Introduction ..... 2-1
Factors affecting surface runoff ..... 2-2
General ..... 2-2
Rainfall. ..... 2-2
Hydrologic soil groups ..... 2-2
Cover type ..... 2-3
Treatment ..... 2-3
Hydrologic conditions ..... 2-3
Topography ..... 2-3
Runoff ..... 2-4
Runoff curve numbers ..... 2-4
Raintall ..... 2-4
Estimating runoff ..... 2-4
Time of concentration ..... $2-5$
General ..... 2-5
Estimating time of concentration ..... 2-5
Average watershed slope ..... 2-5
Flow length ..... 2-5
Peak discharge ..... 2-6
General ..... 2-6
$I_{a} / P$ ratio ..... 2-6
Estimating peak discharge ..... 2-6
Limitations ..... 2-7
Example 2-1 ..... 2-8
Example 2-2 ..... 2-9

## Exhibits

Page
2-1 Unit peak discharge $\left(q_{u}\right)$ for SCS Type I rainfall distribution . . . . . . . . . . . . . . . . . . . . . . . . . 2-11
2-IA Unit peak discharge $\left(q_{u}\right)$ for SCS Type IA rainfall distribution . . . . . . . . . . . . . . . . . . . . . . 2-12
2-11 Unit peak discharge $\left(q_{u}\right)$ for SCS Type II rainfall distribution . . . . . . . . . . . . . . . . . . . . . . . . . 2-13
2-III Unit peak discharge $\left(q_{u}\right)$ for SCS Type III rainfall distribution . . . . . . . . . . . . . . . . . . . . . . . . . . 2-14

## Figures

Page2-1 Approximate geographic boundaries for SCSrainfall distributions.2-15
2-2 Precipitation values for the Eastern United States-2-year 24-hour rainfall (inches) ..... 2-16
2-3 Precipitation values for the Eastern United
States-5-year 24-hour rainfall (inches). ..... 2-17
2-4 Precipitation values for the Eastern United States-10-year 24 -hour rainfall (inches) ..... 2-18
2-5 Precipitation values for the Eastern United States-25-year 24-hour rainfall (inches) ..... 2-19
2-6 Precipitation values for the Eastern United States-50-year 24-hour rainfall (inches) ..... 2-20
2-7 Precipitation values for the Eastern United States-100-year 24-hour rainfall (inches). . . . 2-21
2-8 Precipitation values for Alaska-2-year 24-hour rainfall (inches). ..... 2-22
2-9 Precipitation values for Alaska-5-year 24-hour rainfall (inches) ..... 2-23
2-10 Precipitation values for Alaska-10-year 24-hour rainfall (inches). ..... 2-24
2-11 Precipitation values for Alaska-25-year 24-hour rainfall (inches). ..... 2-25
2-12 Precipitation values for Alaska-50-year 24-hour rainfall (inches). ..... 2-26
2-13 Precipitation values for Alaska-100-year 24-hour rainfall (inches). ..... 2-27
2-14 Precipitation values for Hawaii-2-year 24-hour rainfall (inches) ..... 2-28
2-15 Precipitation values for Hawaii-5-year 24-hour rainfall (inches) ..... 2-29
2-16 Precipitation values for Hawaii-10-year 24-hour rainfall (inches). ..... 2-30
2-17 Precipitation values for Hawaii-25-year 24-hour rainfall (inches). ..... 2-31
2-18 Precipitation values for Hawaii-50-year 24-hour rainfall (inches). ..... 2-32
2-19 Precipitation values for Hawaii-100-year 24-hour rainfall (inches). ..... 2-33
2-20 Precipitation values for Puerto Rico and the U.S. Virgin Islands-2-year 24 -hour rainfall (inches). ..... 2-31
2-21 Precipitation values for Puerto Rico and the
U.S. Virgin Islands-5-year $\mathbf{2 4}$-hour rainfall (inches). ..... 2-35
2-22 Precipitation values for Puerto Rico and the U.S. Virgin Islands-10-year 24-hour rainfall (inches) ..... 2-36
2-23 Precipitation values for Puerto Rico and theU:S. Virgin Islands-25-year 24-hour rainfall(inches).2-37
2-24 Precipitation values for Puerto Rico and the U.S. Virgin Islands-50-year 24 -hour rainfall (inches) ..... 2-38
2-25 Precipitation values for Puerto Rico and the U.S. Virgin Islands-100-year 24 -hour rainfall (inches). ..... 2-39
2-26 Solution for runoff equation ..... 2-40
$2.27 T_{c}$ nomograph. ..... 2-41

## Tables

Page
2-1 Hydrologic soil groups for United States soils ..... 2-42
2-2 Runoff depth for selected CN's and rainfall amounts ..... 2-84
2-3a Runoff curve numbers for cultivated agricultural lands ..... 2-85
2-3b Runoff curve numbers for other agricultural lands ..... $2-86$
2-3c Runoff curve numbers for arid and semiarid rangelands ..... 2-87
2-3d Runoff curve numbers for urban areas ..... 2-88
2-4 la values for runoff curve numbers ..... 2-89
Worksheets
1 Runoff curve number. ..... 2-90
2 Time of concentration and peak discharge ..... 2-91

Surface runoff is the volume of excess water that runs off a drainage area. Peak discharge is the peak rate of runoff from a drainage area for a given rainfall.

This chapter presents procedures for estimating runoff and peak discharge from small rural watersheds for use in designing soil and water conservation measures. These procedures for determining peak discharge are applicable to drainage areas that range in size from 1 to 2,000 acres in the United States, Puerto Rico, and the Virgin Islands. There is an MS-DOS microcomputer program that duplicates the manual computation procedures of the chapter.

Tables, figures, exhibits, and worksheets are included for a quick and reliable way to estimate peak discharge and runoff for a range of rainfall amounts, soil types, land use, and cover conditions. The data for the peak discharge exhibits were computed using procedures from the Soil Conservation Service (SCS) National Engineering Handbook Section 4 (NEH-4). NEH-4 or Technical Release 55
(TR-55), "Urban Hydrology for Small Watersheds," should be used to estimate peak discharge for conditions beyond the limits of this chapter and for special situations and areas where procedures of this chapter may be considered 00 general to provide good estimates.

## 2. Factors affecting surface runoff

## General

Rainfall is the primary source of water that runs off the surface of small rural watersheds. The main factors affecting the volume of rainfall that runs off are the kind of soil and the type of vegetation in the watershed. Factors that affect the rate at which water runs off are the watershed topography and shape along with conservation practices on a watershed.

## Rainfall

The peak discharge from a small rural watershed is usually caused by intense rainfall. The intensity of rainfall affects the peak discharge more than it does the volume of runoff. The melting of accumulated snow in the mountains and northern plains may result in a greater volume of runoff, but usually at a lesser rate than runoff caused by rainfall. The melting of a winter's snow accumulation over a large area may cause major flooding along rivers. Intense rainfall that produces high peak discharges in small watersheds usually does not extend over a large area. Therefore, the same intense rainfall that causes flooding in a small tributary is not likely to cause major flooding in a main stream that drains 10 to 20 square miles. This chapter considers only rainfall-generated runoff and not runoff generated from snowmelt.

However, to avoid the use of a different set of rainfall intensities for each drainage area, a set of synthetic rainfall distributions having "nested" rainfall intensities was developed. This set maximizes the rainfall intensities by including selected short-duration intensities with those needed for longer duration.

For the size of the watershed for which SCS typically provides assistance, a storm duration of 24 hours was chosen for the synthetic distributions. The 24 -hour storm, while longer than that needed to determine peak discharges, is suitable for determining runoff volumes. Thus, a single storm duration and associated synthetic rainfall distribution can be used to estimate peak discharges for a wide range of watershed areas.

The intensity of rainfall varies considerably during the storm period. Four 24 -hour storm distributions, Type I, Type IA, Type II, and Type III, were developed by SCS from U.S. National Weather Service data as typical design storms. They are associated with climatic regions. Type IA maximum intensities are less than Type I; Type I intensities are less than Type III; and Type III intensities are less than Type II intensities.

Type IA and I storm distributions are typical of maritime climates in the western United States where winters are wet and summers are dry. The Type IA storm distribution is characteristic of the coastal side of the Cascade and

Sierra Nevada Mountains in Oregon, Washington, and northern California. The Type $I$ is the characteristic storm distribution for the coastal side of the Sierra Nevada Mountains in southern California and for Hawaii and Alaska. Type III represents Gulf of Mexico and Atlantic coastal areas where tropical storms bring large 24 -hour rainfalls. The Type II storm distribution is typical of the more intense storms that occur over the remainder of the United States, Puerto Rico, and the Virgin Islands. Figure 2-1 is a map showing the approximate geographic boundaries for the four rainfall distributions. If a watershed is near a boundary, contact the State Conservation Engineer for a better definition of actual location.

In the intermountain and northern tier of States, the annual peak discharge may occur in some years from rainfall falling on snow or from rapid snowmelt on frozen or saturated soils. In this case, special procedures in NEH-4 are to be used.

## Hydrologic soll groups

Soils have been classified into four hydrologic soil groups as shown in table 2-1. 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 sands and gravels that are deep, well drained to excessively drained, and have a high rate of water transmission (greater than $0.30 \mathrm{in} / \mathrm{hr}$ ).

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

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

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 to 0.05 $\mathrm{in} / \mathrm{hr}$ ).

## Cover type

Cover type affects runoff in several ways. The foliage and its litter maintain the soil's infiltration potential by preventing the impact of the raindrops from sealing the soil surface. Some of the raindrops are retained on the surface of the foliage, increasing their chance of being evaporated back into the atmosphere. Some of the intercepted moisture takes so long to drain from the plant down to the soil that it is withheld from the initial period of runoff. Ground cover also allows soil moisture from previous rains to transpire, leaving a greater void in the soil to be filled. Vegetation, including its ground litter, forms numerous barriers along the path of the water flowing over the surface of the land. This increased surface roughness causes water to flow more slowly, lengthening the time of concentration and reducing the peak discharge.

## Treatment

Treatment or conservation practices reduce erosion and thereby maintain an open structure at the soil surface. This reduces the runoff, but the effect diminishes rapidly with increases in storm magnitude.

Contouring and terracing reduce erosion and decrease the amount of runoff by forming small reservoirs. Closed-end level terraces act as storage reservoirs without spillways.
Land areas in which level terraces have been constructed may be excluded from the drainage area above downstream measures if the terrace system has enough capacity to store the depth of runoff commensurate with the frequency of the runoff event. Gradient terraces increase the distance water must travel and thereby increase the time of concentration.

## Hydrologic conditions

In most cases, the hydrologic condition of the site affects the volume of runoff more than any other single factor. The hydrologic condition considers the effects of cover type and treatment on infiltration and runoff and is generally estimated from density of plant cover and residue on the ground surface. Good hydrologic condition indicates that the site usually has a lower runoff potential. Crop residue tilled into the soil and the residual root system from grasses that have been in crop rotations produce a good hydrologic condition.

A grassland cover is good if the vegetation covers 75 percent or more of the ground surface and is lightly grazed. A cover is poor if vegetation covers less than 50 percent of the ground surface or is heavily grazed. Grass cover is evaluated on the basal area of the plant, whereas trees and shrubs are evaluated on the basis of canopy cover.

For arid and semiarid rangelands, poor conditions exist if ground cover (grass, litter, and brush canopy) is less than 30 percent. Fair conditions exist when the ground cover is between 30 and 70 percent, and good conditions exist when ground cover is greater than 70 percent.

## Topography

The slopes in a watershed have a major effect on the peak discharge at downstream points. Slopes have little effect on how much of the rainfall will run off. As watershed slope increases, velocity increases, time of concentration decreases, and peak discharge increases. An average small watershed is fan shaped. As the watershed becomes elongated or more rectangular, the flow length increases and the peak discharge decreases.

Potholes may trap a small amount of rain, thus reducing the amount of expected runoff. If potholes and marshland areas make up one-third or less of the total watershed and do not intercept the drainage from the remaining twothirds, they will not contribute much to the peak discharge. These areas may be excluded from the drainage area for estimating peak discharge. If potholes constitute more than one-third of the total drainage or if they intercept the drainage, the procedures in NEH-4 should be used to estimate the peak discharge.

## Runoff curve numbers

The SCS runoff equation is:

$$
\begin{equation*}
Q=\frac{\left(P-I_{a}\right)^{2}}{\left(P-I_{a}\right)+S} \tag{Eq.2-1}
\end{equation*}
$$

Where $\mathrm{Q}=$ runoff in inches,
$P=$ rainfall in inches,
$I_{a}=$ initial abstraction in inches, and
$S=$ potential maximum retention after runoff begins in inches.

Initial abstraction ( $I_{a}$ ) includes all losses before runoff begins. It includes water retained in surface depressions, water intercepted by vegetation, and water lost to evaporation and infiltration. $\mathrm{l}_{\mathrm{a}}$ is highly variable but is generally correlated with soil and cover parameters. Through studies of many small agricultural watersheds, Ia was found to be approximated by:

$$
\begin{equation*}
l_{a}=0.2 S \tag{Eq.2-2}
\end{equation*}
$$

Removing $I_{a}$ as an independent parameter allows use of a combination of $S$ and $P$ to produce unique runoff volumes. Substituting equation 2-2 into equation 2-1 gives:

$$
\begin{equation*}
Q=\frac{(P-0.2 S)^{2}}{P+0.8 S} \tag{Eq.2-3}
\end{equation*}
$$

The potential maximum retention can range from zero on a smooth, impervious surface to infinity in deep gravel. For greater convenience, the "S-values" were converted to runoff curve numbers (CN's) by the following transformation:

$$
\begin{equation*}
\mathrm{CN}=\frac{1000}{10+S} \tag{Eq.2-4}
\end{equation*}
$$

According to equation $2-4$, the $C N$ is 100 when $S$ is zero and approaches zero as $S$ approaches infinity. Runoff curve numbers can be any value from zero to 100, but for practical applications are limited to a range of 40 to 98.

The runoff curve numbers in table 2-3 were developed by examining rainfall runoff data from small agricultural watersheds. The runoff curve number for a given soil-cover type is not a constant but varies from storm to storm. The index of runoff potential for a given storm is the antecedent runoff condition (ARC). ARC is an attempt to account for the variation in CN at a site from storm to storm. The runoff curve numbers in table 2-3 are for an average ARC and are used for design.

A representative curve number for a watershed can be estimated by area weighting using worksheet 1 as shown in example 2-1.

## Rainfall

The 24-hour rainfall depths for a desired location and frequency can be obtained from the appropriate map in figures 2-2 through 2-25. The rainfall values for each of the 11 western conterminous States can be obtained from the U.S. National Weather Service, NOAA Atlas 2.

## Estimating runoff

The runoff from a watershed may be expressed as the average depth of water that would cover the entire watershed. The depth is usually expressed in inches. The volume of runoff is computed by converting depth over the drainage area to volume and is usually expressed in acrefeet. When CN and rainfall (P) have been determined for the watershed, determine runoff $(Q)$ by using figure 2-26 or table 2-2.

## 4. Time of concentration

## General

Time of concentration $\left(T_{C}\right)$ is the time it takes for runoff to travel from the hydraulically most distant point of the watershed to the outlet. $\mathrm{T}_{\mathrm{c}}$ influences the peak discharge. For the same size watershed, the shorter the $T_{c}$, the larger the peak discharge. This means that peak discharge has an inverse relationship with $\mathrm{T}_{\mathbf{c}}$.

## Estimating time of concentration

$T_{c}$ can be estimated for small rural watersheds using the following empirical relationship:

$$
\begin{equation*}
\mathrm{T}_{\mathrm{c}}=\frac{P^{0.8}\left[\left(\frac{1000}{\mathrm{CN}}\right)-9\right]^{0.7}}{1140 \mathrm{Y} 0.5} \tag{Eq.2-5}
\end{equation*}
$$

Where $T_{C}=$ time of concentration in hours,
$\ell=$ flow length in feet,
$\mathrm{CN}=$ runoff curve number, and
$Y=$ average watershed slope in percent.
Figure 2-27 is a nomograph for solving equation $2-5 . T_{c}$ is determined using watershed parameters $\ell, C N$, and $Y$. Worksheet 2 can be used to compute $T_{c}$. Example 2-2 demonstrates this procedure. For watersheds where hydraulic conditions are such that velocities of water flow need to be estimated (urban areas, etc.), then $T_{C}$ should be estimated using TR-55 methods.

## Average watershed slope

The average watershed slope $(\mathrm{Y})$ is the slope of the land and not the watercourse. It can be determined from soil survey data or topographic maps. Hillside slopes can be measured with a hand level, Locke level, or clinometer in the direction of overland flow. Average watershed slope is an average of individual land slope measurements.

The average watershed slope can be determined using the following relationship:

$$
\begin{equation*}
Y=\frac{100 \mathrm{Cl}}{\mathrm{~A}} \tag{Eq.2-6}
\end{equation*}
$$

where $\quad Y=$ average watershed slope in percent,
$C=$ total contour length in feet,
1 = contour interval in teet, and
$A=$ drainage area in square feet.

## Flow length

Flow length $(\ell)$ is the iongest flow path in the watershed from the watershed divide to the outlet. It is the total path water travels overland and in small channels on the way to the outlet. The flow length can be determined using a map
wheel or it can be marked along the edge of a paper and converted to feet.

Some typical examples of determining the flow length are shown below.

Natural Watershed. In this case, water flows from the watershed divide to a small channel, down the small channel to the main stream, and from there to the watershed outlet.


Watershed with Terraces. In this case, water flows from the divide to the terrace, along the terrace to the outlet or main stream, and then along the main stream to the outlet.


## 5. Peak discharge

## General

Using runoff, $I_{a} / P$, time of concentration, and drainage area, the peak discharge can be estimated using exhibits 2-IA, 2-I, 2-II, and 2-III.

## Is/P Ratio

The watershed CN is used to determine the initial abstraction ( $\mathrm{I}_{\mathrm{a}}$ ) from table 2-4. $\mathrm{I}_{\mathrm{a}} / \mathrm{P}$ ratio is a parameter that indicates how much of the total rainfall is needed to satisfy the initial abstraction. The larger the $\mathrm{I}_{\mathbf{a}} / \mathrm{P}$ ratio, the lower the unit peak discharge $\left(q_{u}\right)$ for a given $T_{c}$. This indicates that if initial abstraction is a high portion of rainfall, the peak discharge will be lower. Thus, the $I_{a} / P$ ratio is greater for smaller storms.

If the computed $I_{a} / P$ ratio is outside the range shown ( 0.1 to 0.50 ) in exhibits $2-1$ through $2-111$, then the limiting values should be used; i.e., use 0.1 if less than 0.1 and use 0.5 if greater than 0.5 . If the ratio falls between the limiting values, use linear interpolation.

Estimating peak discharge
The unit peak discharge $\left(q_{u}\right)$ is obtained from exhibits $2-1$, 2-IA, 2-II, or 2-III, depending on the rainfall type. Figure 2-1 shows the approximate geographic boundaries for the four rainfall distributions. $T_{c}$ and $I_{a} / P$ values are needed to obtain a value for $q_{u}$ from the exhibit. The peak discharge $\left(q_{p}\right)$ is computed as the product of the unit peak discharge $\left(q_{u}\right)$, the drainage area (A), and the runoff (Q).

$$
\begin{equation*}
q_{p}=q_{u} \times A \times Q \tag{Eq.2-7}
\end{equation*}
$$

Worksheet 2 can be used to determine $q_{p}$ as shown in example 2-2.

## 6. Limitations

The watershed drainage area must be greater than 1.0 acre and less than 2,000 acres. If the drainage area is outside these limits, another procedure such as TR-55 or TR-20, Project Formulation-Hydrology, should be used to estimate peak discharge.

- The watershed should have only one main stream. If more than one exists, the branches must have nearly equal $T_{c}$ 's.
- The watershed must be hydrologically similar; i.e., able to be represented by a weighted CN. Land use, soils, and cover are distributed uniformly throughout the watershed. The land use must be primarily rural. If urban conditions are present and not uniformly distributed throughout the watershed, or if they represent more than 10 percent of the watershed, then TR-55 or other procedures must be used.
- If the computed $T_{C}$ is less than 0.1 hour, use 0.1 hour. If the computed $\mathrm{T}_{\mathrm{C}}$ is greater than 10 hours, peak discharge should be estimated by using the NEH-4 procedures, which are automated in the TR-20 computer program.
- When the flow length is less than 200 feet or greater than 26,000 feet, use another procedure to estimate $T_{c}$. TR-55 provides an alternative procedure for estimating $T_{C}$ and peak discharge.
- Runoff and peak discharge from snowmelt or rain on frozen ground cannot be estimated using these procedures. NEH-4 provides a procedure for estimating peak discharge in these situations.
- If potholes constitute more than one-third of the total drainage area or if they intercept the drainage, the procedures in NEH-4 should be used.
- When the average watershed slope is less than 0.5 percent, a different unit hydrograph shape can be used. Contact the State Conservation Engineer for necessary information.
- When the weighted CN is less than 40 or more than 98 , use another procedure to estimate peak discharge.
- When the average watershed slope is greater than 64 percent or less than 0.5 percent, use another procedure to estimate $T_{c}$. An alternative procedure is shown in TR-55 for estimating $T_{c}$ and peak discharge.

Accuracy of peak discharge estimated by this method will be reduced if $\mathrm{I}_{\mathrm{a}} / \mathrm{P}$ ratio used is outside the range given in exhibits $2-1,2-11,2-1 A$, and $2-111$. The limiting $I_{a} / P$ ratios are to be used; i.e., if $I_{a} / P$ in the exhibit $2-I I$ is less than 0.1 , use 0.1 ; and if $\mathrm{I}_{\mathrm{a}} / \mathrm{P}$ is greater than 0.5 , use 0.5 .
7. Example 2-1 Estimating Weighted $\mathbf{C N}$

Given a 90 -acre watershed in the Type II storm distribution area, determine the weighted curve number for the drainage area above a proposed waterway. The available soils map shows that the major soils are Dover, Berks, and Easton in field \#2 of A.B. Smith's farm in Adams

County, MD. By soil, the cover description breaks down as 25 acres of pasture in good condition on Dover, 55 acres of row crop in straight rows in good condition on Berks, and 10 acres of woods in poor condition on Easton. Use worksheet 1 to develop the weighted curve number for the watershed.

Example 2.1 - Worksheet 1: Runoff curve number (CN)


$$
\mathrm{CN}(\text { weighted })=\quad \frac{7030}{90}=70.1 \quad \text { Use } \mathrm{CN}=78
$$

Given a 90-acre watershed in the Type II storm distribution area, determine the peak discharges for the 2 -, 5 -, and 10 -year events. The available soils map shows Dover, Berks, and Easton soils in the drainage area above the proposed waterway in field \#2 of A.B. Smith's farm in Adams County, MD. The cover by soil types and weighted CN is shown in example 2-1. The average watershed slope is 1 percent, and the flow length is 3,400 feet. The 2 -year, 24 -hour precipitation is 3.4 inches; the 5 -year, 24 -hour precipitation is 4.5 inches; and the 10 -year, 24 -hour precipitation is 5.5 inches. Use worksheet 2 to develop the desired peak discharge estimates.


Estimating time of concentration

1. Data:


Estimating peak discharge

1. Frequency
2. Rainfall, $P$ (24-hour) $\qquad$
3. Initial abstraction, $I_{a}$ $\qquad$ (Use CN with table 2-4)
4. Compute $I_{a} / P$ ratios $\qquad$
5. Unit peak discharge $q_{u}$
cfs/ac/in
(Use $T_{c}$ and $I_{a} / P$ with exhibit 2-11)
6. Runoff, Q $\qquad$
(Use $P$ and $C N$ with figure 2-26 or table 2-2)

(Where $q_{p}=q_{u} A Q$ )

| Storm \#1 | Storm \#2 | Storm \#3 |
| :---: | :---: | :---: |
| 2 | 5 | 10 |
| 3.4 | 4.5 | 5.5 |

in

| .564 | .564 | .564 |
| :--- | :--- | :--- |


| .17 | .13 | .10 |
| :--- | :--- | :--- |


| .40 | .42 | .43 |
| :--- | :--- | :--- |

in

| 1.42 | 2.3 | 3.1 |
| :--- | :--- | :--- |

cfs

| 51 | 87 | 120 |
| :--- | :--- | :--- |



Exhibit 2-IA -Unit peak discharge $\left(q_{u}\right)$ for SCS Type IA rainfall distribution



Exhibit 2-III —Unit peak discharge $\left(\mathbf{q}_{\mathbf{u}}\right)$ for SCS Type III rainfall distribution


Time of concentration $\left(T_{c}\right)$, hours

Figure 2-1 -Approximate geographic boundaries for SCS rainfall distributions

Figure 2-2 —Precipitation values for the Eastern United States-2-year 24-hour rainfall (inches)

Figure 2-3 —Precipitation values for the Eastern United States-5-year 24-hour rainfall (inches)


Figure 2-4 -Precipitation values for the Eastern United States-10-year 24-hour rainfall (inches)

(
Figure 2-5 -Precipitation values for the Eastern United States-25-year 24-hour rainfall (inches)

Figure 2-6 —Precipitation values for the Eastern United States-50-year 24-hour rainfall (inches)

Figure 2-7 —Precipitation values for the Eastern United States-100-year 24-hour rainfall (inches)


Figure 2-8 -Precipitation values for Alaska-2-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-9 -Precipitation values for Alaska-5-year 24-hour rainfall (inches)


Figure 2-10 —Precipitation values for Alaska-10-year 24-hour rainfall (inches)




Figure 2-13 —Precipitation values for Alaska-100-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-14 —Precipitation values for Hawail-2-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-15 -Precipitation values for Hawail-5-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-16 -Precipitation values for Hawail-10-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-17 —Precipitation values for Hawall-25-year 24-hour rainfall (inches)


Figure 2-18 -Precipitation values for Hawail-50-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-19 -Precipitation values for Hawail-100-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-20-Precipitation values for Puerto Rico and the U.S. Virgin Islands-2-year 24-hour rainfall (inches)


Figure 2-21—Precipitation values for Puerto Rico and the U.S. Virgin Islands-5-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-22 -Precipitation values for Puerto Rico and the U.S. Virgin Islands-10-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-23 -Precipitation values for Puerto Rico and the U.S. Virgin Islands-25-year 24-hour rainfall (inches)


Prepared by U.S. Weather Bureau

Figure 2-24 —Precipitation values for Puerto Rico and the U.S. Virgin Islands-50-year 24-hour rainfall (Inches)



Figure 2-25-Precipitation values for Puerto Rico and the U.S. Virgin Islands-100-year 24-hour ralntall (inches)




Prepared by U.S. Weather Bureau

Figure 2-26-Solution for runoff equation


Figure 2-27.-Time of concentration ( $\mathbf{T}_{\mathbf{c}}$ ) nomograph
Flow length ( $\ell$ ), feet


| AABAE | D 1 | adaven | C 1 | AMmen | - | ALDING | 01 | alsfa | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| anberg | D 1 | ADOICKS | D 1 | AMPNKLIM | C 1 | ALDINO | C 1 | MLSPAUGM | $c$ |
| AARON | C 1 | ADDIELOU | E 1 | amps | 8 | ALEDO | $C$ | ALSTAD | C |
| aASTAO | B I | ADE | 1 | AHTAMUM | 0 | ale gmos | $c 1$ | alstomy | 8 |
| AazDAML | - 1 | A0¢K | \% 1 | AMTANUM, DaAlme | C 1 | ALEKMAGIK | C | ALSUP | $c$ |
| ABAC | D | ADFL | - 1 | ambamuee | - 1 | AlEMEOA | c | ALTAmONT | D |
| abajo | C 1 | ADEL. WET | 01 | aIEDIT | c | ALEX | - 1 | AL TAPEAK | - |
| abalobadiam | $\cdots 1$ | ADELAIDE | 01 | alco | 01 | ALEXANDEQ | $c$ | altar | C |
| ABARCA | - I | MCELANTO | - 1 | AIKEN | - I | alexamonia | $c$ | altavista | c |
| absaye | - 1 | ADELINO | - 1 | $\triangle$ IKMAM | 0 | alfio | - 1 | AL TDOAF | 0 |
| ABBIE | - 1 | ADELINO. | $C 1$ | AIKMAN. STİAY | C 1 | ALFLACK | $C$ | AL.THOUSE | - |
| ABEOTT | D 1 | SALINE-ALKALI | 1 | AILFY | 0 | ALFOPD | - 1 | ALTICREST | - |
| ABAOTTSTOVN | $C 1$ | AOELPMIA | ECl | AリELIIA | - | ALGANSEE | - 1 | ALTITA | $C$ |
| ABCAL | $\checkmark 1$ | ADEN | C 1 | eimakea | n | algarkoto | - 1 | altman | 8 |
| ABFGG | B 1 | ADENA | $C 1$ | Ainsley | - 1 | algerita | - 1 | ALTO | $C$ |
| abela | 01 | AOGER | 01 | AINS MERTM | E 1 | ALEIERS | C/OI | altoga | $C$ |
| ABELL | B 1 | ADIEUX | - 1 | AIRNCNT | C | alcoa | $C 1$ | ALTON | A |
| ABERDEEA | C 1 | AOILIS | 61 | AIPPOET | 0 | al goma | $0 / 01$ | altoona | C |
| ABERONE | - 1 | MOIN | 01 | Al7s | e | clmameda | - 1 | al tuda | 0 |
| ARERSITO | $C 1$ | ADIOS | 01 | A Je | C | almark | - 1 | alturas | c |
| ABERT | P 1 | adjuntas | $C 1$ | AJOLI 10 | D | ALICE | $\theta$ | aliUs | 6 |
| aees | 01 | AOXINS | 6 | Avad | C | alicel | - 1 | altivan | B |
| ABGESE | - 1 | ADKINS. ALKALI | C 1 | akaka | a | alicia | - 1 | aluf | * |
| Abilene | $C 1$ | AOKINS. WET | $C 1$ | akam | -101 | ALIDA | - 1 | acum | A |
| ABİUA | 9 | ADLER | $C 1$ | AKASKA | e | ALIKCHI | -1 | ALUSA | 0 |
| ABIOUA, FLOODED | C 1 | ADMAN | c 1 | ArELa | 0 | ALINE | $A 1$ | alvarado | - |
| ABITA | c | ADOBE | $c 1$ | AKERCAN | - | ALRIPJOGE | $C 1$ | Alvin | 8 |
| A 0 | $C$ | A SOLPM | 0101 | AYEPUF. | \% | atko | D 1 | alviaa | C |
| ABOQ | 0 | a00s | $C 1$ | AKINA | $\varepsilon$ | ALLAGASH | - 1 | ALVISo | 0 |
| ABOAIGINE | D | ADRIAN | 1101 | AKLEF | 0 | allamere | 01 | ALVOOES | 0 |
| ABOTEN | $\bigcirc 1$ | ADVOKAY | - 1 | ALADOIN | $\pm$ | ALLANTON | B/01 | alvoo | 0 |
| apra | 31 | AELET | $C 1$ | alacshi | * | allanion. | $\bigcirc 1$ | alved. draineo | $C$ |
| ABRAHAM | S 1 | AENEAS | A 1 | alat | $\ldots$ | OEPRESSIONAL | 1 | ALVER. PROTECIED | C |
| AERAZC | 0 | AFFEY | C 1 | alaeloa | e | Allapo | - 1 | ALMILOA | e |
| ABRAZO. goayelly | C | AFLEV | $\pm 1$ | alaga | A | ALLDOwn | -1 | ALYAN | c |
| $A B R E U$ | a 1 | aftaden | $\bigcirc 1$ | mlaral | C | ALLEGHENY | B 1 | ALZADA | 0 |
| ABRTGO | B | AFIOV | COI | alama | $E$ | allemanos | 0 | ALZOLA | C |
| ABSAOJKEE | $C 1$ | aga | - 1 | alamaditas | c | allen | B 1 | Amador | 0 |
| abscola | A 1 | agalpan | 01 | ALAVANCE. | P 1 | MLlendale | -1 | amagon | D |
| AESHEF | D 1 | AGAN | 01 | alaveitoue | e | ALLENOORF | -1 | -malia | B |
| ABSTED | C | AGAR | B 1 | alamc | $c$ | ALLENS PARK | 6 | amalu | 0 |
| ABSTEO. FLOJOFD | D 1 | agassiz | 01 | ALAMOGOROS | P | ALLENS PARK. STONY | $C$ | amana | B |
| AGSTON | $C 1$ | agate | $c 1$ | alamesa | 0 | ALLENTINE | 01 | amanca | C |
| acacio | B 1 | agatma | 41 | ALAVOSA, DGAINEC | F 1 | ALLENE000 | 8 | amarillo | B |
| acaiomy | C I | agamam | - 1 | ALAMUCHEE | P | alley | - 1 | AWASA | B |
| ACADIA | 01 | AGENCY | C 1 | ALANCS | - | allhands | 01 | AMASA. MODERATELV | $C$ |
| ACANA | 01 | AGER | 01 | alafaha | 01 | alliance | 01 | MET. SANOV |  |
| ACANOO | $C 1$ | agfayan | 01 | ALAPA! | 11 | alligator | 01 | SUPSTRATUM |  |
| ACASCO | D 1 | AGNAL | D 1 | alazan | e 1 | allis | 0 | amate | B |
| ACCELEAATOR | - 1 | - GNESTIN | e 1 | alean | $P 1$ | ALLISOM | e I | AMBIA | D |
| ACEITUNAS | B 1 | A GNESTON, COEALY | c 1 | algano | 01 | atlker | e 1 | ameost | c |
| ACEL | c 1 | SUBSTRATUM | 1 | aleany | C 1 | allea | e 1 | ameor | $c$ |
| ACHIFIN | $C 1$ | AGNESTON: COABLY | c 1 | aleatco | D 1 | alloue 2 | B 1 | ambrant | B |
| ACKEF | B 1 | AGNESTON. | C 1 | ale ee | $C 1$ | ALMAC | - 1 | amgrat | */E |
| ACKERNAA | 4101 | NONGRAVELLY | 1 | aleemaile | E 1 | ALWANOR | e 1 | AMELIA | $C$ |
| ACKEEVILLE | C 1 | A GNEW | C 1 | ALEERTON | 51 | almaville | 01 | $\triangle$ MENE | D |
| ACKETY | 0 | A GNOS | c 1 | ALEEPTVILLE | 61 | ALPENA | $c 1$ | AMENIA | e |
| ackey | B 1 | AGON | $c 1$ | ALEIAAS | B 1 | ALMERIA | 01 | AMENSON | 0 |
| ACKMEN | $\cdots 1$ | a GOct | $c 1$ | ALEICN | ( 1 | almigante | B 1 | AMERICANOS | E |
| ACKMCRE | 31 | AGRA | c 1 | ALEFIGMTS | $c 1$ | ALMO | 01 | Americus | $\stackrel{1}{4}$ |
| aCKMATER | $\bigcirc 1$ | agua | P 1 | ALPUEI | $c 1$ | ALMONT | c 1 | AMERY | - |
| ACME | $C 1$ | agua dulce | -1 | ALPURL D DQAINES | e 1 | ALMOTA | $c 1$ | AMES | C/0 |
| ACO | B 1 | agua fria | C 1 | alpus | 31 | ALmy | e 1 | AMESHA | e |
| acoma | C 1 | GGUA FHIA, HIGH | 31 | ALCAN | 01 | ALNITE | 01 | AMESTONT | c |
| ACORE | $C 1$ | RAINFALL | 1 | ALCESTER | P 1 | alo | 01 | AMHERST | 0 |
| acove | $C \quad 1$ | agua Foja, Stovy | c 1 | alcoa | - 1 | ALTMA | $C 1$ | MWISTAD | 0 |
| ACFEOALE | 01 | aguadilla | a 1 | alcena | 81 | alomax | D 1 | AMITV | 0 |
| AGESE | $C 1$ | Agual 7 | B 1 | AlCET | 11 | AIONA | e 1 | APMON | e |
| acaelane | C 1 | a gueda | B 1 | alcova | - 1 | ALONST | e 1 | AMCOAC | c |
| ACTIJN | - 1 | aguilares | e 1 | AlCa | c 1 | mLOVAR | C 1 | amcle | ${ }^{4}$ |
| ACUFF | -1 | AGIJILIta | -1 | alda - Saline | a<cl | aldena | - 1 | AMOR | e |
| ACUNA | $c 1$ | agulare | $c 1$ | aldax | - 1 | -LPHA | e 1 | amorus | 0 |
| ACY | $C 1$ | AGUSTIN | e 1 | ALDFN | 01 | ALPIN | - 1 | mans | $C$ |
| ACA | $C 1$ | ANART | C 1 | AlUE ${ }^{\text {a }}$ | $C 1$ | ALPON | - 1 | Amostomm | 6 |
| ADAIR | $C$ | AML | $C 1$ | ALCEFOALE | $c 1$ | alpowa | - 1 | AMPAO | C |
| MOAMS | A 1 | AHLSTROM | - 1 | alcefmano | - 1 | alred | - 1 | - MPMION | c |
| AOAMSCN | B | AMMEEK | $C 1$ | alcefvoco | $C 1$ | alpos | C 1 | AMSOEN | - |
| acamsville | C 1 | AMOL 1 | D 1 | ALDI | c 1 | ALS | A 1 | AMSTEPDAM | - |
| ADATON | $\bigcirc 1$ | AHPAM | -1 | ALDINE | 01 | ALSCO | B 1 | amioft | 0 |

NOTES: TWO HYOQDLOTIC SOIL GROIDS SUCH AS BIC INOICATE TAE DRAIVEDIUMDRAINED SITUATION. MODIFIERS SHOWN. F.C. GEDROCK SUBSTRATUN. REFEP TO A SOECIFIC SOIL SEGIES DHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

|  | AMMELL | $C 1$ | anselma. bedrock | A 1 | ARCM | e | 1 | armydrain | c 1 | assumption | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amy | $\bigcirc 1$ | SUBSTRATUM | 1 | archabal | E | 1 | arne gard | 8 | Asta | e |
|  | anacapa | B 1 | ansgar | B/D 1 | ARCHBOLD | A | 1 | arness | D | astatula | A |
|  | anacoco | - 1 | ansping | - 1 | afthfr | c | 1 | arnheim | 0 | astior | 8/0 |
| - | anaconda | B 1 | ant flat | C 1 | archerdale | c | 1 | arno | - 1 | astor, flooded |  |
|  | anaheim | C I | antel | B 1 | arches | 0 | 1 | afnolo | A 1 | astoria | B |
|  | anahuac | D 1 | antelope springs | $C 1$ | ARCHIN | 0 | 1 | arnot | C/OI | ataroue | - |
|  | anamite | D 1 | antero | D 1 | ARCHIN. COOL | c | 1 | ARNTZ | c | atasco | c |
|  | anapra | B 1 | antho | - 1 | archuleta | 0 | 1 | arol | 0 | atascosa | 0 |
|  | anasazi | C 1 | antholop | D 1 | ARCIA | $\bigcirc$ | 1 | arosa | c | atate | B |
|  | anatone | D 1 | anthony | B 1 | arclay | D | 1 | ARP | $c 1$ | atchee | - |
|  | anaud | D 1 | ANTIGO | B 1 | ARCO | c | 1 | arrada | $\bigcirc 1$ | ATCO | - |
|  | anaverde | B 1 | ANTILON | $C 1$ | arco, dral net | $\varepsilon$ | A | arrastre | - 1 | atencio | B |
|  | anawalt | D 1 | ANTIOCH | - 1 | ARCOLA | $c$ | 1 | arredondo | A 1 | atepic | D |
|  | ancho | B 1 | antler | C 1 | ard | $c$ | 1 | ARRIBA | $C 1$ | athelmold | B |
|  | ancho, saline | C 1 | antoine | B 1 | ardenmont | 8 | 1 | arrington | - 1 | athena | $\theta$ |
|  | ANCHOR POINT | D I | antonito | C 1 | arcenvoir | 8 | 1 | arricla | $\bigcirc 1$ | atherton | B/D |
|  | ANCHOPAGE | A 1 | antosa | D 1 | ARDEP | B | 1 | APRITOLA | 0 | ${ }^{\text {athol }}$ | B |
|  | anclote | B/O1 | antroeus | B 1 | ARDEP, wet | c | , | a Rrol ime | $C 1$ | ATKINS | D |
|  | ANCLOTE, | D 1 | antwerp | $C 1$ | ARDILLA | c | 1 | ARRON | 0 | atkinson | 9 |
|  | OEPRESSIONAL | I | antr | B 1 | ardiver | B | 1 | ARROWHEAD | c | atlas | D |
|  | ANCLOTE. | D 1 | anunde | e 1 | ardas | E | 1 | arroyada | 0 | atlee | $c$ |
|  | FREQUENTLY | 1 | anvik | B 1 | ARDTCO | B | 1 | arroyo seco | E | atlow | D |
|  | FLODDE | 1 | annar | B 1 | arecibo | 4 | 1 | arsite | D | atmore | B10 |
|  | ANCO | C 1 | Aowa | B 1 | aredale | B | 1 | arta | $C 1$ | atcka | c |
|  | andergeiorge | B | apache | D 1 | afena | c | 1 | ARTESIA | D | atomic | B |
|  | anderly | c | apakuie | A 1 | arena, orained | c | 1 | artesian | D | atrac | 8 |
|  | ANDERS | c | apalachee | D 1 | arenales | a | 1 | artinoc | B 1 | nitravesada | D |
|  | anderson | 5 | apalo | B 1 | arenotsville | B | 1 | articis | c 1 | atring | e |
|  | ANDOK | B | apare jo | E 1 | ARENOSA | A | 1 | afujo | B | atrypa | D |
|  | andover | D | APELDORN | D 1 | ARENZVILLE | e | 1 | a fundel | c | ATSION | c/o |
|  | andrada | 01 | APEX | B 1 | argalt | - | 1 | apva | 0 | atsion. tide | D |
|  | ANDREESON | C 1 | APIShapa | D 1 | argent | D | 1 | arvada | $\bigcirc 1$ | flooded |  |
|  | Andregg | B 1 | APISON | B 1 | AFGENTA | C | 1 | arvana | c 1 | attella | 0 |
|  | ANDRES | B 1 | apmat | B 1 | argonaut | D | , | arveson | B/DI | atter. | A |
|  | andrews | $C 1$ | APMAY | D 1 | AFGORA | E | 1 | arvilla | - 1 | atterberry | B |
|  | andrusia | A 1 | apollo | E 1 | argyle | e | 1 | arvin | B I | atteman | 8 |
|  | andor | D 1 | APOPKA | A 1 | ARIEL | c | , | ARZO | D 1 | ATtEwan, wet | 0 |
|  | andys | B 1 | appantose | D 1 | ARIKAEA | B | 1 | ASA | P 1 | atilica | B |
|  | ANED | - | apperson | C 1 | ARIMO | E | 1 | asabean | - | artorac | 8 |
|  | anela | B 1 | APPIAN | B 1 | AFIPEKA | c | 1 | asbill | D 1 | atwater | B |
|  | ANETH | B | APPIAN. | $C 1$ | ARIPINE | A | 1 | ascalon | B I | atmell | D |
|  | ANETH, DRY | A 1 | Saline-alkali | 1 | ARIS | - | 1 | ascar | c 1 | atwood | B |
|  | ANGELICA | 9/01 | appian. wet | C 1 | ARISPE. | C | 1 | ASCHOFF | E 1 | au gres | 8 |
|  | angelina | - 1 | appian. reclaimed | C 1 | ARIEO | a | 1 | ASh Springs | $c 1$ | aua | e |
|  | ANGELO | c | APPLEBUSH | B 1 | arkaeutla | c | 1 | ASHART | -1 | aubargue | D |
|  | angelus | 8 | APPLEOELLIA | C 1 | ARKANA | c | 1 | ASHBON | D 1 | aubbeenaubeee | B |
|  | ANGIE | D 1 | applegate | C 1 | arkagua | c | 1 | ashCroft | B 1 | a luberry | B |
|  | angle | A 1 | APPLETON | C 1 | arkena | E | 1 | ashdale | e I | aubrey | c |
|  | anglen | C 1 | APPLING | B 1 | AFKPORT | e | 1 | Ashoown | B I | a liburn | D |
|  | ANGOLA | $c 1$ | apron | B 1 | afkson | B | 1 | ashe | - 1 | auburndale | $8 / 0$ |
|  | angora | - 1 | APT | B 1 | afkion | c | 1 | Asher | c 1 | AUFCO | 0 |
|  | ANGOS TURA | - 1 | aptakisic | e 1 | APLAND | E | 1 | ASHFORD | - 1 | aUgGie | B |
|  | anhalt | D | aptos | C 1 | ARLE | c | 1 | ASHFORK | D 1 | augsburg | 810 |
|  | antak | 0 | aquilla | A 1 | arlington | c | 1 | ashgrove | D 1 | augusta | c |
|  | animas | c | aquinas | C 1 | ARLINGTON, THICK | E | 1 | ASHHURST | c 1 | augustine | B |
|  | aninto | 0 | arabras | D I | solum |  | 1 | ASHIPPUN | c 1 | auld | D |
|  | ANITA | - | arada | E 1 | arco | P | 1 | a Shkum | Brol | aura | - |
|  | ankeny | B I | arason | c 1 | afloval | A | 1 | ashlar | - 1 | AURELIE |  |
|  | anklam | 0 | aramburu | C 1 | ARMACH | 0 | 1 | ashley | P I | aurelius | B/D |
|  | ankona | $\bigcirc 1$ | aransas | $\bigcirc 1$ | APMCO | c | 1 | Asheo | - 1 | aurora | C |
|  | annabella | B 1 | arapamoe | elol | apmells | e | 1 | ashmed | e 1 | ausmus | 0 |
|  | annanoale | c 1 | arafien | C 1 | armendaris | c | 1 | AShmun | - 1 | austin | c |
|  | ANNAW | B I | ararat | B 1 | apmenia | D | 1 | ASHOLLER | D 1 | austinville | B |
|  | andemialne | C 1 | arat | D 1 | Armesa | - | 1 | ASHPORT | B 1 | austmell | D |
|  | ANNIS | C I | aravaipa | C 1 | ARME SPAN | 8 | I | ashton | - 1 | aut | c |
|  | annis. Saline | a 1 | arave | - 1 | armifsburg | B | 1 | ashue | - 1 | automba | B |
|  | annis. drained | - 1 | araveton | - 1 | armi jo | c | 1 | ashuelot | - 1 | autayville | A |
|  | ANNIS SUAM | $C 1$ | arbela | C 1 | armington | c | 1 | ASHWOOO | c 1 | auxvasse | D |
|  | ANNISTON | B 1 | arbidge | - 1 | armistead | c | 1 | ASKEw | $c 1$ | auzous | B |
|  | ANNONA | 01 | arboles | $c 1$ | armitage | c | 1 | asolt | D 1 | ava | c |
|  | anocon | $c 1$ | arbone | 81 | ARMO | B | 1 | asotin | c 1 | avalon | B |
|  | anoka | - 1 | ARBOR | B 1 | ARMCINE | - | 1 | asparas | B 1 | avant | B |
|  | anones | C 1 | ARSUCKLE | B 1 | armona | c | 1 | ASPEN | ${ }^{-1} 1$ | avar | 0 |
|  | ANOwELL | 01 | areuckle. wet | C 1 | ARMOUR | 日 | 1 | ASPERMONT | - | avawatz | A |
|  | ansari | $\bigcirc 1$ | arburua | C 1 | AFMPUP | c | 1 | asperson | C 1 | avenal | B |
|  | ANSEL | - 1 | arous | B 1 | ARMS TER | c | 1 | assateague | A 1 | avilea | B |
|  | ANSELMO | B 1 | arcata | B 1 | ARMSTRONG | c | 1 | AsSinins | B I | avis | A |
|  |  |  | ARCETTE | 8 | armuchee | c | 1 | ASSINNIBOINE | $B 1$ | avoca | B |

