supervisor/Trainer _____ Participant _____

Completion of Hydrology Training Series Module 104–Runoff Curve Number Computations, is acknowledged and documented in the above-named employee's record.

Signed _____
Training Officer _____ Date _____