NOTES: TWO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEC/LNDRAINED SITUATION. MODIFIERS SHOWN. E.G. BEDROCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

| AVON | C 1 | BALDFIELD | C 1 | eardiey | $C 1$ | bateson | B 1 | beaverton | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AVOMB URG | 01 | BALDHILL | e | BARELA | $C 1$ | gatesville | C 1 | BECKER | E |
| AYONOA | B 1 | Baldmountain | B 1 | GARFIELD | 01 | BATH | C 1 | BECKET | $C$ |
| AYONDALE | B 1 | BALDOCK | 01 | BARFUSS | B 1 | BATTERSON | D 1 | BECKLEY | B |
| avonville | 81 | BALDOCK, GRAVELLY | $C 1$ | BARGE | C 1 | BATTLE CREEK | C | BECKMAN | D |
| avtasle | D 1 | SUESTRATUM. | 1 | BARGER | C I | EATTLEMENT | B 1 | BECKS | C |
| AWPRIG | D 1 | DRAINED | 1 | BARIO | B 1 | batza | c | BECKTON | D |
| AXIS | D 1 | BALDOCK. SALINE | $C 1$ | BARISMMAN | $C 1$ | baudette | E | EECKTON. WELL | C |
| AXTELL | D 1 | BALDOCK. SALINE | $C 1$ | BARK CAMP | E I | BAUER | $C 1$ | DRAINED |  |
| AYAR | 01 | BALDOCK. DRAINED | $C 1$ | BARKELEM | B. 1 | BAUMAN | $C 1$ | BECXVILLE | 8 |
| AYCOCK | B | BALDVIN | D 1 | BARKERVILLE | $C 1$ | EAUMGARD | E 1 | BECKWITH | D |
| aroelotite | 01 | Baldy | B 1 | BARKLEY | $C 1$ | BAUSCHER | e 1 | BECKWOURTH | $C$ |
| aYERSVILLE | 81 | Bale | B 1 | BARK OF | D 1 | baux | B I | BFCRAFT | E |
| AYLMER | A 1 | BALE. WET | 01 | BARLEYFIELD | E | BAUXSON | B | BECREEK | B |
| AYNOR | -101 | BALLAHACK | D 1 | BARLING | $C$ | BAXENDALE | B I | BEDELL | E |
| AYON | B I | ballaro | e 1 | BARLOW | B 1 | Baxter | B | BEDEN | 0 |
| AYOUP | C 1 | BALLER | 01 | BARNABE | C 1 | BAXTERVILLE | B 1 | EEDFORD | C |
| AYR | B I | BALLINGER | 01 | BARNARO | $C 1$ | BAYAMON | - 1 | EEDINGTON | B |
| AYRES | D 1 | BALLTOMN | 01 | Q ARNELLCREER | P 1 | Bayard | B 1 | BEDKE | B |
| AVRSHIRE | $C 1$ | Ballvar | - 1 | BARNES | B I | bayboro | 01 | BEDNE ? | $c$ |
| AYSEES | B 1 | BMLly | $C 1$ | 8 ARMESTON | B 1 | BayERTON | C 1 | BEDSTEAD | C |
| AZAAR | $C 1$ | BALM | 01 | B ARNESTON. | A 1 | bayfield | $C 1$ | BEDWYR | D |
| AZELTINE | 81 | BALMAN | E 1 | MONGRAVELLY | 1 | GayFIELD. WET | D 1 | BEE | E |
| AZIALAN | C 1 | BALMAN. SALINE. | $c 1$ | EARNEY | D 1 | BAYHORSE | D 1 | beEbe | A |
| AZTEC | B 1 | FLOODED | 1 | BARNHARDT | B I | BAYLIS | - 1 | BEECHER | C |
| AZTEC. HIGH | C 1 | BALMLAKE | 8 | BARNMOT | D 1 | Baymeade | A 1 | BEECHGROVE | B |
| RAIMFALL | , | BALMORHEA | $C 1$ | BARNSDALL | B 1 | gayou | D 1 | BEECHWOOD | c |
| AZULE | $C 1$ | BALOM | E 1 | GARNSTABLE | 81 | Bayoudan | D 1 | BEEK | c |
| AZWELL | C 1 | bal sora | B 1 | BARNUM | E 1 | BAYSHORE | D 1 | BEEKMAN | C |
| BAAHISH | B 1 | BALIIC | 01 | BAROOA | D 1 | BAYSHORE, | B 1 | BEELEM | D |
| Bate | B I | BALTIMORE | B 1 | EAROID | 11 | MODERATELY WEt | , | BEELINE | D |
| BABEINGTON | B 1 | Bama | B 1 | BAROID. VET | D 1 | bayside | D 1 | EEEMONT | C |
| BABELTHUAP | B 1 | BAMAC | A 1 | GAFRADA | D 1 | BAYTOWN | $B 1$ | BEENOM | D |
| baca | B 1 | BAMBER | B 1 | BARRE | D 1 | bayucos | D | geeskove | B |
| baca. flooded | C 1 | Bamos | C | BARRETT | 01 | bayvi | D 1 | beetville | B |
| BACH | E/01 | BAMTUSH | B | BARRIER | D 1 | BAYVIEW | 01 | beezee | 8 |
| BACHELOR | -1 | banaderu | 01 | EARR INGTON | e 1 | EAY*000 | $A 1$ | BEFAR | D |
| CACHO | D 1 | canat | 81 | BARR ON | - 1 | BAZETTE | $C \quad 1$ | begay | B |
| BACHUS | $C 1$ | baneury | 01 | GARRONETT | E/D 1 | BAZILE | B 1 | BEHANIN | B |
| backeay | 01 | Bancas | $C 1$ | BARRY | 8101 | BEACH | D 1 | BEHEMOTOSH | C |
| BACKEONE | - 1 | BANCKER | D | BARSAC | $C 1$ | bead | $C 1$ | BEHRING | D |
| BACLIFF | D | BANCROFT | B 1 | BARSHAAD | D 1 | eeadle | $C 1$ | EEIGLE | B |
| CACDE: | C | Bancy | 0 | BART | B | bealano | B 1 | BEIRMAN | n |
| BACONA | B 1 | bandag | B 1 | BARTINE | C 1 | eeales | B 1 | BEISIGL | A |
| BADAXE | 61 | eandera | B | BARTLE | 01 | BEAM | D 1 | BEJE | D |
| BADENA | 81 | BANDID | B 1 | BARTLEY | C 1 | BEAMTON | $C 1$ | bejucos | E |
| BADENAUGH | B I | BANDON | $C 1$ | EARTO | 01 | EEANBLOSSOM | B 1 | BELAIN | C |
| BADGE | B 1 | 8 ANE | $\cdots 1$ | BART OME | D 1 | beanflat | $C 1$ | celate | B |
| BADGERTON | B 1 | BANGO | 81 | BARTON | B 1 | beanlake | B 1 | BELCHER | D |
| BADIN | $C 1$ | BANGOR | B 1 | EARTONFLAT | B 1 | deano | D 1 | BELDEN | $C$ |
| EAOITO | C 1 | BANGSTON | A 1 | BARVON | - 1 | GEAR BASIN | Q 1 | BELDING | 日 |
| Bado | 01 | BANIDA | 01 | BARX | E 1 | BEAR CREEK | B 1 | BELEN | 0 |
| badus | C/01 | BANKARD | A 1 | BASCAL | $B 1$ | BEAR LAKE | 01 | belfast | 6 |
| BADWATER | B 1 | BANKHEAD | $\underline{8}$ | BASCC | $C 1$ | bear prairie | O 1 | BELFIELD | C |
| BAGARD | B 1 | BANKS | $A 1$ | BASCOM | E 1 | BEARDALL | $C 1$ | BELFORE | E |
| BAGOAD | B 1 | BANLIC | $C 1$ | bascovy | 01 | GEARDEN | C 1 | BELGARRA | C |
| BAGGOTT | D 1 | BANNEL | 81 | BASEHOR | 01 | bearosley | $C 1$ | BELGRADE | B |
| BAGLEY | B 1 | EANNER | $C 1$ | BASH | C 1 | BEARDSTOWN | $C 1$ | belhaven | D |
| BAMEM | B 1 | BANNING | $C 1$ | BASHAW | 01 | EEAPGULCH | B 1 | BELINDA | D |
| BAhIA | A 1 | BANNI ON | $C 1$ | BASMER | B 1 | BEARMOUTH | B 1 | BELJICA | E |
| BAHL | C 1 | BANNOCK | B 1 | BASILE | D 1 | BEARPAW | $C 1$ | Belk | D |
| BAILE | D 1 | BANTRY | A/DI | BASIN | $C 1$ | EEARSKIN | D 1 | BELKNAP | C |
| BAILEGAP | $B 1$ | bapos | D 1 | BASINGER | E/01 | BEARSPRING | -1 | bellavista | c |
| Bailleycreek | C 1 | baraboo | E 1 | BASINGER, | - 1 | BEARTRAP | B 1 | EELLE. | B |
| BAILING | $C 1$ | baraga | C 1 | DEPRESSIONAL | 1 | eearville | $C 1$ | EELLECHESTEA | A |
| BAINVILLE | $C 1$ | BARANA | - 1 | BASINGER. FLOODED | D. 1 | BEARWALLOW | $C 1$ | bellehelen | D |
| BAIRD HOLLOW | C 1 | BARATARI | A/DI | BASKET | B 1 | eeasley | $C 1$ | BELLENMINE | D |
| GAIRD HOLLOW. | D 1 | BARBAROSA | D 1 | BASSEL | e 1 | BEASON | $\bigcirc 1$ | belleville | B/C |
| EXTREMELY COBBLY | 1 | BAREARY | D 1 | GASSETT | e 1 | BEATRICE | 01 | belleville. ponded | D |
| BAIRD HOLLOW. | B 1 | EARBERT | D 1 | BASSFIELD | B 1 | beaucoup | B/DI | PELLEVUE | B |
| gravelly | 1 | BARBOUR | B 1 | BASTIAN | C 1 | BEAUFORD | $\bigcirc 1$ | BELLICUM | B |
| BAJURA | 01 | BARBOURVILLE | B 1 | BASTON | $C 1$ | REAUGHTON | D 1 | BELLINGHAM | D |
| BAKEOVEN | 01 | barcave | B 1 | BASTROP | 81 | EEAUMONT | O 1 | BELLINGHAM. | $C$ |
| GAKER | $C$ | CARCE | 81 | BASTSIL | B 1 | BEAUREGARD | $C 1$ | DRAINED |  |
| BAKERSVILLE | 0 | barclay | C 1 | BATA | B 1 | beausite | $C 1$ | eELLPASS | 0 |
| balaam | 81 | BARCO | -1 | BATAN | E 1 | beauvais | B 1 | BELLPINE | C |
| BALCOM | B | earcus | A 1 | batavia | B 1 | BEAVERCREEK | 81 | EELLWOOD | 0 |
| BALD | $C 1$ | BARD | D 1 | BatEMAN | B 1 | geaverdam | C 1 | belmear | 0 |
| BALDER | 01 | BARDEN | C 1 | BATES | B 1 | GEAVERELL | B I | PELMILL | B |

NOTES: TWO MYDROLOGIC SOIL GROUPS SUCH AS B/C INOICATE THE ORAINEDIUNDRAINED SITUATION. MOOIFIERS SHOWM. E.G. BEDROCK SUESTRATUM, REFER TO A SPECIFIC SOIL SFRIES PHASE FQUND IN SOIL MAP LEGENO.

Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

| belmont | - 1 | efrtram | 81 | Billings. | e | blacknoll | C 1 | olue lake | $A$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| belmore | - 1 | bertrand | - 1 | moderately Slow | 1 | blackoar | Brol | OLUE StAR | B |
| belpre | c | berville | $8 / 01$ | PERM | 1 | ElACKPIPE | c | olvebell | c |
| BELSAC | B | eerwolf | - 1 | Bill YCREEK | c | BLACKPRINCE | - 1 | bluechief | C |
| belted | D | beryl | - 1 | Bill yhaw | D | Blackrock | 8 | OLUECREEK | 0 |
| BELTON | c | berzatic | 01 | Biltmore | A | blacksan | - | aluedome | c |
| beltrami | - | beseman | A/DI | BIMMER | D 1 | blackspar | D | blueflat | c |
| beltsville | c | besherm | $c 1$ | PINCO | D 1 | blackspot | D | bluegrove | c |
| beluga | D | besner | B 1 | Bindle | B | blackston | - | BLUEGULCH | B |
| beluga. dratned. | c | bessemer | c 1 | Binford | B | black thorn | - | aluehill | c |
| SLOPING | 1 | bessie | D 1 | BINGER | B | BLACK TOP | D | OLUEHON | C |
| BELVOIR | c | bestrom | c 1 | EINGHAM | 8 | blackwater | 0 | alUejoint | 8 |
| belzar | c | bethany | c 1 | - INGHAMPTON | - | elackmell | D | bluenose | 8 |
| bemidji | A 1 | bethel | 81 | Binghamville | D | bladen | D | BLUEPOINT | A |
| ben lomond | B | bethera | - 1 | binna | B | blag | 0 | bluerim | c |
| benchley | c 1 | eethe sda | c 1 | binnsville | D | elago | 0 | aluestide | D |
| oenclare | c | bethlehem | - 1 | Bins | B | blaine | c | BLUESPRIN | C |
| BENCO | B | betis | A 1 | Binton | c | blair | c | BLUESTONE | D |
| bender | e 1 | betonnie | B 1 | Binton, reclaimed | B | blairton | c 1 | alueming | A |
| bendire | c | betra | c 1 | bioya | 6 | blakabin | c 1 | aluff | D |
| benevola | c | petteravia | c 1 | eippus | - | elake | - | -LUFFDALE | c |
| benemat | D 1 | BETTS | 81 | a iRChear | c | glakeland | A | BLUFFTOM | C |
| BENFIELD | c | beulah | B 1 | OIRCHFIELD | D | BLAKENEY | c | bluFdat | c |
| bengal | c | oevent | A 1 | BIRCHEDOO | c | blakewell | C 1 | BLum | c |
| benge | B | beveridige | 01 | Birdom | B | blalock | D | BLY | B |
| BENHAM | 8 | bevertr | E 1 | EIRDS | C/DI | blamer | c 1 | BLYBURG | B |
| BENIN | 0 | beverly, gravelly | A 1 | eirdsall | D 1 | blanca | - 1 | BLYTHE | D |
| BENITO | D | BEW | C 1 | B IROSBIRO | E | blanchard | A 1 | boardman | D |
| benjamin | 0 | bemleyville | $B 1$ | Birdstey | D | blanche | - 1 | coard tree | C |
| BENKLIN | c | BEXAR | - 1 | B IRDSVIEu | A | blanchester | B/DI | HOASH | D |
| benman | c | BE20 | D 1 | B IRKBECK | B | BLANCOT | - 1 | boaz | C |
| bennoale | 8 | bezzant | B 1 | BIRM INGHAM | B | BLAND | C 1 | 803EIT | c |
| benNing ton | c | $\theta$ IBA | c 1 | BIRNE | B | olamotng | - 1 | cosillo | * |
| OENRIDGE | - | etblesprings | - 1 | eirome | c | blaney | B | COBn800 | c |
| eensley | B | BICE | B 1 | bisbee | A | elanket | c | s08s | 0 |
| BENSON | 01 | BICKEROYKE | 01 | biscaro | - | blanton | 11 | cobtall | c |
| benteen | c | bickett | D 1 | biscay | E/OI | blanton. | B 1 | bobtown | - |
| benmy | - | bickleton | B 1 | BISGANI. | - 1 | moderately met |  | BOCa |  |
| BENZ | 0 | Bickmore | C 1 | moderately met | 1 | blanyon | $c 1$ | COCA. DEPRESSIOWAL | D |
| BEDR | 0 | bicondoa | - 1 | BISGANI. FLOODED | $c$ | blappert | D 1 | BOCA. TIDAL | D |
| bedska | 8 | BICONDOA, DRAINED | $C 1$ | QISHOP | 0 | blaouiere | $C 1$ | BOCK | B |
| bedtia | - | BIDDEFORD | D 1 | bismarck | 0 | blasolell | $A 1$ | bocker | D |
| beomate | B | BIDDL EMAN | B 1 | 8150001 | 0 | blase | c | BOCKS TON | 8 |
| beguinn | 8 | bidman | c | EISPING | e 1 | blas ingame | $C 1$ | ODDE | - |
| bercumb | 8 | BIDWELL | 81 | OISSELL | E 1 | olayden | 01 | ODDE CKER | A |
| berda | B | bieber | 01 | Bissannet | D | blazbird | D 1 | BODELL | 0 |
| berea | c | biedell | 01 | 815 | $c 1$ | blazon | D 1 | ODDEN | c |
| bereniceton | 8 | RIEDSA | C 1 | BITTER | - 1 | bleakwood | C 1 | BODENBURG | - |
| BERGHOLZ | c | bienville | A | BITTER SPRING | - 1 | bledsot | $C 1$ | bodine | - |
| bergland | D | big blue | - | eitterroot | c | bleiblerville | D 1 | BODORUMPE | c |
| bergouist | 8 | BIG MORN | 1 | Bitterwater | B | blencoe | D 1 | bodot | c |
| bergs trom | 8 | big timeer | - | OItTON | B | BLEND | 01 | CoEl | a |
| bergstik | 0 | BIGARM | 8 | bivans | 01 | BLENDON | - 1 | BOEL. OVERWASH | c |
| OERIND | B | bigbee | A 1 | BIxBy | - 1 | BLETHEN | - 1 | boelus | A |
| BERIT | - 1 | bigbend | - | - BxiER | $c 1$ | blevins | -1 | botrne | - |
| berks | $c 1$ | bigbromn | c 1 | B Jork | $c 1$ | blevinton | - 1 | ODESEL. | c |
| BERKSHIRE | 8 | BIGELOH | B 1 | OLACHLY | - 1 | blevett | D 1 | DOESEL, PROTECTED | - |
| berlake | 8 | bigetir | B 1 | black butte | - 1 | blichtan | 01 | BOETTCHER | $c$ |
| BERLIN | c | bigflat | D | black cavyon | I | blickenstaff | B 1 | B0GAN | c |
| bermesa | c | bigfoot | c 1 | black canyon. | $c 1$ | blimo | - 1 | bogart | - |
| bermudian | - | Bigfork | c | DRAINED | 1 | blims ter | $c 1$ | 80665 | c |
| bermal | 01 | Bighams | B | black ridge | D 1 | BLINN | $c 1$ | B0Ggy | c |
| bernaldo | B 1 | eighill | 日 | blacka | c 1 | Bliss | $c 1$ | OOGRap | B |
| BERNARO | 01 | biglake | A 1 | blacksurn | - 1 | blitien | c 1 | bogue | - |
| BERNARDINO | c 1 | bigmeadow | c | blackdraw | - 1 | blockhouse | 01 | 80gus | c |
| bernaroston | c 1 | Bignell | c | elackett | 81 | ELOMFORD | 8101 | BOHANNON | c |
| BERNHILL | - | BIGRIVER | 8 | blackfoot | c 1 | bloom | 01 | comemian | - |
| -ERNICE | A | BIGSHEEP | - | BLACKFOOT. DRAINED | B 1 | BLOOMFIELD | A 1 | BOHICKET | - |
| EERNING | $C 1$ | EIGSPRING | D | blackhall | D 1 | elooming | B 1 | BOHNA | B |
| BERNOW | - 1 | BIGWIN | c | Blackhall. WARM | c 1 | bloomsdale | - 1 | BOHNL $Y$ | D |
| eerryland | B/01 | bigwinder | 0 | blackhammer | - 1 | bloor | c 1 | Bohnsack | B |
| EERRYMAN | C 1 | BIJJRJA | c | blackhawk | D 1 | bloor. gravelly | D 1 | BOISTFORT | - |
| BERSON | - 1 | BIJJU | B | blackijoff | D 1 | SUESTRATUM | 1 | boJac | B |
| bertag | C 1 | BIL80 | c | blackhorse | c 1 | Blount | $c 1$ | 80J0 | D |
| BERTELSON | 01 | BILGER | 01 | blacklegd | - 1 | blamers | - 1 | bolan | - |
| BERTHOUD | 01 | Billett | B | blackleg | c 1 | blucher | $c 1$ | eolar | c |
| bertie | 81 | Oillings | $c$ | blacklock | 1 | blue earth | $8 / 01$ | BOLD | - |
| BERTO | 01 |  | 1 | blackman | c 1 | blue earth. | D 1 | BOLENT | ${ }^{\text {A }}$ |
| GERTOLOTTI | B |  | 1 | blackmount | 1 | SLOPING | 1 | boles | c |

NOTES: TMO HYDROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE GRAINED/UNDRAINED SITUATION. MODIFIERS SHOWN. E.G.. BEDROCK SUBSTPATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FDUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

| BOLFAR | $C 1$ | Borgeau | B I | BRACEVILLE | C 1 | BREW | $C 1$ | BROKENHORN | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OOLICXER | B 1 | BORGES | 01 | BRACKEN | B | EREMER | $c 1$ | BROLLIAR | D |
| BOLIO | D 1 | BORIANA | D 1 | BRACKETT | $C 1$ | BREMLESS | $C 1$ | gromer | C |
| BOLIVAR | B | BORKY | $C 1$ | erad | D 1 | BREWSTER | D | BROMIDE | B |
| BOLLING | C | BORNS TEDT | $C 1$ | ERADOOCK | B 1 | BREWTON | C | BROMO | E |
| BOLSA | $C 1$ | BORO | D 1 | BRADEN | B 1 | ERIBUTTE | 01 | ERONAUGH | B |
| BOLTON | B 1 | BOROBEY | C 1 | bradenton | B/D $\mid$ | BRICKEL | $C 1$ | BRONCHO | 8 |
| BOLTUS | D | BORREGO | 01 | BRADENTON, FLOODED | 01 | GRICKMILL | $C 1$ | BRONCHO, LOAMY | A |
| BOMAR | C | borre guera | $C 1$ | Brader | 01 | BRICKTON | $C 1$ | SUBSTRATUM |  |
| BOMBADIL | D | BORSKI | B 1 | ERADSMAW | - 1 | ERICO | C | BRONELL | B |
| BOMBAY | B | EORTH | $C 1$ | ERADSON | B 1 | BRIDGE | $c$ | BRONSON | B |
| BOMOSEEN | $C$ | BORUP | B/01 | ERADWAY | D 1 | BRIDGECREEK | C | BRONTE | C |
| Ban | B | BORVANT | D 1 | ERADY | - 1 | BPIDGEHAMPTON | B | GROOKE | D |
| BONAIR | D | BOSANKO | D 1 | bradyville | $C 1$ | BRIDGEPORT | B 1 | EROOKFIELD | B |
| BOMANZA | B | BOSCO | B 1 | braffits | B 1 | BRIDGER | B 1 | EROOKINGS | B |
| BONAPARTE | A | BOSKET | B I | BFAGG | $C 1$ | BRIDGESON | D | EROOKLYN | C/D |
| BONCLAIR | 8 | BOSLER | - | BRAHAM | B 1 | BRIDGESON. DRAINED | $C$ | BROOKMAN | D |
| BOND | D | Boso | 01 | BRAILSFORD | C 1 | ERIDGET | e 1 | ERODKSHIRE | C |
| BONDFARM | D | bosoue | - 1 | GRAINERD | $C 1$ | ERIDGEWATER | B I | BROOKSIDE | $C$ |
| BONDMAN | 0 | BOSSBURG | 01 | BRALLIER | D 1 | BRIEDWELL | B 1 | BROOKSTON | B/D |
| BONDRANCH | D 1 | BOSSBURG, DRAINED | $C 1$ | BRAM | C 1 | BPIEF | $\theta$ | EROOKSTON. STONY | D |
| BONDUEL | $C 1$ | EOSTON | $C$ I | BRAMARD | E 1 | ORIER | D 1 | BROOKSVILLE | D |
| BONE | D 1 | BOSTRUM | D 1 | BRAMLETT | c 1 | BRIGGS | A 1 | broome | B |
| BONEEK | B 1 | BOSTWICK | B 1 | GRAMWELL | $C 1$ | ERIGGSDALE | $C 1$ | BROPHY | A/D |
| BONEYARO | C | bosville | c | BRANCH | B 1 | BRIGGSVILLE | $C \quad 1$ | BROSE | D |
| BONFIELD | B | BUSWELL | D 1 | BRANCR OF T | $C 1$ | ERIGHTON | E/01 | BROSELEY | B |
| BONFRI | C | BOSWORTH | - 1 | brand | D 1 | ERIGHTMOOD | B 1 | EROSS | B |
| BONG | A | botella | B 1 | BRANDENBUPG | A 1 | BRILEY | B | EROUGHTON | D |
| BONHAM | $C 1$ | BOTHWELL | B 1 | ERANDON | E 1 | BRILL | B 1 | BROWARD | $C$ |
| BONIFAY | A 1 | BOTHWI | $C 1$ | BRANOYWINE | $C 1$ | BRILLIANT | B 1 | BROWER | B |
| BONILLA | B | BOTON | B I | BRANFORD | e 1 | ERIMFIELO | C/DI | BROWNEEAR | C |
| BONITA | D 1 | COttineau | $C 1$ | BRANHAM | $C 1$ | BRIMLEY | E 1 | BROWNDELL | 0 |
| BONJEA | D | BOTTLE | $C 1$ | Branscomb | B I | BRIMSTONE | D 1 | EROWNELL | B |
| BONN | D | BOTTLEROCK | $C 1$ | BRANTFORD | B 1 | ERINEGAR | E 1 | EROWNFIELD | A |
| bonneau | A | BOULDER | B 1 | BRANTLEY | $C 1$ | BRINGMEE | B 1 | EROWNLEE | B |
| BONNELL | $C$ | BOULDER LAKE | 01 | BRANYON | D 1 | BRINKER | $C 1$ | BROWNRIGG | D |
| BONNER | B 1 | BOULDER POINT | E 1 | brashear | $C 1$ | BRINKERT | $C 1$ | BROWNSCOMBE | $C$ |
| BONNERDALE | B | BOULDERCREEK | B I | Brassfield | B I | BRINKERTON | 01 | BROWNSCREEK | B |
| BONNE T | B | BOULOIN | B 1 | BRATTON | B 1 | ERINNUM | 01 | BROWNSDALE | C |
| BONNEVILLE | A | boulflat | $C 1$ | braun | C 1 | ERINNUM, DRAINED | $C 1$ | BROWNSTO | 6 |
| BONNICK | A | BOUNCER | D 1 | bravane | D 1 | BRIONES | E \| | BROWNSVILLE | C |
| BONNIE | C/DI | BOUNDARY | B 1 | brawley | D 1 | ORIOS | A I | BROWNTON | C/C |
| BUNNIE. PONDED | $C 1$ | BOUREON | B 1 | graxton | $C 1$ | brisbane | - 1 | EROXON | B |
| GONN YDOON | D 1 | BOURNE | $C 1$ | gray | 01 | BRISCO | E 1 | EROYLES | B |
| BONO | D | BOUSIC | D 1 | brayticn | C 1 | BRISCOT | 01 | BRUBECK | D |
| BONSALL | D | 80w | 01 | brazilton | D 1 | BRISCOT, DRAINED | $C 1$ | BRUCE | E/0 |
| BONTA | B 1 | Buwbac | $C 1$ | brazito | A 1 | BRISKY | D 1 | bruella | B |
| BONTI | c | Bombells | 81 | ERAZITO. Thick | B 1 | BRISTOW | D 1 | BRUELLA, HARD | C |
| BONWIER | $c$ | 60WDISH | C 1 | SURFACE | 1 | BRITTO | D I | SUESTRATUM |  |
| GONWIER* GRADED | 0 | BOWDLE | E 1 | BRAZITQ, THICK | C 1 | BRITTON | 01 | gruff Y | B |
| BONZ | $C 1$ | BOWDOIN | D 1 | SURFACE. |  | BRITWATER | B 1 | BRUHEL | B |
| B00FORD | C | EOWDRE | C I | SALINE-MLKALI | 1 | EROAD | $C 1$ | BRUIN | B |
| B00FUSS | D | Q,OWEN | $C 1$ | GRAZON | $C 1$ | broad canyon | E 1 | bruman | B |
| BOOKCLIFF | 3 | BOWERS | $C 1$ | ERAZORIA | D 1 | broadalein | $C 1$ | ERUMEAUGH | $C$ |
| BOOKER | 0 | BOWES | E 1 | BRECKENRIDGE | B/01 | BROADAX | E 1 | ERUNCAN | D |
| bookout | C | BowIE | B 1 | . BRECKNOCK | P 1 | BROADBROOK | C 1 | brundage | D |
| B00Kw OOD | B | BGWLAKE | $C 1$ | BRECKSVILLE | C 1 | RROADHEAD | $C 1$ | BRUNEEL | D |
| BOOMER | B 1 | BOWLUS | E I | BREECE | B 1 | GROADHURST | D 1 | grunelda | D |
| BOOMSTICK | D | BOWMAN | C 1 | EREGAR | C I | EROADMODR | C 1 | ERUND | A |
| BOOMTOWN | D 1 | BOWMANSVILLE | B701 | BREIEN | P 1 | PROADUS | B 1 | ERUNSWICK | B |
| BODNE | A | BOwns | C 1 | EREKO | B I | BROADWELL | B 1 | BRUNZELL | B |
| BOONE SEORO | B | BOWSTRING | A 101 | bremer | C 1 | BROBETT | C 1 | BRUSHCREEK | $C$ |
| BOONEVILLE | 81 | BOXELDER | $C 1$ | EREMER, SANDY | E 1 | BROCK | D I | BRUSHCREEK | B |
| BOONTON | $C 1$ | BOXFORD | $C 1$ | SUESTRATUM | 1 | EROCKET | $C 1$ | BRUSSELS | C |
| BOONVILLE | $C 1$ | goxville | $C 1$ | EREMO | $C 1$ | GROCKGULCH | $C 1$ | BRUSSETt | B |
| BOONVILLE | D | BOXWELL | $C 1$ | BREMS | A 1 | BROCKLISS | B 1 | BRYAN | A |
| 8007 H | $C 1$ | Boy | $B 1$ | ERENDA | C 1 | BROCKMAN | C 1 | BRYANT | B |
| Boormbar | $C 1$ | Boyce | D 1 | BRENHAM | $C 1$ | BROCKO | B 1 | BRYARLY | D |
| BOOTJACK | D I | BOYD | 01 | GRENNAN | 81 | BROCKPORT | D 1 | BRYCAN | 0 |
| 800TS | A/DI | BOYER | E 1 | BRENNER | 01 | BROCKROAD | $C 1$ | BRYCE | D |
| BOOUILLAS | $C 1$ | EOVET | 61 | BRENT | D 1 | BROCKSEURG | B 1 | BRYMAN | B |
| BORACHO | $C \quad 1$ | BOYKIN | B 1 | BfENTON | E 1 | BROCKTON | 01 | BRYSTAL | E |
| GORAM | $C 1$ | BOYLE | D 1 | BRENTSVILLE | $C 1$ | BROCKWAY | B 1 | BUB | C |
| Boravall | 01 | Boysag | D 1 | ERENTWOOD | E 1 | BRDCKWELL | B I | bubus | B |
| BORDA | D 1 | BOYSEN | 01 | BRESSA | c 1 | BRODALE | $C 1$ | BUCAN | $C$ |
| bordeaux | B 1 | Boze | B 1 | BRESSER | B 1 | BRODY | $C 1$ | BUCAN. GRAVELLY | D |
| GORDEN | E 1 | bozeman | B I | BREVARD | B 1 | broe | B 1 | EUCHANAN | C |
| BORDER | B I | grabas | 01 | brevator | $C 1$ | Brogan | B 1 | BUCHEL | D |
| Borealis | D | brace | C I | BREVORT | B/DI | BROGDON | B I | BUCHENAU | $C$ |

NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS B/C INOICATE TME DRAINEDIUNDRAINED SITUATION.
MODIFIERS SHOWN. E.G.. BEOROCK SUBSTRATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

| buchenau. thick | 9 | 1 | Gurchell | c | capo rojo | $c$ | 1 | calodo | $c 1$ | canteen | $E$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SOLUM |  | 1 | burdett | c | capoose | 8 | 1 | caldosa | $c 1$ | cantey | 0 |
| buckaroo | $c$ | 1 | BUREN | $c 1$ | CABOT | D | 1 | calouse | B 1 | CANTINA | C |
| buckbay | c | 1 | gurgess | $C 1$ | cabrillo | c | 1 | CALPAC | - 1 | canton | 8 |
| buckeremk | c | 1 | aupg 1 | - | cabsion | B | 1 | calpeak | 01 | CANTON BEND | c |
| buckeve | c | 1 | buriburi | c | CACHE | D | 1 | caldine | B I | CANTRIL | 8 |
| buckhall | E | 1 | EURKE | c | cacigue | c | 1 | CALROY | 1 | cantua | B |
| buckhouse. | B | 1 | burketamn | c | cactusflat | c | 1 | calume | - 1 | cantuche | D |
| bucking | A | 1 | burkeville | D | CADDO | D | 1 | calverton | c 1 | canutio | B |
| bucklake | c | 1 | buekharot | E | cadeville | 0 | 1 | calvin | $C 1$ | CANWALL | C |
| bucklano | c | 1 | burleish | A/DI | caditlac | , | 1 | calvista | D 1 | canyon | D |
| BUCKLE | - | 1 | GURLESSN | 0 | CADIz | P | 1 | calwesds | D 1 | capac | c |
| bucklebar | 3 | 1 | EURLEWASH | D | cadmus | B | 1 | calzacorta | D 1 | capay | D |
| buckley | - | 1 | burlington | A 1 | cadoma | D | 1 | camaguey | 01 | CAPE | - |
| BUCKLICK | c | 1 | everah | - | caesar | $\wedge$ | 1 | camargo | B 1 | Cape fear | D |
| BUCKLICK, THICK | B | 1 | burnac | D | CAGEY | c | 1 | camarillo | C 1 | CAPEHORN | D |
| Solum |  | 1 | BupNBOROUGH | B | cacle | c | 1 | CAMARILLO, DRAINED | 1 | capers | D |
| BUCKLON | 0 | 1 | EURNEL | c 1 | caguabo | - | 1 | camas | A 1 | CAPERTON | D |
| BUCKNELL | 0 | 1 | eurnette | c | cagmin | 8 | 1 | Camas, Stony | B 1 | CAPMOR | B |
| buCKNEY | B | 1 | bupnham | D 1 | cababa | - | 1 | camatia | D 1 | Capillo | c |
| buckpeak | F | 1 | burnside | B 1 | cahona | B | 1 | cambarge | - | CAPIS TRANO | 8 |
| 8UCKs | B | 1 | gURNSVILLE | - | caid | - | 1 | cambern | c | CAPITAN | 0 |
| guckshot | 8 | 1 | EURNSWICK | - | cainhoy | A | 1 | cambert | c | capjac | c |
| buckskin | c | 1 | burnt lake | A ! | calre | D | 1 | cambeth | c | Caflen | 0 |
| BUCKTON | B | 1 | burntriver | e | cajalco | c | 1 | Cambria | B | caples | 0 |
| bude | c | 1 | ever | D | cajete | P | 1 | CAMBRIDGE | C 1 | CAPLES, draineo | c |
| BUDIHOL | 0 | 1 | ourrita | 0 | CAJJN, OVERWASH | A | 1 | CAMDEN | E 1 | CAPONA | c |
| BUDLEWIS | c | 1 | burrowsville | C | cajon. lidamy | A | 1 | CAMEEK | 01 | capoose | c |
| buell | 5 | 1 | bursler | D 1 | SUBSTRATUM |  | 1 | camelback | B 1 | Capps | B |
| bueva vista | 3 | 1 | burson | c | CAJON, SILTY | A | 1 | Cameo | e | capshay | c |
| buffaran | D | 1 | bupt | - | SUBSTRATUM |  | 1 | CAMEPON | - | CAPTINA | c |
| buff Creek | - | 1 | BUSTON | B | Cajon. alkali, | A | 1 | camillus | 9 | CAPTIVA | -10 |
| BUFFINGTON | 3 | 1 | 8URWELL | C | CVERWASH |  | 1 | camino | C 1 | capulin | 8 |
| BUFFMEYEG | B | 1 | busby | e | CAJON. | e | 1 | CAMPANA | 81 | caracoles | D |
| SUFFORK | c | 1 | suse | - 1 | saline-alkalit |  | 1 | CAMPBELL. MUCK | C 1 | caradan | D |
| BuFton | c | 1 | OUSHER | 日 | CAJON. COOL. | A | 1 | SUBSTRATUM | 1 | capalampl | e |
| buhrig | c | 1 | eushmat, | 6 | CVERWASH |  | 1 | CAMPEELL. DRAINED | $\theta 1$ | Carbengle | B |
| buick | c | 1 | bushnell | C | cajon. gravelly | A | 1 | CAMPBELLTON | C 1 | carro | c |
| buist | - | 1 | bushralley | D | CAJJCN. CDOL | A | 1 | CAMPCREEK | $C 1$ | carbol | D |
| buko | 8 | 1 | guska | B | Cajon. marm | A | 1 | CAMPIA | B 1 | CAREONA | D |
| bukJ. Wet | c | 1 | bussy | c | calabar | D | 1 | CAMPO | c 1 | carbonoale | A/D |
| gUKREEK | 9 | 1 | busteq | e | calafasas | - | 1 | CAMPONE | $c 1$ | carcity | D |
| bulake | D | 1 | Busti | C | calarine | D | 1 | CAMPSPASS | B 1 | cardenas | D |
| bulkley | c | 1 | busymilo | E 1 | calamity | D | 1 | campus | - 1 | caroiff | B |
| bull run | 8 | 1 | eutano | $C 1$ | calamls | A | 1 | camroden | c 1 | caroigan | 8 |
| gull run. hardian | c | 1 | BUTCHE | - 1 | calayeras | E | 1 | cana | c 1 | CARDINGTON | C |
| SUBSTRATUM, |  | 1 | futler | 01 | CALAWAH | E | 1 | canam | c | CAPDON | D |
| bull trail | 8 | 1 | butlertown | $c 1$ | calco |  |  | canadian | B | carefree | D |
| bullaros | E | 1 | butterfielo | c 1 | calcousta |  |  | canadice | 0 I | Carey | E |
| bullcreek | D | 1 | Puttermilk | B | calcross | B | 1 | canalou | - 1 | carey lake | B |
| bullfat | - | 1 | gutters | $B 1$ | Cald | c | 1 | cananoaigua | D 1 | CARGENT | B |
| bullfor | c | 1 | eutton | 0 | calder | 0 | 1 | canaseraga | c 1 | CARGILL | c |
| bullion | 0 | 1 | euttonhock | e | Caldermodo | D | 1 | canaveral | c I | caribel | B |
| bullnel | c | 1 | euttonwillow | $C \quad 1$ | calduell | c | 1 | candurn | 01 | capibou | - |
| bullock | D | 1 | Euxin | D | CALDWELL. JRAINEO | B | 1 | candelaria | B 1 | carioca | B |
| bullrey | - | 1 | euxton, SOMEmHat | 0 | CALE | B | 1 | candelero | c 1 | capis | c |
| bullump | 3 | 1 | POORLY DRAINED | 1 | caleast | c | 1 | canderly | 81 | carjo | c |
| Bullvaro | B | 1 | euxton. stiony | $c$ | calee | E | 1 | Candler | A 1 | CARLIN | D |
| Bullwinkle | 0 | 1 | buxton, moderately | c | cale conia | E | 1 | candlestick | C 1 | CARLINTON | c |
| bully | 8 | 1 | mell diained | 1 | Calendar | c | 1 | Candor | A 1 | carlisle | A/D |
| BuLow | A | 1 | Buz2n | 1 | Calefa | c | 1 | Cane | $C 1$ | CARLITO |  |
| guncomee | A | 1 | eyars | 0 | CALHI | A | 1 | caneadea | D 1 | carlos | A/D |
| buvoo | B | 1 | bybee | 0 | calmoun | 0 | 1 | caneek | E 1 | carlotta | E |
| GUNDORF | 0 | 1 | eyington | $c 1$ | calico | c | 1 | canelo | 01 | carlow | D |
| sundy | c | 1 | eyler | $c 1$ | calicott | - | 1 | canest | 01 | Carlsbad | c |
| bundyman | c | 1 | erco | B | CALIFON | c | 1 | canerville | $c 1$ | CARLSEORG | A |
| bunejug | c | 1 | brnum | C 1 | calimus | E | 1 | CANEZ | - 1 | CARLSON | B |
| bunker | B | 1 | evram | 1 | calita | B | 1 | Canf ielo | $C 1$ | carlstram | c |
| bunkerhill | 0 | 1 | eyrnie | D | caliza | B | 1 | canisteo | e101 | CARLTON | c |
| Bunkwater | c | 1 | caballo | E 1 | calkins | c | 1 | CANISTEO, Stony | 01 | carmack | B |
| dunky | c | 1 | casarton | c | callabo | c | 1 | canime | B 1 | Carmel | c |
| bunnell | 8 | 1 | casba | 0 | callahan | D | , | Canlon | D 1 | CARM 1 | 0 |
| bunselmeier | 8 | 1 | cabsart | c | callan | c | 1 | cannell | 1 | CARMI CHAEL | c |
| BUNTINGVILLE | c | 1 | Cabbart, Stony | 0 | calleguas | 0 | 1 | CANNING | - 1 | CARMODY | c |
| bunyan | 8 | 1 | CAPBART, MARM | - | callings | c | , | cannon | - 1 | garnasan | c |
| burbank | A | 1 | cabezen | 0 | Callisburg | c | 1 | cannonville | D 1 | carnegie | c |
| BURCH | 5 | 1 | cabin | $\bigcirc$ | calloway | c |  | canoe | B | carnero | c |
| BURCHAM | B | 1 | casinet | c | CALMAR | P | 1 | canova | B/O1 | carne Y | D |
| burchano | B | 1 | cable | B/OI | calneva | $c$ | 1 | cantala | B 1 | CAROL INE | C |

NOTES: TYO MYDROLDGIC SOIL GROUPS SUCH AS E/C INDICATE THE DRAINED/UNDRAINED SITUATION. MODIFIERS SHDWN, E.G.. BEDROCK SUBSTRATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

| CAROLLO | D 1 | catalpa | $C$ | CENCOVE | B | CHARLOTTE | E/DI | Chewacla | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CARON | A/D I | catamount | D 1 | CENIZA | 8 | CHARLTON | B I | CHEWELAH | C |
| CARON MARSHY | $\bigcirc 1$ | CATANO | A 1 | CENTENARY | A 1 | CHARNOCK | C 1 | CHEYENNE | B |
| CARPENTEF | B 1 | cataract | B 1 | CENTER | c 1 | CHARNOCK. | B 1 | CHIA | D |
| CARR | B | CATAPINA | 01 | CENTER CREEK | $C 1$ | MODEPATELY WET | 1 | CHIARA | D |
| CARRACAS | D 1 | cataska | 01 | CENTERSURG | C 1 | CHARO | C 1 | CHICANE | C |
| CARRANZA | B I | cataula | 01 | CENTERFIELD | E | CHASE | $C 1$ | CHICHANTNA | 0 |
| CARRCREEK | B I | catchell | C 1 | CENTERVILLE | D 1 | CHASEEURG | B I | CHICKAHOMINY | 0 |
| CARRIZALES | A 1 | catelle | - 1 | CENTISSIMA | B 1 | chaseville | A 1 | Chickaman | B |
| CARRI 20 | A | CATERL | E 1 | CENTRAL POINT | B I | CHASKA | 8101 | CHICKASAW | C |
| CAQROLLS | 01 | CATH | C 1 | CENTRALIA | B 1 | CHASTAIN | $\bigcirc 1$ | CHICKASHA | B |
| CARRYBACK | $C 1$ | CATHARPIM | $C 1$ | CENTAALPEAK | C 1 | CHATBURN | B 1 | CHICKREEK | D |
| CARSITAS | A | cathay | C | CERBAT | c I | Chatcolet | B 1 | CHICOLETE | C |
| CARSITAS. WET | 8 | Cathcart | E 1 | CERESCO | B 1 | chateau | D I | CHICOTE | D |
| CARSON | 0 | CATHEDRAL | D | CERINI | E 1 | CHATFIELO | B 1 | CHIEFLAND | B |
| CARSTAIRS | A | CATHEEN | R | CERINI. ALKALI | C 1 | CHATHAM | B 1 | CHIGLEY | C |
| CARSTUMP | C | catherine | C | CERLIN | $C \quad 1$ | CHATSWORTH | D I | CHIKAMIN | $c$ |
| CART | E | CATHLAMET | -1 | CERRILLOS | E 1 | CHATT | C 1 | CHILAO | C |
| CARTAGENA | c | CATHRO | A/DI | CERRC | C 1 | chatuge | D I | CHILCOTT | C |
| CARTECAY | C | catilla | - | CESTNIK | $C 1$ | CHAUMONT | D I | CHILCOTT. GRAVELLY | 0 |
| CARTEF | 0 | Catla | D 1 | CETRACK | E 1 | CHAUNCEY | $C 1$ | CHILCOTT. COOL | D |
| Carterey | 0 | catlett | C/O1 | CHACHA | C 1 | chautaugua | $C 1$ | CHILDS | B |
| CARTHAGE | 9 | - CATLIN | 81 | CHACON | c 1 | Chavies | B 1 | CHILGREN | $c$ |
| CARUSO | C | - catman | D 1 | Chad | C 1 | CHAwANAKEE | $C 1$ | CHILHOWIE | C |
| CARUTHERSVILLE | B | c catnip | D | Chaffee | 01 | CHAYSON | $C 1$ | CHILI | 8 |
| CARVER | A | catoctin | $C 1$ | CHACFIN | E 1 | CHAZOS | C 1 | CHILICCTAL | B |
| CARWILE | D | catcosa | P | CHAIN | $C 1$ | cheadle | D 1 | CHILKOOT | D |
| CARYTOWN | D | - Catpoint | A 1 | craires | E/CI | CHEAHA | D 1 | CHILL | D |
| caryville | B | - Cattcreek | P 1 | CHAIRES. | D 1 | Chegoygan | B 1 | CHillum | 日 |
| Casa grande | $c$ | CATTCREEK. | A 1 | DEPRESSIONAL | 1 | CHECHI | D 1 | CHILMARK | C |
| casabonne | 日 | - GRavelly | 1 | CHAIX | E 1 | CHECKER | $C 1$ | Chilloquin | 0 |
| CASAGA | c | 1 Substratum | 1 | Chalco | D 1 | CHECKEIT | 01 | CHILPEP | D |
| cascade | c | - CATTO | 01 | Chalfont | C 1 | ChEDATNA | 81 | CHILSON | 0 |
| CASCAJO | A | I CaUdlf | $C 1$ | Chalkcreek | e 1 | Chedehap | B I | CHILTON | E |
| CASCAJO. COBBLY | 9 | - Causeba | C 1 | CHALMERS | B/DI | CHEDESKI | B 1 | CHIMAYO | D |
| Cascilla | 9 | I causey | B 1 | Chama, MODERATELY | - 1 | CHEDSEY | $C 1$ | CHIME | C |
| CASCO | 9 | - caval | - 1 | SLOW PE PY | 1 | CHEEBE | D 1 | CHIMENEA | 0 |
| Case | 3 | - cavanaugh | C 1 | Chama, mojerate | F 1 | cheextowaga | D 1 | CHIMNEY | ${ }^{4}$ |
| CASEY | 0 | - cave | D 1 | PERMEABILITY | 1 | CHEESEMAN | e 1 | CHINAPOINT | D |
| CASHEL | c | I cavegulch | B I | CHAMA, CJOL | C 1 | CHEHALEM | $C 1$ | CHINCAP | B |
| CASHIERS | 6 | - caverill | $C 1$ | Chamate | E 1 | CHEHALIS | E 1 | CHINCHALLO | D |
| CASHION | 0 | 1 cavelt | 0 I | Chambeam | e 1 | CHEHULPUM | - 1 | Chincoteague | D |
| CASHMEPE | 8 | r Cavendish | B 1 | chameeqina | C 1 | CHELAN | B 1 | CHINEN | D |
| CASHMONT | B | I cavo | 0 | CHAMRERLAIN | 81 | ChELSEA | A 1 | CHINIAK | $A$ |
| CASITC | 0 | - cavode | C 1 | CHAYISE | 01 | chemava | E 1 | CHINO | $C$ |
| CASLO | 0 | I cavour | D | CHANCKANE | C 1 | CHEN | 01 | CHINO, DRAINED | B |
| CASLO. MODERATELY | c | - cara | D 1 | Champagne | B 1 | CHENA | A 1 | CHINDOK | B |
| WET |  | - caragua | 6 | CHAMPION | B 1 | CHENANGO | A 1 | CHINVAR | C |
| CASMOS | 0 | - carton | $c$ | CHANAC | B 1 | chenault | B I | Chipendale | D |
| CASPAR | B | I cayuga | $C 1$ | CHANCE | D 1 | CHENEGA | A 1 | CHIPENHILL | 0 |
| CASPIANA | B | 1 caruse | B | CHANCELLOR | $C 1$ | CHENEY | - 1 | CHIPETA | 0 |
| CASS | 9 | - cazaderj | $c 1$ | Chandler | B 1 | CHENNEBY | C 1 | CHIPLEY | c |
| CASSIA | $c$ | - CAzADOR | e 1 | Chaney | $C 1$ | CHENOWETH | B 1 | CHIPMAN. | D |
| CASSIA, MODERATELY | B | - CALENOVIA | E 1 | CHANNATON | D 1 | CHEOAH | E 1 | SAL-INE-ALKALI |  |
| well draineo |  | I CEBOLIA | $C 1$ | CHANNING | E 1 | Chequest | $C 1$ | CHIPMAN. | $c$ |
| CASSIRO | $\underline{\square}$ | 1 cerolleta | $C 1$ | CHANTA | \% 1 | CHERIONI | 01 | MODERATELY WET |  |
| CASSIPO, STONY | $c$ | I CEbONE | $C 1$ | CHANTIER | 01 | Cherckee | O 1 | CHIPMAN, ORAINED | D |
| CASSOLAPY | c | I CEBOYA | $C 1$ | CHAPANOKE | $c 1$ | CHERRY | C 1 | CHIPOLA | A |
| Castalc | $c$ | 1 CECIL | B i | CHAPEQTUN | C 1 | CHERRY, GALCAREOUS | B 1 | CHIPPENY | D |
| CASTALIA | c | 1 CEDA | ${ }^{\text {B }}$ | CHAPIN | $C 1$ | CHERRY. COOL | B 1 | CHIPPEWA | D |
| castana | 8 | I cedar butte | 01 | chapman | e 1 | CHERRY SPRING | C 1 | CHIRENO | D |
| CASTELL | $c$ | - CEDAR mountain | 01 | CHAFOT | B 1 | CHERRYMILL | E 1 | CHIRICAHUA | 0 |
| castelleia | 4 | 1 CEDARAN | 0 | CHADPEL.L | A 1 | CHERUM | - 1 | CHIPPCHATIER | B |
| CASTELLE | 9 | 1 CEDARBLUFF | $c$ | CHAPPUIS | $C 1$ | CHESAW | A 1 | CHISCA | 0 |
| CASTEPHEN | c | 1 CEDARCREEK | c | chagua | B 1 | CHESHIRE | B 1 | CHISMORE | 0 |
| CASTILE | 5 | 1 CEDARFALLS | a | CHAPCC | $C 1$ | CHESHNINA | $C 1$ | CHISOLM | $A$ |
| CASYINO | c | 1 CEDARGAP | B | CHARCOL | E 1 | CHESNIMNUS | B 1 | CHISPA | 8 |
| CASTINO. NONSTANY | 0 | 1 CEDAPHILL | E i | CHARE | B 1 | CHESTATEE | B 1 | CHISTOCHINA | B |
| Castle | 0 | I CEDARPASS | e 1 | CHAROOTON | C 1 | CHESTER | B I | CHITINA | C |
| castlevale | 0 | 1 CEDONIA | -1 | Chapette | $c 1$ | CHESTERTON | 01 | CHITTUM | D |
| Castner | 0 | 1 CEEK | 01 | Chargo | c 1 | CHESTNUT | B 1 | CHITVOOD | D |
| Casto | c | 1 celacy | $C 1$ | CHARITION | $c 1$ | CHESTONIA | D 1 | CHIVATO | C |
| CASTON | e | I CELESTE | D 1 | Chaflebois | B 1 | CHESUNCDOK | C 1 | CHIWAUKUM | B |
| CASTRO | D | I CELETON | D 1 | CHARLEEOIS. WET | $C 1$ | CHETCO | 01 | CHIWAWA | B |
| CASTROVILLE | 5 | 1 CELINA | $c$ | CHARLES | $c 1$ | chetek | B I | CHO | C |
| Casuse | D | 1 CELIO | C | CMARLESTIN | C I | cheturnd | E 1 | Choates | $c$ |
| CASVARE | 0 | 1 cellar | D 1 | CHAPLEVOIX | E I | ChEVAL | C 1 | chobee | B/0 |
| CASWELL | $\theta$ | 1 CELSOSPRINGS | C 1 | CHARLOS | e I | CHEVELON | $C 1$ | CHOREE, | 0 |
| CATALINA | B | 1 cember | C 1 | CHARLOS. WET | D 1 | CHEVIOT | B 1 | DEPRESSIONAL |  |

[^0]Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

| chobee. limestone | D | 1 clallam | c | 1 Clidper | D | COKEL | - | colvin. overblown. | $c$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBStratum |  | - clam gulch | D | \| CLIPPER, DRAINED | $c$ | CORER | D 1 | SALINE |  |
| CHOCCOLOCCO | B | I clamo | cro | \| Clodine | 01 | CORESBURY | - | COLmOOD | 810 |
| CHOCK | D | I Clamp | D | I clontarf | E 1 | cokeville | B | coly |  |
| chocorua | D | - clana | A | I cloquallum | c 1 | COLAND | B/DI | colyer | D |
| choice | D | - clanalpine | c | I cloguato | e | colbar | C 1 | comad | a |
| CHOOP | D | I clanton | c | 1 cloouet | B | colbert | D | comar | c |
| CHOPTIE | D | 1 Clapper | B | 1 closkey | c | colburn | c | combe | B |
| CHORALMONT | B | I claremore | 0 | I Clotho | C/DI | colby | 回 | comes | B |
| choska | B | I Clarence | D | I cloud peak | c | coldocrek | B | COMER | - |
| choteau | c | 1 clarendon | c | I Cloud riy | E | caldent | c | cometa | D |
| CHOWAN | D | I Clareson | c | I cloudgroft | D | CCLE | c | COMFORT | D |
| CMRIS | C | - Clareville | c | I cloudlano | c | COLEMAN | c | comfrey | B/0 |
| CHR ISMAN | D | I Clarinda | D | I clough | - 1 | colemantown | C/DI | comfrey. ponded |  |
| CHRISTIAN | c | I clarion | B | 1 clovelly | $\bigcirc 1$ | colestine | c 1 | comitas | , |
| CHRISTIANA | c | I clarita | D | I Clover springs | B 1 | colfax | c | comly | c |
| CHRISTIANBURG | c | I Clark | P | I Cloverdale | $\bigcirc 1$ | COLHILL | - | commerce | c |
| CMRISTINE | D | 1 Clark fork | A | I cloverland | c | colibfo | - | COMMSKI | B |
| CHRISTIFF | $c$ | l clarkelen | B | l clovis | B | colinas |  | сомо | a |
| CHRISTY | c | 1 Clarkrange | c | - clowers | B 1 | colita | 0 | comorati | - |
| CHRODER | B | I clarksburg | c | I Clowers. wet | c | collamer | C 1 | comodore | D |
| chrome | c | 1 clarksdale | c | l clowfin | 8 | collard | e | comoro | B |
| CHRYSLER | c | - clarksville | B | 1 cluff | c | collayomi | B | compass |  |
| chualar | B | I clarno | - | I clunie | c | collbran | D 1 | COMPICHE |  |
| chuses | c | I clato | E | 1 clurde | P | collbran. corbly | $c 1$ | comstock | c |
| chuckanut | B | 1 clatsop | D | 1 Cluro | - 1 | collegedale | $c$ | comus |  |
| chuckamalla | 8 | l claunch | B | I Clyde | e/01 | collegiate | D | CONA | c |
| chuckles | - | I claverack | c | I clrmep | E 1 | collett | 1 | conaby | e10 |
| CHUCKRIDGE | - | l claricon | c | - coachella | - 1 | collett, drained | c 1 | conale |  |
| Chugcreek | c | I clawson | $c$ | I coachella, wet | C 1 | COLLIER | A | conant | c |
| CHUGTER | B | claybuan | B | - coamuila | - 1 | collington | - | conasauga | c |
| chuit | - | 1 clarsprings | D | I coal creek | - | COLLINS | c | conata | - |
| chulitaa | B | I clarton | B | I coalbank | B | COLLINSTCN | - | conboy | 0 |
| Chumall | - | I Cle elum | c | I coaldale | - 1 | collinsville | D | CONCEPCION | - |
| chummy | D | 1 clear lake | - | I coaldoram | - 1 | collinwooo | c | conchas | c |
| chumstick | D | - clear lake. | c | I coalmont | $c 1$ | colma | - | CONCHO |  |
| chupadera | c | - stratified |  | 1 coamo | c | COLMOR | - | conconully | - |
| CHURCH | D | 1 substratum |  | I coarsegolo | c | colnevee | 8 | CONCORD | D |
| CHURCHILL | D | 1 clear lake. | c | I coatsburg | D | colo | -101 | conda |  |
| CHURCHVILLE | D | 1 moderately wet |  | I cobat | B 1 | Colo. drained | B | condie | B |
| CHUPN | E | ( Clearbrook | D | I ccratus | C 1 | COLO. NONFLOODED | B | condit | D |
| chuska | D | 1 Clearfield | C | 1 cobs | - 1 | colockum | B | conocn | c |
| chute | A | I Clearfork | D | - cobesfork | 0 | coloma | A | CONE | A |
| ciales | - | - Clearmater | D | 1 coben | - | colomeo | B 1 | CONECUH | 0 |
| cibegue | B | 1 cleavage | D | I corey | P | colona | c | CONEJO | B |
| CIBO | D | I cleaver | D | 1 coble | - | colonie | A | conejo. wet | c |
| cibola | B | I cleavmor | - | I cceoc | c | colonville | c | CONEJO. GRavelly | c |
| CID | c | clebit | 0 | I cobre | c | Colorado | B 1 | SUESTRATUM |  |
| cidral | c | Clegh | 日 | I coeurg | c | COLOROCK | D 1 | conestoga |  |
| cieneba | c | CLEGHorn | c | - cochetopa | c | Colorow | - 1 | conesus | B |
| CIENO | 0 | c cleman | - | cochina | 01 | coloso | 0 | conetoe | A |
| CIERVO. ALKALI | - | - clementine | c | COCHIti | c 1 | colosse | A | congaree | e |
| CIERVO, ALKALI. | D | Clementine. | B | 1 cochran | c | COLP | c | CONGER | c |
| WET |  | I drained |  | l cocaa | ${ }^{\wedge}$ | colrain | B | CONGER. COBELY | 0 |
| Ciervo, reclaimed | $c$ | 1 clems | E | cocodrie | C 1 | colsayage | c | substratum |  |
| CIFIC | $c$ | clemville | B | - cocolalla | - 1 | COLTER | B 1 | CONGLE | B |
| cimarron | c | clendenen | - | y cocolalla. drained | c 1 | COLTHORP | D 1 | CONI | D |
| CINCINNATI | c | I CLEONE | 8 | codiey | B 1 | COLTON | A 1 | CONIC | c |
| CINCD | A | cleora | e | - codorus | C 1 | COL TROOP | c 1 | conlen | - |
| Cindermurst | 0 | Clerf | c | codouin | D | COLTS NECK | 81 | conley | c |
| CINEBAR | 8 | CLERGERN | - | codylake | B 1 | columbia, muck | B | conneaut | c |
| Cinnadale | D | clermant | D | CoE | - 1 | SUBStratum | 1 | connel | B |
| CINNAMON | 8 | cleveland | c | coercck | D 1 | columbia. drained. | - | connerton | B |
| cintrona | 0 | cleverly | - | COESSE | C/DI | clay suestratum | I | conosta | c |
| CIPRIANO | 0 | C Click | A | COFF | C 1 | columbia. | c | CONOTTON | B |
| CIRAC | B | Cliffotell | - | coffeen | - 1 | moderately wet | - | CONOVER | c |
| CIRCLEBACK | A | CLIFFDOWN | 8 | ceggen | P 1 | COLUMBIA. DRAINED | - 1 | CONOWINGO | $c$ |
| circlebar | c | cliffrhouse | $c$ | l Cogna | B 1 | COLUMBIA. FLOoded | c 1 | CONPEAK |  |
| CIRCLEVILLE | c | Clifford | c | cogsmell | c 1 | columbia, clay | C 1 | CONRAD | a/d |
| CISCO | 8 | Clifsand | 8 | COHAGEN | D 1 | SUBSTRATUM | 1 | conroe | 8 |
| CISNE | D | Clifterson | B | cohasset | e 1 | COLUMBIA. SLOPING | B 1 | CONSE JO | $c$ |
| cIspus | - | - Clifton | B | C COMOCTAH | 8101 | COLUMBINE | A 1 | CONSER | D |
| citadel | c | c clifty | 8 | COHOCTAH. SANDY | - 1 | columbus | c 1 | CONSTABLE | A |
| CItico | 8 | climara | D | I substratum | 1 | colusa | C 1 | CONSTANCIA | D |
| Citronelle | - | climax | 0 | comoe | B 1 | colvaro | B 1 | consumo | B |
| clackamas | D | I Clime | c | coils | c 1 | colville | - 1 | contact | A |
| clatborne | B | clinetop | D | ceit | D 1 | Colville. drained | c 1 | contee | D |
| CLAIRE | $A$ | CLINT | c | cokedale | 01 | colvin | Col | CONTIDE | 8 |
| Clairemont | 8 | l Clinton | 8 | - COKEDALE, dra ineo | C 1 | colvin, saline | $C 1$ | CONTINE | c |

NOTES: TWO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEDIUNORAINED SITUATION. MODIFIERS SHOWN. E.G. EEDROCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

| continental | $c 1$ | CORRALITOS. SILTY | - 1 | Cowers | B | creva | 0 | 1 | CuECREEK | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CONTO | E | SUESTRATUM |  | COMESTGLEN | 0 | Crevasse | A | 1 | cuberant | B |
| CONTRA COSTA | c | CORRECO | $c 1$ | coveta | c | creviscreer | c | 1 | cucamungo | D |
| contrany | B | corrigan | 01 | cowsil | 81 | Crevs | 0 | 1 | cuchillas | c |
| convent | c 1 | CORSON | c 1 | COWHORN | - | chider | - | 1 | cucho | c |
| cooers | - 1 | corta | - 1 | cowiche | 8 | CRIMS | D | 1 | cudahy | D |
| cook | 01 | cortada | - 1 | COWL AKE | B | CRINKER | c | 1 | CUDAHY, DRAINED | c |
| COOKPORT | $c 1$ | CORTEZ | - 1 | COWLIT2 | A | CRIPPIN | e | $i$ | CUDDEBACK | c |
| COOLERITH | $c 1$ | contina | B 1 | COwOOD | 01 | CRISFIELO | B | 1 | CUERDA | c |
| coolidge | 31 | CORTINA. THIN | A 1 | comsly | c 1 | CRISTO | c | 1 | CUERO | 8 |
| COOLVILLE | c 1 | SURFACE | , | COWTON | c | CRISTO. LEAMY |  | 1 | CUERVo | c |
| coomes | 8 | Corunna | -101 | cox | 0 | CRIStosal | - | 1 | cuesta | c |
| COONSKIN | c | CORMIN | - 1 | coxlare | 0 | Critchell | $\theta$ | 1 | cueva | D |
| COOPE R | B 1 | CORMITH | B 1 | coxville | 0 | CRITTENDEN | B | 1 | CuEvitas | 0 |
| coosam | - 1 | CORY | c 1 | coxvell | c | croatan | D | 1 | cuevoland | B |
| cooter | c | CORYDON | 01 | cor | 0 | CROCKER | ${ }^{1}$ | 1 | CULEERTSON | 8 |
| copare | B | cosad | C 1 | covanosa | 0 | CROCKET | D | 1 | Culdesac | $B$ |
| COPAL IS | c | COSER | 01 | corata | c | croes sus | C | 1 | CULLEN | C |
| COPANO | D | coser | B 1 | covet | A | CROFTON | B | 1 | culleoka | 8 |
| COPASTON | D 1 | cosh | $c 1$ | covte | 8 | CROGAAN | B | 1 | CULP | c |
| copeland | 8/01 | COSHDCTON | $c 1$ | covne | - 1 | Croke | 8 | 1 | CULPEPER | c |
| copeland. | D 1 | cosk 1 | B I | coyotecreek | E 1 | CROMwELL | A | 1 | Cultus | 8 |
| depressional | 1 | costilla | A 1 | cozad | E | CRONKHITE | c | 1 | CULVING | c |
| COPEMAN | B | cosumnes | c 1 | COZBERG | - | CRONK S | c | 1 | CUMBERLAND | B |
| COPENHAGEN | D | cotaco | c 1 | COZTUR | D | CROOKEO | D | 1 | CUMBRES | c |
| COPITA | - 1 | cotail | B 1 | Crap tree | c | CROOKEO CREEK | D | 1 | cumley | c |
| COPPER RIVER | - | cotant | - 1 | CRACKERCREEK | e | CROOKED CREEK. | c | 1 | CUMMINGS | 0 |
| COPPER RIVER. | 8 | cotati | c 1 | Crackler | P 1 | drained |  | 1 | CUMMI SKEY | B |
| lacustrine | 1 | coteal | c 1 | cradoock | B | CROOKED CREEK. | c | 1 | CUNARD | B |
| SUBS TRATUM | 1 | cotma | c 1 | Cradlebaugh | - 1 | FLOODED |  | 1 | CUNDICK | 0 |
| COPPER RIVER. TILL | 8 | cotito | B 1 | Cradlebaugh, | C 1 | CRCOKSTON | B | 1 | Cundi yo | B |
| SUBSTRATUM | 1 | coto | B 1 | Sal Ine-alkali | 1 | croam | c | 1 | CUNNINGHAM | c |
| COPPER RIVER. | 61 | cotopaxi | A 1 | Cradlebaugh. | $c$ | CROPLEY | D | 1 | CUPCO | c |
| SILTY SUBSTRATUM | 1 | coti | B 1 | dra ined | 1 | CROPPER | 0 | 1 | cupola | B |
| COPPER RIVER. | B I | cotter | - 1 | CRAF 1 | B 1 | croaule | D | 1 | CUPPER | - |
| graveliy | 1 | COT TERAL | - 1 | crafton | C 1 | Crosey | c | 1 | CUPPLES | c |
| Suestratum | - | COTTLE | - 1 | craggey | 0 | CROSIER | c | 1 | cuppr | 0 |
| COPPERCREEK | 8 | cottoneva | c 1 | crago | e | cross | - | 1 | curaeith | a |
| COPPEREID | 01 | COTTON THOMAS | B 1 | cragola | - | CROSSPLAIN | c | 1 | curant | - |
| COPPERTON | B | COTTONWODD | $c 1$ | cragosen | 0 | crossiell | D | 1 | CURDL I | c |
| COPPOCK | B | COTPREL | $c 1$ | Craig | e 1 | crossville | E | 1 | Curecanti | - |
| COPSEY | D | cotulla | - 1 | CRAIGMILE | $8 / 01$ | Croswell | A | 1 | CURHOLLOW | D |
| coouat | D 1 | COUCH | D 1 | craigsville | - 1 | CROT | D | 1 | CUROB |  |
| coouille | - 1 | cougarbay | D 1 | cramer | 01 | crotan | 0 | 1 | curran | c |
| CORA | D 1 | coughanour | c 1 | CRAMONT | c | Crouch | B | 1 | CURRIER | A |
| coral | c 1 | couleedam | D 1 | Crane | B 1 | CROW | c | 1 | CURRITUCK | D |
| corallake | - 1 | COULS TONE | B 1 | crane creek | C 1 | CROW CREEK | B | 1 | CURTIN | 0 |
| CORBETT | - 1 | COULTERG | - 1 | cranf ILL | B 1 | CROM HILL | c | 1 | CURTIS CREEK | 0 |
| CORBILT | B | coul terville | D 1 | Crannler | - 1 | CROWCAMP | - | 1 | CURTIS SIDING | , |
| CORBIN | $B$ | COUNCELDR | B 1 | CRANSTON | e 1 | CROWFLATS | 8 | , | CURTISTOWN | 8 |
| Corcega | C 1 | COUNCIL | B 1 | crary | c 1 | CROWF OOT | E | I | CUSHENBURY | B |
| cordell | - 1 | countryman | $c 1$ | Crash | B | crowheart | c | 1 | Cushing | 8 |
| CORDES | 81 | counts | - 1 | crater lake | B | crowley | 0 | 1 | cushman | c |
| CORDESTON | - 1 | COUPEE | B 1 | CRatermo | c 1 | CROWNEST | D | 1 | CUSHOLL | c |
| cordova | C/DI | COUPEVILLE | c 1 | Craven | c 1 | CROWSHAN | E | 1 | cusick | $\sigma$ |
| coroy | - 1 | COURT | 81 | CRAMFOPD | - 1 | CROWTHER | D | 1 | custco | 8 |
| CORIFF | Bro | COUR THOUSE | D 1 | CRAWLEYVILLE | B 1 | CROYOCN | B | 1 | custer | 0 |
| CORINTH | C 1 | COURTLAND | - 1 | CREAL | $C 1$ | CROZIER | c | 1 | CUSTEF, dRAINED | c |
| CORKS TONE | - 1 | COURTAEY | D 1 | creasey | C/DI | cruces | D | 1 | cutamar | B |
| CORLENA | , | COURTROCK | - 1 | CREDO | e 1 | CRUCKION | e | 1 | cuthand | ${ }^{-}$ |
| CORLETT | A | coupville | B 1 | Cree d | c 1 | cruickshank | c | I | Cutheert | c |
| CORLEY | 8101 | couse | c 1 | CREEDMOOR | c 1 | CRUISER | B | I | CUTHBERT. GRaded | D |
| CORMANT | AND 1 | coushatta | - 1 | CrEEL | c 1 | crumarine | 8 | 1 | cutoff | c |
| CORNELIA | A 1 | coutis | - 1 | CREE MON | e 1 | CRUME | B | 1 | cutshin | B |
| CORNELIUS | C 1 | cove | D 1 | CREF ORK | c 1 | Crump | 0 | 1 | cutz | D |
| CORNH ILL | B 1 | covelano | 01 | CREIGHTON | B 1 | CRUMP, DRAINED | c | 1 | curama | $B$ |
| CORNICK | D 1 | coveland. draineo | c 1 | CPELDON | c 1 | CRUNKER | B | 1 | curon | A |
| Corning | $c 1$ | COVELLO | $c 1$ | CREN | - 1 | CRUNK VAR | a | 1 | CYAN | $B$ |
| CORNISH | c 1 | COVERT | A 1 | creole | - 1 | crust | D | , | crclone | 810 |
| CORNUTT | c | COVEYTOWN | c 1 | CRESAL | B 1 | CRUTCH | c | 1 | crlinder | 8 |
| CORNYILLE | B | COVILLE | B 1 | Cresbaro | c 1 | CRUTCHER | c | 1 | CYMRIC | - |
| corolla | D | COVING | c 1 | Cresco | c 1 | Cruze | $c$ | I | crnthiana | D |
| CORONA | 8 | COVINGTON | D 1 | Cresten | - 1 | Crrluha | $c$ |  | crnthiania | D |
| cordnaca | - 1 | coman | - 1 | CRESPIN | c 1 | crystal lake | B | + | CYPHER | D |
| COROZAL | c | COwARTS | c 1 | CRES ${ }^{\text {t }}$ | C 1 | CRYSTAL SPRINGS | 0 | , | CYRIL | - |
| COROZO | A 1 | COwCO | B 1 | cres tline | B 1 | CRYSTALBUTE | E | 1 | CZAR | B |
| CORPENING | - 1 | COwden | D 1 | CRES TMAN | - 1 | crystalcreer | B | 1 | dabney | $A$ |
| corral | $c$ | comprey | $C 1$ | CRESTVALE | c 1 | cuate | $c$ | 1 | dabob | $c$ |
| CORRALITOS | A 1 | COMEEMAN | D 1 | CRETE | c 1 | cuba | 6 | 1 | dacker | $c$ |

NOTES: TWO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEO/UNDRAINEO SITUATION. MODIFIERS SMOMN. E.G.. EEDROCK SUESTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FDUND IN SOIL MAP LEGENO.

Table 2-1.-Hydrologic soil groups for U.S. solls (continued)

|  | DACONO | B I | darlano | 8 | DECKERVILLE. | C 1 | dello. clay | B 1 | deschell | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DACOND. COBBLY | $C 1$ | DARLEY | C 1 | DRAINED | 1 | SUBSTRATUM | 1 | deschutes | C |
|  | SUESTRATUM | 1 | DARLING | B I | DECLO | B 1 | dellrose | B 1 | DESCOT | B |
|  | DACORE | B 1 | OARMSTADT | D 1 | DECOLNEY | B 1 | DELLS | C 1 | DESEED | C |
|  | dacosta | D 1 | DARNELL | $C 1$ | decordora | B 1 | OELLMOOD | $A 1$ | DESERET | c |
|  | dade | A 1 | DARNEN | B 1 | DECRAM | $C 1$ | oelma | C 1 | DESHA | 0 |
|  | DADINA | D 1 | DAREX | $C 1$ | DECROSS | E 1 | delmita | $C 1$ | DESHLER | C |
|  | DAGAN | B 1 | DARR | e 1 | DECY | E 1 | OELMONT | C 1 | DESKAMP | C |
|  | Dagflat | $C 1$ | DARRET | C 1 | dedas | C 1 | DELNDRTE | $C 1$ | desmet | B |
|  | DAGLUM | D 1 | CARROCH | B 1 | DEDMOUNT | C 1 | CELORD | 0 i | DESOLATION | 8 |
|  | DAgGR | B 1 | DARROCH. EEDROCK | C 1 | DEDRICK | 01 | DELOSS | B/01 | despain | B |
|  | daguáo | $C 1$ | SUBSTRATUM | 1 | DEE | $C 1$ | DELP | A 1 | destazo | - |
|  | daguey | $C 1$ | CARROUZETT | $C 1$ | deEcree | B 1 | DELPMI | e 1 | DESTER | c |
|  | DAHAR | $C 1$ | OARSIL | $C 1$ | DEEFAR! | C 1 | DELPHILL | C 1 | OETER | $c$ |
|  | DAHLOUIST | B 1 | DARST | c 1 | DEEMER | B 1 | DELPIEORA | D 1 | detour | B |
|  | DAICK | 0 | DART | A 1 | DFEPCUT | 01 | DELPLAIN | 01 | DETRA | B |
|  | DAIGLE | $C 1$ | DARTMOUTH | - 1 | DEEPEEK | D 1 | DELPOINT | $C 1$ | detrait | $C$ |
|  | dailey | 11 | darvey | - 1 | DEEPWATER | E 1 | delray | B/01 | devnah | D |
|  | DAILEY, LOAMY | B I | DARWIN | c 1 | DEER CREEK | C 1 | DELRAY. | 01 | dev | A |
|  | SUBSTRATUM | , | OASHER | 01 | DEER PARK | - 1 | DEPRESSIONAL | , | devada | D |
|  | DA:NT | B 1 | DASSEL | B/DI | DEERFIELD | B 1 | DELRIDGE | - 1 | DEVEN | D |
|  | DAKENT | - 1 | Dast | 8 I | DEEFFORD | 01 | DELSON | $C 1$ | DEVILS | D |
|  | OAKOIA | B | datelano | E 1 | DEEPHORN | C 1 | deltajo | $C 1$ | DEVILSCREEK | C |
|  | OALBO | 81 | DATEMAN | $C 1$ | DEERLODGE | C 1 | DELTON | B 1 | DEVILSGAIT | D |
|  | dalby | $\bigcirc 1$ | DATIL | e 1 | DEERTOA | - 1 | DELWIN | A | devilsgait. | - |
|  | DALCAN | C 1 | datino | C 1 | OEERTRAIL | C 1 | del yndia | A 1 | DRAINED. |  |
|  | DALCO | D 1 | DATINO. STONY | B 1 | DEEPGGOD | B/01 | DEMAR | - 1 | occasionally |  |
|  | OALE | $B 1$ | DATWYLER | $C 1$ | deEtz | - 1 | demast | E I | OEVILSGAIT. | B |
|  | DALECREEK | $C 1$ | daulton | C 1 | defeneaush | B 1 | dement | E 1 | DRAINED |  |
|  | DALEVILLE | 01. | davey | B 1 | DEFIANCE | 01 | DEMING | Q 1 | DEVINE | $c$ |
|  | DALHART | 31 | DAVEY WARM | A 1 | DEFLEP | e 1 | DEMKY | 01 | DEVISADERD | $c$ |
|  | OALIAN | 81 | davidell | B I | DEFCRD | $\cdots 1$ | DEMNER | B 1 | cevoe | D |
|  | dalig | E 1 | davioson | B 1 | degapmo | $\bigcirc 1$ | DEMOGUL | B 1 | OEVOIGNES | D |
|  | dalkena | C 1 | Davis | B 1 | DEGNER | $B 1$ | DEMONA | $C 1$ | devoignes, drained | c |
|  | oallam | B 1 | davison | B 1 | degola | B 1 | demontreville | B 1 | devoignes. | c |
|  | dallarosville | $C 1$ | davtione | B 1 | cegrand | E 1 | DEMOPDLIS | $C 1$ | PROTECTED |  |
|  | DALLESPORT | 81 | daves | $C 1$ | degrey | D 1 | DEMOPOLIS. COBBLY | D 1 | DEVOL | B |
|  | OALTON | $C 1$ | DAWHOD | 3/DI | demana | E 1 | demoss | 01 | devore | 5 |
|  | dalupe | B 1 | cawson | A/D1 | demakt | E 1 | DEMOX | B 1 | oevor | C |
|  | dalzell | $C 1$ | dawtonia | E 1 | demaven | e 1 | DEMPSEY | e 1 | devries | $C$ |
|  | damascus | E/DI | Daxty | $c 1$ | DEMILL | 81 | DEMPSTER | 81 | DEwAP | D |
|  | DAMERON | B 1 | day | 0 | DEML INGER | B 1 | denaud | E/01 | DEWEY | e |
|  | OAMEWOOD | $C 1$ | daybell | A 1 | ofjarnet | e 1 | denar | - 1 | dewerville | D |
|  | DAMLUIS | $C 1$ | DAYSCHOOL | E 1 | DEKALE | $C \quad 1$ | denear | $c 1$ | DEWMINE | 0 |
|  | damon | 01 | cayton | D 1 | OEKODM | e 1 | DENEY | $C 1$ | dewville | B |
|  | dana | E | daytona | B 1 | CEKJVEN | D 1 | DENCO | D 1 | DEXtER | B |
|  | DANAHER | $C 1$ | dayville | C 1 | del rey | $C 1$ | CENHAWKEN | D 1 | DIA | $C$ |
|  | OANAVORE | - 1 | DAZE | c 1 | dela | E 1 | DENISON | $C 1$ | dia, wet. Saline | D |
|  | dancy | B/DI | de masters | 51 | delameter | A 1 | DENMAN | c | DIA. WET | - |
|  | DANDAN | C 1 | DEACON | B 1 | delanco | C 1 | DENMARK | 01 | DIABLO | D |
|  | DANDREA | C | DEADFALL | c | deland | - 1 | DENNIS | $C 1$ | Clagulch | B |
|  | DANORIOGE | D | DEADHORSE | $C$ | delaney | A 1 | DENNOT | B 1 | diamante | B |
|  | OANFORTH | B | DEADMAN | 8 | DELANO | P 1 | DENNY | 01 | DIAMOND | 0 |
|  | dangeerg | D 1 | DEADWOOD | 0 | delassus | $C 1$ | DENROCK | D 1 | DIAMOND SPRINGS | c |
|  | dania | B/DI | deadron | E | DELCONO | D 1 | DENTON | D 1 | diamondilile | $C$ |
|  | danjer | D 1 | deama | 0 | oeldcta | c 1 | OENURE | B 1 | dianev | C |
|  | DANKO | D 1 | DEAN | 8 | deleco | 01 | denver | C 1 | dianola | D |
|  | oanley | c | deandale | D | delena | D 1 | CEPALT | 01 | diaspar | E |
|  | DANN | C 1 | deargorn | e | DELECN | C 1 | OEPCOR | 51 | diatee | e |
|  | DANNEMORA | 01 | DEARYTON | C | deleplain | 01 | DEPOE | D 1 | DIAz | c |
|  | DANSKIN | -1 | deatman | $c$ | delette | C 1 | DEPORT | C 1 | dibble | $c$ |
|  | DANT | 01 | deaver | C | UELFINA | B 1 | DEPPY | 01 | Diboll | 0 |
|  | danters | $C 1$ | debat | C | OFEFT | E/E1 | deputr | $C 1$ | DICK | a |
|  | Danville | $c$ | DEBENGER | C | delgada | D 1 | DERA | B 1 | DICKERSON | - |
|  | daphnedale | $c 1$ | debeque | E | CELHI | A 1 | cerallo | E 1 | DICKEY | e |
|  | OAPOIN | C I | derone | c | DFLICIAS | B 1 | DERB | $C 1$ | DICKINSON, MAPC25 | B |
|  | DARBONNE | 81 | deborah | D | DELKS | $\mathrm{C} / \mathrm{D} 1$ | DERBY | A 1 | DICKINSON. TILL | A |
|  | OAREY | C | DEBS | E | DELL | $C 1$ | DERECHO | B 1 | substratum |  |
|  | DARCO | A | debute | $c$ | DELLEKER | E I | DERINDA | $C 1$ | DICKINSON. MAAT>50 | B |
|  | dardanelle | 3 | decan | c | DELLO, OVERVASH | A 1 | CERLY | D 1 | DICKINSON. MAATく50 | B |
|  | DARDEN | * | decantel | 0 | delle. Saline | $C 1$ | deroux | $C 1$ | DICKMAN | $\wedge$ |
|  | DARDOOW | B | DECATHON | $c$ | dellc. gravelly | c 1 | DERR | $C 1$ | DICKSON | $C$ |
|  | OARE | D | decatur | 8 | SUESTRATUM, VET | 1 | DERRICK | B 1 | DIDDY | D |
|  | DARFUR | B/DI | decca | B | dello. | A 1 | DES MOINES. DRY | B 1 | diehlstadt | C |
|  | DARGOL | 01 | decca. nongravelly | C | SAL INE-ALKALI | 1 | des moines. COBBLY | $C 1$ | DIERSSEN | 0 |
|  | DARIEN | $C 1$ | DECMEL | D | DELLO. MDOERATELY | C 1 | DESAN | 11 | DIETRICH | C |
|  | DARKBULL | 01 | DECKER | $C$ | WET | 1 | DESART | $C 1$ | DIGBY | B |
|  | DARKCANYON | c | deckerville | - | DELLO. DRAINED | A 1 | cesatcya | C 1 | DIGGER | C |
|  | DARL | $C 1$ |  |  |  | 1 | descalabrado | 01 | DIGMTON | $B$ |

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Table 2-1.-Hydrologic soll groups for U.S. soils (continued)

| DIGIORGIO | - | 1 doland | - | dougan | c | duchesme | - 1 | durfee | c |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| dilanson | D | dolbet | c | dougcity | e | dUCKHILL | 0 | ourham | - |
| DILL | - | DOLBEE. SANDY | - | DOUGCLIFF | D | duckree | 8 | DURKEE | c |
| dillard | c | I SUBStratum |  | OOUGH | D | CUCXSTON | 4101 | DUROC | B |
| dilley | B | DOLEKEI | - | dougherty | $A$ | Duco | D | DURRSTEIN | 0 |
| dillyyn | A | DOLEN | - | doughtr | B | DUDA | $A$ | DURS ${ }^{\text {P }}$ | c |
| dilman | c | doles | $c$ | douglas | . | CUDGEN | 0 | DUSLER | C |
| DILTON | D | dollar | $c 1$ | dougville | E | dudley | D | DUSTON | A |
| DILTS | 0 | dollard | $C$ | OOUHIDE | D | DUEL | a | dutchess | B |
| DImAL | c | dollarhice | 01 | douro | B | DUELM | A | DUTEK | $\wedge$ |
| dimebox | D | dollyclark | $c 1$ | dover | E | OUETTE | A | dutton | c |
| DIMMICK | D | 1 dolman | $c$ | oovrar | C/DI | DUFF | B | duval | 9 |
| Oimo | 0 | 1 DOLPH | c | oow | 8 | duffau | e | duxbury | A |
| dimyay | c | 1 dolus | $c$ | dewagiac | E | OUFFER | c | cuzel | $c$ |
| DINA | c | I dome | 8 | dowde | E | CUFFER | A | DWIGHT | D |
| DINCO | B | 1 DOMELL | - | DOWELLTON | D | DUFFIELO | - | dworshak | 6 |
| DINES | 8 | I domengine | $c$ | downata | D | DUFFSON | - | DWYER | $A$ |
| dinevo | B | I domerie | 0 | DOWNER | E | DUFF YMONT | c | DYE | D |
| DINGLE | C | 1 domez | 8 | domney | 8 | DUF ORT | 8 | DYKE | 9 |
| DINGLISHNA | 0 | 1 dominguez | $C 1$ | downerville | D | DUFUR | 8 | drlan | 0 |
| dingman | c | 1 DOMINIC | 8 | OOWNS | E | DUGGINS | c | DYRENG | 0 |
| dinkelman | - | I domino | c | Doyce | B | dugout | 0 | Eachus | B |
| dinkels | - | I dominson | A | doyce, loamy | c | cugway | c | eachuston | D |
| dinmen | B | DOMO | 8 | SUBStratum | 1 | dukes | A | EAO | C |
| dinsoale | B | dona ana | 8 | doyce. moderately | c | dulac | c | Eagar | B |
| dinuba | c | donatue | $c 1$ | WET | 1 | OULCE | D | eaglecone | B |
| DINWOODY | 8 | donald | $c$ | DOYCE, SANOY | $c$ | duleylake | c | eaglepass | 0 |
| DINZER | 8 | donaloson | $\theta 1$ | SUBStratum | 1 | DULLES | - | EAGLEROCK | 6 |
| diobsud | c | donavan | B | DOYLESTOWN | D | DULUTH | B | eagleville | D |
| dioxice | - | donerail | C | DOYN | D | OUMAS | - | EAGLEWING | P |
| dipman | 0 | doney | c | ORA | c | DUMFRIES | E | Eakin | 6 |
| dipsea | 8 | DONICA | $A 1$ | drage | e | DUMMERSTON | B | ealy | e |
| dioue | B | donica, loamy | B | oragoon | c | CUMONT | E | EAPa | 8 |
| dirego | 0 | SURFACE |  | dragston | c | OUN GLEN | E | EARCREE | B |
| disabel | c | DONIPHAN | B | drake | B | dunbar | D 1 | EARLE | - |
| disautel | - | OONKEHILL | 0 | draknae | A | dunbarton | D | EARLMONT | 0 |
| DISCO | B | DONLONTON | C | DRALL | E 1 | DUNBRIDGE | 1 | EARLMONT, draineo | c |
| DISHNER | 0 | DONNA | 0 | DEANYON | - | DUNC | c | EARP | B |
| DISHPAN | c | I Donnan | c | dPaper | C | DUNCAN | D 1 | EARSMAN | 0 |
| Distell | c | donnardo | B | drax | E I | duncannon | B 1 | EASby | D |
| DISTERHEFF | c | 1 DONNEL | B | drax. WET | c 1 | ounckley | B 1 | easley | c |
| DISTON | c | \| donnelly | A | DREDGE | e 1 | duncom | D 1 | EASPUR | B |
| Diswood | D | 1 donner | c | DRESDEN | e ! | dundas | B/O1 | EAST FORK | c |
| ditchcamp | c | donning | D | DRESSLER | c 1 | dunday | A 1 | east lake | $\wedge$ |
| DITHOD | c | donnyeriok | D | drewING | D 1 | dundee | C 1 | eastable | B |
| ditney | c | doodlelink | - | DREWS | - 1 | dunellen | E 1 | Eastican | B |
| divers | 8 | DOOLEY | c | defexel | e 1 | DUNF ORD | C 1 | eastchop | A |
| divide | - | DOOLIN | - | DRIF Tw | C/01 | oungeness | B 1 | eastgate | B |
| divot | c | doone | B | driges | 81 | DUNKIRK | e 1 | eastland | E |
| Dix | A | 1 Door | - | Driscoll | C 1 | dunlap | c | EASTON | 0 |
| dixaleta | D | 1 doomak | A | DRIT | B 1 | dunlatiop | B | EASTPORT | A |
| dixagro | B | 1 DORA | 8101 | driver | c 1 | dunmore | B 1 | eastmell | 0 |
| dixie | c | 1 doran | c | DROEM | c | DUNN | 1 | EASTMOOD | 0 |
| DIXMONT | c | 1 OORB | c | droval. | c 1 | dunning | D | EATON | 0 |
| DIXON | 8 | I Dorchester | B | DRUM | C 1 | dunnlake | D | eaugalitie | B/d |
| DIXONVILLE | c | I DORERTON | B | DRUMMER | B/OI | dunnville | E | eaugallie. | 0 |
| diyou | c | I dormont | c | Drummond | 01 | dunoir | E | depressional |  |
| doak | B | 1 dorna | B | DRURY | - 1 | DUNPHY | c | EAUPLEINE | 8 |
| doakum | 8 | I Doroshin | D | DRY CREEK | c 1 | DUNPHY, ORAINED | 8 | eba | c |
| dobeins | c | \| DOROTHEA | c | dry lake | $c 1$ | DUNPHY, HARDPAN | B | ebal | B |
| D08BS | c | 1 dorovan | D | DRYADINE | $c 1$ | SUBSTRATUM | 1 | eberrt | C/0 |
| dobel | D | 1 dorper | D | dryburg | 1 | dunsmuir | 8 | Eebs | - |
| DOBENT | c | \| dorrance | A | dryoen | B 1 | dunsmuir. | 5 | Ebic | c |
| DOBROW | D | 1 Dors | B | DRYN | c 1 | nongravelly | 1 | E800a | 8 |
| Doby | - | 1 DORSET | B | dryvalley | c 1 | dunton | $c$ | EGODA, StONY | c |
| DOCAS | B | - dosamigos | D | DU PAGE | - 1 | DUnUl | A | EBON | 5 |
| docdee | D | \| dospalos | D | duane | - 1 | DUPEE | $c$ | Ebro | D |
| docena | $c$ | \| Doss | c | DUART | $c 1$ | DUPLIN | c | ECCles | 8 |
| dockery | c | 1 dossman | - | dueakella | c 1 | DUPO | c | echaro | - |
| DOCPAR | B | 1 DOTEN | D | dueakella. | $c 1$ | DUPONT | D | ECHAK | A |
| OOC 1 | c | 1 dothan | - | gravelly | 1 | DUPREE | 0 | ECHEMOCR | c |
| dodes | 8 | I dotlake | 0 | cubakella. cobbly | $c 1$ | DURADOS | $A 1$ | ECKERT | 0 |
| DODGE | 0 | I dotsero | 8 | dubar | B 1 | duralde | c | eckley | 8 |
| DOOGEVILLE | 8 | I Dotta | 8 | OUBES | 1 | DURAND | B 1 | ECKMAN | B |
| OODSON | c | I Dotr | B | DUBES, FLOODED | c 1 | durango | B 1 | ECKRANT | 0 |
| DOEL | c | I doucette | 8 | dueina | c 1 | dURANT | - | eckvoll | - |
| DOGER | A | I DOUdLE | 8 | dublon | E 1 | durazo | A 1 | ECLIPSE | - |
| DOGIECREEK | B | I DOUDS | B | DUBDIS | c 1 | DUREIN | 0 | ECOLA | c |
| dogue | c | 1 dougal | D | duevaue | - 1 | OURELLE | - 1 | ECON | 日 |

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

Table 2－1．－Hydrologic soil groups for U．S．soils（continued）

| econfina | － 1 | elbowlake | E | ELRICK | B | endochillle． | c | Ester | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ECTOR | － | Elburn | B | ELRIN | F | drained | 1 | EStER．THAmED | c |
| EDALGO | c | elsutte | c | Elpose | B | enola | B | ESTERO | D |
| EDOINGS | 8 | Elco | F 1 | ELS | A | ENON | c | EStes | D |
| EDOS | 9 | FLD | B | ELSAH | e | ENOREE | D | estestake | C |
| EDDY | c | eldean | e | elsie | E | enos | c | estherville | 日 |
| EDEN | c | elder | E | elsineoro | B | enosburg | c | ESto | B |
| edenb ower | D | eloer mallow | n | elsmere | A | ensenada | － | estrella | B |
| EDENTON | c | Elderon | E | ElSton | B | ENSIGN | D | Etach | c |
| EDFPO | 0 | ELDERON，STONY | A | eltree | B | ENSLEY | $8 / 01$ | ETCHEN | c |
| edgar | － | ELDGIN | A | eltsac | 0 | ENSTROM | － | etelka | c |
| edge | － 1 | Eldon | 6 | elve | B | Entente | B 1 | Ethan | 日 |
| EDGEHILL | c 1 | eldorado | P 1 | elvedere | C 1 | ENTERO | 0 | ethania | B |
| EOGELEY | c 1 | eloridge | c | elvers | B／DI | ENTEPPRISE | 8 | ethelman | B |
| EDGEMONT | 8 | electra | c | Elvipa | E／DI | entiat | D | ETHETE | 8 |
| EDGEWATER | c | Elefor | B | Elwell | c | entmodt | C | ethete，saline | c |
| EDGEWICK | c | Eleva | E | Elwha | c | enville | c | ETHRIDGE | c |
| EDGINGION | C／D ${ }^{\text {d }}$ | elfareek | $c$ | Elwood | c | enval | － | Etil | A |
| EDINA | D | Elfrioa | B | ELY | P | enzian | D | etoe | B |
| ecinaurg | c | elgee | A | elysian | E | EOJ | c | etoile | D |
| EDISTO | c | eltina | c | ELZINGA | E | EOLA | － | Etowah | B |
| EDLIN | － | ELIJAH | c | emeal | B | EPhraim | c | Etown | 8 |
| EdLoe | 8 | Elindio | $c$ | embargo | c | eprrata | E | etsel | D |
| Edminstef | D | elioak | c | Emeden | B | EPIKOM | － | Etta | B |
| EDMONDS | D | ELI2A | 0 | Emberticn | c | EPLEY | c | EtTER | B |
| EDMDRE | － | ELK | 8 | Emblem | $E$ | EPOKE | 8 | Ettersburg | B |
| edmund | 0 | ELK hollow | E | Embry | E | EPDT | $E$ | EItPICK | B／0 |
| edmundston | － 1 | elk hountain | 81 | enbuod | F | epoufette | R／DI | eutanks | 6 |
| EDNA | D | ElKa | c | ENOENT | D | EPPING | D | EUCLIo | c |
| EDNEYTOWN | － | ELKADER | ${ }^{6}$ | EMDENT，FEDROCK | c | EPSIE | 0 | evodra | B |
| edneyville | 8 | Elkcaeek | c | SUESTRATUM． | 1 | EPVIP | 0 | EUER | 8 |
| EDOM | c | Elkhart | B | drainet | 1 | eguis | D | eufaula | A |
| EDROY | D | ELKHILLS | 8 | EMdent．drainen | c | ERA | － | euharlee | c |
| EDSON | c | ELKHORN | $\varepsilon$ | emerald | e | erakatak | c | eulonia | c |
| EDWARDS | B／01 | ELKINS | D | Emer al da | D | ERaM | c | Eunola | c |
| EEL | B | elkinsville | $\varepsilon$ | EMERSON | E | ERAMOSM | 0 | EUREKA | D |
| eelcove | $\bigcirc$ | Elkmound | － | Emigrant | c | efber | c | euseio | C |
| EELPOINT | － | Elkner | 8 | evigation | r | ERCAN | E | Eustis | A |
| EEP | $C J$ | elkol | 0 | emily | E | EPD | D | Eutaw | D |
| effie | c | elkridge | 8 | EMLIN | c | ERICSON | E | evadale | D |
| effington | D 1 | elksel | c | EMMA | c | frit | c 1 | evangeline | c |
| EGAM | $c 1$ | ELKTON | COI | emmert | A | ERIN | E 1 | Evans | B |
| EGAN | 31 | ellabelle | D | emmet | E | ERNEM | 01 | evansham | 0 |
| egas | 0 | ELLEDGE | c | emmons | E | ERNEST | $c 1$ | EVANSTON | 8 |
| çeert | 01 | ELLEN | F | EMAOR Y | E | ERNO | B 1 | evansville | B／D |
| egaert，stfatified | c 1 | ellett | D | EMCT | E | ERRAMOUSPE | $c 1$ | evant | c |
| suestratum | 1 | elliber | A | EMPEDRADS | B | EPVIDE | $c 1$ | evard | B |
| EgBERT．MODERATELY | $c$ | ellicott | A | empeyville | c | escabosa | c 1 | evaro | E |
| WET | 1 | ELLINGTON | B | EMPIPE | － | escalante | B 1 | EVART | － |
| egbert，drained | $c$ | ELLINOR | c | emforia | c | escameia | c 1 | evendale | c |
| EGBERT．SANDY | $c 1$ | elliott | c | EMrick | B | escanaba | A 1 | everett | A |
| Susstratum | 1 | elliottsville | － | EMro | c | ESCano | c 1 | everett．hard | B |
| EGBERT．SLOPING | c 1 | ELLIS | D 1 | eneap | E 1 | ESCARLO | e 1 | SUESTRATUM |  |
| egelanio | B 1 | ELLISforde | － 1 | engafe，wet | － 1 | ESCONOIDO | $c 1$ | everglades | B／D |
| egindench | $C 1$ | fllisville | B 1 | encampment | F | eshamy | －1 | everty | B |
| EGLIN | A 1 | elloam | 01 | enchanten | F | estenoo | － 1 | everman | c |
| EGYOT | D 1 | elloree | － 1 | Encierfo | 0 | Esmepalda | － 1 | everson | D |
| EICKS | $C 1$ | ELLSworth | c | ENCINA | E | ESMONO | － 1 | everwhite | c |
| EIGHTLAF | D 1 | Ellum | c | endcar | c | ESPARTO | P 1 | EVESBORO | A |
| Eightrile | － 1 | Ellzer | Q／D1 | ENDERS | c | Espelie | B\％I | EvRIDGE | B |
| EILERTSEN | － 1 | elm lake | A／Cl | endersby | E | ESPIL | － 1 | Ewa | 6 |
| EITZEN | － 1 | elmbale | － 1 | encicott | c 1 | ESPINAL | A 1 | EMA，BEDROCK | c |
| EKAH | c 1 | elmendorf | 01 | ENDLICH | B 1 | ESPINOSA | B 1 | substratum |  |
| ekalaka | － 1 | ELMINA | c 1 | fndsam | c 1 | ESPINT | － 1 | Ewall | A |
| EKIM | $C 1$ | ELMIRA | A 1 | energy | e 1 | ESPLIN | D 1 | EXCELSIOR | 6 |
| Ekrue | － 1 | ELMONT | P 1 | Enet | E | ESPY | $C 1$ | ExCheouer | D |
| Fl dama | B 1 | elmore | 61 | Enfielo | 8 | esouatzel | e 1 | ExClose | 日 |
| EL PECO | $c 1$ | elmpidge | c | engelmard | 6／01 | ESRO | － 1 | EXEL | c |
| EL RANCMO | B 1 | elmville | B 1 | ENGETt | A 1 | ESRO．MDDERATELY | C 1 | EXETER | C |
| EL SOLYO | c 1 | ElMwodo | $C 1$ | Engle | － 1 | met | 1 | EXETER，THICK | B |
| ELAM | A 1 | ELNIDO | c 1 | FNGLEWOOD | C 1 | ESS | B I | SOLUM |  |
| ELAM．HARDPAN | 91 | elnora | B 1 | ENKD | c | ESSAL | E 1 | EXETTE | e |
| substratum | 1 | elochoman | 81 | enko．overblewn | － | ESSEN | c 1 | ExIRA | E |
| Elandco | 31 | Elocin | 01 | enlee | 01 | ESSEX | C 1 | ExLINE | D |
| ELBA | C 1 | eloika | B 1 | ENNING | D | essexville | A／DI | Exray | D |
| elbaville | B I | eloma | c | EnNis | B | estacado | B 1 | EXUM | c |
| ELbert | － 1 | elpam | D 1 | ENOCH | c | Estacion | B 1 | EYak | c |
| elbeth | － 1 | Elpedro | － 1 | ENOCHVILLS： | D | estate | C 1 | EyERBOM | c |
| ELBON | B 1 | ELRED | 8／D1 |  | 1 | estelline | B 1 | erlau | c |

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| EYOTA | A 1 | Farragut | C 1 | FETTIC | 01 | FLATRON | D 1 | FORKWOOD | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EYRE | 01 | FARRAR | B | fetzer | C 1 | flattop | D 1 | FORMADER | $c$ |
| EZBIN | B 1 | FARRELL | 81 | FEZ | $C 1$ | FLAXTON | B 1 | FORMAN | B |
| Fabius | - 1 | FARRENBURG | B 1 | FIANCER | D 1 | FLEAK | D 1 | FORMOALE | B |
| faceville | - I | FARROT | $C 1$ | FIANDER. DRAINED | C 1 | FLEER | A/01 | FORNE Y | 0 |
| FACEY | 81 | FARSON | 8 | FIAT | C 1 | FLEISCHMANN | D 1 | FORNOR | B |
| FACTORY | C 1 | FARSON. WET | $C 1$ | FIDALG0 | $C 1$ | FLEMING | $C 1$ | FORREST | $c$ |
| FACTORY. MOIST | B 1 | FARVA | C | FIDDLER | C 1 | FLEMINGTON | - 1 | FORSEER | C |
| FAODIN | D I | FARVANT | 01 | FIDOLETOMN | E 1 | FLETCHER | e 1 | FORSEY | B |
| FADOLL | B 1 | FASMING | D I | FIDDYMENT | D 1 | FLEwSIE | B 1 | FORSGREN | c |
| FAGAN | $C \quad 1$ | FASKIN | B 1 | FIELO | C I | flex | $\bigcirc 1$ | FORSYTH | A |
| FAGASA | $C 1$ | FATHOM | $A 1$ | FiELDCREEK | B 1 | FLO | A 1 | FORT COLLINS | $\theta$ |
| FAMEY | B 1 | FATIMA | B 1 | FIELDING | B I | FLOER | D 1 | FORT MEADE | A |
| FAIM | C I | FATIIG | $C 1$ | FIELDON | B/01 | FLOKE | D 1 | FORT MOTY | A |
| FAIM. MOIST | B 1 | FAUNCE | a 1 | FIFER | 01 | FLOM | 8101 | FORT ROCK | c |
| FAIRBANKS | 01 | FAUNSDALE | D 1 | FIFIELD | C 1 | FLOMATON | - 1 | FORTANK | $c$ |
| FAIRBURN | 01 | Favouier | C 1 | FILION | 01 | Flomat | e 1 | FORTESCUE | C/D |
| FAIRCHILD | C I | fausse | D 1 | FILIRAN | D 1 | FLOODWOOD | B 1 | FORTUNA | 0 |
| FAIRDALE | B 1 | Favret | $C 1$ | Fillmore | D 1 | FLORAMOME | A 1 | FORTWINGATE | $c$ |
| falrfax | B \| | FAWIN | B 1 | Fincastle | $C \quad 1$ | Florala | C 1 | FORTYFDUR | c |
| FAIRFIELD | O 1 | FAX | $C 1$ | FINCH | $C 1$ | Florence | C 1 | FORVIC | $C$ |
| FAIRHAVEN | B I | FAXON | B/01 | FINCMF ORD | A 1 | Floresville | C 1 | FORWARD | B |
| FAIRLIE | 01 | fayette | -1 | FINDOUT | 01 | FLCRIDANA | B/OI | FOSS | B |
| FAIRLO | B I | faretteville | B 1 | FINGAL | $C 1$ | FLORIDANA. | D 1 | FOSSILON | 0 |
| FAIRMOUNT | D 1 | Farmood | C 1 | FINGEROCK | 01 | DEPRESSIONAL | 1 | FOSSUM | A/D |
| FAIRPLAY | B 1 | FE | D 1 | FINLANO | $C 1$ | FLORIDANA. FLODOED | - 1 | FOSTER | C |
| FAIRPOINT | C | Fears | B | FINLEY | B I | FLORIN | C 1 | FOSTORIA | B |
| FAIRPORT | C 1 | FEATHERLFGS | B 1 | FINLEYPOINT | B 1 | FLORISSANT | $C 1$ | FOUNTAIN | 0 |
| FAIRWAY | $C$ I | FEATHERSITCNE | 01 | FINNERTY | D 1 | FLORITA | B I | FOUR STAR | C |
| fairyotll | $C 1$ | FEDJI | A 1 | FIND | B 1 | flotag | B 1 | FOUR STAR. DRAINED | B |
| FAIRYLAWN | 01 | FEDORA | $8 / 01$ | FINOL | C 1 | FLCwELL | $C 1$ | FOURCHE | B |
| FAJARDO | C | FEDSCREEK | - 1 | FIONE | B 1 | floweree | B 1 | FOURLDG | D |
| FALAYA | 0 I | FELAN | B I | FIFADA | C 1 | FLOYD | B I | FOURME | B |
| FALBA | D 1 | FELCHER | B 1 | FIREBALL | B 1 | FLUETSCH | B 1 | FOURMILE | 8 |
| FALCON | D 1 | FELDA | B/DI | FIRE BOX | B 1 | FLUGLE | B 1 | FOX | B |
| FALFA | C I | FELDA. | D 1 | FIRESTEEL | B 1 | FLUKER | c 1 | FOXCREEK | D |
| FALFURRIAS | $A 1$ | DEPRESSIONAL | 1 | Fipestone | c 1 | fluvanna | $C 1$ | FOXCREEK. DRAINED | C |
| FALK | $C$ I | FELICITY | A 1 | FIRMAGE | 61 | FLYBOM | D 1 | FOXHOME | E |
| FALKIRK | B | FELIPE | D 1 | FIRO | 01 | FLYGARE | B I | FOXMOUNT | C |
| FALKNER | C 1 | FELIZ | B 1 | FIROKE | e 1 | FLYNN | - 1 | FOXOL | 0 |
| FALLBROOK | B I | FELKER | B 1 | FIRSIVIEW | $c 1$ | FLynncove | B 1 | FOXTON | C |
| FALLCREEK | C 1 | FELLOMSHIP | 01 | FIRTH | C 1 | FOAD | C 1 | FOXWORTH | A |
| FALLERT | B 1 | FELOR | B 1 | FIRTH. DPAINED | B 1 | FOARD | 01 | FRadole | E |
| FALLON | $C$ I | FELT | Q 1 | FISHERMAN | D 1 | FOEHLIN | B 1 | frailey | B |
| FALLON. NONFLOODED | a 1 | FELTA | C 1 | FISHERS | B 1 | foidel | B I | FRAILTON | D |
| FALLSAM | 01 | FELTHAM | B 1 | FISHFIN | D 1 | FOLA | B 1 | FRAM | B |
| FALLSINGTON | -101 | FELTNER | 01 | FISHHODK | C 1 | FOLDAHL | - 1 | FRANCIS | A |
| FALOMA | D 1 | FELTON | - I | FISHLAKE | D 1 | FOLEY | D 1 | FRANCISCAN | C |
| FALSEN | 11 | FELTONIA | B 1 | FISHPOT | $C 1$ | FOLLET | D 1 | FRANCISOUITO | C |
| FALULA | 01 | FENCE | B 1 | FISHROCK | D 1 | FOMSENG | $C 1$ | FRANCITAS | D |
| FANAL | $C 1$ | FENDALL | $C 1$ | FISHTRAP | D 1 | FONDA | D 1 | FRANDSEN | B |
| FANCHER | $C 1$ | FENELON | $C 1$ | FISK | P 1 | FONDIS | C I | FRANKFORT | C |
| FANDANGLE | $C 1$ | FENN | 01 | FITCHVILLE | C 1 | FONNER | B I | FRANKIRK | C |
| FANDO: | 01 | FENSTER | - 1 | FITZGERALD | - 1 | FONS | B 1 | FRANKLIN | B |
| FANG | B I | FENMICK | C 1 | FITZHUGH | E 1 | FCNTANA | B 1 | FRANKSTOWN | B |
| FANNIN | B I | FENWOOD | B I | FIVEBLOCK | C 1 | FONTREEN | -1 | FRANKTOWN | D |
| FANNO | $C 1$ | FERA | $C 1$ | FIVEMILE | E 1 | FOPIANO | 01 | FRANKVILLE | B |
| FANSHAW | B 1 | FERDELFORD | C. 1 | FIVEMILE, SALINE | C 1 | FORADA | B/DI | FRATERNIDAD | D |
| FANTZ | C I | FEROINAND | $C$ I | FIVEOH | B I | FORAKER | 01 | fraval | C |
| FANU | B I | FEREBEE | 01 | Fivepine | D 1 | FerBar | 01 | fraval. graveliy | B |
| FAPS | C 1 | FERGUS | B 1 | FIVES | E 1 | forbes | C 1 | FRAZER | C |
| FARAWAY | 01 | FERN CLIFF | B 1 | FIVESPRINGS | $C 1$ | FORAESVILLE | C 1 | FRAZERTON | B |
| FARB | 0 I | FERNANDO | B I | flaco | $C 1$ | FOREING | $\bigcirc 1$ | FRED | c |
| FARSER | 81 | FERNCREEK | D 1 | Flagg | - 1 | FORD | D I | FREDENSEORG | $C$ |
| FARGO | 01 | FERNDALE | - 1 | flagler | B 1 | FORDICE | B 1 | FREDERICK | B |
| FARISITA | - 1 | FERNEY | 01 | flagstaff | C 1 | FORDNE Y | A 1 | FREDON | c |
| FARLAND | 3 I | FERNHAVEN | e 1 | FLAK | $C 1$ | FORDNEY, MET | $C 1$ | FREDONIA | C |
| FARLOM. | © 1 | FERNLEY | $c 1$ | flambeau | B 1 | FOROTRAN | $C 1$ | FREDONYER | $C$ |
| FARLOW. HIGH | C 1 | FERNOW | e 1 | FLAMING | A 1 | FORDUM | 01 | FREE | B/D |
| RAINFALL | 1 | FERNPOINT | E 1 | flanagan | B I | Foroville | B | FREEBURG | $c$ |
| FARMELL | - 1 | FERNWOOD | B 1 | Flandreau | e 1 | FORELAND | 01 | FREECE | 0 |
| FARMINGTON | C 1 | FERRELO | E 1 | FLANE | C 1 | FCRELLE | - 1 | FREEDOM | $c$ |
| FARMSMORTH | D 1 | FERRIS | D 1 | Flanly | B 1 | FORESMAN | B 1 | FREEDOM. SALINE | B |
| FARMTON | D 1 | FERROBURRO | 01 | FLASHER | 01 | FORESTBURG | A 1 | FREEHOLD | B |
| FARNHAM | B 1 | FERRON | D 1 | FLAT HORN | - 1 | FORESTOALE | D 1 | FREELAND | C |
| FARNHAMTON | C 1 | FERTALINE | D 1 | FLATHEAD | - 1 | FORESTER | $C 1$ | FREEMAN | C |
| FARNUF | 61 | FERTEG | C 1 | FLATIRONS | C 1 | FORESTON | $C 1$ | FREEMANVILLE | B |
| FARNUF, VET | $C 1$ | FESTINA | B 1 | flatnose | B 1 | Forgay | B I | FREEON | B |
| FARNUM | B 1 | FET ${ }^{\text {f }}$ | $\bigcirc 1$ | FLATONIA | D 1 | FORK | C 1 | FREER | $C$ |

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| GLOHM | c | gooseflats | D | GRANGEVILLE． | e | 1 | GRELL TON | B | 1 | guayabota | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GLORIA | D | goosmus | 8 | ORAINEO |  | 1 | grenada | $c$ | 1 | guayama | D |
| GLOUCESTER | A | GORDO | B | GRANGEVILLE． | E | 1 | GRENADIER | B | 1 | gUeE | C |
| glover | C／D I | GORE | 0 | OCCASIONALLY |  | 1 | GRENVILLE | E． | 1 | guben | E |
| GLYNDON | B 1 | GOREEN | 0 | FLOODED |  | 1 | gresham | C | 1 | GUCKEEN | C |
| GLYNN | C | gargas | 0 | GRANILE | P | 1 | GRETDIVID | 8 | 1 | GUDGEL | $c$ |
| GLYNWOOD | $C 1$ | GORGONIO | A 1 | GRANMOUNT | C | 1 | GREWINGK | C | 1 | gudgrey | 9 |
| GLYPHS | B I | GORHAM | B／D | GRano | D | 1 | GREYEACK | B | 1 | GUELPH | B |
| GOBAR | B | GORIN | $c$ | GRANSHAW | P | 1 | GREYBO | B | 1 | GUEMES | B |
| gobernador | D | GORING | C | GRANT | B | I | GREYBULL | C | 1 | gUenoc | C |
| GOBINE | B | GORMAN | C | GRANTFORK | D | I | GRE YEAGLE | D | 1 | GUENTHER | B |
| GOBLE | C | GORSKEL | 0 | GRANTHAM | D | 1 | GREYS | e | 1 | GUERNSEY | $c$ |
| GOBL IN | D | GORS ${ }^{\text {t }}$ | D | GRANTSAURG | C | 1 | GRIbELE | D | 1 | GUERO | c |
| GOCHEA | B I | GORUS | B | GPANTSDALE | B | 1 | GRIDELL | 0 | 1 | GUERRERO | A |
| GODOARD | B | GORZELL | B | granville | E | 1 | GRIDGE | D | 1 | GUEST | D |
| GODOE | D | gosa | $B$ | GRANYON | B | 1 | GRIDLEY | C | 1 | GUFFEY | C |
| GODO ING | C | GOSHEN | B | GRANZAN | 8 | 1 | GRIETA | B | 1 | GUFFIN | 0 |
| GODECKE | D I | goshute | D | GRAPEVINE | B | 1 | GRIEVES | P | 1 | gUGUAK | 0 |
| GODFREY | D 1 | gosinta | C | GRAPIT | E | I | GRIFFITH | D | 1 | GUILDER | C |
| GODWIN | D 1 | GOSLIN | B | GRASHUL | C | 1 | GRIFFY | E | 1 | GUISER | $B$ |
| GOEMMER | $C 1$ | GOSNEY | D | Grasmere | E | I | GRIFTON | D | 1 | GULER | E |
| GOESLING | $B 1$ | GOSPER | B | GRASSNA | E | 1 | GRIGSEY | B | 1 | GULF | 810 |
| GOESSEL | D 1 | GOSPORT | $C$ | GRASSVAL | D | 1 | GRIGSTON | $\varepsilon$ | 1 | gULKANA | B |
| GOFFPEAK | B I | GOSS | 8 | grassualley | D | 1 | GRIMM | A | 1 | GULNARE | 0 |
| GOGEBIC | $B 1$ | gosum I | 0 | GRassy butte | A | 1 | GRIMM．STONY | G | 1 | gumble | D |
| GOL | D 1 | gotebo | 8 | gras stcene | A | 1 | GPIMSLEY | B | 1 | gumboot | D |
| GOL | $C 1$ | gotham | A | GFAT | 0 | 1 | GRIMSTAD | E | 1 | GUMBOOT，DRAINED | C |
| GOL．NONSTONY | $C \quad 1$ | GOTHARD | C | grattan | A | 1 | GRIMSTONE | 0 | 1 | GUNEARREL，SALINE | D |
| GOL．GRAVELLY | $C 1$ | GOTHENEURG | － | graufels | C | 1 | GRINA | D | 1 | GUNBARREL．DRAINED | A |
| GOLCONDA | $C \quad 1$ | GOTHIC | $c$ | gravden | D | 1 | GRINDALL | 0 | ， | GUNO | c |
| GOLD CREEK | 01 | GOTHO | c | graveltion | E／C | I | GRINDBROOK | C | 1 | gundor | c |
| GOLDBERG | 01 | GOTHO．MODERATELY | B | GRavier | B | 1 | GRINDS TONE | $c$ | 1 | GUNLOCK | $c$ |
| GOLDENDALE | B 1 | wET | 1 | grayeert | E | 1 | GPINK | C | 1 | GUNN | B |
| GOLDFINCH | D I | GOTHO．COOL | 8 | graycalm | A | 1 | GEINROD | c | 1 | GUNNEL | D |
| GOLDHEAD | B／OI | GOULDING | D | gray ford | B | 1 | GRISDALE | 8 | 1 | GUNSIGHT | B |
| GOLDHILL | D 1 | GOULDSBORO | D | grayland | D | 1 | GRI SWOLD | 8 | 1 | GUNSONE | D |
| GOLDHILL．LOAMY | $C 1$ | GOURDIN | $C 1$ | GRAYLAND，drainec | $C$ | 1 | GRITNEY | C | 1 | GUNS TOCK | C |
| SUESTRATUM | 1 | gourley | $c$ | GFAYLING | A | 1 | GRIVER | C | ， | GUNTER | B |
| GOLDLAKE | B 1 | gove | 8 | GRAYLOCK | ${ }^{4}$ | 1 | GRIVER．WET | D | 1 | GUP | c |
| GOLDMAN | $C 1$ | GOWEN | B 1 | graylock，Stony | B | 1 | GRIVER，DRAINED | 8 | 1 | GURDANE | c |
| GOLDMIRE | $C 1$ | GOWKER | C | GRAYPOINT | B | 1 | GRIZILY | $\theta$ | 1 | GURDON | c |
| GOLDRIDGE | B 1 | GOWTON | B | GRAYPOINT．WET | C | I | grobutte | 8 | 1 | gURLEY | $c$ |
| GOLDRUN | A 1 | GDZEM | D | GRAYROCK | C | 1 | GROGAN | 8 | 1 | GURNEY | B |
| GOLDSBORO | $B 1$ | GRABE | 6 | gray | B | 1 | GROOM | C | 1 | GUSTIN | 0 |
| GOLDSTON | C 1 | GRABLE | 6 | graysile | C | 1 | GROSECLOSE | C | 1 | GUSTSPRING | 8 |
| GOLDS TREAM | 01 | GRACEMONT | C | grazer | C | I | GROSS | $c$ | 1 | GUTHRIE | 0 |
| GOLDSTREAM．THAWED | B 1 | gracemore | C | great eend | E | 1 | GROSSWELL | c | 1 | guy | 8 |
| GOLOUST | C 1 | graceville | 8 | GREDGE | D | 1 | GROION | A | 1 | GUYAN | C |
| goldvale | B 1 | GRADCO | $c$ | GREEN ELUFF | E | 1 | GROTTE | B | 1 | guyandotte | 6 |
| goldrale．NONSTONY | C 1 | GRADON | $C$ | GPEEN CANYON | 8 | 1 | GROTTO | A | 1 | guyton | D |
| GOLDVEIN | C I | GRAD | 0 | GREEN RIVER | $C$ | 1 | GPOUSECREEK | B | 1 | GWENA | 0 |
| GOLDYKE | 01 | GRAFEN | H | GREEH RIVER， | P | 1 | GROUSEVILLE | C | 1 | GWIN | D |
| goleta | B 1 | GRAFF | D | Strongly saline |  | 1 | grove | A | 1 | GWIN．GRAVELLY | C |
| GOLIAD | $C 1$ | GRAHAM | 0 | GREEN RIVER． | P | 1 | GROVECITY | B | 1 | GWINLY | D |
| GOLLAHER | D 1 | GRAIL | C | FLCODED |  | 1 | GROVENA | E | 1 | GWINNETT | B |
| GOLSUM | $C 1$ | GRAINOLA | 0 | GREENBRAE | C | 1 | GROVER | 6 | 1 | GYMER | C |
| goltry | A 1 | graley | D | GREENERIAQ | E | 1 | grovetion | 6 | 1 | GYNELLE | A |
| GOLVA | B 1 | GRALIC | B 1 | GREENCPEEK | B | 1 | GROWDEN | $c$ | 1 | gyonevee | B |
| GOMERY | 81 | GRaN | C | GREENDALE | E | 1 | GROWLER | B | ， | GYSTRUM | C |
| GOME $Z$ | B 1 | GRANATH | 日 | GREENE | E | 1 | GROW TON | 8 | 1 | HAAR | D |
| GONVICK | B 1 | GRANEY | A／D1 | GREENFIELD | B | 1 | GRUBES | D | ， | HAARVAR | 0 |
| GONZAGA | C I | GRande ronde | D I | GREENFIELO． | C | 1 | grubstake | B | 1 | HACCKE | C |
| GOOCH | D I | GRandFIELO | 81 | HARDPAN |  | 1 | gruene | D | 1 | HACK | B |
| GOOD ING | D 1 | GRANDMORE | B 1 | SURSTRATUA |  | 1 | GRULLA | 0 | 1 | HACKBERRY | 8 |
| GOOD ING TON | D 1 | GRANDPON | B | GPEENHALGH | B | 1 | GRUMMIT | D | 1 | HACKERS | 日 |
| GODDL AND | B 1 | GRANDVIEX | $C \quad 1$ | GREENHORN | D | 1 | GRUNDY | $C$ | 1 | hackroy | O |
| G000L Ow | B 1 | GRANDVIEW＊DRAINED | B 1 | GREENLEAF | E | 1 | GRUVER | $c$ | 1 | hackwood | B |
| GOODMAN | B I | GRANER | 81 | GREENLEE | B | 1 | grygla | 810 | 1 | HADAR | B |
| GOODNIGHT | A 1 | GRANGE | C | GREENMAN | C | 1 | GSCHWEND | 日 | 1 | Hadencreek | C |
| GOOOP ASTER | 01 | GRANGEMONT | c | GREENOUGH | E | 1 | guadalupe | E | ， | Hades | 8 |
| GOODP 1CH | B I | grangeville． | B | GREENSON | $c$ | 1 | gUajE | D | 1 | hadley | B |
| GOODSPRINGS | D I | DRAINED．SLOPING | ， | GREENTON | C | 1 | guam | D | 1 | hadselville | D |
| GOODWILL | B 1 | GRANGEVILLE． | C | GREENVILLE | B | 1 | guamant | B | 1 | haflinger | A |
| GOODW IN | B 1 | SALINE－ALKALI． | 1 | GREENVINE | D | 1 | guanabano | C | ， | HAGEN | 8 |
| goolaway | $C 1$ | WET | 1 | GREENWATER | A | 1 | guanajibo | C | 1 | hagendarth | B |
| GOOSE CREEK | B I | GRangeville． | B | GREENWAY | E | 1 | guanica | D | 1 | hager | D |
| GOOSE CREEK．WET | C 1 | SALINE－ALKALI |  | GREENWOOD |  | 1 | gUard | C | 1 | Hagerman | C |
| GOOSE LAKE | 01 | GRangeville． | B | GREHALEM | E | 1 | g uapdilake | A | 1 | HAGERSTOUN | $c$ |
| GODSE BURY | B 1 | moderately wet |  | GRELL | D | 1 | guayabo | A | 1 | hagga | D |

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| hagGa. | $C \quad 1$ | HANIPOE, BEDROCK | C 1 | HARSHA | e | HAWI | B 1 | heimdal | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SALINE-ALKALI | 1 | SUBSTRATUM | 1 | HARSLOW | C 1 | HAWICK | A 1 | heinsam | C |
| HAGGERTY | B 1 | HANIS | $c$ | harstine | $C 1$ | Hawke ye | A 1 | HEISETON | 0 |
| hagstaot | $C \quad 1$ | HANKINS | $C 1$ | HARSTON | B | HAWKINS | $C 1$ | HEISETON, STONY | C |
| hague | A 1 | HANKS | 8 | HART | D I | HAVKSBILL | B 1 | HEISETON. | C |
| haig | COI | hanksville | D | HART CAMP | D | HAWKSNEST | C/DI | SALINE-ALKALI |  |
| haights | B I | Hanksville. | C | HARTER | $C 1$ | HAWKSPRINGS | $B 1$ | HEISLER | B |
| HAIKU | B 1 | NONFLDODED | 1 | HARTFORO | A 1 | HAWKSTONE | 81 | HEIST | 日 |
| HAILMAN | 51 | HANLON | P | HARTIG | e 1 | havley | e 1 | HEIT | C |
| haire | $C 1$ | HANLY | A | HAPT ILL | C 1 | hawsley | A I | HEI2ER | 0 |
| HAIRE, BEDFOCK | 01 | HANNA | B | hartland | E 1 | haxtun | B I | HELDT | C |
| SUESTRATUM | 1 | hannahatchee | E | hartless | B I | haybourne | B 1 | helemano | B |
| HAKKER | $C 1$ | HANNING | $\underline{\square}$ | HARTLETON | F I | HayCRIK | C 1 | helena | C |
| HALACAN | 01 | hano | $C$ | HAPTNIT | C 1 | Hayoen | B 1 | helendale | B |
| Halava | 81 | hanover | C | HakT SEURG | E101 | hayeston | e 1 | hellgate | B |
| halbert | $\bigcirc 1$ | HANS | C | Hartsells | E 1 | hayesville | B 1 | hellman | C |
| HALCOTT | C/Di | hansel | C | HARTSHORN | 51 | hayesville, Stony | C 1 | HELM | D |
| haldef | $C 1$ | HANSKA | 8/DI | hartville | $C 1$ | hayfielo | B 1 | HELMER | C |
| hale | 01 | HANSON | B | HARTMELL | D 1 | hayford | $C 1$ | helmer, gravelly | D |
| HALE. DRAINED | C 1 | HANTHO | E | HARVARD | E 1 | HAYHOOK | P 1 | SUESOIL |  |
| HALEOGN | $C 1$ | HANTZ | 0 | HARVFSTER | 61 | HAYMARKET | 01 | HELMER. THIN | D |
| hale ina | B 1 | HANTZ. DFY | c | HARVEY | E 1 | HAYMOND | B 1 | SURFACE |  |
| HALEY | B 1 | HAP | B | HaRVEY. SEDROCK | C 1 | HAYMONT | $B 1$ | HELMER, SEVERELY | D |
| half modn | 91 | HAPGOOD | B | SUBSTRATUM. DGY | 1 | hayness | B 1 | ERODED |  |
| HALFADAY | A 1 | HAP JaCK | c | HARWOOD | C 1 | haynie | B 1 | HELMICK | D |
| HALFWAY | 01 | hapney | C | HASKILL | B 1 | HAYPRES5 | - 1 | helter | E |
| HALII | B I | HAPPLE | B | HASKINS | $C 1$ | hayrack | $C 1$ | helvetia | C |
| halitmaile | - 1 | HAPUR | D | HASSEE | 01 | hayspur | D 1 | HELY | C |
| hall | $\cdots 1$ | HARAHAN | 0 | HASSELL | $C 1$ | haysum | B 1 | MEMGRE | B |
| HALL RANCH | C 1 | HARAHILL | C | HASTINGS | E 1 | mayter | 81 | MEMCROSS | 8 |
| hallandale | B/DI | harana | e | HAT | $C 1$ | hayti | 01 | HEMINGFORD | B |
| hallandale. tioal | 01 | HARBORD | B | hatbero | D 1 | HAYWIRE | $C 1$ | HEMDSTEAD | B |
| hallcreek | A 1 | MARCANY | 6 | Hatch | $C 1$ | haymood | B I | HENCO | E/D |
| HALLECK | $C 1$ | harco | B | HATCH, GRAVELLY | 01 | hazel | C 1 | HENDERSON | B |
| HALLECK, GRAVELLY | 91 | MARCOT | -101 | hatchery | $C 1$ | hazelair | 01 | MENOUN | C |
| SUGSTRATUM | 1 | haroeman | $B 1$ | HATCHET. | B I | HAzEA | E 1 | HENDRICKS | B |
| mallettsville | $0 \quad 1$ | hardesty | B | OVERBLOWN. thick | 1 | HAZLEHURST | $C 1$ | HENDY | C |
| Hallis | $C \quad 1$ | HARDHAT | R | SOLUM | 1 | hazleton | B 1 | HENEFER | C |
| HALLORAN | $C 1$ | HAPDING | 0 | hatchet. gravelly | C 1 | HAZTON | D 1 | HENHOIT | B |
| halsey | C/OI | HAROISTER | 6 | HATCHET. JVERELOWN | $C 1$ | headley | 81 | HENKIN | E |
| YALSO | $\bigcirc 1$ | HARDOL | 5 | hatchet. COSBLY | $C 1$ | headouarters | e 1 | HENLEY | $C$ |
| HAMACER | A 1 | hardscrabble | - | hatchie | C 1 | HEAKE | D 1 | HENLINE | C |
| HAMAKUAPOKO | B I | hafuteigger | E | hatepmus | c 1 | HEALOTON | C 1 | HENMEL | C |
| HAMAR | $\wedge / D 1$ | HAROY | C | hateftion | [ 1 | HEALING | E I | HENNEKE | c |
| HAMSLEN | $C 1$ | HARGILL | $\theta$ | hathavay | E 1 | HEARNE | $C 1$ | HENNEPIN | B |
| hambone | E I | hargreave | c | matley | C 1 | HEARNE, GRADED | D 1 | HENNESSY | B |
| HAMSRIGHT | C 1 | harjo | 2 | hatliff | $\cdots 1$ | HEATH | $C \quad 1$ | HENNEWAY | B |
| hambuag | Q 1 | HARKERS | $c$ | hatmakef | $c 1$ | heathcoat | $C 1$ | HENNEY | B |
| HAMGY | $C 1$ | HARKEY | \% | hatpeak | $C 1$ | heatly | A I | HENNINGS | B |
| HAMOEN | B 1 | hairkness | C | hatile | $C 1$ | HEATCN | $A 1$ | HENNINGSEN | $C$ |
| Hamel | $c 1$ | haflan | B | HATTON | $C 1$ | HEEBRONVILLE | B 1 | HENRIETTA | B/ 0 |
| MAMERLY | $C 1$ | HARLEM | C | HATUR | $C 1$ | HEBER | A 1 | HENRIEVILLE | - |
| HAMILTUN | 31 | harlem, Channeled | - | hatwal | 01 | hebert | $C 1$ | HENRY | 0 |
| HAMLET | 91 | marlesticn | C | havestadt | C 1 | HEBD | C 1 | HENSHAW | 6 |
| HAMLIN | B I | harlingen | D | haug | E/DI | HEERON | P 1 | HENSLEY | 0 |
| HAMMACK | B 1 | Harlow | 0 | havgan | 61 | HECETA | D 1 | HENSON | E |
| GAMMONTCN | 31 | HARMEML | $c$ | halli ings | 01 | HECHTMAN | D 1 | HEPLER | $C$ |
| HAMPSMIRE | $C \quad 1$ | HASMONY | $c$ | haunchée | 01 | HECKER | B 1 | HEPPSIE | D |
| HAMDSON | C 1 | harney | E | hauz. | $C 1$ | HECKISON | D 1 | HERAKLE | D |
| HAMPE | C/DI | HAROL | E | havala | 81 | HECLA | A 1 | HEREERT | B |
| havple | E 1 | HARPER | D | havana | Q 1 | HECTOR | D 1 | HEREMAN | 0 |
| HAMTAH | $C 1$ | harpersville | 0 | havelock | B/CI | HEDGE | D 1 | HERD | C |
| HANA | A 1 | HARPETH | $\theta$ | haven | E I | HEOOES | $C 1$ | HEREFORD | B |
| hanagita | 01 | Harpole | B | haverdad | P 1 | HEDOX | $C 1$ | HERITO | C |
| havaker | $C 1$ | HARPS | S/D1 | haverdad. | C 1 | HEDRICK | e 1 | HERKIMER | B |
| hanalei | $C 1$ | HAPPSTER | B/OI | moderately saline | 1 | HEDSTROM | B I | HERLONG | D |
| hanamaulu | 81 | HARPI | B | HAVERHILL | C I | hedville | D I | HERM | C |
| hanceville | B 1 | hafgua | C | haverly | C 1 | HEECHEE | B 1 | HERMANTOWN | C |
| HAND | B 1 | harrah | E | Havermom | B 1 | HEELY | B 1 | HERMERING | B |
| MANDPAH | $\bigcirc 1$ | MAPRIET | c | HAVERSON | B 1 | HEESER | B I | HERMISTON | B |
| HANDRAN | A 1 | HARRIMAN | e | H haviland | e I | HEFED | B I | HERMON | A |
| HANDSBORO | D 1 | HARRIMAN. WET | c | Havillah | $B 1$ | HEFLIN | B 1 | HERNANDEZ | B |
| handy | $C 1$ | HARRINGION | $C$ | I HAVINGDON | $C 1$ | HEGLAF | B 1 | HERNDON | B |
| maney | 31 | HARRIS | D | - havre | B I | HEGNE | $\bigcirc 1$ | HERO | 8 |
| HANFORD | 81 | HARRISEURG | $C$ | 1 havre, Saline | c 1 | HEIDEL | B I | HEROD | D |
| HANGAARD | 01 | HARRIS SN | E | - havre. mjoteately | $c 1$ | HEIDEN | D 1 | HERRICK | 8 |
| HANGOO | B I | HARRISVILLE | c | 1 WET | 1 | HEIDTMAN | $C 1$ | HERSH | 0 |
| HANGTOWN | P 1 | HARROUN | D | I HAVFELON | B 1 | HEIGHTS | B/DI | HERSHAL | D |
| hanipde | B 1 | harsan | E | I HAW | e 1 | HEIL | D 1 | HERTY | D |

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MODIFIERS SHOWN, E.G.. BEDROCK SUBSTAATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

| HESCH | B | Hills | － | 1 | HOLDERMAN | $C 1$ | HOODVIEW | B I | HOWELL | c |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HESPER | B | Hillsdale | B | 1 | HOLDERNESS | $c 1$ | HOOGDAL | C 1 | howland | c |
| HESPERIA | B | HitLTo | 0 | 1 | HOLDINGFORO | $C 1$ | HoOks | B 1 | HOWSON | $c$ |
| MESPERUS | － 1 | HILLmOOD | B | 1 | HOLDREGE | P I | HOOKSAN | $\cdots 1$ | hove | 8 |
| HESSEL． | B／DI | HILMAR | 0 | 1 | MOLILLIPAH | A 1 | HOOK TON | $C 1$ | HOYLETON | $C$ |
| hesselberg | 01 | HILMAR．DRAINED | B | 1 | HOLLAND | B 1 | hoolehua | B 1 | hoypus | A |
| HESSELTINE | B | hilmoe | C | 1 | HOLLANDLAKE | B 1 | HOOLY | C 1 | hoytville | C／D |
| HESSING | B | HILD | A | 1 | HOLLINGER | E I | HOOPAL | D 1 | huachuca | 0 |
| HESSLAN | $c$ | HILOLO | D | ， | HOLLIS | COI | HOOPER | 01 | humlapal | c |
| HESSON | c | HILT | E | 1 | HOLEISTER | D 1 | HOOPESTON | B 1 | HUE | B |
| HETEREA | $C 1$ | HILTON | B | 1 | holl dman | D 1 | HCOPLITE | D 1 | HUBBAFD | A |
| HETTINGER | COI | hinckley | A | 1 | HOLL OMEX | B I | HCOSAN | B 1 | HUBBARDTON | D |
| HEUSSER | $C \quad 1$ | HINDES | C | 1 | HOLLOW | C I | HOOSEGOW | B 1 | HUBBELL | B |
| HEUVELTON | $C 1$ | HINESBURG | C | 1 | holloway | e 1 | HCOSIC | a 1 | muberly | 0 |
| HEWIT | 01 | HINKER | c | 1 | holl owtree | C 1 | hoosierville | C 1 | HUBERT | B |
| HEXT | B 1 | HINKLE | D | 1 | HOLLY | B／01 | HOOS 1 mBIm | B 1 | MUBLERSBURG | E |
| HEYDER | B 1 | MINMAN | $C$ | 1 | HOLLY，PJNDED | 01 | H00： | D I | MUCKLEGERRY | $c$ |
| HEYOLAUFF | B | HINSDALE | D | 1 | HOLLY SPRINGS | D 1 | HOOTEN | D 1 | HUCKLEBERRY．HIGH | B |
| HEYTOU | B | HIRAMSBURG | C | 1 | Hollywell | B 1 | HOPCO | C 1 | RAINFALL |  |
| HEZEL | B 1 | HIRIDGE | D | 1 | HOLLYWOOO | D 1 | HOPDRAM | A 1 | HUONUT | B |
| HI VISTA | C I | HIRSCHDALE | $c$ | 1 | HOLMAN | A 1 | HOPEKA | D 1 | HUDSON | $c$ |
| HIARC | C | HISEGA | c | ， | HOLMDEL | $C 1$ | HDPKINS | B 1 | hUECO | c |
| HIBAR | $C 1$ | HISKEY | B | 1 | HOLMES | B 1 | MOPLAND | B I | HUEL | A |
| HIBEARD | $c 1$ | HISLE | D | 1 | HOLOHAN | B I | HOPLEY | B 1 | hUENEME | C |
| MIBBING | $c$ | HITCHCOCK | B | ， | holomua | B I | hopsonville | $C 1$ | HUENEME． | B |
| HIBERNIA | $C 1$ | HITILO | A | 1 | holopaw | B／DI | HOOUIAM | B I | MODERATELY WET |  |
| HIGRITEN | B 1 | HITT | 8 | 1 | HCLOPAK． | C 1 | HORD | 81 | HUENEME，DRAINED | B |
| HICKMAN | 81 | HIVAL | 0 | 1 | DEPRESSIONAL | 1 | HOREE | C 1 | HUERFANO | D |
| HICKORY | C | HIWAN | 0 | 1 | HOLOPAW． | D 1 | HOREB．GRAVELLY | B 1 | HUEY | 0 |
| HICKS | Q 1 | HIWASSEE | B | 1 | FREOUENTLY | I | SUBSTRATUM | 1 | hUFFINE | B |
| HICKSVILLE | 8 | Hiwcoo | A | 1 | FLOOOED | 1 | HORNELL． | 01 | HUFFMAN | 日 |
| Hicksville， | C | HIXTON | B | 1 | hols ine | e I | HORNING | B 1 | HUFFTON | 8 |
| BEDROCK | 1 | HOADLY | $c$ | 1 | HCLSTEIN | B 1 | HORNITOS | D 1 | HUGGINS | C |
| SUBSTRATUM | I | HOBACKER | B | I | HOLSTON | B 1 | HORNSEY | C 1 | HUGHES | B |
| hicota | 8 | HODAN | e | ， | HOLT | E 1 | HORNSVILLE | C 1 | HUGHESVILLE | C |
| hiohlgo | B | HDBES | B | 1 | holteg | B I | MORROCKS | B 1 | MUGO | 8 |
| HIDATSA | B | hoblaw | 0 | 1 | holtle | B I | HORSECAMP | D 1 | HUGUS | 8 |
| HIDEAWAY | 01 | HOBE | A | ， | HOLTON | $C 1$ | HORSERIDGE | B 1 | hUGUSTON | D |
| HIOEWOOD | B／D！ | HOBERG | C | 1 | holtville | C 1 | HORSESHOE | B 1 | HUICHICA | c |
| HIERRO | Q 1 | H08IT | c | 1 | HOLYOKE | $\mathrm{C} / 01$ | HORSETHIEF | B 1 | HUICHICA．PONDED | 0 |
| HIGGINS | D 1 | HOBO | 0 | 1 | HOMA | $C 1$ | horsley | D 1 | huikau | A |
| HIGGINSVILLE | C I | HOBOG | 0 | 1 | HOME CAMP | $C 1$ | HORS T | B I | MUKILL | e |
| HIGH GAP | C | HOBONNY | D | 1 | HCMELAKE | 31 | HORTONVILLE | B 1 | HULETT | e |
| HIGHAMS | D | HOBSON | C | 1 | HOMELAND | $c 1$ | HOSKIN | C 1 | hulls | C |
| HIGHEANK | C I | hobucken | 0 | 1 | HOMER | － 1 | MOSKINNINI | D 1 | hullt | B |
| MIGHCAMP | 日 1 | hocar | 0 | 1 | homestake | $C 1$ | hosley | D 1 | hulua | D |
| HI GHF IELD | B | HOCHHEIM | B | 1 | HOMESTEAD | B 1 | HOSMER | C 1 | HUM | B |
| HIGHHORN | B | HOCKINSON | D | 1 | HOME WOOD | C 1 | mossick | 81 | humacao | B |
| HIGHMORE | B I | HOCKINSON． | C | 1 | Homme | C 1 | hostage | B 1 | hUmatas | C |
| HIGHPOINT | 01 | MODERATELY WET |  | 1 | HOMME．MODERATELY | $B 1$ | hot lake | c I | HUMBARGER | 日 |
| HIGHROCK | 01 | HOCKINSON，DRAINED | B | 1 | WET | 1 | HOTAW | $C 1$ | HUMBIG | C |
| HIGHTOWER | $c$ | HOCKLEY | C | 1 | HOMOSASSA | D 1 | HOTCREEK | D 1 | HUMEIRO | B |
| HIGHMOOO | $c$ | hockley．graded | D | 1 | hona unau | C 1 | HOTEL | $C 1$ | HUMBELDT | O |
| HIHIMANU | B I | HODA | C | 1 | HONCUT | B 1 | HOTSPRINGS | B 1 | HUMBOLOT． | B |
| HIIENER | $C 1$ | HODEDO | $c$ | 1 | HONDALE | 01 | HOUDEK | B 1 | MODERATELY WET． |  |
| HIKO PEAK | B 1 | HODENPYL | B | 1 | HONOOHO | B 1 | MOUGH | B I | SALINE－ALKALI |  |
| HIKO SPRINGS | B 1 | HODGE | A | 1 | HONEOYE | B 1 | HOUGHTON | A／01 | HUMBOLDT． | B |
| MILAIRE | B 1 | HOOGINS | B | 1 | HONE YDEW | $C 1$ | HOUGHTON．PONDED | D 1 | MODERATELY WET． |  |
| HILANO | － 1 | HOOGSON | C | 1 | HONE YGROVE | B 1 | HOUGHTONVILLE | C 1 | SALINE |  |
| HILDEBRECHT | C I | hoehne | A | 1 | HCNE YJONES | B 1 | houk | $C 1$ | HUMBOLDT，DRAINED． | B |
| Hildoreth | D 1 | HOFFLAND | D | 1 | honeyville | $C 1$ | houla | B 1 | STRONGLY SALINE |  |
| hilea | 01 | hoffmanville | C | 1 | HONKER | D 1 | houlka | D 1 | HUMBOLDT，DRAINED． | B |
| hiles | 31 | HDFFSTADT | 8 | 1 | HONLAK | $C 1$ | HOURGLASS | － 1 | NONSALINE |  |
| HILGER | B ！ | HOFLY | $c$ | 1 | honlak，draineo | B 1 | house mountain | 01 | HUMBDLDT． | E |
| HILGRAVE | B 1 | HOGADERO | B | 1 | HONLU | B 1 | HOUSER | 01 | moderately wet |  |
| HILIGHT | D | hogansburg | a | 1 | HONN | B 1 | HOUSERDCK | D 1 | HUMBOLDT．DRAINED | B |
| HILINE | D 1 | mogback | C | 1 | honobia | C 1 | houstake | $C 1$ | HUMDUN | B |
| Millbeick | 01 | HOGG | C | 1 | honokaa | A 1 | HOUSTON | D 1 | HUME | C |
| HILLCO | B I | hogmalat | 0 | 1 | honolua | B 1 | houston black | 01 | HUMESTON | C／ 0 |
| Hillemann | $C$ I | HOGRIS | 8 | 1 | honomanu | A 1 | hovoe | D 1 | HUMKER | C |
| Hillery | $C 1$ | HOH | B | 1 | HONONEGAH | A 1 | Hoven | D I | HUMMINGTON | C |
| Hillet | 8101 | HOHMANN | $c$ | 1 | HONOULIULI | B 1 | HOVENWEEP | C 1 | HUMPHREYS | B |
| hillfielo | B 1 | HCKO | c | 1 | HONTAS | B 1 | Hovert | D 1 | HUMPTULIPS | B |
| Hillgate | 01 | HOLBORN | $c$ | 1 | HONTION | B／OI | Hover | $C 1$ | HUMSKEL | $c$ |
| HILLIARD | B I | HOLBROOK | B | 1 | honuaulu | － 1 | HOWARD | A 1 | HUN | B |
| HILLIARD． | $C 1$ | hol come | 0 | 1 | HOOD | B 1 | HOWARDSVILLE | A 1 | HUNCHBACK | D |
| MODERATELY WELL | 1 | holdaway | 0 | 1 | HCODLE | B I | HOWCAN | B I | HUNDRAW | － |
| ORAINED | 1 | HOLDEN | B | 1 | HOODOO | D 1 | HOWCREE | C 1 | HUNEMILL | E |
| Hilton | C 1 | MOL DER | B | 1 | HOODSPORT | $C 1$ | Howe | $C 1$ | HUNGRY | c |

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

| HUNNTON | C l | ILDECARE | B | IPISH | C 1 | jacaguas | B I | JEHEMY | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HUNS INGER | B 1 | ILDEFONSO | 6 | IPPSON | B 1 | Jacana | D 1 | JEKLEY | C |
| MUNTERS | B 1 | ILES | c | IPSWICH | D 1 | Jacee | C 1 | JELLICO | C |
| huntersville | B 1 | ILIFF | C | IRA | C 1 | JACINTO | B I | JEMEZ | C |
| HUNTIMER | C 1 | ILIILI | D | I IPAAN | P 1 | JACK CREEK | - 1 | JENA | e |
| MUNTING | $C 1$ | ILICN | 0 | Ifedell | C/01 | JACKET | C 1 | JENKINS | C |
| HUNTINGTON | 31 | ILLABOT | c | IRELAND | C 1 | JaCKland | D 1 | JENKINSON | 0 |
| HUNTMOUNT | 61 | ILLAHEE | R | I IRENE | E 1 | JACKMAN | B 1 | JENKS | B |
| HUNTPOCK | B 1 | Illeg | E | IPETEEA | B 1 | JACKNIFE | C 1 | JENNESS | $\theta$ |
| HUNTSEURG | 01 | ILLIto | D | I IRIGUL | 01 | JACKPORT | D 1 | JENNINGS | c |
| huntsville | B 1 | ILTON | C | I IRIM | C 1 | JACKPOT | C 1 | JENNY | D |
| HUPP | B 1 | ilmaco | B | - irmulco | e 1 | JaCKS | c 1 | JENOR | $c$ |
| HUROS | $B 1$ | IMA | 6 | 1 IROCK | $C 1$ | JACKSON | E I | JERAG | 0 |
| HURLEUT | C 1 | IMBLER | 8 | I IRON BLOSSOM | $C 1$ | JACKTONE | D 1 | JERAULD | 0 |
| HURLEY | 01 | Imlay | D | I IRON MOUNTAIN | D 1 | jacoe | 01 | JERICHO | D |
| HURRICANE | C 1 | IMMIG | C | 1 IRON RIVER | B 1 | Jacobsen | 01 | JEROME | 0 |
| HURRY BACK | B 1 | IMMIGRANT | C | I IPONCO | -1 | Jacoey | C 1 | JERRY | C |
| HURRYEACK | $B 1$ | IMMOKALEE | e/c | 1 IRONDALE | C 1 | Jacot | E 1 | JERRYSLU | C |
| HURST | 01 | 1 MMOKALEE | 0 | I IRONDYKE | B 1 | jacques | $C 1$ | JERU | B |
| HURWAL | - 1 | DEPRESSIONAL |  | I IRONSPRIVGS | B I | JACOUITH | C 1 | Jerval | B |
| HUSE | D 1 | I MOGENE | 0 | I IRCPSTON | $C 1$ | Jacratz | c 1 | JESPEL | D |
| HUSKA | D 1 | IMONIL | B | 1 IFCOUOIS | E/D) | Jacwin | B 1 | JESSE CAMP | B |
| HUSSA | 01 | IMPACT | A | I IRRAWADDY | C 1 | Jadis | B 1 | Jessietown | B |
| HUSSA, CLAYEY | $C 1$ | IMPERIAL | D | - IRRIGON | $C 1$ | JAFA | B 1 | JESSO | $C$ |
| SUBSTRATUM | 1 | inarajan | D | 1 IRSON | C 1 | Jagueyes | B 1 | JESSUP | $c$ |
| hussa. mooerately | $C 1$ | InARAJAN. | C | I IRVIne | 01 | JAL | e 1 | JETCOP | D |
| WET | 1 | STRATIFIED |  | 1 IPVINGTEN | C 1 | JALMAR | A 1 | JETSTER | C |
| HUSSA, DRAINED | B 1 | SUESTRATUM |  | I IRWIN | $\bigcirc 1$ | JAMES | D 1 | JETT | 8 |
| HUSSELL | ค 1 | inavale | A | 1 ISAAC | $C 1$ | James canyon | C 1 | Jevets | $C$ |
| HUSSMAN | 01 | INCELL | D | 1 ISABELLA | e 1 | James Canyon. | B 1 | JEWETT | 8 |
| HUSUM | a 1 | Inchau | C | - ISAN | A/D1 | DRAINED | 1 | JIGGS | B |
| HUTCHINSON | C 1 | INCHELIUN | e | 1 ISANTI | a/DI | Jameston | C/DI | JIGSAW | $c$ |
| HUTCHLEY | 01 | INCY | * | - 1sfell | B I | Janise | $C \quad 1$ | JILSON | D |
| HUTSON | B 1 | INDART | $c$ | 1 1sELLA | B 1 | JANISE, OVERBLOWN. | B 1 | JIM | $c$ |
| HUTT | 01 | INOEX | A | \| ISHI PISHI | C 1 | CRAINED | 1 | JIMBO | e |
| hutron | D 1 | INDIAHOMA | $n$ | 1 ISHPEMING | A 1 | JANSEN | $B 1$ | JIMCREEK | $c$ |
| muxley | $C 1$ | INDIAN CREEK | D | I ISIDOR | D 1 | JANUDE | E 1 | JIMEK | C |
| HUYSINK | B 1 | INDIAN.J | c | 1 ISKNAT | $C 1$ | Janlude. Clay | $C 1$ | Jimenez | C |
| HYALL | $C 1$ | INOIANOLA | * | I ISKNAT. CJOL | 01 | SUBSTRATUM | 1 | JIMLAKE | $B$ |
| HYANNIS | 31 | INDIO | $B$ | 1 ISLAND | P 1 | Jaram | D 1 | JIMMERSON | $C$ |
| HYAS | $B 1$ | INDLETISN | $\theta$ | 1 JSLES | C 1 | JARBOE | D 1 | JIMSaGE | B |
| hyattville | C I | Indus | 0 | I ISLES. SLJUGH | A/01 | JARDIN | D 1 | JIMTOWN | c |
| hYdaburg | 01 | INEZ | D | 1 ISLOts | E 1 | Jareales | 01 | JIPPER | B |
| HYOE | 8/01 | INFERNAL | D | 1 I smay | B I | JARITA | C 1 | Jivas | e |
| hyoer | 01 | INGALLS | B | 1 I SMC | $C 1$ | JARMILLO | e 1 | JOACHEM | 0 |
| HYORO | $C 1$ | INGENIO | E | 1 I SClde | A I | Jarola | C 1 | JOB | $c$ |
| HYE | B 1 | INGERSJLL | 8 | 1 I Som | B I | JAROSO | B 1 | J080s | $c$ |
| HYLOC | 01 | INGRAM | 0 | 1 ISTER | C 1 | JARRE | B 1 | JOEPEAK | 0 |
| HYMAS | 01 | INKLER | B | I ISTOKPOGA | B/01 | JARRON | 01 | Jocal | B |
| HYPRAIRIE | B 1 | JNKOM | D | I ItANO | $C 1$ | JARVIS | E 1 | JOCITY | 8 |
| HYRUM | 81 | INKCIM. DRAINED | C | 1 ITASCA | e 1 | Jasco | 01 | JOCITY. LOAMY | $c$ |
| HYSHAM | 01 | I NKCOSR | c | \| Itat | E 1 | JASON | D 1 | SURFACE |  |
| HYSHOT | 01 | 1 NKS | 0 | 1 IfCa | D 1 | JASPER | B 1 | Jocko | B |
| HYTOP | 01 | INKSTER | e | I Itraca | C 1 | jaucas | - 1 | JOLERO | E |
| HYZEN | 01 | 1 NL OW | C | I ITMANN | C 1 | JaUCAS. SALINE | C 1 | JOEL | B |
| 140 | B 1 | INMACHUK | 0 | I itme. | A 1 | Jauriga | B I | JoEmRE | 8 |
| IbERIA | D 1 | 1 NMAN | $C$ | I ITSWOOT | - 1 | Java | B 1 | joeney | 0 |
| ICARIA | 01 | 1 NMO | A | 1 IUNA | $c 1$ | Jawbone | D 1 | Joes | B |
| ICENE | 01 | INNINGER | $C$ | 1 IVA | $C 1$ | Jay | $C 1$ | JoEvar | B |
| ICESLEW | 01 | I NPENOENCE | E | 1 IVAN | B 1 | JAYAR | $C \quad 1$ | JOHNS | C |
| 1 CHBOD | 01 | INSAK | 0 | 1 I YANELL | $C 1$ | Jaybee | D 1 | JOHNSEURG | D |
| ICHETUCKNEE | 0 1 | INSIDERT | $c$ | I I VANHCE | 01 | JAYEL | D 1 | JOHNS ON | ${ }^{\text {B }}$ |
| ICICLE | 31 | INSKIP | $c$ | 1 IVER | 01 | JAYEM | A 1 | JOHNSTON | D |
| 10A | 81 | INSULA | 0 | I IVERSEN | C 1 | Jaynes | 01 | JOHNSTOWN | B |
| IDABEL | B I | INTERIOR | B | 1 Ives | E 1 | Jeager | $c 1$ | JOHNSWOOD | B |
| IDAMOME | 31 | INTON | P | I IVES, WEt | D 1 | JEAN | A 1 | JOHNTOM | 0 |
| IDAMONT | $B 1$ | INYERNESS | 3 | I IVIE | A 1 | JEAN LAKE | B 1 | JO1CE | D |
| LDEE | $C 1$ | INVERSHIEL | $c$ | 1 Ivins | C 1 | JEANERETTE | 01 | JOINEP | 8 |
| IDLEWILD | 01 | INVItLE | R | I IVYMILD | $C 1$ | JEbe | B 1 | JOKODOWSK1 | D |
| IDLEWILD, DRAINED | $\bigcirc 1$ | 10 | E | 1 IXIAN | $C 1$ | Jebo | - I | JOLAN | C |
| IDMON | e 1 | ioleau | $c$ | 1 I YERS | 01 | JEDBURG | $c 1$ | JOLIET | 0 |
| IGDELL | C 1 | IONA | B | 1 I İAGORA | C 1 | JEOO | C 1 | JOLLY | c |
| IGERT | $c 1$ | I ONIA | $E$ | 1 IZAR | 01 | JEDDITO | c 1 | jonale | B |
| IGNACIO | $c 1$ | IOSCO | 8 | I IzeE | $C 1$ | JEOOITO. | -1 | JONAS | 3 |
| 1 GO | 01 | IOSEPA | 0 | 1120 | A 1 | SALINE-ALKALI | 1 | Jonathan | B |
| IGUALDAD | 01 | IOTLA | B | 11200 | D I | JFDOO | CTOI | jonca | $C$ |
| I HLEN | B 1 | IPAGE | A | 1 l 2 USER | B 1 | JEFFERS | B/OI | JONDA | $B$ |
| I JAM | 01 | IPANO | $c$ | 1 jaru | B 1 | JEFFERSON | -1 | JONES | B |
| ILACHETOMEL | 01 | ipava | e | I JABU. WET | C 1 | JEFFREY | P 1 | JONESVILLE | B |

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| JONNIC | $C 1$ | KAHANA | 01 | KAPLAN | D | KEEI | 0 | 1 | KERMIT | A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JOPLIN | $C 1$ | Kahanul | 01 | KAPOC | B I | KEEKEE | e | I | KERNAN | c |
| JOPPA | 01 | KAMLER | B 1 | KAPCUSIN | D． 1 | KEEL | $C$ | 1 | KERR | B |
| Joraibi | B 1 | KAhLOTUS | B I | KAPTURE | B 1 | KEELDAR | B | I | KERRDAM | C |
| JOROAN | D I | KAHOLA | B I | KAPUHIKANI | D 1 | KEELE | B | 1 | KERRFIELD | 0 |
| JORGE | $B 1$ | KAhUA | 01 | KARAMIN | A | KEELER | B | 1 | KERRICK | B |
| JORNAHAM | B I | KAIDERS | $\theta 1$ | KARANKAWA | D | KEELINE | 8 | I | KERRVILLE | $C$ |
| JORY | B 1 | KAIKLI | D 1 | KARBANA | C | KEENE | c | I | KERSHAW | A |
| JORY．STONY | C 1 | KAILUA | A I | KARCAL | D | KEENO | C | 1 | KERSICK | D |
| JOSBURG | $C 1$ | KaImu | A 1 | KARDE | B I | KEESE | 0 | 1 | KERSTON | $1 / 0$ |
| JOSEPH | C 1 | KAINALIU | A I | KARHEEN | D | KEESEHA | $C$ | 1 | KERT | $C$ |
| JOSEPHINE | B I | KAIPOIOI | B 1 | KARLAN | $C$ | KEESIAN | e | 1 | KESSLER | C |
| JOSHUA | C 1 | KAIWIKI | A 1 | KARLIN | A 1 | KEETER | $C$ | 1 | KESSON | D |
| JOSIE | B 1 | kalae | B 1 | KARLO | D 1 | KEEWATIN | $C$ | ， | KESTERSON | 0 |
| JOSLIN | B I | KALALOCH | B 1 | KARLSBURG | e I | KEG | B | 1 | KESWICK | C |
| JOSSET | $C 1$ | Kalama | C 1 | KARL SRUHE | E | KEGEL | D | 1 | KETCHLY | B |
| JOURDANTON | B I | Kalamazoo | 61 | KARLSTAO | A | KEGEL ，DRAINED | C | 1 | KETCHUM | 8 |
| JOWEC | D 1 | Kalapa | B 1 | KARLUK | D | KEGONSA | $\theta$ | 1 | KETONA | 0 |
| Joy | $B 1$ | Kalaupapa | D I | KARMA | E | KEHAR | 0 | － | KETTENBACH | C |
| JUAB | B 1 | Kaleetan | B 1 | KARNAK | D | KEHENA | C | I | KEttle | 8 |
| JUANA DIAZ | $B 1$ | Kaleetan．TILL | C 1 | KARNES | E | KEHOE | 3 | 1 | kettlegelly | B |
| JUBILEE | D 1 | SUBSTRATUM | 1 | KAROC | B | KEIGLEY | e | 1 | KETTLEMAN | C |
| JUBILEE，DRAINED | B I | KALIFONSKY | 01 | KARPO | D | KEISER | B | 1 | KETTLEMAN． | B |
| JUDA | B I | KALIGA | E／01 | KARRO | E | KEITH | B | I | gravelly |  |
| JUDD | C 1 | KALIGA．FLOODED | D ！ | KARS | A | KEIthyille | C | 1 | KETTNER | D |
| JUDELL | B I | KALIHI | D I | KARSHNER | D | KEKAHA | E | 1 | KEUTERVILLE | 0 |
| JUDICE | 01 | KALISPELL | B I | KARTA | $C$ | KEKAKE | 0 | 1 | KEVANTON | $c$ |
| JUDITH | B 1 | KALKASKA | A 1 | KARTAR | B | KEKAWAKA | B | 1 | KEVIN | $c$ |
| JUOKINS | C -1 | KALLIO | $C 1$ | Kaseberg | D | KELK | $C$ | 1 | KEWACH | c |
| JUDSON | B I | KALMARYILLE | B／OI | KASHWITNA | E | KELLER | C | I | KEwaunee | c |
| JUOY | $C 1$ | KALMIA | B 1 | KASXI | E I | Kellerbutte | e | 1 | Keweenam | $A$ |
| JUG | B 1 | Kalo | $C 1$ | Kasota | $c$ | KELLY | D | 1 | KEYA | B |
| JUGE T | D I | KALOKO | D 1 | KASSLER | A 1 | KELSEY | B | 1 | keyes | D |
| JUGHANDLE | B 1 | KALONA | C I | KASSON | C | KELSO | C | I | KEYESPOINT | D |
| JUGSON | $C 1$ | KALSIN | D 1 | KATAMA | B | KELTNER | 8 | 1 | KEYNER | D |
| JULES | B 1 | Kalsted | 日 1 | Katemcy | $C 1$ | KELTYS | B | 1 | KEYPORT | $C$ |
| JULESBURG | B I | KAMACK | B 1 | KATHER | $C 1$ | KELVIN | C | I | KEYSTONE | A |
| JULIN | 01 | kamakoa | e 1 | Kato | E／01 | KEMAH | D | 1 | KEZAN | D |
| JUMBO | B 1 | KAMAN | D I | katseanes | D 1 | KEMAN | B | 1 | KEZAR | $c$ |
| JUMPCREEK | $C 1$ | KAMAOA | 01 | Katula | $C 1$ | KEMMERER | C | 1 | KIAKUS | c |
| JUMPE | $B 1$ | KAmaole | B 1 | KATY | 01 | KEMOO | B | 1 | KIAN | $c$ |
| JUMPER | $C 1$ | KAmato | c 1 | katrelay | B 1 | KEMP | C | 1 | KIAWAH | B／D |
| JUMPMORE | B I | Kamay | 01 | kauder | 01 | kempsidlle | e | 1 | KIbeie | a |
| JUMPOFF | $C 1$ | KAmELA | $c 1$ | kauf man | 01 | KENAI | C | 1 | Kibesillah | $c$ |
| JUNALUSKA | B I | KAMIE | B I | kaukauna | C I | Kenansville | A | 1 | KICKAPOO | 8 |
| JUNCAL | $C 1$ | KAMPVILLE | $C 1$ | KAUPO | 11 | KENOAIA | $C$ | 1 | KICKERVILLE | B |
| JUNCOS | D I | KAMRAR | e 1 | KAUPPI | B I | KENDALL | B | 1 | KIDD | 0 |
| JUNCTION | 31 | KANACKEY | D 1 | kavett | 01 | KENDALLVILLE | E | 1 | KIDOER | 8 |
| Juneau | B I | KANAKA | － 1 | Kavon | e 1 | KENDRICK | A | 1 | KIDMAN | 日 |
| JUNG | 01 | KANAPAHA | 8101 | kamaihae | c 1 | KENEFICK | B | 1 | KIEHL | B |
| JUNGO | 31 | KANARANZI | B 1 | KAWAIHAPAI | E I | KENESAW | 8 | 1 | KIESEL | C |
| JUNIPEREUTE | A 1 | KANARRA | D 1 | Kawbangam | c I | KENMOOR | B | 1 | KIETZKE | D |
| JUNIPERC | B I | KANASKAT | e I | KAWICH | A I | KENN | B | 1 | KIEV | B |
| JUNIUS | $C 1$ | KANAWHA | 61 | KAWKAWLIN | $c 1$ | KENNAN | E | I | KIKI | c |
| JUNKETT | $c 1$ | KANDALY | A 1 | KAYMINE | c 1 | KENNEBEC | B | 1 | KIKONI | 日 |
| JUNO | $A 1$ | KANDIK | B 1 | KAYO | E 1 | KENNE F | 0 | 1 | Kilaga | $C$ |
| Junguitos | C 1 | KANDOTA | B I | kearu | D 1 | KENNEWICK | B | 1 | KIlARC | D |
| JUNTURA | D 1 | KANE | E I | KEAHUA | 81 | KENNEY | ， | 1 | kilauea | B |
| JUPITER | B／DI | kanebreak | $C 1$ | KEAL AKEKUA | A 1 | kenney lake | C | 1 | Kileurn | B |
| JURA | D 1 | KANEDHE | B 1 | KEALIA | c 1 | KENO | D | 1 | KILCHIS | D |
| JURVANNAH | $C 1$ | KANEPUU | B 1 | Keansburg | D 1 | KEnoma | D | 1 | KILDOR | C |
| JUSTESEN | $C 1$ | KANER | A 1 | KEAPL | C 1 | KENOTRAIL | C | 1 | Kilfoil | C |
| JUSTESEN，LOAMY | B 1 | KANG | C 1 | KEARNS | E I | KENRAY | A | I | Kilgore | 0 |
| SUBSTRATUM | 1 | KANGAS | A 1 | KFARSARGE | P 1 | KENSAL | B | I | KILKENNY | E |
| JUSTIN | B 1 | KANID | B 1 | KEATING | C I | KENSETT | B | 1 | Killarney | C |
| Juva | B I | KANIKSU | B 1 | KEAUKAHA | D 1 | KENSPUR | B | I | Killevek | C／0 |
| JUVAN | D 1 | KANIMA | C 1 | KEATAKAPU | E 1 | KENT | 0 | 1 | Killduff | B |
| kaalualu | $\cdots 1$ | KANKAKEE | 01 | KEELEP | e 1 | KENUSKY | D | I | killey | D |
| KACHEMAK | B I | KANLEE | C 1 | KECH | D 1 | KENYON | B | ， | KILLEY，MODERATELY | $C$ |
| Kachess | $B 1$ | KANONA | D 1 | KECKC | B 1 | KEC | B | I | WET |  |
| KADE | D I | KANOSH | $C 1$ | KECK SROAO | C I | KEOKUK | B | 1 | KILLINGTON | D |
| KADLETZ | $B 1$ | KANTISHNA | 01 | KEOA | B 1 | KEGMAH | C | 1 | KILLPACK | C |
| KADOKA | B 1 | K ANUTCHAN | D I | KEDDIE | $c 1$ | KEOTA | B | 1 | KILMANAGH | C |
| KAENA | 01 | KANZA | D 1 | KEDR ON | $C 1$ | KEOWNS | B |  | KILMER | C |
| KAFING | B 1 | KAPAA | E I | KEE | e 1 | KEPLER | C | 1 | Kilmeroue | C |
| KAGMAN | $C 1$ | KAPAPALA | B I | KeEChelus | c 1 | KERBER | 8 | 1 | KILN | D |
| KAGMAN，VERY | B I | KAPAPALA，BEDROCK | C 1 | KEECHI | C 1 | Kerby | B | I | KILOA | A |
| gravelly | I | SUBSTRATUM | 1 | KEEFA | B 1 | KERHAYOEN | B | 1 | Kilohana | A |
| Kahaluv | D 1 | KAPIN | C 1 | KEEFERS | C 1 | KERL | B |  | KILOWAN | C |

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

Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

|  | KILWINNING | 01 | KItIITAS | D I. | K ODRA | $C 1$ | KRESSON | C |  | Laconner | $C$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | KIM | S 1 | KITIITAS, DRAINED | $c 1$ | KOEHLER | C I | KREYENHAGEN | B | I | lacoochee | D |
|  | KIPA, SALINE | $C 1$ | kittresge | B 1 | KOELE | 8 1 | KRIER | D | 1 | lacoste | C |
| - | KIMAMA | B I | KITISON | $C 1$ | K OEPKE | e I | KPIESt | E | 1 | LACOTA | B/C |
|  | KIMBALL | D I | KIVA | A 1 | KCERLING | $C 1$ | KFON | D | 1 | LACRESCENT | B |
|  | KIMBERLINA | B I | KIWANIS | $P \quad 1$ | KCETHER | 01 | KROTO | B | 1 | LACROL | D |
|  | KIMBERLY | B I | Kizhuyak | E 1 | K OFA | D 1 | krupate | 8 | 1 | LACY | D |
|  | KIMEROUGH | D 1 | KJAR | D 1 | KOFA. SALINE | $C$ | KRUEGER | E | I | LADO | 8 |
|  | KIMMERLING | D I | klaber | C 1 | KCFFGg | B I | KFUM | 0 | 1 | ladelle | 8 |
|  | KIMO | C 1 | Klaber, drainec | $C 1$ | KOGISH | D I | KRUSE | e | 1 | laderly | C |
|  | KIMPER | 31 | Kladnick | A 1 | KOHALA | E 1 | KUbE | P | 1 | LADNER | 0 |
|  | KINA | 01 | KLAONICK. STONY | B I | KCkAN | A I | Kubler | C | 1 | LADOGA | B |
|  | KINAN | B 1 | Klamath | D I | KOKEE | E 1 | KUBLI | 0 | 1 | LAORON | 8 |
|  | Kincheloe | D 1 | KLANELNEECHENA | D 1 | KCKERNOT | C 1 | kucera | B | , | LADUE | B |
|  | KINCO | - 1 | Klanelneechena. | C 1 | KOKO | B I | KUCK | C | , | LADYCOMB | D |
|  | KINDER | C 1 | lacustrine | 1 | KOKCKAHI | c 1 | KUDLAC | 0 | 1 | LADYSMITH | 0 |
|  | KINDIG | 31 | SIJBSTRATUM | 1 | KOKOKAHI, STONY | $B 1$ | KUML | 0 | 1 | LAFE | D |
|  | KINDY | C 1 | klapatche | $c 1$ | KOKOMO | B/O1 | kukaiau | A | 1 | lafitte | D |
|  | Kinesava | B | klaus | C 1 | KOLAR | 01 | KUKAIAU. BEDROCK | $c$ | 1 | LAG | B |
|  | KINGEIN | B I | klawast | D 1 | KClGERG | C 1 | SUBSTRATUM |  | I | LAGITOS | C |
|  | KINGFISHER | B I | Klawasi. | B I | KOLEKDLE | $C 1$ | kula | B | 1 | LAGLDRIA | B |
|  | KINGHORN | D 1 | LACUSTRINE | 1 | KOLIN | $C 1$ | kullit | B | 1 | Lagnaf | 8 |
|  | KINGILE | C 1 | SUBSTRATUM | 1 | KOLES | D 1 | kUlsman | C | 1 | LAGONOA | C |
|  | KINGINGHAM | C I | KLAWATTI | C 1 | kollutuk | D I | Kuma | R | 1 | LAGRANGE | D |
|  | KINGMAN | D 1 | KLAWHOP | E 1 | KOLDa | C 1 | KUNATON | D | 1 | LAGROSS | A |
|  | KINGMONT | 81 | klayent | C 1 | KOLOB | e I | KUNAYOSH | $\wedge$ | 1 | LAGUNITA | A |
|  | KINGS | 01 | KLECKNEF | $c 1$ | KCLOB. STIONY | $C 1$ | kunia | E | 1 | LAGUNITA. WEt | C |
|  | KINGSEUPY | 01 | KLEINRUSH | c 1 | KCLOKOLO | e 1 | kunumeia | B | 1 | lamaina | $B$ |
|  | KINGSDOWN | 51 | KLEJ | Q \| | KOLONOKI | E I | KUNZ | B | 1 | LAHONTAN | D |
|  | KINGSLAND | A/D1 | KLICKER | C I | KOMO | P 1 | KUNZLER | 0 | 1 | LAMRJTY | C |
|  | Kingsley | B 1 | KLICKITAT | E 1 | KONA | 01 | KUPREANOF | B | 1 | LAIDIG | c |
|  | KINGSPOINT | B I | KLICKSON | B I | KONAWA | P 1 | KUPREANOF. | C | 1 | LAIDLAW | c |
|  | KINGSTON | 81 | KLINE, CCEBLY | E 1 | KGNEPT | c 1 | moderately wet |  | 1 | Lail | $c$ |
|  | KINGSYILLE | A 101 | Kline protecteo | C ! | KONEFT, DRAINED | $C 1$ | KURES | , | 1 | LAIRD | B |
|  | KINGTAIN | B 1 | Klinesville | C/DI | KONNER | D I | KURO | D | 1 | Lairdsville | D |
|  | KINKEAD | C 1 | KLIMGE? | E 1 | K DNNER. DAAINED | $c 1$ | KUATH | C | 1 | Lajara | D |
|  | KINKEL | C 1 | KLISKGA | C 1 | KINOCTI | $c 1$ | KURTZ | C | 1 | Lajitas | D |
|  | KINKEL, GRavelly | 81 | klistan | $\bigcirc 1$ | KONOCTI. STIJNY | e 1 | KUSHNEAHIN | - | 1 | Lake | , |
|  | KINKORA | 0. 1 | KLONDI<E | - 1 | * CNSIL | B I | KUSKOKWIM | 0 | 1 | Lake, clayey | $c$ |
|  | KIPMAN | C 1 | KLONE | E I | koclau | c 1 | KUSLINA | 0 | 1 | SURFACE |  |
|  | KINNEAR | 31 | KLOOCHMAN | $C 1$ | KOONICH | 41 | Kutch | c | 1 | lake charles | 0 |
|  | KINNE Y | B 1 | Klootcm | c I | KOONTZ | D I | Kutler | c | 1 | LAKE CREEK | c |
|  | KINROSS | A/D 1 | Klootchie | E 1 | koosharem | P 1 | Kur | A | 1 | lake janee | B |
|  | KINSMAN | C I | KLOTEN | D 1 | YCoskia | C 1 | KVICHAK | B | 1 | Lakefielo | $B$ |
|  | KINSTON | B/01 | klug | B I | ccotenal | E 1 | KWEO | A | 1 | LAKEHELEN | c |
|  | KINTA | 01 | KLUM | E I | KOPIf. | 01 | KYBURZ | B | 1 | LAKEHURST | , |
| , | KINTON | c I | KLUMP | E 1 | KOFPERL | e 1 | KYOAKA | 0 | 1 | Lakelano | A |
|  | KIN?EL | 81 | KLUTIVA | 51 | KOPPES | A 1 | KYDESTEA | 0 | 1 | LAKEMONT | D |
|  | kigmatia | A 1 | XNAPKE | e I | KORCHEA | E 1 | KYLF | D | 1 | LAKEPCRT | B |
|  | KIONA | B 1 | XNAFPA | B I | KGRENT | E 1 | KYLER | 0 | 1 | LAKESHORE | 0 |
|  | KIOTE | B 1 | KNAPPTUN | 31 | K CRNMAN | E \| | KZIN | D | 1 | Lakeside | 8 |
|  | KIPER | 31 | KNEELAIND | C 1 | k cropago | C 1 | LA GRIER | 0 | 1 | LAKESCL | B |
|  | KIDLING | 01 | KNEP | c 1 | KDRONIS | E 1 | La farge | e | 1 | LAKETON | $c$ |
|  | KIPPEN | A 1 | KNICKERBCCKER | A I | KORTIY | E 1 | LA FGNDA | E | 1 | LAKEVIEN | c |
|  | KIPSON | 01 | KNIESLEY | C 1 | kosciusko | E 1 | la grande | $c$ | 1 | LAKEWIN | B |
|  | KIRSY | A 1 | KNIFFIN | C 1 | KOSETH | B 1 | la hogue | B | 1 | LAKEWOOD | A |
|  | KIRgYVILLE | 81 | KNIGHT | 5101 | KCSKOS | D 1 | la lande | E | 1 | LAKI | B |
|  | KIRK | D 1 | KNIK | B I | KCISSE | E 1 | la palma | C | 1 | Laxin | A |
|  | KIRKENDALL | $c 1$ | KNIKLIK. | e I | KOSSUTH | B/D1 | la posta | B | 1 | lakca | B |
|  | KIRKHAM | C I | KNIPPA | $C 1$ | koszta | B 1 | la prairie | B | 1 | LAKOMA | D |
|  | KIRKLAND | $\bigcirc 1$ | KNOB HILL | B I | KCTO | 01 | la rose | E | 1 | LAKRICGE | $C$ |
|  | KIRKSEY | $c 1$ | KNOETOP | $C 1$ | KCTZMAN | E 1 | LABENzO | B | 1 | lalasu | A |
|  | KIRKVILLE | $c \quad 1$ | KNOCO | D 1 | koury | C 1 | Labette | C | 1 | LALINDA | B |
|  | KIRLEY | c 1 | KNOKE | 6701 | KOVICr: | D 1 | LABISH | D | 1 | lallie | D |
|  | Kirtley | $c 1$ | kNolle | 81 | KOYEN | R 1 | lagkey | E | 1 | lalos | $\theta$ |
|  | KIRVIN | $c 1$ | KNJSS | $C 1$ | KOYNIK. | D 1 | LAEORCITA | P | 1 | LAM | D |
|  | KIRVIN. GRADED | D 1 | KNOTT | 01 | koyuruk | P 1 | LABOU | c | 1 | Lama | C |
|  | KISATCHIE | D 1 | KNCWLES | B I | KRACKLE | E 1 | labountr | - | 1 | lamanga | c |
|  | KISHONA | 31 | K=Nox | B I | KPADE | E 1 | Lagre | E | 1 | LAMAR | 6 |
|  | K15HONA. ALKALI | C 1 | KNULL | B I | KEAK ON | 01 | LABSHAFT | D | 1 | LAMARSH | C |
|  | KISAING | $C 1$ | kNutsen | 61 | KRAM | D 1 | LABU | D | 1 | LAMARTINE | C |
|  | KISRING, WET | D 1 | Kogar | C 1 | KRANSKI | B I | laeuck | E | 1 | lamath | 0 |
|  | KISSICK | $C \quad 1$ | KOBEH | B I | KFANz CUPG | e I | Lacamas | D | 1 | Lamawa | B |
|  | KISTIAN | B I | KCoEl | c 1 | KFATKA | E/DI | LACERDA | D | 1 | LAMBERT | B |
|  | KITCHELL | 81 | KOCH | c 1 | KRAUSE | e 1 | LACHAPELLA | 0 | 1 | lambeth | 8 |
|  | KITCHEN CREEK | 31 | KDCH. DRAINED | $C \quad 1$ | KREAMER | c 1 | Lacita | B | 1 | LAMBMAN | 0 |
|  | KItI | D 1 | KOCAK | B 1 | KRESS | F 1 | Lackamanna | $c$ | 1 | Lambring | $\varepsilon$ |
|  | KIISAP | c I | KODAK, NONFLOODED | $C 1$ | KPEM | $A 1$ | LACKS | $c$ | 1 | LAMEOEEP | B |
|  | KITIEPLL | D 1 | * ODIAK | O 1 | KREMLIN | E 1 | LACLEDE | B | 1 | LAMINGTON | D |

NOTES: TWO HYDROLOGIC SOIL GROUPS SULH AS B/C INDICATE THE DRAINED/UNCRAINED SITUATION. MODIFIFRS SHOUN. E.G. Y YEDRCCK SUBSTRATUM. GEFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

| LAMK IN |
| :---: |
| LAMO |
| Lamoille |
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| LAMONI |
| LAMONT |
| LAMONTA |
| LAMOOSE |
| LAMOTTE |
| LAMOURE |
| LAMPASAS |
| LAMPHIER |
| LAMPSHIRE |
| LAMSON |
| LANARK |
| LANCASTER |
| LANCE |
| LAND |
| LAND. DRAINED |
| landavaso |
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| LANDER |
| LANDES |
| LANDLOW |
| LANDMAN |
| LANDSEND |
| LANE |
| LANESBORO |
| Lanexa |
| LANEY |
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| LANGF ORD |
| LANGHEI |
| LANGLADE |
| LANGLOIS |
| LANGOLA |
| LANGRELL |
| LANGSPRING |
| LANGSTON |
| LANGTRY |
| LANIER |
| LANIGER |
| LANIGER, GRAVELLY |
| LANKEUSH |
| LANKIN |
| LANKTREE |
| LANOAK |
| LANONA |
| lansoale |
| LANSDOWNE |
| LANSING |
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| LANTRY |
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| LAPOSA |
| LAPWAI |
| LARAND |
| LARCHMOUNT |
| LARDELL |
| LAREDO |
| LARES |
| LARGO |


| B | I LARIAT |
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| 8 | I Larioscamp |
| $C$ | I LARKIN |
| B | \| LARKSON |
| D | I LARMINE |
| D | I laroove |
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| C | I Larrupin |
| 0 | 1 Lakry |
| B | I LARRY, DRAINED |
| 0 | \| LARSON |
| 810 | I LARTON |
| B | \| larue |
| B | I Larush |
| 8 | I Larvie |
| $C$ | 1 Las |
| 8 | I las animas |
| e | I Las flores |
| C | I las lucas |
| C | I LAS DOSAS |
| B | 1 Las vegas |
| C | 1 lasa |
| 8 | I lasalle |
| C | 1 lasauses |
| c | 1 lasco |
| $C$ | 1 LASIL |
| D | 1 Laska |
| $B$ | I LASSEL |
| c | \| LASSEN |
| C | I Lassiter |
| B | - Lastance |
| 8 | I Latah |
| D | \| LATAH, HIGH |
| B | 1 RAINFALL. DRAINED |
| 8 | I Latah. DRAINED |
| 8 | I Latahco |
| B | I LATAHCO. wet |
| D | I Latanier |
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| B | \| Latene |
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| B | I Latex |
| c | ! Latham |
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| B | - Latmrop |
| 日 | I Latigo |
| 8 | 1 latina |
| C | I Latium |
| 9 | I latom |
| B | I LATONIA |
| 8 | - latouche |
| D | I latour |
| C | \| Latdurell |
|  | I Lattas |
| B | \| Latty |
| 8 | I Lavderoale |
| D | - Lavderhill |
| C | 1 Laufer |
| C 10 | I Laugenour, ldamy |
| D | I Susstratum |
| C | I LaUGEnOUR. Silty |
| B | I SUESTRATUM |
| 0 | I LAUGENOUR. DRAINED |
| B | I Lavghtin |
| A | - Laumala |
| A | I Laurel |
| C | I laurelwood |
| 0 | 1 lauren |
| 0 | - Laurentzen |
| C | I Lavacreek |
| B | - Lavallee |
| B | I Lavate |
| B | 1 Laveaga |
| C | - Laveen |
| B | I Laventana |
| C | \| Laverkin |
| B | I Lavic |


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| E | I Lavon | $C 1$ | LEEVAN |
| 0 | ! Lamai | C I | LEFOR |
| D | 1 Lamen | B 1 | LEGALL |
| B | 1 lamet | e/01 | legault |
| C | I Lawet. | B I | LEGGETT |
| C | 1 SALINE-ALKALI | 1 | LEGLER |
| 8 | 1 lawler | E 1 | Legore |
| 0 | I cawndale | e I | lemew |
| B | 1 Lawnwood | E/01 | LEHIGH |
| D | I LAWNWOOD. | D 1 | LEHMANS |
| C | 1 CEPRESSIUNAL | I | LEHR |
| 0 | I LAWRENCE | C 1 | LEICESTER |
| A | I Lawrenceville | $C 1$ | LEIDL |
| A | I Lawshe | D 1 | LEIGHCAN |
| B | 1 Lawson | C 1 | leilemua |
| D | - Lawt mer | 01 | LEISY |
| $C$ | I LAWTON | C I | LELA |
| c | I Lamyer | E 1 | LELAND |
| D | 1 Lax | C I | LEMAH |
| E | 1 laxat | B \| | LEmbos |
| C | 1 LAXTON | $C 1$ | LEMCO |
| D | 1 laycock | B 1 | LEMERT |
| 1 | I layoint | $C 1$ | LEMETA |
| 0 | ¢ LAYton | A 1 | LEMING |
| D | 1 layview | 01 | LEMITAR |
| B | 1 lazan | 01 | LEMM |
| D | I Lazear | D 1 | LEMOLO |
| B | I Le bar | B 1 | LEMOND |
| C | \\| Le sueur | B \| | LEMONEX |
| D | 1 lea | C 1 | LEMOORE |
| e | 1 Leader | e 1 | LEMPIRA |
| E | 1 Leadore | B I | LEN |
| 0 | I Leadfoint | $C 1$ | LENA |
| $C$ | I Leadvale | $C 1$ | LENA, FLOODED |
|  | I Leadville | E I | LENAPAH |
| C | 1 leaf | D 1 | LENAWEE |
| C | 1 leafriver | 4101 | LENAWEE. PONDED |
| D | 1 LEAFU | $C 1$ | LENBERG |
| D | 1 leagleville | 8/01 | LENNEP |
| 4 | 1 leaksville | $\bigcirc 1$ | LENOIP |
| B | 1 leal | E I | LENZ |
| C | 1 lealandic | 01 | LENZ. STONY |
| C | 1 Leanna | D 1 | LENZ. VERY STONY |
| D | 1 Leanto | 01 | LENZBURG |
| D | 1 leaps | C 1 | LEO |
| B | 1 leatham | c | LEOLA |
| B | 1 leatherman | - 1 | LEON |
| D | I Leavenmorth | C 1 | LEONARO |
| D | 1 Leavers | e 1 | LEONAPDO |
| 0 | I Leavitt | 01 | LEONARDTOWN |
| e | 1 leavittville | B 1 | LEONI |
| D | \| Leeam | E | leguieu |
| B | 1 LeEANon | C 1 | LERDAL |
| B | 1 lebeau | 01 | LERDO |
| 0 | 1 legec | B 1 | LEROY |
| 0 | 1 LEBC | f. ! | LERROW |
| D | I LERSACK | C 1 | Leshara |
| B/0 | 1 Leck kill | E 1 | LESHO |
| 0 | 1 Lecrag | D 1 | lestie |
| C | 1 LEDFORD | E 1 | LESON |
|  | I LEEDGEFORK | A 1 | LESPATE |
| B | I Ledmount | 01 | lestef |
|  | 1 LEDOW | B 1 | LESGILL |
| B | 1 Ledru | c 1 | LETA |
| C | 1 ledub | B 1 | LETCHER |
| $B$ | 1 Lfowith | E/O1 | LETHA |
| D | 1 LeE | - 1 | Lethent |
| B | I LeEbench | C I | LETNEY |
| B | 1 leeds | $C 1$ | LETON |
| B | 1 LeEFiEld | $C 1$ | LETORT |
| E | 1 LFEKO | C 1 | LETRI |
| 8 | - LEEKO, WAPM | B 1 | LETTIA |
| B | - LeElanau | A 1 | Levasy |
| C | 1 Leemont | 01 | levelton |
| B | 1 leeper | D 1 | Levelton. draineo |
| B | I LeEray | 01 | leverett |
| c | I LEESBURG | B I | LEVIATHAN |
| $B$ | \| Leesville | e 1 | Levy |



NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEDIUNDRAINED SITUATION.
MODIFIERS SHOWN. E.G., PEDROCK SUESTRATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGENO.

Table 2-1.—Hydrologic soll groups for U.S. soils (continued)

| LINLITHGO | 日 | 1 LOO: | B 1 | LOPF2 | $\bigcirc 1$ | Lozano | e 1 | LYLES | 8/0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LINNE | C | 1 LOOICO | 01 | LOPWASH | - 1 | LOZIER | 01 | LYMAN | C/0 |
| LINNE T | C | 1 LODO | 01 | LORACK | E 1 | lualualei | D | LYMANSON | C |
| LINNE US | 8 | 1 Lofftus | C | loratale | c 1 | tuana | B | LYME | C |
| LINO | B | - lofton | D 1 | LOFAIN | C/OI | LUAP | C 1 | LYNCH | 0 |
| LINOYER | B | I LOGAN | 01 | Locan | e 1 | LUBBOCK | B 1 | LYNCHEURG | 6 |
| LINROSE | c | 1 logoell | 8 | LORAY | A 1 | LUBRECHT | $C$ | LYNDEN | E |
| LINSLAW | $\bigcirc$ | I LOGGEKT | 01 | LORDSTOWN | $C$ | LUCAS | 01 | LYNN HAVEN | B/0 |
| LINT | e | 1 LOGMOUSE | B 1 | loreauville | $C 1$ | LUCE | C 1 | LYNNBOW | 0 |
| LINTON | 8 | \| LOGRING | - 1 | LORELLA | c 1 | Lucedale | B 1 | LYNNDYL | A |
| Linvelot | $\underline{\square}$ | 1 Logr | - 1 | LCPENA | $c$ | LUCERNE | E | LYNNE | B/0 |
| LINVILLE | 3 | 1 LOHLEP | $c$ | LCRENZO | b | LUCERO | B | LYNNVILLE | $C$ |
| LINWELL | C | I LOHMILLER | $C 1$ | LCFETTU | B 1 | LUCIEN | C 1 | LYNNWOOD | A |
| LINWOOD | $1 / 0$ | 1 LOHNES | A | LCFING | C 1 | LUCILE. MODERATELY | $C$ | LYNX | B |
| LIPAN | D | 1 LOHSMAN | C 1 | LCRMAN | 01 | WE T | 1 | LYNXCREEK | 8 |
| LIPKE | 0 | 1 Loige | F | LCRTA | E 1 | LUCILE. DRAINED | E 1 | LYGNMAN | B |
| LIPPINCOTT | 9/0 | 1 LOKEN | C 1 | LOS ALAMJS | C I | LUCKENEACH | $C$ | LYONS | D |
| LIPPIT | $C$ | 1 LOKERN | c | LCS EANOS | $c 1$ | LUCKIAMUTE | D | LYONSVILLE | B |
| LIRIOS | 9 | 1 LOKERN. | D | LOS GATOS | $c 1$ | LUCKY | C 1 | LYRA | D |
| LISADE | a | I SALINE-ALKALJ. | , | LOS GUINEOS | $c 1$ | LUCKY STAR | E | LYRE | B |
| LISAM | 0 | \| WEt | 1 | LES OSOS | $c 1$ | LUCKYRICH | e 1 | LYStaif | B |
| LISBON | 0 | 1 LOKEFN. | $\cup$ | LGS fCBLES | B 1 | LUCY | A 1 | LYtELL | e |
| LISCO | C | I SALINE-ALKALI | 1 | LCS TANOS | C 1 | LUD | 01 | LYVILLE | 5 |
| LISCOMB | 9 | 1 lokosee | E/0 1 | cosantville | $C 1$ | LUDDEN | D 1 | LYX | 8 |
| LISK | B | I lolak | D 1 | LOSEE | 61 | LUSINGTON | B 1 | madank | D |
| LISMAS | D | 1 Lolalita | e 1 | LCSTEASIN | C 1 | LUDLOK | C 1 | Mabel | C |
| LISMORE | E | I Lolekaa | 51 | LOSTCOEEK | B I | LUEDERS | $C 1$ | mazen | c |
| LITCHFIELD | * | 1 Loleta | $C 1$ | LCST INE | F I | LUFKIN | D 1 | MABI | 0 |
| LITHGOW | C | I Lolite | $\bigcirc 1$ | LOSTFCINT | C 1 | LUGERT | F I | mabrar | D |
| LITIMBER | E | 1 LOLO | P I | LCSTSPRINS | B I | LUGOFF | B 1 | macar | E |
| LItLe | 0 | 1 LOLON | e 1 | Lostralley | c 1 | LUHON | E 1 | macareeno | D |
| LITRO | D | 1 LOLGPEAK | A 1 | LOSTWELLS | B 1 | LUKE | C 1 | MaCE | B |
| LITTLE HORN | C | 1 Loma | C 1 | LOSTWELLS WET | C 1 | LUKIN | $C 1$ | MACECONIA | 8 |
| LITTLE POLE | 0 | 1 Lomaxi | -1 | LCTHAIR | $c 1$ | LULA | P 1 | macfarlane | B |
| LITTLE WOOD | B | 1 lomalta | $\bigcirc 1$ | LCTT | c 1 | LULING | - 1 | Machete | C |
| LIttleaxe | 5 | 1 Lemart | - 1 | LCTUS | $c 1$ | lulvoe | $C 1$ | MaChias | B |
| LITTLEEEAR | 9 | 1 LOMAX | -1 | LCTUSPOINT | $c 1$ | LUMEEE | O/DI | machuelo | D |
| LITTLEJOHN | C | I lometa | $C 1$ | Lou | E 1 | LUMBEPLY | $B 1$ | mack | A |
| Littlenan | C | 1 Lomjll | D 1 | LOUDEPBACK | c 1 | LLMMER | 81 | Mack. LOAmy | C |
| LITTLETON | O | - Lomira | E 1 | LQUDCN: | $C 1$ | LUMM I | D 1 | SURSTRATUM |  |
| LITTSAN | $C$ | 1 Lomitas | C I | Love onville | C 1 | LUMMI - ORA INED | C 1 | MACKEN | 0 |
| LITZ | C | I LOMOINE | c 1 | LCUELLA | B 1 | Lummus | $C 1$ | MACKERFI CHER | A |
| LIV | 0 | 1 LTMONO | E. 1 | LCUGHBORA | C 1 | LUNA | $C 1$ | macker | c |
| LIVEOSK | 8 | I Loncag | 61 | LOUIE | $C 1$ | LUNDER | D 1 | Mackseurg | 8 |
| LIVEPMORE | B | 1 LONOO | C 1 | Louiecreek | e 1 | LUNDS | C 1 | macmeal | 5 |
| Livit | 0 | I LONDONDERRY | $\mathrm{C} / 01$ | LoUIN | C 1 | LUNDY | D 1 | maccme | E |
| LIVINGSTON | 0 | 1 Lonk | C 1 | LoUist | E 1 | LUNING | A 1 | maccmber | C |
| Livona | 9 | 1 LCNE ROCK | e 1 | louiseurs | - 1 | LUNT | C 1 | Macon | B |
| LIEE | E | I Lonegear | D 1 | LOUP | 01 | Ll'PE | 61 | MADALIN | D |
| LIZZANT | H | 1 LUNELY | $C 1$ | LCLPLOUD | E 1 | LUPINTO | e 1 | madawaska | B |
| Llands | C | 1 Lonepine | 51 | LOURDE S | C 1 | LUPINTO, SALINE | $C 1$ | madoen | $C$ |
| LOARC | - | I Loneridge | $\bigcirc 1$ | LOUSCDT | $C 1$ | LUPOYOMA | B 1 | MADDOCK | A |
| LOBJELL | B | 1 Lonestaf | E 1 | LOUVIERS | D 1 | LUPPINO | 01 | madelia | B/C |
| Logelville | c | 1 Lonetree | A 1 | LCive JJy | C I | LUPTON | A/DI | madeline | D |
| LOgeeg | C | 1 LONEXOOO | B ! | lovelace | E 1 | LUPTON, PONDED | 01 | MADERA | D |
| LOBEFT | B | 1 LONGCREEK | D 1 | lgVelano | $C 1$ | LURA | C/D1 | madge | B |
| LOBItos | C | 1 LONGFORD | C I | Lrveland. | D I | LURAY | C/DI | Madill | B |
| LOBO | 5 | \| LONGJIM | D 1 | ELEVAT10N>6500 | 1 | LURNICK | C 1 | MADISON | B |
| LGEURN | 0 | 1 LONGLOIS | e 1 | lovell | C 1 | LUSETII | B 1 | madonna | C |
| Locane | 0 | I LONGMAPE | 01 | LCVELOCK | c 1 | LUSK | $C 1$ | MADRAK | c |
| LOCEY | $C$ | I LONGMONT | $C 1$ | LOVELDCK. | C 1 | luta | $B 1$ | MADRAS | C |
| LOCHL OOSA | $c$ | I LONGPIE | - 1 | SAL INEmALKALI | 1 | LUTAK | 61 | MADRIO | B |
| LOCHSA | B | 1 LONGVAL | B I | LOVELOCK * ORAINFD | C 1 | LUTE | 01 | MADRCNE | C |
| LOCKE | 3 | 1 LONGVIEW | C 1 | LCVEWELL | E 1 | LUTH | C 1 | Madurez | B |
| LGCKEREY | c | 1 LONIGAN | P 1 | LOVLITE | C 1 | LUTHER | B1 | MAES | B |
| LOCKERBY, COBBLY | D | \| LONIGAN. COBSLY | C 1 | LCWELL | c I | lutie | e 1 | MAGALLON | E |
| LOCKHART | A | I SUBSTRATUM |  | LCVEFCREEK | a 1 | LUTON | $\bigcirc 1$ | Magoalena | 0 |
| LOCKPERI | B | 1 Lonman | $B 1$ | LOWEBES | B 1 | LUTEEELOH | e 1 | Mag6as | B |
| LOCKYON | 8 | - Lorina | B 1 | LOMRY | e 1 | luverne | $C 1$ | MagGIN | C |
| LOCKWOOC | B | I Lenoke | B 1 | Lows | E/OI | LUXOR | D 1 | maghills | B |
| LCCKWODD. WET | c | I LONTI | $\bigcirc 1$ | lowville | B 1 | LUZENA | 01 | MAGIC | D |
| LOCO | C | 1 LOOKINGGLASS | $C 1$ | Lex | C 1 | LYBROOK | D 1 | MAGINNIS | 0 |
| locoda | D | 1 lookout | $C \quad 1$ | Loxley | A/D1 | LYDA | 01 | magna | 0 |
| locust | C | I loomer | c I | Loyal | B 1 | LYDICK | -1 | MAGNET | $C$ |
| LODALLEY | D | 1 LDOMIS | 01 | LOYALTON | D 1 | LYERLY | 01 | MAGNOR | C |
| LODAR | D | 1 LOONY | $C 1$ | Loysville | D 1 | LYFOPD | C 1 | magnus | $C$ |
| LODF | 3 | 1 Loper | C 1 | Loza | D 1 | LYKENS | $C$ | magotha | 0 |

[^1]MODIFIERS SHOWN. E.G.. BECROCK SUESIRATUM, PEFER TO A SPECIFIC SOIL SERIES PHASE FDUND IN SOIL MAP LEGEND.

| MAGOTSU | D 1 | manawa | C 1 | MARGO | B 1 | MARYSTOWN | C 1 | may | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| maguayo | C 1 | MANBURN | D 1 | marla | E 1 | MASADA | C 1 | may day | 0 |
| mahala | D 1 | MANCELONA | A 1 | mariana | C | MASARDIS | 11 | mayacara | C |
| mahalasville | B/O1 | manchester | A | MARIAS | D 1 | masaryk | A I | MAYBELL | $\wedge$ |
| mahan | $C 1$ | mandan | B 1 | mariaville | D 1 | MASCAMP | 01 | Maygerry | 0 |
| mahana | E | MANDARIN | C 1 | MARICAO | $B 1$ | mascarenas | C 1 | mayseso | 0 |
| MAHASKA | B | manderfield | B | MARICOPA | B 1 | MasChetah | B I | maYbio | 0 |
| MAHOGAN | c | manoeville | B | Marietta | C | Mascotte | E101 | MaYDOL | B |
| MAhoning | D | manoy | C | maritla | $C 1$ | MASCOTTE. | D 1 | mayer | 8/0 |
| MAHOOSUC | A 1 | manet | B | MARIMEL | C | DEPRESSIONAL | 1 | mayes | D |
| MAhtomedi | A 1 | manfreo | D 1 | MARIMEL , DRAINED | B I | MASET | B 1 | mayfield | 9 |
| MAHTOMA | C/OI | MANGUM | D 1 | MARINA | B | MASHAM | D 1 | MAYFLOWER | $c$ |
| MAhUK ONA | B I | manhattan | A | miarine | C | MASHEL | B 1 | marger | c |
| maia | B 1 | MANHEIM | C I | MARION | D 1 | mashulaville | B/D1 | MaYHEw | D |
| MaIDEN | C 1 | mani | $C 1$ | MARIFO | B 1 | MASKELL | B 1 | maymead | 8 |
| MAILE | A | MANIKAN | $B 1$ | MARIPOSA | C 1 | MASON | B 1 | maymen | 0 |
| MAINSTAY | D | MAVILA | C | MARISCAL | D 1 | MASONFORT | D 1 | maynard lake | A |
| maitland | B | manistee | A | MARISSA | $C 1$ | MASONTONN | 01 | mayo | B |
| majada | B | MANITA | C 1 | MARKES | D 1 | massack | C 1 | mayodan | 8 |
| majuba | C | MANITOWISH | E | MARKESAN | B 1 | MASSACK, DRAINED | B 1 | MAYOWORTH | c |
| makamlae | $B 1$ | manley | B 1 | MARKET | C 1 | MASSADONA | D 1 | MAYOUEEN | B |
| MAKAH | B | manlius | $C 1$ | MARKEY | A/D: | MASSANETTA | E 1 | MAYSDORF | 8 |
| MAKALAPA | D | MANN | B/DI | MARKHAM | C 1 | MASSANUTTEN | E 1 | MAYSPPINGS | 6 |
| MAKAPILI | B | manning | B I | MARK LAKE | D 1 | MASSEACH | E 1 | MAYTAG | D |
| makawao | B | manogue | D 1 | MARKLAND | C 1 | MASSENA | $C 1$ | maytown | C |
| makameli | B | MANOR | B I | MARKLEPASS | D | Massie | $\bigcirc 1$ | mayville | E |
| MAKENA | B | MANSELO | 8 | MAPKTON | C 1 | MASTERSON | B 1 | MaYwood | 8 |
| MAK I | C | MANSFIELD | D 1 | MARLA | 01 | mata | C 1 | Mazarn | $c$ |
| MAKIKI | B | MANSIC | 81 | MARLAKE | D 1 | Matagorda | 01 | MAZASKA | C/ 0 |
| MAKLAK | A 1 | MANSKER | B I | MARLPORO | B I | MATAMMOROS | $C 1$ | mazoale | $B$ |
| makot | B 1 | MANSONIA | $B 1$ | MARLEAN | B I | matanuska | B 1 | mazourka | c |
| MAL | $C$ | mantachie | $C 1$ | MARLETTE | E 1 | MATANZAS | e I | Maz Uma | B |
| mala | B \| | manteca | C 1 | MAFLOW | $C 1$ | Matapeake | B 1 | MC CORT | B |
| malabar | B/01 | manteo | CODI | MARLTON | C 1 | matawan | $C 1$ | mCAFEE | C |
| MALABAR. | D 1 | manter | B 1 | marmarth | B 1 | matcher | A 1 | mCalten | B |
| DEPRESSIONAL | - | MANTON | - 1 | marmarthe cool | C 1 | matfield | $C 1$ | mCallister | c |
| MALABAR. | 01 | MANU | $C 1$ | MARNA | C/D1 | MATGO | 01 | MCALPIN | C |
| FREQUENTLY | 1 | manvel | B I | MAROSA | B 1 | MATHENY | B I | mceee | $C$ |
| FLOODED | 1 | manvel. SAline | $c 1$ | MAPOTZ | C 1 | mathers | B | MCBETH | D |
| MALABON | C 1 | MANZANAR | $c 1$ | MARPA | C 1 | MATHERTON | B I | MCBETH. SALINE | C |
| malachy | B I | manzanita | C | MARPLEEN | D I | Matheson | B I | MCBETH. DRAINED | C |
| malaga | B 1 | manzanita. | P I | MARQUETTE | A 1 | MATHIAS | B 1 | MCBIGGAM | C |
| malaga stony | A 1 | Gravelly | 1 | MARQUEZ | C I | MATHIS | $C 1$ | MCBRIDE | E |
| Malama | A 1 | manzano | B 1 | MARR | e 1 | MATHISTON | $C 1$ | MCCAFFERY | A |
| malargo | B 1 | MANZANOLA | $C 1$ | MAPR IOTT | e 1 | MATHON | B 1 | MCCAIN | C |
| malaya | 01 | maple mountain | e I | MARR OWBONE | $C 1$ | matlacha | $C 1$ | mecalee | E |
| malbis | B | MAPLECREST | B 1 | MARSOEN | R 1 | matneflat | B I | mCCALL | E |
| malcolm | B 1 | MAPLEHILL | $C 1$ | Marseitles | e 1 | mator | C 1 | mCCALly | 0 |
| Malden | A | MAPLETON | $C 1$ | MARSELL | e 1 | mattamuskeet | D 1 | mCCAMMON | C |
| Maleza | B 1 | MAPLETON, STONY | C/DI | MARSHALL | - 1 | mattan | D 1 | MCCANN | B |
| malhe us | C 1 | MARACK | $C 1$ | MARSHAN | B/OI | mattapex | C I | MCCAREY | $c$ |
| MALIBU | D 1 | maraguez | B I | MARSHBROOK | D I | MATTAPONI | $C 1$ | MCCARRAN | 8 |
| MaLin | C 1 | MARANA | B 1 | MARSHDALE | D 1 | matunuck | D 1 | MCCARTHY | B |
| MAL JAMAR | 51 | MARATHON | E 1 | marshdale drained | C 1 | mau | $C 1$ | MCCASH | E |
| mallory | C 1 | Marble | A 1 | MARSHFIELO | P/01 | maubila | $C 1$ | mcclave | C |
| Malm | c I | MARGLECREEK | B I | MARSING | E 1 | mavoe | -1 | mCCleary | D |
| malmesa | 01 | MARBLEMOUNT | B 1 | MART | B 1 | mavdilin | B 1 | mCCLELLAN | B |
| MALO | B | MARBLEMOUNT. | C 1 | martel | 01 | maughan | C 1 | mCCLOUO | c |
| maloterre | D 1 | CHANNERY | 1 | martella | C 1 | mauker | C 1 | mCCLURE | C |
| malott | B 1 | marcado | D 1 | MARTIN | $C 1$ | maumee | $0 / 01$ | MCCOIN | D |
| maloy | B I | marcelinas | D 1 | MARTIN PENA | D 1 | maunabo | 01 | MCCOLL | D |
| Malpais | B 1 | Marcellon | $C 1$ | MARTINECK | D 1 | MAUPIN | C 1 | mCCCLLUM | - |
| MALSTROM | P 1 | MARCETTA | 81 | MART INEZ | 01 | maurepas | c 1 | MCCONNEL | B |
| mal vern | C 1 | marcial | $\bigcirc 1$ | MARTINI | B 1 | maveretown | 01 | MCCONNEL. FLOODED | A |
| mamala | 0 | marclay | C 1 | MARTINSEURG | P 1 | mavrice | E 1 | MCCOOK | B |
| MAMOU | $C$ I | marcola | C 1 | MARTINSDALE | B 1 | maury | E 1 | MCCORNICK | $c$ |
| manahat | $C 1$ | MAPCONI | C 1 | MAFTINSON | C 1 | mauvals | $C 1$ | MCCORT | B |
| MANAHAWKIN | - 1 | MARCOTT | $C 1$ | martinsville | B I | maveo | $c 1$ | MCCDY | C |
| manana | C 1 | MARCOU | E I | MARTINTON | C 1 | Mavepick | C 1 | MCCREE | B |
| MANARD | D 1 | MARCUM | $C 1$ | MARTIS | e I | Mavif | P/D1 | MCCRORY | D |
| MANARD. GRAVELLY | $C 1$ | Marcus | 8/01 | MARTISCO | E/O1 | mawae | A 1 | MCCROSKET | B |
| SUESTRATUM | 1 | marcuse | D I | MARTY | B 1 | MAWER | B I | mCCULLOUGH | B |
| manassa | c 1 | Marc ${ }^{\text {M }}$ | 01 | MARUMSCO | C 1 | max | B 1 | mCCULLY | C |
| MANASSAS | B | MARDIN | C 1 | MARVAN | D | MaxCREEK | B/D I | mCCUMBER | $B$ |
| MANASTASH | $C$ | MARENGO | C/OI | marvell | B 1 | Maxey | $C 1$ | MCCUNE | D |
| manatee | B/DI | MARESUA | B I | MARVIN | C 1 | maxfielo | 8/01 | mCCURDY | c |
| manatee. | 01 | margate | B/LI | MARVYN | B 1 | Maxton | P I | mCCUTCHEN | D |
| DEPRESSIONAL | 1 | MARGERUM | B I | MARY | C 1 | maxville | B 1 | mCDADE | C |
| MANATEE, FLODDED | D | MARGIE | C 1 | MARYSLANO | B/01 | Maxwell | 01 | MCOANIEL | B |

NOTES: TWO HYOROLOGIC SGIL GROUPS SUCH AS B/C INDICATE THE DRAINED/UNDRAINED SITUATION. MODIFIERS SHOWN. $\{$.G. BEDFOCK SUBSTRATUN. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

| mCOERMOTT | 3 | MECKLENBURG | $C$ | 1 | merden | 0 | MIKIM. WET | c | MINNEOSA | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MCDOLE | e 1 | mecosta | A | 1 | MERECITH | $B 1$ | SUBSTRATUM | 1 | MInNEQUA | C |
| mCdonalo | C 1 | MEDA | E | 1 | MERETA | C 1 | mikkalo | c 1 | MINNE TONKA | 0 |
| MCDONALDSVILLE | C/D1 | MEDANO | D | 1 | MERGEL | B 1 | milaca | C I | MINNE TONKA, SILTY | C/D |
| MCDUFF | $C 1$ | MEOAPY | $C$ | 1 | MERICIAN | B 1 | milan | B I | SUESTRATUM |  |
| MCELMO | C 1 | MEDBURN | E | 1 | MERINO | c 1 | MILEURY | $C 1$ | minnewaukan | A/D |
| MCELROY | B I | MEDCO | D | 1 | MEFKEL | e 1 | miler | B 1 | MINNIECE | D |
| MCEWEN | B 1 | MEDFORD | B | 1 | MEPLIN | D 1 | MILCAN | C I | MINNIEPEAK | $\cdots$ |
| MCFADDEN | B 1 | MEDFRA | c | 1 | MEFMENTAU | 01 | Mildred | C I | MINNIEPEAK. | $\theta$ |
| MCFAIN | C 1 | medicine | B | 1 | MEPMILL | B/DI | MILES | B 1 | OVERBL OWN. |  |
| MCFARLAND | B 1 | medley | B | 1 | MEFNA | e 1 | MILFORD | B/01 | Graveluy |  |
| MCFAUL | C 1 | MEDLIN | D | 1 | MEROS | A 1 | milham | B 1 | MINNIEPEAK. | B |
| mCGAFFEY | B 1 | MEDCMAK | D | 1 | MERRICK | E 1 | MILITARY | - 1 | OVERELOWN |  |
| MCGARR | C 1 | medora | E | , | MERRILL | C 1 | MILL HOLLOW | B 1 | MINNIEVILLE | $c$ |
| MCGARVEY | $C 1$ | medwar | E | 1 | MEPRILLAN | C 1 | Mill adore | c 1 | MINNIMAUD | C |
| MCGARY | C 1 | MEEGERNOT | E | 1 | MERRIMAC | A 1 | MILLARO | B 1 | MINNITH | C |
| MCGEHEE | C 1 | meegero | E | 1 | MERRITT | $C 1$ | Millboro | D 1 | MINNYE | B |
| MCGILVERY | 01 | MEEHAN | E | 1 | MERRITT* CLAYEY | B 1 | Mill grook | B 1 | MINOA | C |
| MCGINNIS | C 1 | NEEKS | ( | 1 | SUBSTRATUM. | 1 | mill burne | B I | minocoua | B/D |
| MCGINTIY | B | meeteetse | 0 | I | CRAINED | 1 | MILLER | D 1 | MINTER | 0 |
| MCGIRK | C 1 | MEGALOS | 0 | , | MERRITT, DRAINED | e 1 | millerlake | B 1 | MINTO | C |
| MCGIRK. LOW | 0 | MEGGETT | 0 | 1 | MERSHON | C 1 | millerlux | D 1 | MINU | D |
| PRECIPITATION | 1 | MEGONOT | C | 1 | MERTON | E 1 | Millerton | D 1 | minvale | B |
| MCGOWAN | 6 | meguiv | 4 | 1 | MERT ? | $C 1$ | Millerville | A/DI | MINVENO | 0 |
| MCGRATH | B | NEHLHORN | C | 1 | MEFWIN | A/DI | Millett | B I | MINWELLS | C |
| MCGRE ${ }^{\text {M }}$ | B | MEIKLE | 0 | 1 | MESA | E 1 | MILLGROVE | B/01 | MION | c |
| MCGUFFEY | 0 | MEJSS | D | 1 | mesaea | $C 1$ | MILLHEIM | C I | MIPPON | c |
| MCGUIRE | 日 | MEKINOCK | D | 1 | MESCAL | $C 1$ | MILLHI | D 1 | MIRABAL | $c$ |
| MCHENRY | 31 | relakwa | C | 1 | mescalero | C 1 | MILLHOPPER | A I | miracle | $c$ |
| MCILWAINE | 2. 1 | MELAND | C | 1 | MFSEI | C 1 | MILLICH | D 1 | mirage | C |
| MCINTOSH | 61 | melegoupne | A | 1 | MESPUN | A 1 | Milli coma | $C 1$ | MIRAMAR | B |
| MCINTYRE | 81 | meley | E | 1 | MESSER | C 1 | milligan | $C 1$ | MIRAND | 0 |
| MCIVEY | C I | MELD | C | 1 | MET | 81 | NILLING | D 1 | MIRANDA | - |
| MCKAMIE | 01 | MELOEP | E | 1 | metamora | E 1 | MILLINGTON | B/DI | mires | A |
| MCKAY | $\bigcirc 1$ | MELGA | 0 | 1 | METCALF | 01 | MILLIS | C 1 | MIRES * STONY | B |
| MCKEE | $\bigcirc 1$ | Melhomes | 0 | 1 | METEA | B 1 | MILLPAW | $C 1$ | MIRKwOOD | D |
| MCKEETH | B | MELITA | A | 1 | METH | C I | MILLPOT | B I | MIRROR | C |
| MCKELVIF | A | N:ELLENTHIN | 0 | 1 | METIGOSHE | B 1 | millrace | B I | MIRROR LAKE | A |
| MCKENNA | D. 1 | MELLOR | 0 | 1 | metclius | E 1 | MILLPOCK | A 1 | MISAD | B |
| MCKENNA, DRAINED | C 1 | MELLOR. StRATIFIEC | C | 1 | netre | - 1 | MILLSAP | D I | MISENHEIMER | C |
| MCKENZIE | D 1 | SUESTRATUM |  | 1 | *ETZ | B 1 | millsoale | B/01 | MISHAK | D |
| MCKINLEY | B 1 | MELLOTT | 6 | 1 | MFXICO | D 1 | MILLSHOLM | 01 | MISHAK - DRAINED | $C$ |
| MCKINNEY | $C$ | MELOCHE | 0 | 1 | MEXISPRING | 01 | millsite | B 1 | MISSION | 0 |
| MCKNIGHT | 91 | MELOLANO | $c$ | 1 | HEYSTAE. | A 1 | Millville | B 1 | MISSISOUOI | A |
| MCLAIN | $C$ | melaose | C | 1 | mrion | D 1 | MILLWOOD | D 1 | MISSLER | E |
| mClaupin | ${ }^{4}$ | MELTON | 0 | 1 | MIAMI | E 1 | milner | B 1 | MISSOULA | 0 |
| mCleod | 8 | melville | - | 1 | MIAMIAN | C 1 | Milok | B 1 | MItCH | B |
| MCLOUGHLIN | 8 | MELVIN | 3 | 1 | MICANOPY | C 1 | MILPITAS | C 1 | MITCM. RARELY | c |
| NCMEEN | $C 1$ | meval oose | C | 1 | micco | E/D 1 | MILREN | $C \quad 1$ | FLOODED |  |
| MCMILLE | B 1 | MEMPHIS | E | 1 | MICHELSON | B | MILTON | $c 1$ | MITCHELL | B |
| MCMULLIN | 0 | menahga | A | 1 | NICHIGAMME | C 1 | MILVAR | C I | mitiwanga | c |
| MCMURDIE | $C 1$ | MENARD* | B | 1 | NICKEY | 01 | MIMBRES | P 1 | MITKOF | D |
| MCMURRAY | 01 | menasha | 0 | 1 | micray | $C 1$ | mimosa | $C 1$ | MITKOF , MODERATELY | $C$ |
| MCMURRAY, DRAINED | $C$ | MENBO | $c$ | 1 | minas | $C 1$ | MINA | B I | WET |  |
| MCNARY | - 1 | mencebolire | C | 1 | N IUCO | A 1 | MINALOOSA | B I | MItPE | C |
| mCNEAL | $? 1$ | MENDELTNA | D | 1 | MIODLE | C 1 | MINAM | B 1 | mitring | $c$ |
| MCNULL | -1 | nendeltina. | e | 1 | MIDDLEBURY | E 1 | minat | B I | MITTEN | B |
| MCNULTY | 91 | LACUSTRINE |  | 1 | MIDOLEMARCH | B 1 | minatare | $\bigcirc 1$ | mivida | B |
| mCPAUL | B 1 | SUBSTRATUM |  | 1 | MIDDLETOWN | E 1 | MINCHEY | B 1 | MI ZEL | D |
| MCPHIE | B 1 | WENDENHALL | D | 1 | MIDOLEWOOS | D 1 | MINCHUMINA | $\bigcirc 1$ | mnab | e |
| MCOUARRIE | 01 | MENDI | B | 1 | MIDELIGHT | E 1 | MINCO | A 1 | moag | 0 |
| MCQUEEN | c | NENDOCINO | E | 1 | MIDESSA | B 1 | Mindego | C 1 | moand | D |
| MCRAE | B | MENDON | E | 1 | MIDF ORK | E 1 | minden | B 1 | moapa | $c$ |
| MCRAVEN | C ! | MENOUTA | B | 1 | MIDLAND | 01 | MINE | 51 | moavla | A |
| MCTAGGAFT | 81 | menefee | - | $!$ | MIOMCNT | C 1 | MINEOLA | A 1 | mobate | D |
| MCVEGAS | D 1 | MENFRO | 8 | 1 | MIDNIGHT | D 1 | miner | D 1 | mobeetie | 8 |
| MCVICKERS | C | MENI.O | D | 1 | MIDO | A 1 | MINERAL | $C 1$ | MDPERG | B |
| MEAD | 01 | MEING | $c$ | 1 | MIORAW | C 1 | MINEPAL MOUNTAIN | $C 1$ | MORL | e |
| MEADIN | A 1 | MENOKEN | $c$ | 1 | midvale | C 1 | MINERSVILLE | B 1 | MOBRIDGE | 8 |
| MEADL AND | C 1 | mendminee | A | 1 | miowar | C 1 | MINESINGER | C 1 | moca | 0 |
| MEADOWERJOK | B/D1 | mevto | $C$ | 1 | MJERHILL | $C \quad 1$ | MINETA | $c 1$ | mocarey | D |
| MEADOWCREEK | $C 1$ | mentor | B | 1 | MIERUF | B 1 | MINGO | $C 1$ | MOCHO | B |
| MEADOWLAKE | $\bigcirc 1$ | MENzEL | 6 | 1 | MIESEN | C I | MINGUS | D I | mocklep | B |
| MEADOWVILLE. | 9 | MEOUON | C | 1 | MIFFLIN | B I | MINIDOKA | $C 1$ | MOCMONT | B |
| MEANS | c | MER ROUGE | E | 1 | MIGEFN | B 1 | MINKLER | D 1 | moctileme | C |
| MEARES | - | MERCED | 0 | 1 | MIGUEL | D 1 | MINLITH | D 1 | MODA | D |
| MECAN | P | MFRCEDES | D | , | MIKE | - 1 | MINNEHA | C 1 | modale | C |
| MECHANICSBURG | $c 1$ | MERCER | $c$ | 1 | MIKESELL | $c 1$ | MINNEISKA | P 1 | MODFNA | B |
| MECKESVILLE | c | MERCEY | c | 1 | MIKIM | B 1 | MINNEOPA | E 1 | modesto | $C$ |

NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS E/C INDICATE THE ORAINEDIUNORAINED SITUATION. MGDIFIERS SHOWN. E.G.. REDROCK SU日STRATUM. REFER TO A SPECIFIC SOIL SEPIES PHASE FOUND IN SOIL MAP LEGEND.

| MODJESKA | B | montcalm | A | MORTENSON | $C 1$ | MUIR | E 1 | Mromat wet | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MODKIN | C | MONTE | B I | MORTENSON. COBELV | 01 | MUIRKIRK | P 1 | MYRA | C |
| MODOC | $C 1$ | MONTE CRISTO | $\bigcirc 1$ | MORTON | B 1 | MUKILTEO | D 1 | MYRICK | c |
| MODYON | $C 1$ | montecito | B 1 | morval | B I | MUKILTEO: DRAINED | $C 1$ | myptle | B |
| MOE | B 1 | MONTEGRANDE | D 1 | mosey | $C 1$ | mulat | D 1 | MYSTEN | A |
| MOEN | C 1 | MONTELL | 0 I | mosca | B 1 | MULDCON | $B 1$ | MYSTIC | C |
| MOENKOPIE | D 1 | MONTELLO | $C 1$ | MOSCOU | $c 1$ | MULDPOW | 01 | natlehu | B |
| MOEPITZ | B 1 | MONTEOCHA | 01 | MOSEL | C 1 | mulett | D 1 | NAALEMU. BEOPOCK | C |
| MOFFAT | - 1 | MONTEOLA | 01 | meses | B 1 | MULGON | B 1 | SUBSTRATUM |  |
| MOGG | D 1 | MONTEROSA | D 1 | MOSES BOULDERY | $C 1$ | MULHALL | E 1 | Nabesna | 0 |
| MOGL IA | C | MONTESA | C 1 | MOSHANNON | B 1 | MULHOLLANO | B 1 | NACHES | E |
| MOSOLLON | B 1 | montevallo | 01 | MOSHEIM | 01 | MULHOP | D 1 | NaCHUSA | B |
| MOGOTE | $C 1$ | MONTEZ | B 1 | MOSHER | D 1 | MULKEY | $C 1$ | nacimiento | C |
| MOHALL | B 1 | MONTGOMERY | 01 | MOSHERVILLE | C 1 | MULLICA | $C 1$ | NACLINA | D |
| mohave | B 1 | MONTICELLC | B 1 | meshup | C 1 | mullig | E I | NACOGDOCHES | B |
| mohamk | B 1 | MONTIETH | B 1 | mosida | B 1 | mullins | 01 | nada | D |
| MOHOCKEN | C | MONTLIO | $C 1$ | mosinee | $B 1$ | mullyan | 01 | nadeau | E |
| MoIESE | B 1 | MONTMORENCI | B 1 | moslander | D 1 | mulshde | C 1 | NADINA | D |
| MOINES | C | montineva | $C 1$ | MCSMAN | D 1 | mulstay | $C 1$ | Nadra | 0 |
| MOINGONA | B | MONTOSO | B 1 | moso | e 1 | MULT | $C 1$ | NAEGELIN | D |
| mojo | C | MONTOUR | D 1 | mosouet | 01 | mul tey | B I | NAFF | B |
| MOKELUMNE | D 1 | MONTOYA | D I | MOSROC | D 1 | MUL TNOMAH | B I | nagitsy | C |
| MOKENA | C | MONTPELLIER | $C 1$ | MCSS YRDCK | B 1 | MULTORPOR | A 1 | Nagle | B |
| MOKIAK | B 1 | MONTROSS | $C 1$ | MOSwELL | D 1 | MUNDAL | $C 1$ | NAGROM | C |
| MOKINS | D 1 | montvale | D 1 | mCta | e 1 | MUNDELEIN | B 1 | NAHA | $c$ |
| MOKO | 01 | MONTVERDE | B/01 | MOTEN | c 1 | MUNDEN | E I | NAHATCHE | $C$ |
| MOKULEIA | B 1 | MONTWEL | $C 1$ | motley | B 1 | MUNDOS | E 1 | nahma | E/D |
| mol alla | B 1 | MONTWEL. ALKALI | e 1 | motooua | D 1 | MUNDT | C 1 | NAHON | D |
| mol ano | B 1 | monve | B 1 | MOTt | B 1 | MUN: | D I | NAHRUB | D |
| MOLAS | 01 | MONVERO | 11 | MOTTLAND | B 1 | MUNISING | E 1 | nahunta | C |
| molcal | $\theta$ | moodr | B 1 | MOTTO | D 1 | MUNJOR | B I | NAIWA | B |
| MOLENA | A | МоОноО | 61 | mottsville | $A 1$ | MUNK | C 1 | NAKAI | B |
| MDLION | 01 | modlack | $A 1$ | MOUL TON | $C 1$ | MUNNELL | B 1 | NAKARNA | B |
| mollicy | C 1 | MOONLIGHT | B I | moul trie | D 1 | MUNSET | D 1 | NAKINA | E/D |
| MOLLMAN | 0 | MOONSHINE | D 1 | MOUND | C 1 | MUNSON | $\bigcirc 1$ | NAKNEK | D |
| MOLLVILLE | $\bigcirc 1$ | MOONSTONE | C 1 | MOUNDHAVEN | -1 | MUNUSCONG | E/O1 | NAKOCHNA | D |
| MOLLY | $B 1$ | MCONVILLE | E I | molnoprairie | B/DI | MURAD | - I | NALAKI | C |
| MDLOKAI | Q 1 | MOOREVILLE | $C 1$ | MOUNOPRAIRIE. | D 1 | MURANCH | $C 1$ | naldo | $E$ |
| MOLSON | 日 1 | MOOSE RIVER | $\bigcirc 1$ | PONDED | 1 | MURDE | B 1 | NALL | D |
| molyneux | - I | MOOSED | C 1 | MOUNDVILLE | $\wedge 1$ | MURDOCK | C 1 | NAMBE | E |
| MOMOLI | - 1 | MOOSELAKE | A/D1 | MOUNT HOME | B 1 | MUREN | B 1 | NAMELA | C |
| mona | B 1 | mooshaune | $C 1$ | mount lucas | $C 1$ | MURNEN | B I | nameoki | D |
| MONACAN | C 1 | moosilauke | C 1 | MOUNTADAMS | B 1 | MUROC | D I | NAMDN | B |
| MONACHE | $B 1$ | MOPANA | D 1 | MOUNTAINSOY | 01 | MUPPHY | C 1 | Namur | D |
| MONAD | 31 | mOPANG | B 1 | MOUNTAINBURG | C. 1 | MURRIETA | $\bigcirc 1$ | NANAMKIN | A |
| monadinock | 81 | moquah | B 1 | MOUNTAINEER | C 1 | MURRILL | B I | NANCY | B |
| MONAHANS | $B$ | MORA | $C 1$ | mountalnviem | $C 1$ | MURTIP | B I | nantak | D |
| MONARDA | 01 | MORADO | $C 1$ | mountalnville | B 1 | MUfVILLE | A/DI | NANKIN | C |
| MONASTERIO | 61 | morales | D 1 | MOUNTMED | D 1 | MUSCATINE | E I | NANNY | B |
| monaville | B | MORAN | E 1 | MOUNTNED. | C 1 | muSE | $C 1$ | NANNYTON | B |
| monbutte | $C 1$ | MORANCH | B 1 | moderately wet | 1 | musella | B 1 | NANSEMOND | c |
| MONCHA | B 1 | MORAPOS | C 1 | MOUNTVIEW | B I | MUSICK | B I | nansene | B |
| MONDAMIN | $c$ | MORD | $C 1$ | MOUZON | D 1 | mustinta | B 1 | NANSEPSEP | $C$ |
| mondey | $C 1$ | MOREAU | 01 | moville | C 1 | muskego | A/DI | Nansus | D |
| MONDOVI | B 1 | MOREHEAD | C 1 | mowata | 01 | MUSKEGO, MARSHY | D 1 | NANTAHALA | $\varepsilon$ |
| monee | 01 | MOREHOUSE | D 1 | Moweba | B 1 | MUSKEGO. CLAY LOAM | D 1 | NANTUCKET | $C$ |
| MONGAUP | C 1 | MORELAND | D 1 | MOWEF | C 1 | SUBSTRATUM | 1 | nanum | B |
| MONICO | $C 1$ | MORENO | $C 1$ | MOWICH | 01 | MUSKELLUNGE | D 1 | napa | D |
| MONIDA | C 1 | MORET | 01 | MOXEE | D 1 | MUSKINGUM | $C 1$ | NAPIER | B |
| MONIERCO | D I | MOREY | D 1 | moyers | $C 1$ | MUSKOGEE | $C 1$ | Naplene | B |
| MONITEAU | C/DI | MORF ITT | B 1 | MOYERSON | 01 | musofare | $C 1$ | NAPOLEDN | A 10 |
| MONITOR | $C \quad 1$ | MORGALA | C 1 | MCYINA | D 1 | musouiz | $C 1$ | Nappanee | 0 |
| monjeau | 01 | MORGANFIELD | B 1 | MT. AIRY | A 1 | MUSSEL | e 1 | NAPTOWNE | Q |
| MONOCLINE | $C 1$ | MORIARTY | D 1 | MT. CARROLL | -1 | MUSSELSHELL | - 1 | NARANJITO | $c$ |
| MONOGRAM | B I | MORICAL | C 1 | MT. HODD | B I | MUSSERHILL | C I | naranjo | $c$ |
| MONONA | B 1 | MORLEY | $C 1$ | MT. OLIVE | $c 1$ | mussey | B/O1 | NARCISSE | c |
| Monongahela | $C \quad 1$ | MORLING | D 1 | MT. VERNON | $C 1$ | mustang | A/D\| | NARCOOSSEE | $c$ |
| MONROE | 81 | MORMON MESA | D I | MUCARA | c 1 | mutnala | B 1 | NARD | $\theta$ |
| MONROEVILLE | CNOI | MOROCCO | B 1 | MUCKALEE | D 1 | MUZILER | D 1 | NarEl | 8 |
| MONSE | 61 | MORONI | 01 | MUD SPRINGS | C 1 | NYAKKA | B/DI | NARGAR | B |
| MONSERATE | $C 1$ | MOROP | $C 1$ | MUDCO | D 1 | MYAKKA. | 01 | NARK | c |
| MONSERATE, THIN | $\bigcirc 1$ | MORPH | B/D1 | mudlavia | E I | DEPRESSIONAL | 1 | NARLON | 0 |
| SURFACE | 1 | MORPILL | B I | mUdRaY | D 1 | MYAKKA. TIDAL | D 1 | NARNE TT | B |
| MONSON | COI | MORRIS | C I | mues | $C 1$ | MYATT | D 1 | NARON | $\theta$ |
| MONTAGUE | $\bigcirc 1$ | MORRISON | 81 | MUFF | $C 1$ | MYERS | D I | NARRAGANSETT | B |
| MONTALTO | C | MORRISTOWN | $C 1$ | mug | D 1 | MYERSVILLE | B 1 | NARRAGUINNEP | D |
| MONTARA | D 1 | MORROW | $C 1$ | MUGG INS | $C 1$ | MYFORO | D 1 | NARROWS | D |
| MONTAUK | $C 1$ | MORSE | D 1 | MUGHOUSE | C 1 | mylrea | $C 1$ | NARTA | 0 |
| MONTBDRNE | $c$ | MORSET | B 1 | MUGHUT | C 1 | myoma | A 1 | naru | C |

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


NOTES: Ywo hYDRCLDGIC SOIL GROUPS SUCH AS B/C INDICATE TYE DPAINEDJUNDRAINED SITUATION. MODIFIERS SHJWN. E.G. REDROCK SUSSTRATUM. REFER TO A SDECIFIC SOIL SERIES PHASE FOUNO IN SOIL MAP LEGEND.

| NUGENT | $A 1$ | OCONALUFTEE | 81 | OLD CAMP | D 1 | OPENLAKE | D 1 | OSAKIS | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUKRUM | D 1 | OCONEE | $C 1$ | OLDENEURG | E 1 | OPE QUON | $C 1$ | OSBORN | C |
| nuley | B | OCONTO | 81 | OLDHAM | CPOI | OPHIR | C 1 | OSEORN. MODERATELY | D |
| NULL IGAM | 91 | ocosta | 01 | OLDS | D 1 | OPIF:IKAO | D 1 | WET |  |
| numa | - | docovedoc | A 1 | OLDSFERRY | C 1 | OPLIN | C 1 | OSCAR | D |
| NUNDA | C | OCOUEOC. | B 1 | OLDSMAR | 8/01 | OPP 10 | D 1 | OSCURA | c |
| NUNEMAKER | D 1 | moderately met | - | OLDSMAR. | 01 | OPPIO. STONY | C 1 | OSGOOD | C |
| NUNICA | C 1 | OCRAIG | D 1 | DEPRESSIONAL | 1 | douaga | C 1 | OSHA | B |
| NUNN | C 1 | OCTAGON | B | OLELO | $B 1$ | OOUIN | C 1 | OShawa | D |
| NUNN. MODERATELY | B 1 | octavia | B 1 | OLENO | D 1 | ORA | $c 1$ | OSHKOSH | C |
| MET | 1 | dodas | D 1 | OLENTANGY | a/01 | DRACLE | D 1 | OSHONE | 0 |
| NUNNS TON | C 1 | ODELL | B | olequa | - 1 | ORAGRAN | D 1 | OShtemo | $\theta$ |
| NUPART | D | DOEM | A 1 | OLETE | C 1 | ORAID | $C 1$ | OSIER | A/0 |
| NUPPER | 01 | ODENSON | 0 | OLEX | E 1 | oran | - I | OSITO | C |
| NURKEY | $B 1$ | ODERMOTT | C | OLF | 01 | ORANGE | D 1 | OSkA | C |
| NUSS | 01 | ODERMOTT. STONY | $B 1$ | olga | C 1 | ORANGEBURG | - 1 | OSMUND | 8 |
| NUTALL | 01 | ODESSA | D 1 | OLI | e 1 | ORANGEVALE | B 1 | OSO | C |
| NUTIVOLI | A 1 | ODIN | C 1 | OLIAGA | C | ORCAP | C 1 | OSOBB | D |
| nutley | $c 1$ | ODNE | D 1 | clical | -1 | ORCAS | - 1 | OSOLL | 0 |
| NUTRAS | $C 1$ | 000 | B 1 | OLIN | B 1 | ORCHARD | B 1 | OSORIDGE | D |
| NUTRIOSO | 61 | ODONNELL | C | OLINDA | e 1 | ORCKY | - 1 | OSOTF | D |
| NUVALDE | - 1 | OELOP | B 1 | OLIPHANT | B 1 | ORD | B I | OSSIAN | 8/0 |
| NUYOBE | $c 1$ | OES 1 | B 1 | OLIVENHAIN | 01 | QRONA | D 1 | OSSIPEE | 0 |
| nYala | $B 1$ | desterle | $C 1$ | OLIVIFR | C 1 | ORDNANCE | C 1 | OS $T$ | B |
| NYE | 01 | OfFENBACHER | $C 1$ | OLJETC | A 1 | ORDWAY | D 1 | OSTLER | C |
| NYJACK | $C 1$ | OFU | 31 | OLLEI | D 1 | OREANA | E | OSTRANDER | e |
| NYMORE | - 1 | OGARTY | $C 1$ | OLLIERIVAS | D 1 | OREANNA | B 1 | OSWALO | 0 |
| NYSERVA | $B 1$ | OGEECNEE | B/DI | OLMY 10 | 01 | ORE JAS | 01 | otanya | B |
| NYSSA | C 1 | DGEMAW | c/ol | OLMITZ | B 1 | ORELIA | 01 | oteen | C |
| NYSSATON | B 1 | OGILVIE | 6/01 | OLMOS | C 1 | ORELLA | D 1 | OTERO | B |
| NYSWONGER | D 1 | oglala | - 1 | OLMS TED | E/D1 | OFENDA | B 1 | Othello | C/O |
| O'BRIEN | B 1 | OGLE | B 1 | CLNES | - 1 | ORENEVA | $C 1$ | OTISCO | A |
| O'NEILL | $B 1$ | OGLESBY | D 1 | OLNEY | e I | OFF ORD | B 1 | otisville | A |
| oate | B 1 | OGRAL | B 1 | oloava | B 1 | ORHOOD | D 1 | orley | B |
| CAK GLEN | B 1 | ohaco | $C 1$ | OLOKUI | c 1 | ORICTO | B 1 | OTOMD | 0 |
| OAK GROVE | B 1 | ohana | $C 1$ | OLOMOUNT | C 1 | OFIDIA | - 1 | otoole | $c$ |
| OAKALLA | B 1 | OHIA | $A 1$ | OLOMPALI | D | ORIF | A I | OTTER | B/0 |
| OAKBORO | $C 1$ | DHOP | $C 1$ | OLOT | $C 1$ | ORIGO | B I | OTTERHOLT | 8 |
| OAKDALE | $B 1$ | OHSCOW | B 1 | olotania | E 1 | ORINOCO | $C 1$ | OTTERSON | A |
| OAKDEN | 01 | OIDEM | A 1 | OLPE | C 1 | ORIO | B/OI | OTtMAR | B |
| OAKES | - 1 | ojata | D 1 | OLSEN | 01 | ORION | c 1 | OTICKEE | A |
| OAKHILL | Q 1 | cosibway | C | OLTON | $C 1$ | ORITA | B I | OTTOSEN | B |
| OAKHURS T | D 1 | OJITO | $c 1$ | olustee | B/01 | ORIZABA | c 1 | ottumma | 0 |
| OAKLAND | C 1 | oJltos | B 1 | OLYIC | 81 | ORIZAEA. ORAINED | 81 | orvay | 0 |
| OAKLET | $c 1$ | OKANOGAN | B 1 | CLYMPIC | B 1 | ORLA | B 1 | otwell | C |
| OAKLIMETER | C 1 | OKATON | D 1 | OMADI | e 1 | ORLAND | B 1 | OTWIN | C |
| OAKVILLE | $A 1$ | OKAW | 01 | OMAK | $C 1$ | ORLANDO | A 1 | OUACHITA | C |
| OAKWOOO | - 1 | okay | e 1 | OMEGA | A 1 | ORLIE | c 1 | OUARD | D |
| OANAPUKA | B | OKEE | B I | omena | B 1 | ORMAS | - 1 | oula | D |
| OASIS | -1 | OKEECHOBEE | B/D 1 | OMIO | e 1 | ORM ISTON | c 1 | OUPICO | $C$ |
| OATLANDS | 01 | OKEELANTA | B/OI | OMNI | 01 | ORMSEY | $c 1$ | ouray | B |
| OATMAN | B 1 | OKEELANTA. | D | OMPO | C 1 | ORNBAUN | - 1 | ousley | C |
| OATUU | D 1 | DEPRESSIONAL | , | orstott | $C 1$ | ORO FINO | e 1 | CUTERKIRK | B |
| OBAN | C 1 | OKEELANTA. TIDAL | D 1 | omulga | C 1 | org granoe | 01 | outlet | $C$ |
| OBANION | $c 1$ | OKEELANTA, FLOODED | 01 | ONA | E/O1 | OROGNEN | - 1 | OUTLOOK | D |
| OBARO | 91 | dreetee | D 1 | CNAMIA | B I | ORONOCO | B 1 | OUTLOOK. DRAINED | C |
| OAEN | C 1 | OKEMAH | C | ONAOUI | D 1 | OROSE | C 1 | ovall | C |
| OBISPO | D 1 | OKIOTA | D 1 | ONARGA | e 1 | orovada | E 1 | OVAN | D |
| OBRAST | D 1 | OKLARED | e 1 | ONASON | c 1 | ORPARK | $C 1$ | ovanoo | $\cdots$ |
| OBRAY | D 1 | OKLARK | B 1 | ONAWA | 01 | ORPHA | $A 1$ | OVERGAARD | $c$ |
| OESCURITY | B 1 | oklamaha | B/DI | dnaway | E 1 | ORPHANT | D 1 | OVERLAND | $C$ |
| OBSERVATION | $C 1$ | OKO | 01 | onoawa | B I | ORR | B 1 | OVERLY | C |
| OBURN | 01 | OKO. STONY | $C 1$ | ONECO | B 1 | ORR , GRAVELLY | C 1 | OVERTON | D |
| OCALA | $C 1$ | OKOBOJI | E/DI | ONEIL | C 1 | SUESTRATUM | 1 | CVIATt | 8 |
| ocambee | $c 1$ | OKOEOJI. PONDED | D I | ONE ONTA | B 1 | ORRUB | $\bigcirc 1$ | OVID | $C$ |
| OCANA | 81 | GKOLINA | 01 | DNITA | C 1 | ORRVILLE | $c 1$ | OVINA | B |
| OCCDOU N | B 1 | O REEK | 01 | NITE | B | O SA | 4 | OWANKA | C |
| OCCUM | B I | OKR IST | B 1 | ONKE YO | D 1 | ORSET | 91 | OWEGO | D |
| OCEANET | $\bigcirc 1$ | OKTAHA | B 1 | ONOTA | B 1 | ORSINO | $A 1$ | OWEN CREEK | C |
| OCEANO | A 1 | OKTIBBEHA | - 1 | ONSLOW | B 1 | ORTEGA | $A 1$ | OWENS | D |
| OCHEYEDAN | B I | OLA | C 1 | ONTARIO | e 1 | ortello | B 1 | OWENTOWN | B |
| OCHLOCXONEE | 81 | olaa | A 1 | ONTEORA | C 1 | ORTING | D 1 | OWHI | B |
| OCHO | 01 | Olac | D 1 | ONTKO | D 1 | ORTIZ | $C 1$ | OWINZA | D |
| OCHOCO | C 1 | OLANCHA | B 1 | ONTONAGON | D 1 | ORTON | B 1 | OWLCAN | B |
| OCHOPEE | 6101 | OLAND | B 1 | ONYX | B 1 | ORWASH | A 1 | owosso | B |
| OCIE | $c 1$ | olanta | $B 1$ | odkala | $A 1$ | ORWET | A/D1 | OWSEL | B |
| OCILLA | $C 1$ | OLASHES | - 1 | OOSEN | A 1 | ORVIG | - 1 | OWYHEE | B |
| OCKLEY | B 1 | OLATHE | D 1 | DPAL | c 1 | ORWOOD | 01 | oxeow | C |
| OCOEE | B/DI | olbut | D 1 | OPELIKA | 01 | osage | 01 | OXCOREL | D |

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

| OXENDINE | 01 | PALIX | E 1 | papalote | $C 1$ | patio | C | pelee | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OXERINE | $C 1$ | PaLls | $C 1$ | papineau | C 1 | FATIT CREEK | B | peleliu | 0 |
| OXFORD | 01 | Palm beach | $\cdots 1$ | papdose | - 1 | DATNA | B 1 | PELHAM | B/D |
| OXHEAD | B 1 | Palma | E 1 | PARA | B 1 | patos | $c$ | PELIC | D |
| OXLEY | C 1 | palmaf | 01 | Parachute | B | patoutville | $c$ | PELION | B/D |
| OXWALL | D 1 | FALMARE JO | $C 1$ | Paractse | $C 1$ | patricia | - 1 | PELKIE | , |
| OYHUT | $C 1$ | PALMER CANYON | E 1 | Paradox | E 1 | PATRICK | B | pella | B/0 |
| OYLEN | $C 1$ | Palmerdale | $B 1$ | paranat | $C 1$ | patrole | $C 1$ | pellejas | B |
| OZAMIS | D 1 | PALMETTO | B/D1 | PaRANAT - DRAINED. | - 1 | Pattani | 01 | PELLICER | 0 |
| OZAN | D 1 | palmetto. | 01 | SALINE | 1 | pattee | B 1 | PELONCILLO | 0 |
| ozaukee | $C 1$ | DEPRESSIOMAL | 1 | PARASOL | 91 | PATTENBURG | 61 | PELTIER | C |
| OZETTE | $C 1$ | PAL ICH | B 1 | PARCELAS | -1 | PATTER | B 1 | PEMBERTON | B |
| CZIAS | D 1 | PALMS, OVERWASH | A/01 | FARCHIN | 0 I | parterson | $C$ | PEMBROKE | B |
| PAAIKI | B 1 | PALMS, MAAT>50 | A 101 | PARCMIN, COOL | $C 1$ | PATION | e/01 | pemene | B |
| patioa | B 1 | PALMS. MAAT<50 | A/DI | paroaloe | 01 | paul | - 1 | PEMI | C |
| paguhau | A 1 | PALMS. PONDED | D. 1 | PARDEE | D 1 | Pauloing | 01 | PERA | B |
| Pablo | D 1 | DALMS, SANDY | A 101 | pardeeville | P 1 | paulina | D 1 | PENAPON | B |
| PACHAPPA | B 1 | SUBSTRATUM | 1 | PAREHAT | C 1 | Pavlson | B 1 | PENASCO | D |
| PACHECO | $C 1$ | PALMS. GRAVELLY | A/D 1 | PARENT | erol | faulville | B | PENCE | B |
| PACHECO. DRAINED | B I | SUBSTRATUM | I | pariato | $\bigcirc 1$ | paumalu | B | PEND OREILLE | 8 |
| PACIFICO | $c 1$ | PALMYRA | E 1 | PARIETTE | $C 1$ | faunsaugunt | 01 | PENDANT | 0 |
| PACK | $C 1$ | FALO | D | PARISA | $C 1$ | pausant | B 1 | PENDARVIS | C |
| PACKARD | 31 | PAL ODURO | B I | PARISIAN | D 1 | pauwela | 8 | PENDEN | B |
| DACKER | 81 | PALIMARIN | E 1 | Parkalley | E 1 | pavalal | C | PENDER | C |
| PACKHAM | B 1 | PALOMAS | B 1 | fafkay | e 1 | pavant | D | Pendergrass | D |
| PACKIRAIL | $C 1$ | PALDMINO | 01 | PARKDALE | P 1 | PAVER | B | PENOLETON | C |
| PACKWOOC | 01 | PALCN | e 1 | PAEKE | B 1 | PAVILLION | B I | PENDPOY | D |
| PACO | $C 1$ | PALDPINTO | 01 | Parker | e 1 | pavo | e 1 | PENELAS | 0 |
| pacolet | 31 | palgs verdes | 01 | PAOKFIELD | C 1 | pavohroo | e I | PENEY | D |
| PACTOLA | Q 1 | Palouse | -1 | PARKHILL | B/DI | PAWCATUCK | D 1 | PENGILLY | B/D |
| FACTOLUS | A 1 | PALSGROVE | e 1 | PAPKINSON | E 1 | PAWHUSKA | D | PENGRA | C |
| Padoock | C/O1 | paluxy | B 1 | PARKS | e 1 | PAWLING | e 1 | PENINSULA | E |
| PADEN | $C \quad 1$ | PAMISON | 81 | PARKVIEW | B 1 | PAWNEE | 01 | PENISTAJA | B |
| PADILLA | $C 1$ | PAMLIJCO | D 1 | Parkville | C 1 | PAXICO | B 1 | PENITENTE | $B$ |
| PADINA | 81 | PAMOA | E 1 | PAFKWOOD | E/01 | Paxton | C 1 | PENLAW | c |
| PADRES | $B 1$ | PAMSDEL | C 1 | FARLEYS | R 1 | Paxville | 0/01 | PENN | C |
| PaORONES | B 1 | PAMLINKEY | B 1 | PAFLIN | $C 1$ | payette | B 1 | PENNEKAmp | a |
| PadUCAH | B 1 | PANA | P 1 | parle | B 1 | Paymaster | 81 | PENNELL | D |
| Padus | E 1 | PANAEVA | 01 | pafnele | $C 1$ | PAYNE | $C 1$ | PENNEY | A |
| PAESL | B 1 | PANAK | B 1 | PAPMELOW | $C 1$ | paynecreek | B I | PENNICHUCK | B |
| PAGARI | B 1 | PANAMA | B 1 | PARMENTER | C I | PAYSON | 01 | PENNSUCO | D |
| Pagebrook | D 1 | PANAMINT | B 1 | farmlfed | C 1 | PEACHAM | 01 | PENO | C |
| PAGINA | $C 1$ | PANASOFFKEE | C/OI | PARNELL | C/D1 | PEACHLAND | 01 | PENOVER | B |
| PAGODA | $C 1$ | PANCHERI | B 1 | PAPGUAT | E 1 | PEARL | - 1 | PENROSE | D |
| Pagosa | C 1 | PANDO | 91 | PARE | E I | PEARL HAREOR | 01 | PENSORE | D |
| paguate | $C \quad 1$ | PANDOAH | $C 1$ | PARRAN | c I | PEARSOLL | 01 | Penthouse | D |
| DAHAKA | $B 1$ | PAVDOPA | B/DI | PARE ISH | C 1 | PEASLEY | D | PENTZ | D |
| Pahokee | 6101 | PANDURA | 01 | PAREITA | C 1 | PEASPEAR | 01 | PENWELL | A |
| pahranagat | $C 1$ | PANE | P 1 | PARSHALL | 51 | peavine | $C 1$ | PENWOOO | A |
| PAMRAMAGAT, VERY | D 1 | PANGBORN | D 1 | PARSIPPANY | C/DI | PEAWICK | 01 | PENZANCE | $C$ |
| POORLY DRAINED | , | Panguitch | B 1 | PARSONS | c 1 | PEBELEPOINT | $C 1$ | PEOGA | C |
| Pahrange | $c 1$ | PANHANDLF | H I | PARTEDW | c 1 | PECATONICA | e | PEOH | D |
| PAHREAH | C 1 | FANHILL | B 1 | paftev | D I | FECKHAM | $C 1$ | PEOH. ORAINED | C |
| PAHROC | D 1 | PANIN | B 1 | PARTPI | C 1 | PECKISH | 01 | PEOLA | C |
| Pahrump | C 1 | paniogue | B 1 | partrioge | A 1 | PECOS | 01 | peone | D |
| parsimefoi | 81 | Faniogue. wet | $C 1$ | pasagshak | 01 | pecture | P 1 | PEONE, DRAINED | C |
| PAIA | 81 | PAVITCHEN | B I | PASCO | c 1 | PEDCAT | D 1 | PEORIA | D |
| PAICE | D 1 | PANKY | $C 1$ | PASCO. DRAINED | C 1 | PEDEE | C 1 | PEOTONE | B/D |
| PAILO | $B 1$ | PaNMOD | $C 1$ | PASO SECO | 01 | PEDERNALES | $c 1$ | PEPAL | 日 |
| Paine sville | $C 1$ | PANOCHE | B 1 | pasouetti | D 1 | PECIGO | $C 1$ | PEPOON | D |
| PAINT | 01 | panoche. | $C 1$ | pascuetti. | $C 1$ | PEDLEFORD | $c 1$ | PEPPER | D |
| PAISLEY | D 1 | SALINE-ALKALI. | 1 | moderately wet | 1 | PEDOLI | e 1 | PEPTON | D |
| PAIt | 8 1 | WET | 1 | PASQUETTI. DRAINED | C 1 | PEDRICK | - 1 | pequaming | a |
| PAJARA | $C 1$ | PANOLA | c 1 | pasauotank | Q/01 | PEDRO | $c 1$ | pequea | 9 |
| PAJARITO | B \| | PANOR | B 1 | PASS CANYON | D 1 | PEEPLES | $C 1$ | PEQUOP | B |
| PAJUELA | B 1 | panorama | B 1 | PASSAR | $C 1$ | PEEKO | D 1 | peralta | C |
| paka | 91 | panoza | e 1 | Pass Creek | C 1 | PEEL | C 1 | PERAzzo | B |
| PAKALA | E 1 | pansey | 01 | FASTERN | 01 | PEELER | $B 1$ | PERCETON | B |
| PAKINI | 81 | PANTANO | D 1 | PASTIK | $C 1$ | Peerless | B 1 | perchas | 0 |
| palacious | D I | pantego | E/D1 | FASTCRIUS | e 1 | PEETZ | A 1 | Percilla | D |
| Palafox | $C 1$ | fantera | B 1 | PASTUQA | 01 | PEEVER | c 1 | PERCIVAL | c |
| Palanush | $C 1$ | PANTHER | D 1 | pataha | C 1 | peevymell | C 1 | PERCOUN | C |
| palapalal | B 1 | PANTON | $\bigcirc 1$ | PATCHIN | D 1 | pegleg | C 1 | PERCY | B/D |
| PALATINE | $B 1$ | pada | A 1 | PATE | C 1 | PEGLER | D 1 | PERDIN | c |
| palau | B 1 | PAOLI | E 1 | patelzick | D 1 | PEGRAM | B 1 | PERELLA | B/0 |
| Palazzo | C | papaa | D 1 | Patent | $C 1$ | PEKAY | C 1 | perella, | B |
| PALEOONE | E 1 | PAPAC | $C 1$ | pathead | c 1 | PEKIN | C 1 | MODERATELY WET |  |
| PALINOR | C | papagua | $C 1$ | PATILLAS | e 1 | pelahatchie | $C 1$ | PERHAM | B |
| Palisade. | B | PAPAI | A 1 | patilo | e 1 | PELAN | 81 | PERICO | B |

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Table 2-1.—Hydrologic soil groups for U.S. solls (continued)

| PERIDGE | B | Philo | - | Pinellas | B/DI | Plaskett | D | poregema | e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PERILLA | B | Philomath | D | PINELLI | B | Plata | B | pokeman | c |
| PERINOS | c | PHING | 0 | pinetop | c | platea | c | POKER | c |
| PERITSA | c | CHIPPS | c | pinetuckr | P | plateer | c | POKERGAP | 8 |
| PERKINS | c | PHLISS | 0 | Pinetucky, graded | c | plato | c | porey | c |
| PERKS | A | PhoEes | B | pineval | B | platoro | B | polacca | c |
| Perla | c | phoenix | D | pineville | B | platte | B | polallie | c |
| PERLOR | 0 | PhYS | B | PINE 2 | e 1 | platte, wet | D | polar | B |
| Perma | B | piankeshat | - | Pingree | D | platie. channeled | 0 | polatis | c |
| PERN | B | piasa | 01 | Pinhook |  | plattille | e | polamana | A/D |
| Pernitas | c | PIBLER | 0 | pinicon | B | playco | - | POLE |  |
| pernog | D | picabo | c | Pinitos | F 1 | player | 0 | polecreek | 0 |
| PERNTY | D | picacho | c | Pinkel | c | PLAYMOOR | Crol | poleline | B |
| PEROUIMANS | D | picante | 01 | Pinkham | A | plaza | c | PdLEPATCH | A |
| perreal | B | picayune | B 1 | Pinkston | B | pleasant | c | poler | c |
| PERRIN | B | piceance | c 1 | pinnacles | c | Pleasant. Ponded | D | POLEY. COBBLY | D |
| perrine | 0 | pickawar | c | pinnebog | a 101 | PLEASANT GROVE | e | POLICH | c |
| PERRINTON | c | pICKENS | D | pinnobie | B | pleasant vale | B | polking | 0 |
| PERRY | o | PICKETt | C | PINO | c | pleasant viem | B | pollaro | $c$ |
| perrypark | B | PICKFORD | - 1 | Pinole | B 1 | pleasanton | 8 | POLLASKY | B |
| pergyville | B | pickney | ANI | PINON | D | plegger | D | pollux | c |
| persanti | c | PICKNEY, flodoto | D 1 | Pinones | c | plegomir | D | polly | B |
| persayo | D | PICKRELL | D | PINRIDGE | B | PLEINE | D | POLO, MODERATELY | c |
| Pershing | c | pickion | A | PINSPRING | c | PLeioville | c | SLOW PERM |  |
| persis | a | pickup | c | PINTAS | B | pleito | $c$ | polo, moderate | B |
| PERT | - | PICKWICK | 8 | Pintlar | E | Plevna | D | permeability |  |
| PERU | C | PICO | B | PINTO | c | PLINCO | E | POLONIO | B |
| pervina | - | PICOSA | c | PINTURA | A | plite | 8 | POLSON | B |
| perwick | $C 1$ | pidioke | D | dintwater | D 1 | plome | E | polum | B |
| pescadero | D | pidineen | D | Pioche | D | Plover | c | pamade | D |
| pescar | c | pie creek | D | PIOPOLIS | C/EI | Pluck | c | poman | c |
| peshastin | 8 | PIEGON | 8 | pipeline | D | Plumas | E | pomat | c |
| Peshekee | D | PIERIAN | - | PIPEF | c | Plummer | B/D1 | POMAT, DRY | B |
| pesma | c | pierking | 0 | pifestine | B | Plush | - | pomello | c |
| pesmore | c | PIERPONT | c | PIPPIN | A 1 | plutos | E | pomerene | c |
| PESO | c | PIERRE | 0 | PIRD | - | PLymouth | A | pompret | A |
| pesowyo | c | piersonte | A | pirodel | - 1 | POALL | C | ромо | 8 |
| petaca | D | PIERZ | B | pirouetie | D | POARCH | E | POMONA | B/D |
| petal | C | pietown | Q 1 | PIRUM | B | pober | c | POMONA. | D |
| petan | D | pigiall | - 1 | pisgar | $c 1$ | pocalla | a | depressional |  |
| peteetneet | - | pilhonua | A | PISHKUN | B | POCAN | E | Pampano | 810 |
| peterman | 0 | PIKE | B | PISMO | 0 | POCASSET | 6 | POmpano. | D |
| peterman. sandy | $C 1$ | pikeville | 8 | P1T | 0 | pocatello | E | depressional |  |
| SUBSTRATUM. | 1 | PILABO | e | pitcher | ค 1 | pecatr | D | POMPANO. FLOCDED | D |
| ALKALI | 1 | PILCHUCK | c | PITCO | D | POCKER | C | POMPE II | 0 |
| peters | 0 | Pilchuck. | A | pitney | c | POCOLA | 0 | Pomponio | c |
| deterson | - | protected | 1 | pittman | c | POCOMDKE, PONDED | B/01 | POMPTON | e |
| PETESCREEK, STONY | B | piline | o | Pittsfielo | e 1 | POCOMOKE, ORAINED | - 1 | POMROY | c |
| PETESCREEK. | $c$ | PILLIKEN | $\stackrel{3}{ }$ | Pittstown | c | POCONO | B | ponca | E |
| gravelly | 1 | PILLOT | - 1 | Pitzer | c | peden | P 1 | poncena | D |
| PEtrie | D 1 | PILLSEURY | $C 1$ | PIUTE | D | foomor | C | PONCHa | A |
| PETPDLIA | COI | pilot peak | C 1 | pivot | A 1 | PODO | 01 | ponciano | c |
| PETRES | D | PILOT RCCK | $C 1$ | Pixley | 01 | podunk | B | pono | D |
| petspring | D | pilotpeak | - | PIzENE | - 1 | pcous | c | POND CREEK | - |
| petilicoay | B | piltiown | B | placedo | D 1 | PDE | c | ponder | D |
| PETIIGREM | - 1 | FILTZ | c | placentia | D | Pogal | c | PONIL | D |
| Petius | $c$ | pima | 8 | placeritos. | e | poganeab | c | ponina | - |
| PETty | B | pimer | A | Saline, drained | 1 | poganeab, clayey | D | ponozzo | c |
| pevero | 11 | final | - | placeritos. | C 1 | Suestratum | 1 | PONTO | B |
| pemamo | COI | pinaleno | B 1 | Sal ine-alkalit | 1 | poganeab, saline | D 1 | PONTOTOC | B |
| PEYTON | B | pinamt | B 1 | Placeritos. | B 1 | poganeab, high | 01 | PONZER | D |
| PFEIFFER | 8 | pinata | c | moderately wet | 1 | rainfall | 1 | poocham | B |
| PHAGE | - | pinavetes | A | placeritos. net | $c 1$ | poganeab. strongly | D | PDOKU. | e |
| phalanx | B | PINBIT | B | placeritos. | B 1 | saline | 1 | POOLEA | D |
| phantom | c | - incher | c 1 | crained | 1 | poganeab. | 0 | pooleville | c |
| PHARO | 8 | PInchet | B | placto | 8101 | frequentiy | 1 | poorcal | B |
| PHARR | B | pinckney | C 1 | Placio. | 01 | Flooded | 1 | PODRMA | 8 |
| PhEBA | c | pinconning | E/D 1 | cepress ional | 1 | poganeab. | - | poose | D |
| pheeney | c | pine flat | B 1 | Flacid. FREOUENTLY | 01 | saline-alkali | 1 | podtatuek | B |
| PHELAN | 01 | FINEAL | $\bigcirc 1$ | flooded | 1 | pogue | B 1 | POPASH | 0 |
| PHELPS | B 1 | pinebutte | - 1 | placitas | $c 1$ | POHAKUPU | B | POPE | B |
| PHERSON | - 1 | pinecreek | 5 | flack | - | PCIN | D 1 | POPHERS |  |
| PHIFERSON | $c 1$ | pInEDA | B/O1 | plaingo | A 1 | POINDEXTER | e | POPLE | C/D |
| PHILBON | D 1 | PINEDA. | D 1 | plainfielo. | A 1 | POINSETT | B | POPLIMENTO | $c$ |
| PHILDER | D 1 | OEPRESSIONAL | 1 | plaisteo | C 1 | POINT | c | poposhia | B |
| PHILIPPA | c 1 | Pinedale | 8 | Plank | D 1 | POINT ISABEL | $c$ | popotosa | B |
| PHILIPSBURG | B | pineguest | - | plankinton | 01 | POISONCREEK | D | POPPLETON | A |
| Phillechef | B 1 | pinemurst | 51 | plano | P 1 | poso | C 1 | poguette | A |
| PHILLIPS | c | pine isle | B | plantation | B/DI | pojoaque | B 1 | pooulta | B |

NOTES: Two hydrologic soil groups such as bic indicate the drainedrundrained situation. modifiers shown. E.G.. bedrock suestratum, refer to a specific soil series phase found in soil map legend.

| POOUONOCK | $C 1$ | PREMIER | B I | PUNCHBOWL | 01 | OUINLIVEN | C 1 | RAMROD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PORFIRIO | C | PRENTISS | C | PUNG | C 1 | OUINN | B/DI | Ramsdell |
| PORRETT | D | PRESA | 8 | PUNGO | 01 | QUINNEY | $C 1$ | RAMSDELL DRAINED |
| PORRONE | B | PRESHER | B | PUNOHU | A 1 | QUINTANA | B 1 | Ramsey |
| PORT | B 1 | PRESTO | B 1 | puns It | C 1 | OUINTO | D 1 | RAMSHORN |
| PORT GYRON | B 1 | PRESTON | $\wedge 1$ | PUnTA | $0 / 1$ | QUINTON | $C 1$ | RANA |
| PORTAGE | D 1 | PREWITT | B | FUNTILLA | B 1 | QUITERIA | B 1 | RANCE |
| PORTAGEVILLE | 01 | PREY | $C 1$ | PURCELLA | B 1 | QUITMAN | $C 1$ | RANCHOSECO |
| PORTALES | B 1 | PRICE | B 1 | PURCHES | $C 1$ | QUIVERA | $C 1$ | RANDADO |
| PORTALTO | B | PRIOA | C | PURDAM | $C 1$ | QUONSET | A 1 | RANDALL |
| PORTERFIELD | $C 1$ | PRIOHAM | 01 | PURDY | D 1 | QUOPANT | D 1 | RandCore |
| PORTERS | 8 | PRIESTLAKE | 81 | PURETT | B I | ounsatana | D | randman |
| PORTERVILLE | D 1 | PRIETA | 01 | PURGATORY | $C 1$ | Rabeitex | B I | RANDCLPH |
| PORTHILL | D 1 | PRIM | D 1 | PURNER | D 1 | Raber | $C 1$ | RANDS |
| PDRTIA | C | PRIMEAUX | C 1 | PUROE | D 1 | rabideux | B 1 | RANDSEURG |
| PORTINO | $C 1$ | PRIMEN | D 1 | PURSLEY | e 1 | rabun | B 1 | RANGEE |
| PORTLANO | 01 | PRIMGHAR | B 1 | PURVES | 01 | RACE | $B 1$ | RANGER |
| PORTMOUNT | E I | PRINCETON | B 1 | PUSHMATAHA | $C 1$ | racine | B 1 | RANPUFF |
| PORINEUF | B | PRINEVILLE | $C 1$ | PUSTOI | B | RACKER | A | RANSLO |
| PORTOLA | B | PRING | B I | PUTNAM | D 1 | Racombes | E 1 | RanSom |
| PORTSMOUTH | B/DI | PRINGLE | D 1 | putney | B 1 | RACOON | C/DI | RANSTEIN |
| PORUM | D 1 | PRI TCHARO | $C 1$ | PUTT | C | RaO | B 1 | Rantoul |
| POSANT | D | PRITCHETT | $C 1$ | PUTTSTER | C 1 | RAD. LACUSTRINE | C 1 | RAPATEE |
| POSEN | B | PROCHASKA | A/DI | PUU 00 | A 1 | SUBSTRATUM | , | RAPEL JE |
| posey | B | PROCIOR | B I | PUU OPAE | E | PAD. FLOODED | $c$ | RAPH |
| poseyville | C 1 | PROGRESSO | $C 1$ | PUU Pa | A 1 | RADDLE | B 1 | RAPHO |
| POSITAS | D | PROMISE | D 1 | PUU PA. NONSTONY | F | RADER | D | RAPIDAN |
| POSKIN | $C$ | PROMO | 01 | PUUKALA | c I | FADERSEURG | B 1 | Raplee |
| POSO | B | PRONG | $C 1$ | puodene | $C 1$ | RADFORO | B 1 | RAPPAHANNOCK |
| posos | C | PROPHETSTOWN | B/D 1 | PUYALLUP | B | Radley | B 1 | RAPSON |
| POST | D 1 | PROSPECT | B 1 | PYEURN | D 1 | RADNOR | C 1 | RARDEN |
| potamus | B 1 | PROSPER | 81 | PYLE | B I | rafael | D 1 | RARICK |
| POTCHUB | C | PROSSER | $C 1$ | PYLON | D I | Rafton | D 1 | RARITAN |
| poteet | $C 1$ | PROTIVIN | $c 1$ | PYote | A 1 | RAFtRIVER | $C \quad 1$ | raseand |
| POJELL | B | PROUT | $C 1$ | PYRAMID | 01 | RAGLAN | B 1 | rasille |
| POTH | $C 1$ | PROUTY | $C 1$ | PYPMONT | D 1 | RAGNAR | B | RASSER |
| POTLATCH | C | PROVIDENCE | $C 1$ | PYRMONT, SEOROCK | C 1 | RAGNEL | E | Rasset |
| POTOMAC | A | PROVIG | C 1 | SURSTRATUM | 1 | RAGO | C 1 | rastus |
| potosi | A 1 | Provo | D 1 | PYWELL | 01 | RAGPIE | D 1 | ratake |
| potratz | C 1 | PROVO bay | 01 | OUAFENO | $C 1$ | RAGSDALE | B/DI | RATHEUN |
| POTSDAM | $C 1$ | PROW | D 1 | QUAKER | $C \quad 1$ | RAGSDALE - OVERWASH | B 1 | RATHORUM |
| POTTER | C | PRUDY | B 1 | QUAKERTOWN | $C 1$ | RAGTOWN | $C$ I | ratlake |
| POTTINGER | B | PRUE | e 1 | QUAM | $8 / 01$ | RAhal | $C \quad 1$ | ratleflat |
| POTTS | B 1 | PRUITTON | B 1 | QUAMON | A 1 | RAHM | $C \quad 1$ | RATLIFF |
| POTTSBURG | B/OI | PRUNIE | 01 | OUANAH | B I | RAHWORTH | B 1 | Raton |
| POUDRE | D 1 | PRYOR | $C 1$ | QUANDER | e I | RAIL | 01 | Ratsow |
| POUJADE | D 1 | PSUGA | B 1 | QUANTICO | B 1 | RAILCITY | A 1 | Rattiep |
| POULSEO | D 1 | PTARMIGAN | $C 1$ | OUARLES | D 1 | RAINEOW | $C 1$ | ratto |
| POUNCEY | D 1 | Puapua | 01 | OUAET ZBURG | $C 1$ | Rainey | $c$ | RATIO. Stony |
| POVERTY | D 1 | puaulu | A 1 | Quartzville | B 1 | RAINIER | $C \quad 1$ | Raub |
| POVEY | B | puchyan | B 1 | QUARZ | C 1 | Raino | D 1 | RAUGHT |
| POWDER | B I | PUDDLE | E 1 | quatama | $C 1$ | RAINS | B/D 1 | rauville |
| POWDERHORN | c 1 | PUERCD | 01 | Quar | B I | RAINS, FLOODED | D 1 | Rauzi |
| POWDERWASH | $C 1$ | PUERTA | D I | ouazo | D 1 | RAINSEORO | $C$ I | ravalli |
| POWEEN | $C 1$ | PUERTECITO | D 1 | quealman | C 1 | painsville | e 1 | RAVALLI, BEDROCK |
| POWELL | $C 1$ | PUETT | D 1 | ovealy | D 1 | raitroent | e 1 | SUBSTRATUM |
| POWER | $B 1$ | PUFFER | D 1 | OUEBRADA | C 1 | RAISIO | $C 1$ | raven |
| POWERLINE | $C 1$ | PUGET | D 1 | Quéent | D 1 | rakane | $C \quad 1$ | ravendale |
| POWLEY | D 1 | PUGET. PROTECTED | $C 1$ | QUEETS | B 1 | RAKE | D 1 | ravenell |
| POWMENT | $C 1$ | PUGSLEY | C 1 | QLEMADO | C 1 | RAKIED | C 1 | RAVENNA |
| POWWA HKEE | B 1 | PUHI | B 1 | QUEN 2ER | D 1 | RALEIGH | D 1 | Ravenswooo |
| POWWATKA | C 1 | PUHIMAU | D 1 | OUERC | $C 1$ | Rall 00 | D 1 | ravia |
| Poy | 01 | PUICE | C 1 | QUERENCIA | e 1 | ralls | B 1 | Ravola |
| POYGAN | D 1 | pula | $C 1$ | QUETICO | D 1 | RALPH | B 1 | Rawah |
| POYNOR | B 1 | pulantat | C 1 | QUICKSELL | C 1 | RALPHSTON | B 1 | RAWE |
| POZO | $C 1$ | PULASKI | B 1 | OUICKSILVER | D 1 | RALSEN | D 1 | RAWLES |
| DOZO BLANCO | B I | pulcan | C 1 | QUICKVERT | C 1 | RAMADERO | B 1 | RAWLINS |
| Prag | $C 1$ | PULEHU | $B 1$ | OUIDEN | B 1 | RAmbla | $C 1$ | Rawson |
| prairieville | B 1 | PULEXAS | B 1 | guiensabe | C 1 | rambouillet | B 1 | Ramsonville |
| PRAMISS | C 1 | PULLMAN | 01 | ouietus | $C$ I | ramelli | D 1 | RAYBURN |
| prather | C 1 | PULPIT | $C 1$ | QUIGLEY | B 1 | RAMIRES | $C 1$ | Rayex |
| pratley | C I | PULS | D 1 | OUIHI | C 1 | RAMMEL | $C 1$ | RAYFORD |
| PRATt | A 1 | PULSIPHER | D 1 | Quilcene | $C 1$ | RAMO | C 1 | RAYLAKE |
| PREACHER | B 1 | PULTNEY | C 1 | quillayute | B 1 | RAMONA | e I | RAYMONDVILLE |
| PREAKNESS | B/D I | PUMEL | D 1 | Quilotosa | D 1 | RAMONA H HARD | $C 1$ | Rayne |
| PREATORSON | B 1 | PUMEL. NONGRAVELLY | C 1 | QUilt | D 1 | SUESTRATUM | 1 | RAYNESFORD |
| PREBISH | CDI | PUMPER | B 1 | ouima | E 1 | RAMPART | B 1 | RAYNHAM |
| PREBLE | D 1 | PUNA | A 1 | QUINCY | A 1 | RAMPARTER | B I | RAYNOLDSON |
| PRELO | B 1 | PUNALUU | D 1 | Quinlan | C 1 | RAMPS | B I | RAYOHILL |

NOTES: TYO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEDIUNDRAINED SITUATION.
MODIFIERS SHOWN. E.G. BEDROCK SUBSTRATUM, REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

| RAYPOL | C 1 | REDSTONE | a | RENOX | B | RICOT | C 1 | RITIDIAN | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RAZ | D 1 | REDSUN | D | RENSHAM | B 1 | RICREST | - 1 | RITNER | C |
| RAZITO | A 1 | REDTHAYNE | B 1 | RENSLOU | B I | R100 | C 1 | RITO | B |
| Razor | C 1 | REDTOM | B 1 | RENSSELAER | B/DI | RIDOLES | B 1 | RITTER | B |
| RAZOREA | B 1 | Redvale | C 1 | RENSSELAER. | $C \quad 1$ | RIDENBAUGH | D 1 | RITTMAN | C |
| RAZORT | B 1 | REOVIEN | B 1 | NONSTRATIFIED | 1 | RIDGE | B 1 | RITZ | D |
| RAZSUN | D 1 | REDVIEW, WET | C 1 | SUBSTRATUM | , | RIDGEBURY | C 1 | PITZ, DRAINED | C |
| READING | B 1 | REDYINE | $C 1$ | RENTILL | E 1 | RIDGECREST | C 1 | RITZCAL | B |
| READINGTON | $C 1$ | REDWASH | D 1 | RENTON | D | RIDGEDALE | B I | RItiville | B |
| READL YN | B 1 | REE | B 1 | RENTON. DRAINED | C 1 | RIDGELAND | B/DI | RIVALIER | B |
| REAGAN | - 1 | REEBOK | 01 | RENTSAC | D 1 | R IDGELAWN | B 1 | RIVERDALE | A |
| REAKOR | B 1 | REED | 01 | RENTIEL | C 1 | RIOGELAWN, WET | 01 | RIVERHEAD | B |
| REAL | 01 | REED. DRAINED | $C 1$ | REPARADA | D 1 | RIDGELITE | D 1 | RIVERDAD | 8 |
| REALLIS | B 1 | REED. PROTECTEO | C 1 | REPP | B 1 | RIDGEPORT | B 1 | RIVERSIDE | A |
| REAP | D 1 | REEDER | B 1 | REPPART | B 1 | RIDGEVIEM | 01 | RIVERTON | B |
| REARDAN | C | REEDER COOL | $C 1$ | REPUBLIC | B I | RIDGEVILLE | B 1 | RIVERVIEW | B |
| REAVILLE | $C$ I | REEDSBURG | C 1 | RESCUE | E 1 | RIDGEVOOD | $C 1$ | RIVIERA | C/D |
| REAVIS | B I | REEDSPORT | $C 1$ | RESNER | B 1 | RIDIT | $C 1$ | RIVIERA. | D |
| REBA | $C 1$ | REEDY | 01 | RESORT | D 1 | RIDLEY | $C 1$ | DEPRESSIONAL |  |
| REBEL | B $\dagger$ | REEFRIOGE | $\bigcirc 1$ | RESOTA | A 1 | RIDOT | $C 1$ | RIVIERA. LIMESTONE | B/D |
| RECAPTURE | B 1 | REELFDOT | $C 1$ | RESTING | $C 1$ | RIEDEL | $C 1$ | SUESTRATUM |  |
| RECK | D 1 | REEPO | $C 1$ | RESTON | D 1 | RIEDTOWN | $C 1$ | RIVIERA, LIMESTONE | 0 |
| RECLUSE | B 1 | REESE | C 1 | RET | 01 | RIEPE | $C 1$ | SUBSTRATUM. |  |
| RED BAY | B 1 | REESER | $C 1$ | RETRIEVER | 01 | RIESEL | $c 1$ | DEPRESSIONAL |  |
| RED BLUFF | $C 1$ | REESVILLE | $C$ I | RETROP | $C 1$ | RIETERDCK | $C \quad 1$ | RIVRA | D |
| RED BLUFF. | B 1 | REEVES | B 1 | RETRYOE | $C 1$ | RIfle | A/DI | RIXIE | C |
| GRAVELLY | 1 | REFLECTION | E 1 | REVA | D 1 | RIGA | D 1 | RIXON | C |
| RED BUTTE | 81 | REFUGE | C 1 | REVEL | $C 1$ | RIGDON | C 1 | RIL | 0 |
| RED HILL | $B \quad 1$ | REGAL | 8/01 | REVENTON | B 1 | RIGGINS | 01 | Rİ 2 NO | D |
| RED HOOK | C I | REGAN | E/OI | Revere | B/DI | RIGGS | 01 | RIzOZO | D |
| RED ROCK | B I | REGENT | $C 1$ | REVIT | $C \quad 1$ | RIGLEY | B 1 | ROANE | C |
| RED SPUR | B I | REGGAD | 1 I | REWARD | B 1 | RIGOLETTE | $C 1$ | ROANHIDE | c |
| REDARROW | D 1 | REGGEAR | D 1 | REXEURG | B 1 | RILEY | B 1 | ROANOKE | 0 |
| REDEANK | B 1 | REGGEAR, COOL | $C 1$ | REXF ORD | $C 1$ | RILLA | B \| | ROARING | B |
| REDBELi | B 1 | REGNAPS | $C 1$ | REXMONT | 01 | RILLINO | 81 | ROB POY | C |
| REDBIRD | B 1 | REGNIER | D 1 | REXOR | - 1 | RILLITO | O 1 | robana | B |
| REDBOW | C 1 | PEHEURG | $C 1$ | REYAE | B 1 | RIMER | $C 1$ | ROBES | D |
| REDEY | B 1 | REHFIELO | B 1 | reyes | D 1 | RIMINI | A 1 | ROBCO | C |
| REDCAMERON | D 1 | REHFIELO | $C 1$ | REYNOSA | P 1 | RIMROCK | D 1 | ROBFR | C |
| REDCAN | D 1 | REHM | $C 1$ | REYWAT | 0 | RIMTON | C | ROBERTSDALE | C |
| REDCAP | 81 | REICESS | 81 | rezave | 01 | FIN | - 1 | ROBERTSVILLE | D |
| REDCHIEF | $C 1$ | REICHEL | e 1 | RHAME | e 1 | RINCON | $C 1$ | ROBIN | B |
| REDCLIFF | $C 1$ | REIFF | B ! | RHEA | B 1 | RINDA | D 1 | ROEINETTE | B |
| REDCLOUD | 81 | REILLY | A 1 | RHINEBECK | 01 | RINDGE | D | ROBINSONVILLE | 8 |
| REDCO | 01 | REINA | D 1 | frioades | D | RINDGE DRAINED | C 1 | ROBOZO | C |
| REDCREEK | D 1 | PEINACH | E 1 | RHOAME | $C \quad 1$ | RINEARSON | e 1 | ROBROOS $T$ | 8 |
| REDDALE | D 1 | REINER | B 1 | RHOAMETT | $C \quad 1$ | RINEY | B | ROBSON | D |
| REDOICK | B/D1 | REKOP | D 1 | RHOAMETT. STONY | c 1 | RING | C 1 | ROBY | C |
| REDOING | $\bigcirc 1$ | RELAN | B 1 | RHONE | B 1 | RINGLE | B 1 | roca | D |
| REDEYE | B 1 | RELAY | - 1 | R1B | B/DI | RINGLING | A 1 | ROCHE | D |
| REDFEATHER | D 1 | REL IANCE | $C 1$ | Ribera | $C 1$ | RINGO | D 1 | ROCHELLE | $C$ |
| REDFIELD | B 1 | RELI2 | 01 | RIBHILL | B 1 | RINGWOOD | B 1 | ROCHER | 8 |
| REDFIELD. WET | $C \quad 1$ | RELLEY | B 1 | RICCO | 01 | RINKER | $C 1$ | ROCHESTER | , |
| REDFLAME | B I | RELSOB | - 1 | R ICE BORO | O/01 | R10 | 01 | ROCIO | C |
| REDHOUSE | B 1 | RELUCTAN | $C 1$ | RICECROSS | - 1 | RIO ARRIBA | D 1 | ROCK CREEK | D |
| REDIG | B 1 | FEMBERT | $\bigcirc 1$ | RICERT | B 1 | RIO DIABLO | $C 1$ | ROCK RIVER | B |
| REDINGTON | D 1 | REMEDIOS | $C 1$ | RICETON | B 1 | RIO GRANDE | E 1 | ROCKABIN | $c$ |
| REDLAKE | 01 | REMLAP | $C 1$ | Riceville | $C 1$ | RIO Lajas | A 1 | rockaway | c |
| REDLANDS | $B 1$ | REMLIK | A I | RICH | $C 1$ | RIO PIEDRAS | B 1 | ROCKBRIDGE | B |
| REDLEVEL | C 1 | REMMIT | B \| | RICH, WET | D 1 | RIOBLANCHO | C 1 | ROCKCASTLE | D |
| REDLODGE | D 1 | REMNOY | D 1 | RICHAROSON | B 1 | RIOCONCHO | $C 1$ | rockoale | $A$ |
| REDMANSON | 81 | REMOTE | B I | RICHENS | $C 1$ | RIOLINDA | C 1 | Rockdale | 8 |
| REDMOND | $C \quad 1$ | REMSEN | 01 | RICHEV | $C 1$ | RION | B I | ROCKERS | $C$ |
| REDMOUNT | B 1 | Remunda | $C 1$ | RICHFIELD | B 1 | RIPEC | D 1 | ROCKFIELD | B |
| REDNIK | B 1 | REmus | B 1 | RICHFORO | A 1 | RIPLEY | B 1 | ROCKFORD | B |
| REDNIK, NONSTONY | $C 1$ | RENBAC | 01 | RICHLAND | -1 | RIPLEY. | C 1 | ROCKHOUSE | A |
| REDNUN | $C 1$ | RENCALSON | $C 1$ | RICHMOND | 01 | SALINE-ALKALI. | 1 | ROCKINCHAIP | C |
| REDOLA | B 1 | RENCOT | 01 | RICHSUM | E 1 | WET | 1 | ROCKLIN | D |
| REDONA | B \| | RENFROM | D 1 | RICHTER | B 1 | RIPON | B 1 | ROCKLY | D |
| REDONOO | B 1 | RENICK | 01 | Richrale | B 1 | RIPPLE | B I | ROCKOA | B |
| REDPOP | $C 1$ | RENISH | $C 1$ | RICHVIEW | $C 1$ | RIPPOWAM | C I | ROCKTON | 8 |
| REDPORT | B 1 | RENNER | B 1 | RICHVILLE | $C 1$ | RIRIE | B 1 | ROCKWELL | B/0 |
| REDRIDGE | B 1 | RENNIE | D 1 | RICHWOOD | 81 | RISBECK | B 1 | ROCKMODO | $C$ |
| REDR I VER | $C 1$ | RENNIE. DRAINED | $C 1$ | RICKER | A 1 | RISLEY | D 1 | ROCKY FORD | B |
| REDROB | $C 1$ | RENNIE P PROTECTED | $C 1$ | RICKETTS | $C 1$ | RISLEY, Stony | C 1 | ROCKYBAR | B |
| REDSPEAR | D 1 | RENO | 01 | RICKMAN | $C 1$ | RISUE | D I | RODAD | D |
| REOSPRINGS | $B 1$ | RENOMILL | $C 1$ | RICKMORE | $C 1$ | RISWOLD | B 1 | RODELL | D |
| REDSPRINGS - GRADED | D 1 | RENOL | $C 1$ | RICKREALL | 01 | RITA | D 1 | RODE 0 | D |
| REOSTOE | - 1 | RENOVA | B 1 | RICKS | A 1 | RITCHEY | D 1 | RODESSA | D |

NOTES: TWO HYOROLOGIC SOIL. GROUPS SUCH AS B/C IMDICATE THE DRAINEOTUNDRAINED SITUAIION. MODIFIERS SHOWN. E-G. BEORDCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologlc soll groups for U.S. solls (continued)

| RODIE | B 1 | ROSENDALE | $C 1$ | RUBY | 81 | Sabenyo | B 1 | SAMINIEGO | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ROOMAN | A 1 | ROSENWALL | D 1 | RUEYHILL | c 1 | SABINA | $C 1$ | SAM15H | D |
| RODROF | D 1 | ROSEVILLE | - 1 | RUCH | B 1 | Sabine | $A 1$ | SAMMAMISH | 0 |
| ROEBUCK | D 1 | ROSEWOOD | A 101 | RUCKER | B 1 | SAble | B/DI | SAMOIST | D |
| ROELLEN | 01 | ROSEWOOD. WET | D 1 | RUCKLES | D 1 | SAC | - I | SAMOR | D |
| ROEMER | C 1 | ROSEWORTH | 0 I | RUCLICK | $C 1$ | SACHEEN | a 1 | SAMPSEL | 0 |
| ROETEX | D I | ROSHE SPRINGS | D 1 | RUOD | 01 | SACHETT | C 1 | SAMPSON | B |
| ROFISS | B 1 | ROSHE SPRINGS. | $C 1$ | RUCDLEY | 01 | SACO | D 1 | SAMSIL | 0 |
| ROGAN | E 1 | DRAINED | \| | RUDEEN | $C 1$ | SACRAMENTO | 01 | samsula | 8/0 |
| ROGERSON | 01 | ROSHOLT | B \| | RUDYARD | 01 | SACTUS | 01 | SAN ANDREAS | B |
| RCGERT | D 1 | ROSINE | e 1 | PUEDLOFF | E 1 | sacul | C 1 | SAN ANTON | 8 |
| ROGRUEE | - 1 | ROSITAS | $\cdots 1$ | ruella | E 1 | SADDLE | C 1 | SAN ANTONIO | $C$ |
| ROGUE | 01 | ROSITAS. Clayey | C 1 | RUFUS | 01 | SADDLEBACK | C/01 | SAN ARCACIO | C |
| ROHAN | D 1 | SUBSTRATUM | 1 | RUGAR | C 1 | SADOLEGAP | 81 | SAN EENITO | B |
| RGHNERVILLE | B 1 | ROSITAS. LOAMY. | C 1 | RUGG | e I | SADDLEROCK | D 1 | SAN EMIGDIO | B |
| ROHONDA | $C 1$ | WET | 1 | RUGLES | F I | SADER | 01 | SAN GERMAN | D |
| ROHRERSVILLE | D I | ROSITAS. WEt | C 1 | RUHF | D 1 | SADIE | $C 1$ | SAN ISABEL | A |
| ROIC | D I | ROSLYN | B 1 | PUIDCSO | C 1 | SADLER | C I | SAN JOAQUIN | 0 |
| ROJO | $C 1$ | POSMAN | B 1 | RUINPOINT | B 1 | SAFFELL | e 1 | SAN JON | C |
| Rolette | $c 1$ | rosney | B 1 | RUIz | A 1 | SAG | B 1 | SAN JOSE | B |
| ROLFE | $C \quad 1$ | foss | B I | RUKO | D 1 | SAGANING | A/DI | SAN JUAN | A |
| ROLIE | D 1 | ROSSBUAG | B I | RULE | e 1 | SAGASER | e 1 | SAN LUIS | $C$ |
| ROLI5 5 | B/DI | ROSSFIELD | B I | RUMBLECREEK | B 1 | SAGE | D 1 | SAN mateo | B |
| ROLLA | $C 1$ | ROSSMOOR | B I | RUMEO | $C 1$ | SAGECREEK | E 1 | SAN MIGUEL | D |
| ROLLINGStone | $C 1$ | ROSSMOYNE | $C 1$ | RUMF ORO | B 1 | sagedale | $C 1$ | SAN SABA | D |
| ROLOC | D 1 | ROSWELL | - 1 | rumiley | E 1 | SAGEHILL | B 1 | SAN SEBASTIAN | B |
| POLOFF | $C 1$ | ROSY | B 1 | RUPNFY | C 1 | SAGENOOR | B 1 | SAN SIMEON | 0 |
| ROMBERG | - I | ROIAMER | e 1 | RUMPAH | C I | SAGERS | B I | SAN TIMOTEO | C |
| ROMBO | $C \quad 1$ | ROTAN | $C 1$ | RUMPLE | $C 1$ | SAGERTON | $C 1$ | SAN YSIDRO | D |
| ROME | B I | ROTHICAN | B 1 | rumung | C 1 | SAGLE | C 1 | SANCHEZ | 0 |
| ROMEO | D I | ROTHIEMAY | $C 1$ | RUNE | C 1 | SAGO | D 1 | SANCLEMENTE | 0 |
| ROMERO | 01 | ROTHSAY | 81 | PUNEEERG | C/01 | SAGOUSPE | $C 1$ | SANOALL | $C$ |
| ROMGAN | $C 1$ | KJTINOM | F 1 | PUNGE | P 1 | SAGDUSPE, DPAINED | 81 | SANDBRANCH | B |
| ROMIA | B 1 | ROTO | $C 1$ | RURN | D 1 | saguache | B 1 | SANDCREEK | 0 |
| ROMINE | 91 | hottulee | $C 1$ | RUPLF | $C 1$ | sahalie | B 1 | SANDERSON | B |
| ROMINELL | $C 1$ | roveideau | C 1 | RUPLEY | - 1 | SAhUARITA | B 1 | SANDHILL | B |
| ROMNELL | 6101 | ROUEN | $C 1$ | RUSCO | C 1 | SAID | E 1 | SANDIA | B |
| ROMSTOCK | B 1 | ROUGHCREEK | D I | RUSCD. PONDED | D 1 | SA100 | e 1 | SANDOSE | A |
| bomulus | D 1 | FOUGHLOCK | E 1 | RUSE | 01 | sailbeat | C 1 | SANDOVAL | 0 |
| RONAN | $\bigcirc 1$ | ROUGMMOUNT | C 1 | PUSH | E 1 | SAILBCAT. DRAINED | B 1 | SANDPIDGE | A |
| POND | $C 1$ | ROUNO BUITE | D 1 | RUSHNORE | E/01 | SAIPAN | B 1 | SANDSPPING | B |
| Rondeau | A 11 | RDUNOAROUT | $C 1$ | RUSH TOWN | - 1 | SAL | D 1 | SANDUN | 8 |
| RONDELL | B 1 | ROUNDPARN | E 1 | RUSHVILLE | C 1 | SALADAR | D 1 | SANDUSKY | 0 |
| RONDOWA | 51 | ROUNDMEAD | B/DI | RUSG | E 1 | SALACON | 01 | SANDVIEW | e |
| RONNEEY | $C \quad 1$ | ROUNDOR | $C 1$ | RUSON | $C 1$ | SALAL | C 1 | SANDWASH | $C$ |
| RONSEL | B 1 | founotop | $c 1$ | RUSS | F 1 | salamatof | D 1 | SANDWICK | B |
| RONSON | B 1 | FOUNDUP | $C 1$ | RUSSELL | e 1 | SALANDER | B 1 | SANELI | 0 |
| RODNEY | D 1 | foundy | $C 1$ | RUSSIAN | e 1 | SALAS | $C 1$ | SANFORD | B |
| ROOSE $T$ | $C 1$ | rousseau | A 1 | RUSSLER | $C 1$ | SALCHAKET | B 1 | SANGER | 0 |
| ROOSEVELI | C 1 | FOUTON | D 1 | RUSTICO | P 1 | SALCO | B 1 | SANGO | C |
| ROOT | 5101 | ROUTT | $C 1$ | RUSIIGATE | C 1 | SALEM | E 1 | SANHEDRIN | B |
| ROOTEL | 61 | ROVAL | c 1 | RUSTCN | R I | Saleratus | C 1 | SANIBEL | B/D |
| ROPER | 8101 | fowden | $C$ I | RUSTY | B 1 | SALERNO | $6 / 01$ | SANILAC | B |
| ROSALIE | B 1 | ROWDY | e 1 | RUTAE | E I | SALGA | $C \quad 1$ | SANJE | B |
| RUSAMOND | - 1 | ROWE | C. 1 | RUTERSVILLE | $C 1$ | SALIDA | A 1 | SANLOREN | 0 |
| ROSAMOND. | $C 1$ | ROWEL | 01 | RUTHFRFORD | $c 1$ | SALINAS | B 1 | SANPETE | 8 |
| SALINE-ALKALI. | 1 | ROWENA | $C 1$ | PUTLAND | $C 1$ | SALISEURY | C 1 | SANPITCH | C |
| FLOODED | 1 | ROWLANO | $C 1$ | RUtlege | E/01 | SALIX | B 1 | SANPOIL | D |
| ROSANE | D 1 | ROWLEY | $C 1$ | RYAN | D 1 | SALKUM | - 1 | SANSARC | D |
| ROSANKY | $C \quad 1$ | ROXAL | 01 | RYan park | B 1 | SALLISAW | B 1 | SANTA | D |
| ROSARIO | C 1 | ROXANA | e I | RYARK | $A 1$ | SALLYANN | C 1 | SANTA CLARA | C |
| ROSCOE | D 1 | ROXEUFY | 61 | RYCO | c 1 | SALMO | C/OI | SANTA FE | 0 |
| ROSCOMMON | A/D 1 | ROXER | 51 | RYDE | $C 1$ | SALMON | - 1 | SANTA ISABEL | D |
| ROSE CREEK | $C 1$ | ROXTON | 01 | RYCER | $c 1$ | SALONJE | - 1 | SANTA LUCIA | $c$ |
| ROSE CREEK. | B 1 | ROY | B 1 | RYOOLPH | c 1 | SALT CHUCK | A 1 | SANTA MARTA | C |
| DRAINED | 1 | ROYAL | B 1 | RYEGATE | $C 1$ | SALT LAKE | D 1 | SANTA YNEZ | D |
| rose valley | D 1 | ROYCE | $C 1$ | RYELL | - 1 | SALTAIR | 01 | SANTANA | D |
| ROSEBERRY | - 1 | ROYGORGE | C 1 | RYELL. SALINE | 01 | SALTER | B 1 | SANTANELA | D |
| ROSEBLOOM | 01 | ROYOSA | $A 1$ | PYEPATCH | $C 1$ | SALTERY | D 1 | SANTAOUIN | 1 |
| ROSEBORDUGH | 81 | ROYSt | $C$ I | RYER | $c 1$ | SALTESE | 01 | SANTAROSA | A |
| ROSEEUD | $B 1$ | ROYSTINE | P 1 | RYKER | B I | SALTINE | C 1 | SANTEE | 0 |
| Roseburg | B 1 | ROZA | $C 1$ | Rymati | $C 1$ | SALTON | 01 | SANTIAGO | B |
| ROSEDHU | 3101 | ROLELLVILLE | B 1 | FYORP | $c 1$ | SALUDA | C 1 | SANTIAM | C |
| ROSEGLEN | 81 | ROZETTA | B \| | RYPOC | 81 | SAlvisa | C 1 | SANTO | 8 |
| rosehaven | 81 | Rozlee | $C 1$ | RYUS | B 1 | SALZER | D 1 | SANTO TOMAS | 8 |
| ROSEMILL | D I | KUARK | E/D1 | SAAR | $C \quad 1$ | SALZER, PROTECTED | C 1 | SANTONI | 0 |
| ROSELAND | B 1 | PUBICDN | - 1 | SABANA | $c 1$ | SAMBA | D 1 | SANWELL | B |
| ROSELLA | D 1 | RUBIo | C/OI | sabana seca | 01 | SAMBRITO | B 1 | SAPEHA | B |
| ROSELMS | 01 | fuesion | B | SABE | e 1 | SAMDAY | D 1 | SAPELO | D |

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

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

| SAPINERO | - 1 | SAWTOWN | C | 1 | SCOTCH | 01 | SEITZ | $C 1$ | SHAKER | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAPKIN | $C 1$ | SAwyer | C | 1 | scorco | A | SEJITA | D | SHAKESPEARE | C |
| SAPPHIRE | $c 1$ | SAXBY | D | 1 | scotia | B | SEKIL | B 1 | SHAKOPEE | $C$ |
| SAPPINGTON | B 1 | SAxON | $C$ | , | SCOT | 0 | SEKIU | 0 | SHALAKE | C |
| SARA | 01 | SAY | 8 | I | scott lake | B | SELAH | C | SHALAKO | D |
| SARAGOSA | B 1 | SAYBROOK | 8 | 1 | SCOTTCAS | e | SELEIt | B I | Shalba | D |
| SARAHSVILLE | 01 | SAYDAB | C | 1 | SCOTTIES | 2 | SELDEN | C | SHALCAR | 0 |
| SARALEGUI | B 1 | SAYERS | A | , | Scottsville | C | SELEVIN | D | SHALCAR, DRAINED | C |
| SARANAC | CDOI | SAYLES | D | 1 | SCOUT | e | SELFRIDGE | 8 | Shalcleav | D |
| SARANAC. GRAVELLY | $C 1$ | SAYLESVILLE | C | 1 | SCRAEBLERS | P | SELIA | C 1 | SHALET | D |
| SUES TRATUM | 1 | SAYNER | A | 1 | SCRANTON | A/DI | SEL I GMAN | D 1 | Shalona | 6 |
| SARAPH | D 1 | SAYPO | C | , | SCRAVO | B | SELKIRK | C | SHALPER | D |
| SARATON | C 1 | SAZI | C | 1 | SCRIBA | C | SELLE | B | SHAM | D |
| SARAZAN | B 1 | SCALA | E | 1 | SCRIENER | c | SELLERS | B/O1 | SHAMBO | B |
| SAREEN | B 1 | scalade | D | 1 | SCRIVER | e | SELMA | B/OI | SHAMEL | B |
| SARCILLO | D 1 | SCALFAR | B | 1 | SCROGGIN | C | SElmac | 01 | Shamock | $C$ |
| SARDINIA | $C 1$ | scalley | B | 1 | SCULLIN | C | SELON | B | SHANAHAN | $B$ |
| SARDIS | C 1 | SCAMMAN | D | 1 | SCUPPERNONG | 0 | SELTI | B | SHANDEP | B/0 |
| SARGEANT | D 1 | SCANDARD | 6 | 1 | SEABROOR | C | SELWAY | B | Shane | 0 |
| SARILDA | C 1 | SCANTIC | D | 1 | SEAFIELD | E | SEMIAHMOO | 0 | SHANGHAI | $C$ |
| SARITA | A 1 | SCAPONIA | B | I | SEAFORTM | B | SEMIARMOO, ORAINED | C 1 | SHANGHAI. DRAINED | B |
| SARKAR | D 1 | SCAR | B | 1 | SEAGATE | A/01 | SEMINOLE | 01 | SHANKLER | * |
| SARNOSA | B 1 | SCAREORO | 0 | 1 | SEAGOVILLE | D 1 | SEMPER | $C 1$ | SHAND | B |
| SARONA | 01 | SCARIBOU | e | 1 | SEALY | 8 | SEN | B 1 | SHANTA | B |
| SARPY | A 1 | SCARPER | C | 1 | SEAMAN | e | SENCHERT | C | Sharatin | B |
| SARTELL | 4 1 | SCATLAKE | D | 1 | SEAMAN, STRONGLY | $C \quad 1$ | SENECAVILLE | B 1 | SHARESNOUT | $C$ |
| SARUCHE | 01 | scave | C | 1 | SALINE | I | SENSABAUGH | G 1 | SHARKEY | D |
| SASABE | $C 1$ | SCHAFFENAKER | A | 1 | SEAMAN: MODERATELY | C 1 | SEquatchie | E | SHAPLAND | B |
| SASALAGUAN | $C 1$ | SCHALLER | A | 1 | WET | 1 | sequim | A 1 | SHARON | 0 |
| SASCO | - 1 | SCHAMBER | A | I | SEAOUEST | $c 1$ | SEQUDIA | C 1 | SHARONDALE | 8 |
| SASKA | B 1 | SCHAMP | C | , | SEAP | E 1 | SERDEN | A 1 | SHARPS | c |
| SASOAMCO | B 1 | SCHAPVILLE | C | I | SEARING | E I | SERENE | C 1 | SHARPSBURG | B |
| SASSAFRAS | 81 | SCHATTEL | C | 1 | SEARLA | B 1 | SEROCO | 11 | SHARROTT | D |
| SASSER | B 1 | SCHAUSON | B | 1 | SEARLES | C 1 | SERPEN | C 1 | Sharvana | C |
| SATAGO | 01 | SChamana | D | 1 | SEAR SPORT | 01 | SERPENTANO | B I | SHASER | B |
| SATANKA | $C 1$ | SCHENCO | D | 1 | SEARSVILLE | D 1 | SERPOD | C | SHASKIT | $c$ |
| SATANTA | B 1 | SCHERRARD | D | 1 | SEASTRANO | D 1 | SERRAND | D 1 | Shasta | $\theta$ |
| SATATTON | $\bigcirc 1$ | SCHLEY | B | 1 | SEATON | B I | SEFVILLETA | D 1 | Shastina | B |
| SATELLITE | $C 1$ | SCHMUTZ | B | 1 | SEATtLE | D 1 | SESAME | C 1 | Smatruce | $c$ |
| SATILLA | 01 | SCHNEBLY | 0 | I | SEATTLE. DRAINED | $C 1$ | SESPE | C 1 | Shatta | C |
| SATIN | C 1 | SCHNEIDER | B | I | SEAVERSON | D 1 | SESSIONS | $C 1$ | Shatiuck | 8 |
| SATSOP | B 1 | SCHNIPPER | C | I | SEAWILLOW | B 1 | SESSUM | 01 | SHAUSON | B |
| SATT | C 1 | SCHNOORSON | C | 1 | sfeago | 01 | SET | C 1 | shavano | B |
| sattley | 81 | SCHNORBUSH | e | I | SEBASTIAN | 01 | SETH | c | Shavash | C |
| SATTRE | B I | SCHODSON | C | 1 | SEBASTOPOL | C 1 | SETTERS | 01 | Shaver | B |
| SATURN | B 1 | SCHDENS | A | 1 | SEPEWA | E/DI | SETTLEMENT | D 1 | SHAWA | B |
| Satus | B 1 | SCHOFIELD | C | 1 | SEEREE | C 1 | SETTLEMEYER | $C 1$ | SHAWANO | A |
| saucel | D 1 | SCHOMARIE | $c$ | 1 | SEBRING | B/DI | SETTLEMEYER. | D 1 | Shawmut | B |
| SAUCIER | $C 1$ | SCHOLLE | B | 1 | SEbud | B ! | SALINE-ALKALI | 1 | Shay | D |
| savoe | B 1 | SCHOODIC | D | 1 | SECCA | $C \quad 1$ | SETTLEMEYER. | 01 | shayla | D |
| saugatuck | $\bigcirc 1$ | SCHOOLCRAF T | B | 1 | SECESH | B 1 | FLOODED | 1 | SHEAR | C |
| savgus | 91 | SCHOOLEY | D | 1 | SECONDSET | C 1 | SETTLEMEYER. COOL | D 1 | Sheaville | D |
| SAUK | B 1 | SCHOOLEY, DRAINED | $C$ | 1 | SECRET CREEK | B 1 | SETTLEMEYER. | P 1 | SHEEANG | D |
| SAULICH | D 1 | SCHOOLEY. | C | 1 | SECURITY | $C 1$ | CHANNELED | - | SHEBEON | C |
| SAUM | 81 | PROTECTED |  | 1 | SED | $C 1$ | SEVAL | C 1 | SHEDADO | $c$ |
| SAUNDERS | 01 | SCHOOLHOUSE | D | 1 | secale | D 1 | SEVENMILE | B 1 | SHEDD | C |
| SAURIN | $C 1$ | SCHOONER | D | 1 | SECGEFIELO | $C 1$ | SEVERN | B I | SHEDHORN | D |
| SAUTER | B I | SCHRADER | 0 | 1 | SEDGUAY | E 1 | SEVIER | D 1 | SHEECAL | B |
| SAUVIE | 01 | SCHRAP | D | 1 | SEDILLO | e 1 | SEVIlLe | D | SHEEGE | D |
| SAUVIE. moderately | C 1 | SCHRIER | B | 1 | SEDMAR | D 1 | SEvy | E 1 | SHEEK | B |
| WET | 1 | SCHRDCK | E | 1 | SEDROMOOLLEY | $C 1$ | SEWANEE | B 1 | SHEEP CREEK | C |
| SAUVIE. PROTECTED | B 1 | SCHROON | E | 1 | SEDWELL | C 1 | SEWARD | B 1 | SHEEPCAN | B |
| sauvola | $C 1$ | SCHUELKE | $C$ | 1 | SEEDSKADEE | D 1 | SEwELL | c 1 | SHEEPHEAO | C |
| sauz | B 1 | SCHULINE | B | 1 | SEELEZ | A 1 | SEXTON | C/DI | SHEEPROCK | A |
| SAvage | C 1 | SCHUWACHER | B | 1 | SEELOVERS | C 1 | SEYMOUR | D 1 | SHEEPSCOT | B |
| SAVAGETON | D 1 | SCHUSTER | B | 1 | SEEL Yeville | a/01 | SEZNA | D 1 | SHEETIRON | C |
| SAVANNAK | $C 1$ | SCHUYLER | 8 | 1 | SEELYEYILLE. | D 1 | Shank | C 1 | SHEFFIELD | 0 |
| SAVENAC | c I | SCIo | B | 1 | SLOPING | 1 | SHABLISS | D 1 | SHEFFIT | 0 |
| savo | $C 1$ | SCIOTOVILLE | $c$ | 1 | SEEPRID | B 1 | SHACK | B I | SHEFFLEIN | B |
| Savoia | B I | SCISM | $C$ | 1 | SEES | $C 1$ | SHADELAND | $c 1$ | SHELBIANA | B |
| SAVONA | C 1 | SCITICO | c | 1 | SEEWEE | B 1 | Shadeleaf | $C 1$ | ShELEURNE | C |
| Samabe | - 1 | scituate | C | 1 | SEFFNER | $C 1$ | SHADOU | $B 1$ | SHELBY | B |
| SAWATCH | B/DI | SCLOME | B | 1 | SEGIDAL | 01 | SHAD YGROVE | $C 1$ | Shelbyville | B |
| SAmbuck | B \| | Scoap | B | 1 | SEGNO | $C 1$ | SHAFFTON | B 1 | Sheld | B |
| SAWCREEK | $C 1$ | SCOBEY | C | 1 | SEGUIN | B I | SHAFTER | 01 | SHELL | B |
| SAWDUST | B 1 | SCOGGIN | 0 | 1 | SEGURA | D 1 | SHAGEL | 01 | SHELLABARGER | B |
| SAWMILL | B/01 | SCOON | D | 1 | SEHOME | C 1 | SHAGNASTY | $C 1$ | SHELLBLUFF | B |
| SAWTELL | c I | scooteney | B | 1 | SEHORN | D 1 | SHAKAMAK | $c 1$ | SHELLCREEK | C |
| SAWTELPEAK | 01 | SCORUP | C |  | SEIS | C 1 | SHAKAN | $c 1$ | SHELLDRAKE | $A$ |

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| SHELLROCK | A | SHOTGUN | C | SIMON | B | 1 | SKYHIGH | C 1 | SNOMDANCE. | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SHELMADINE | D | SHOTMELL | D 1 | SIMONA | c | 1 | SKYKOMISH | B I | MODERATELT WET |  |
| SHELOCTA | B | SMOUNS | A 1 | SIMONIN | B | 1 | SKYLICK | B I | SNOMOON | 0 |
| SHELTON | C | SHOMALTER | C | SIMCNTON | E | 1 | SKYLINE | 01 | SNOWLIN | B |
| SHENA | 0 | SHOWALTER. STONY | B | SIMPARK | D | 1 | SKYMOR | D 1 | SNOMMORE | $c$ |
| SHENANDOAH | D | SHOWLOW | C 1 | SIMPATICO | B | 1 | SKYROCK | D 1 | SNOWSHOE | B |
| SHENK 5 | B/01 | SHREE | e 1 | SIMPSON | C | 1 | SKYVILLAGE | D 1 | SNOWSLIDE | B |
| SHENON | 8 | SHREWDER | B I | SIMS | D | 1 | SKYway | B 1 | SNDWVILLE | D |
| SHENVAL | B | SHREWSBURY | C/DI | SINAI | C | 1 | SLAB | 01 | SNUFFUL | $C$ |
| SHEP | 8 | SHR INE | e 1 | SINAMOX | B | 1 | SLAETOwn | 8 | SOAKPAK | B |
| SHEPAN | C | SMROE | $C 1$ | SINCLAIR | $C$ | 1 | SLACKS | C | SOAPCREEK | C |
| SHEPPARD | A | SHROUTS | D 1 | SINGATSE | D | 1 | SLAGLE | c 1 | SOAPLAKE | D |
| SHEPSTER | D | SHUEUTA | C 1 | SINGERTON | B | 1 | SLAPJACK | B | SOAR | D |
| SHERANGO | B | SHUE | $C 1$ | S INGLETREE | C | 1 | SLATERY | $C 1$ | SOBEGA | $C$ |
| SHERAR | C | SMUKASH | A 1 | SINGSAAS | B | 1 | SLAUGHTER | C | SOROBA | A |
| SHERBURNE | C | SMUKSAN | $C 1$ | SINKER | C | 1 | SLAUGHTERVILLE | B | SOPOL | C |
| SHERIDAN | B | SHULE | c | SINKSON | E | 1 | slaven | C | SOERANTE | B |
| SHERLESS | B | SHULLSBURG | $C 1$ | SINL OC | C | 1 | SLAW | C 1 | SOBSON | C |
| SHERLOCK | E | Shumla | $C 1$ | SIMNICE | e | 1 | SLAYTOM | 01 | SOCORRO | $c$ |
| SHERM | D | Shumway | 01 | SINNIGAM | D | 1 | SLEEPER | C | SOOA | B |
| SHERMORE | B | SHUPERT | $C 1$ | SINTON | B | 1 | SLEETH | c | SODA LAKE | B |
| SHERRY | B/DI | SHURLEY | A 1 | SINUK | D | 1 | SLICKROCK | B 1 | SOOA LAKE, WET | C |
| SHERRY. STONY | D | SHUSTER | $C 1$ | SION | - | 1 | SLIDECREEK | B 1 | SODABAY | 日 |
| SHERRYL | B | shuttle | E 1 | stoux | A | 1 | SLIDELL | -1 | SODASPRING | B |
| SHERWCOD | 6 | S 1 | $C 1$ | $5104 \times 0 N$ | B | 1 | SLIGHTS | C | SODERVILLE | A |
| SHEVLIN | $C 1$ | SIBELIA | E I | SIPPLE | B | 1 | SLIGTING | C | SOOHOUSE | D |
| SHIDLER | D 1 | S IBLEY | e | SIPSEY | B | 1 | SLIKOK | D | SODUS | C |
| SHIELOS | C | SIBLEYVILLE | 81 | SIPCRAK | 4 | 1 | SLIMBUTTE | B | soelberg | B |
| SMIFFER | $C 1$ | SICKLES | 8101 | SIRI | B | 1 | SLINGER | B 1 | SOEN | C |
| SHILLY | C. 1 | SICKLESTEETS | B 1 | SIROCO | $C$ | 1 | SLIPAACK | B I | SOFIA | C |
| SHILOH | 8/01 | SIDDOWAY | A 1 | SIRREF | 0 | 1 | SLIPMAN | E | SDF TSCRABELE | $C$ |
| SHIMA | C 1 | SIDELL | B 1 | SIRPETTA | $c$ | 1 | SLOAN | B/DI | SOF TSCRABBLE. | E |
| SHIMMON | C 1 | SIDLAKE | C 1 | SISK | C | 1 | slocave | 11 | RARELY FLOQDED |  |
| SHINAKU | 01 | SIDON | $C 1$ | SISKIYOU | E | 1 | slocum | $C 1$ | SOEI | $c$ |
| SHINGARA | D | SIEEEN | B 1 | SISSETON | E. | 1 | sluice | C 1 | SOGN | D |
| SHINDLER | $C 1$ | SIEAERT | A 1 | SISSON | P | 1 | SLUKA | C 1 | SOGO | B |
| SHINER | $C 1$ | SIECHE | C 1 | SISTEPS | A | 1 | SLY | E | SOGZIE | 8 |
| SHINGLE | 01 | SIELC | $\bigcirc 1$ | SITAR | E | 1 | Smackout | B 1 | SOMAPPY | B |
| SHINGLEMILL | D 1 | SIEROCLIFF | C 1 | SITDOWN | A | 1 | SMALL | C | SOJUR | D |
| SHINGLETOWN | C. 1 | SIERRA | B I | SITES | C | 1 | SMALLCONE | 01 | SOLAK | D |
| SHINKEE | $C 1$ | SIERRAVILLE | B I | SIWELL | C | 1 | SMARTS | B I | Sol.ano | 0 |
| SHINNPEAK | D 1 | SIESTA | D 1 | SIXBEACON | E | 1 | SMAUG | B 1 | SOLOATNA | B |
| SHINROCK | $C 1$ | SIEVERS | $C 1$ | SIXMILE | C | 1 | SMEDLEY | D | SOLDIER | $C$ |
| SHIOCTON | $C 1$ | SIFTON | B I | SIIER | B | 1 | SMELTER | C 1 | SOLDUC | B |
| SHIOYA | - 1 | SIG | D | SKAGGS | C | 1 | SMILEY | B/DI | SOLEDAD | 8 |
| SHIPLEY | - 1 | SIGNAL | C 1 | SKAEIT | D | 1 | SMILEYVILLE | D 1 | SOLIER | 0 |
| SHIPLEY. | $C 1$ | SIGURO | - 1 | SKAGWAY | C | 1 | SMILO | C 1 | SOLIS | $C$ |
| SALINE-ALKALI | 1 | SIRESTON | B/DI | SKAha | A | 1 | SMITHEORO | 0 | SOLLEKS | C |
| SHIPPA | D 1 | SILAS | e 1 | SKALAN | C | 1 | SMI THDALE | B I | SOLLER | D |
| SHIPROCK | B \| | SILAS. WET | C | SKAMANIA | 8 | 1 | SMITHNECK | $C 1$ | SOLO | $C$ |
| SHIPS | 01 | SILAS. GRavelly | C 1 | SKAFO | C | 1 | SMITHNECK, DRAINED | B 1 | SOLAMON | D |
| SHIPSHE | B 1 | SUBSTRATUM | 1 | SKANEE | c | 1 | SMITHTON | 0 I | SOLONA | C |
| SHIRK | $C 1$ | SILAWA | 8 | SKANIO | 0 | 1 | SMITHVILLE | R 1 | SOLWAY | 8 |
| SHIRLEY | B | SILCOX | E 1 | Skate | B | 1 | SMITHWICK | D 1 | SOMEOROORO | 0 |
| SHIRO | $C 1$ | SILENT | D 1 | SKEDADDLE | D | I | SMOCREEK | $C 1$ | SOmbrero | C |
| SHIRTTAIL | B 1 | SILEP | B 1 | SKEIN | D | 1 | SMOKEY | c 1 | SOMERS | B |
| SHIVELY | B 1 | SILERTON | B 1 | SKELLCCK | B | 1 | SMCLAN | $C 1$ | SOMERVELL | B |
| SHIVIENY | - 1 | Silhouette | $C 1$ | SKELON | C | 1 | SMYRNA | B/D) | SOMSEN | C |
| SMIVLUM | B I | SILI | $C 1$ | SKELTON | E | 1 | SNAG | - 1 | SONAHNP IL | 0 |
| SHOALS | $C 1$ | SILKIE | c 1 | SKERRY | C | 1 | SNAMOPISH | e 1 | SONDOA | 8 |
| SMOAT | D 1 | SILSTID | A 1 | SKIEC | E | I | SNAKE | C 1 | SONLET | D |
| SHOBA | D 1 | SILVA | $C 1$ | SkIDMORE | B | 1 | SNAKE HOLLOX | - 1 | SONOCAN | $C$ |
| SHDEPEG | $C 1$ | SILVER | $C 1$ | SKINNEF | e | 1 | SNAKELUM | B 1 | Sondita | B |
| SHOES IRING | B I | SILVER CREEK | 01 | SKIPANON | E | 1 | SNAKER | 01 | SONOMA | C |
| SHOKEN | D 1 | SILVERADO | B 1 | SKIPOPA | D | 1 | SNAPP | C 1 | SONOMA, MDOERATELY | B |
| SHONKIN | D 1 | Silverbell | C 1 | SKIYOU | B | 1 | SNEAD | D 1 | WET. SALINE |  |
| SHONTIK | C 1 | SILVEPGOW | $\bigcirc 1$ | SKEKOMISH | D | 1 | SNEFFELS | $C 1$ | SCNOMA, SALINE. | B |
| SHOQFLIN | D 1 | SILVERCHIEF | c 1 | SKCKOKISH. DRAINED | $C$ | 1 | SNELL | C 1 | DRAINED |  |
| SHOOFLY | 0 | Silvercliff | B | SKOLY | E | 1 | SNELLING | B 1 | SONOMA. STRATIFIED | D |
| SHOOK | $C 1$ | silverdale | 41 | SKODKUM | C | 1 | SNELLMAN | e I | SUBS TRATUM |  |
| SHOOKER | $c$ | SILVERV | $\cdots 1$ | Skos | 0 | 1 | SNIDER | $C 1$ | SONOMA. DRAINED. | B |
| SHOREEK | $c$ | SILVERTON | $C 1$ | SKOWHEGAN | E | 1 | SNOHOMISH | D 1 | SLIGHTLY SALINE |  |
| SHOREWOOD | $c$ | SILVIES | D | SKULL CREEK | C | 1 | SNOMO | $C 1$ | SONDMA. DRAINED. | B |
| SHOR IM | c | SIMAS | $C 1$ | SKULLGULCH | c | 1 | SNOOK | D 1 | FLOODED |  |
| SHORT CREEK | $c$ | SIMCOE | $C$ | SKULLVAK | 0 | 1 | SNOPDC | e I. | SONOMA, DRAINED | B |
| SHORTCUT | C | SIMEON | A | SKUMPAM | 0 | 1 | SNOOUALMIE | $C$ I | SONORA | B |
| SHORTHORN | D | SIMEROI | 8 | SKUTUM | C | 1 | SNOTOWN | B I | SONTAG | D |
| SMORT YORK | c | SIMmant | c | SKYPERG | c | 1 | SNOW | B I | SOOLAKE | B |
| SHOSHONE | C | SIMODA | C | SKYMAVEN | C | 1 | SNOMDANCE | D 1 | SOONAHBE | 8 |

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MODIFIERS SHOWN. E.G.. BEOROCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PMASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

| SOONAKER | c | SPINEKOP | B 1 | \| Stabler | B | \| StEuber | 8 | Strelna, silty | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| soosap | c 1 | SPINEKOP, SALINE | $c 1$ | I Staor | B | 1 stevens | 8 | SUBS TRATUM |  |
| SOPER | c | SPINEKOP, | $c 1$ | I stafford | c | stevenson | B | Strevell | B |
| Scouel | - 1 | MODERATELY WEt |  | Stagecoach | B | \| stewart | D | STRICKER | B |
| Sorensen | - I | SPINKS | A 1 | I Stahl | c | \| stewval | D | stricklano | c |
| SORF | c 1 | SPINLIN | c 1 | I Stake | c | I stickney | c | StRINGAM | B |
| SORRENTO | B 1 | SPinney | B 1 | - staley | B | 1 StIDHAM | - 1 | STRINGTOWN | B |
| SORTER | D 1 | Spires | D 1 | I stallings | c | STIEN | - 1 | STRINGTOWN. GRADED | c |
| SORUM | D | SPIRIT | $c 1$ | - stambaugh | B | StIGLER | 01 | Strole | C |
| SOSA | c | SPIRO | B 1 | I Stamford | - | Stiles | c 1 | STROM | c |
| SOSTIEN | - I | SPIVEY | B 1 | I Stamp | 0 | Stilgar | 81 | Stromal | B |
| SOTIM | 81 | SPLAMN | c 1 | Stampede | 0 | STILL | 8 | STRONGHOLO | 8 |
| SOUGHE | - | SPLENDORA | $c 1$ | I Stan | B | stillman | B | STRONGHURST | B |
| soulajule | c | SPLITEN | D 1 | I standley | c | Stillmater | D | Stroupe | c |
| SOUTHACE | B | SPLItro | 01 | I standup | B | Stilskin | c | Strozi | c |
| southam | - | SPLITTOP | c 1 | I staney | D | I Stilson | 8 | Strych | 8 |
| SOUTHFORK | 0 | SPOFFORD | - 1 | I Stanfielo | C | StimCa | B | STRYKER | c |
| southgate | 01 | SPOFMORE | $c 1$ | I stanislaus | c | Stimson | D | Stubblef IELO | c |
| SOUTHMOUNT | c 1 | spokane | $c 1$ | - Stanislaus. wet | - | 1 stines | 8 | stubes | c |
| SOUTHRIDGE | B I | SPOKEL | 81 | - Stanrod | c | I stingal | B | stuck | B |
| SOUTHWICK | $c 1$ | SPONSELLER | - 1 | - Stapaloop | - | I STINGDORN | D | StUdEB AKEP. | B |
| SOWCAN | - | SPOOL | 01 | I Staples | B/D | I StIPE | C | STUKEL | D |
| SOMCAN, SOMEXHAT | c | SPOONER | C/DI | I STAPLETON | B | 1 StIRK | 0 | Stumble | A |
| PODRLY DRAINED | 1 | SPOTSYLVANIA | $c 1$ | 1 STAPP | c | 1 StIRRUP | 8 | STUMPP | D |
| Spaa | D 1 | SPOTTSMOOD | 81 | I Starbuck | - | Stirum | 8/01 | STUMP TOWN | B |
| SPACE Citr | A | sprabat | B 1 | I stargo | E | STIRUM. PONDED | D | Stunner | B |
| SPADE | B | SPRAY | B 1 | I Starhope | D | STISSING | C | stuntz | c |
| SPADRA | B I | SPRECKELS | c 1 | \| StARICHKOF | 0 | Stiversville | e 1 | Sturgeon | B |
| SPager | 0 | SPRIGGS | $c 1$ | - Starker | c | I stockade | B/D 1 | Sturgill | D |
| SPALDING | 01 | SPRING | C | ! Starks | $c$ | I STOCKERIDGE | C | Sturkie | B |
| spana | D I | SPRINGDALE | A 1 | I starley | D | - stockel | D 1 | stuttgart | D |
| spanamay | A 1 | SPRINGDALE, Stony | B 1 | I starman | - | 1 stockland | B 1 | Stutzman | c |
| spanel | 01 | SPRINGER | B 1 | I Starr | c | 1 STOCKPEN | D | Stutiman wet | 0 |
| SPANG | B | SPR INGERVILLE | D 1 | I starveout | 8 | \| srooa | B 1 | sturzilite | C |
| Spangendurg | c | SPRINGFIELD | 01 | I Staser | E | STODICK | D | Styers | D |
| SPANGENBURG. | D 1 | SPRINGGULCH | - 1 | - state | B | StOHLMAN | - | styx | B |
| PONDED | 1 | SPRINGLAKE | A 1 | I Stateline | D | I stokes | D | suak | c |
| Spangler | C 1 | SPRINGMEYER | - 1 | - statler | 8 | \| Stokly | 8 | suraco | D |
| Sparank | D 1 | SPRINGSTEEN | $c 1$ | \| Statz | 0 | stomar | C | sublette | B |
| Sparham | D 1 | SPRINGWATER | c 1 | 1 stavely | - | I Stoneberger | D | SUBLIGNA | - |
| Sparkhule | D 1 | SPROUL | D 1 | 1 Stayton | 0 | 1 stoneburg | E | subwell | 8 |
| SPARMO | B 1 | SPRUCEDALE | D 1 | I Stearns | D | Stoneham | B | sucarnodichee | D |
| SPARR | c 1 | Spud | $C 1$ | - stecoah | B | Stonehead | c | success | a |
| sparta, silty clay | B 1 | SPUDROCK | $c 1$ | I stecum | c | stonelick | B | SUCCOR | 0 |
| LOAM SUBSTRATUM | 1 | SPUKWUSH | - 1 | I Steed | A | STONELL | B | Suches | - |
| SPARTA. LOAMY | $\wedge 1$ | Spur | - 1 | 1 SteEtman | 0 | 5 TONER | B I | sudbury | - |
| SUBStratum | 1 | SPURGER | c 1 | I Steedman. Stony | c | I stoneville | e | sudouth | c |
| SPARTA. MAAT $>50$ | A 1 | SPURLOCK | B 1 | - Steekee | c | I Stonewall | c | sudler | в |
| SPARTA. MAAT 550 | A | squalicum | B 1 | \| StEELE | c | 1 StCNEwELL | A | SUDwORTH | B |
| SPARTA, BEDROCK | $A 1$ | soually | B 1 | I StEENS | c | I STONO | B/DI | SUEPERT | C |
| Suestratum | 1 | souay | - 1 | I STEEPCAN | D | I StONYFORD | D 1 | SUEY | 日 |
| SPASPREY | $c 1$ | SOUAmCREEK | D 1 | \| Steese | 8 | I STOOKMODR | c | SUffielo | c |
| Speaker | c 1 | squavrock | $c 1$ | I steever | B | 1 storden | B 1 | SUFFOLK | - |
| SPEAKS | A | SQuawtip | $c 1$ | 1 Steff | c | 1 StCRLA | - | SUGAKOOL | 8 |
| Spearfish | D 1 | SQUIRES | c 1 | 1 stegall | c | \| STORMITT | - | sugarbiow | B |
| Spearhead | B | St. ALbans | P 1 | I StEIGER | A | I stotit | c 1 | Sugardee | B |
| SPEARMAN | B | ST. ANTHONY | e 1 | I steilacoom | c | I stough | $c$ | sugarloaf | 日 |
| SPEARVILLE | $C 1$ | St. AUGUSTINE | $c 1$ | I StEinauer | B | 1 stout | - | SUGLO | B |
| SPECIE | B 1 | St. augustine. | - 1 | \| Steinbeck | - | 1 stoveo | c 1 | suisun | D |
| SPECK | 01 | ORGANIC | 1 | \| Steinsburg | c | I stowe | c | sula | B |
| SPECTACLE | C 1 | SUBS tratum | 1 | I Steiwer | c | I StOwELL | D 1 | sUlLivan | 8 |
| SPECTER | c | St. Charles | - 1 | ) stella | $c$ | stor | c | sully | B |
| Speelval | D | ST. CLAIR | 01 | 1 Stellar | c | 1 straber | c 1 | suloaf | B |
| SPEER | - 1 | St. ELMO | $A 1$ | I Stemeer | c | straman | B 1 | SULPHUPA | D |
| SPEIGLE | B 1 | St. GEDRGE | O 1 | - STEMILT | B | I Straight | $c$ | sulsavar | B |
| SPENARD | D 1 | ST. GEJRGE. SALINE | C 1 | \| StemLer | c | 1 StRandiIne | - 1 | SULTAN |  |
| SPENCER | - 1 | ST. GEORGE, WET | D 1 | - stemple | - | I strandouist | -101 | SUman |  |
| SPENLO | - 1 | St. helens | - 1 | I stendal | c | I strat | B 1 | sumas | 0 |
| SPENS | A 1 | ST. IGNaCE | 01 | 1 STEPHEN | c | I Stratford | B 1 | sumatra | B |
| SPERRY | C/DI | ST. JOMNS | B/DI | 1 STEPHENVILLE | B | I StRatton | c 1 | SUMINE | c |
| SPEXARTH | c | ST. JOHNS. | D 1 | I STEPROCK | B | I Stray | - 1 | SUMMERFIELD | 0 |
| SPHINX | 01 | depressidanal |  | 1 STEPSTONE | 8 | I Stramn | -1 | SUmmers | 8 |
| SPICER | 8/DI | ST. LUCIE | A 1 | 1 Steptoe | B | I StREATOR | B/01 | SUMMERTON | - |
| SPICERTON | D | ST. MARTIN | 01 | I STERLING | - | \| StRELNA | c 1 | SUMmerville | D |
| SPICEMOOD | c 1 | ST. Marys | B 1 | I StERLINGTON | B | I Strelna. | B 1 | Summit | $c$ |
| SPIKE | - 1 | St. nicholas | - 1 | I Sterrett | D | I Lacustrine | 1 | sumbitville | c |
| SPILLCO | - 1 | ST. ONGE | B 1 | I Stetson | - | I substratum | 1 | sumpf | D |
| SPILLVille | - | ST. paul | - 1 | I StETTER | D | I StRELNA. TILL | B 1 | SUmter | c |
| SPILOCK | D | St. thomas | D 1 | 1 StEUBEN | B | I substratum | 1 | sumterville | c |

notes: two hyorologic soil groups such as bic indicate the drained MODIFIERS SHOWN. E.G.. BEDROCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGENO.

| SUMYA | D | 5WANTOWN | D 1 | tacoma | D 1 | tanque | B 1 | TEMAMA | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUN | D I | SWANVILLE | C 1 | taconic | C/DI | tansem | B 1 | TEHRAN | ${ }^{1}$ |
| SUNAPEE | - 1 | SWANWICK | D 1 | TACOOSH | e/01 | TANTALUS | B 1 | TEIGEN | C |
| SUNBURG | B 1 | SWAPPS | $C 1$ | TADLOCK | 81 | tantile | C/DI | TEJA | 0 |
| SUNBURST | $C 1$ | SWARTSWOOD | C I | TAFFOM | B 1 | tanmax | 01 | TEJABE | 0 |
| SUNBURY | $B 1$ | SWARTZ | D 1 | tafcya | $C 1$ | TANMAX, ORAINED. | C 1 | TEJANA | B |
| SUNCITY | 01 | Swasey | D 1 | TAFT | $C 1$ | TANYARD | $C 1$ | TERENINK | B |
| SUNCOOK | A | SWASTIKA | C 1 | TAFTOWN | B I | TAOPI | B 1 | TEKISON | C |
| SUND | C 1 | SWAUK | D 1 | TAFUNA | $A 1$ | TAPCO | D 1 | TEKLANIKA | A |
| SUNDANCE | B 1 | SWAYne | $C 1$ | TAGGART | C 1 | TAPIA | B 1 | TEKOA | C |
| SUNDAY | - 1 | SWEATMAN | C 1 | TAGLAKE | e 1 | tapicitoes | D 1 | TEKDA, EXTREMELY | B |
| SUNDELE | B I | SWEDE | e 1 | TAHKENITCH | E 1 | TAPPAN | E/D1 | STONY |  |
| SUNDOWN | A | SWEEN | C 1 | TAHOMA | e 1 | tara | 81 | TELA | B |
| SUNEV | B | SWEENEY | B 1 | TAhOULA | 01 | TARBORO | a 1 | TELCHER | E |
| SUNFIELC | B 1 | SWEET | $C 1$ | tahouats | B 1 | TARGHEE | $C 1$ | TELECAN | B |
| SUNLIGHT | D 1 | SWEETAPPLE | B 1 | TAINTOR | C/01 | TARKINGTON | $C 1$ | TELEFONO | C |
| SUNNYHAY | D 1 | SWEETGRASS | B 1 | tajo | C 1 | TARKIO | D 1 | TELEMON | D |
| SUNNYSIDE | B 1 | SWEETWATEP. | 01 | t AKE UCH1 | $C 1$ | TARKLIN | C 1 | TELEPHONE | 0 |
| SUNNYVALE | $C 1$ | SWEITBERG | $C 1$ | takILMa | B 1 | TARLOC | $B 1$ | TELESCOPE | , |
| SUNRAY | E 1 | SWEITING | $C 1$ | TAKOINA | e 1 | TARNACH | 01 | TELFER | , |
| SUNRISE | $C 1$ | SWEM | $C 1$ | TAKPOCHAO | D 1 | tarnav | B 1 | TELFERNER | D |
| SUNSET | B 1 | SWENODA | E I | talag | D 1 | TARPLEY | D 1 | TELL | B |
| SUNSHINE | $C \quad 1$ | SWIFT | B 1 | talamantes | e 1 | TARR | A 1 | TELLER | B |
| SUNSWEET | $C 1$ | SMIFT CREEK | 6 1 | talante | D 1 | tarrant | D 1 | TELLICO | B |
| SUNUP | 0 I | SWIFTON | O 1 | talapus | E 1 | TARRETE | D 1 | TELLMAN | B |
| SUNY | D 1 | SWIMLEY | $C 1$ | TALBOTt | $C 1$ | JARRYALL | C 1 | tellura | $C$ |
| SUOMI | $C 1$ | SWIMS | B I | talco | D 1 | TARRYTOWN | C 1 | TELOS | $C$ |
| SUP | 31 | SWINGLER | B 1 | talcot | B/01 | tasaya | C 1 | telstao | C |
| SUPAN | 81 | SWINGLER, WET. | C 1 | talimina | 01 | rascosa | 81 | TEMAN | $B$ |
| SUPERIOR | D I | Strongly saline | 1 | talkeetna | e 1 | tassel | D 1 | TEMELOR | D |
| SUPERSTITION | A 1 | SWINGLER. WET | C 1 | TALLA | C 1 | TASSELMAN | D 1 | temescal | D |
| SUPERVISOR | $C$ I | SWINK | 01 | tallac | B 1 | tasso | B 1 | TEMO | C |
| SUPPLEE | $B$ I | SWINOMISH | $C 1$ | Talladega | $C 1$ | tatal | C I | TEMPLE | C |
| SUR | C 1 | SWINT | B 1 | i allapoosa | $C 1$ | TATE | B 1 | TEMPLETON | B |
| SURFSIDE | 01 | SwISBOR | D 1 | talleyville | B 1 | TATERHEAP | 81 | temvik | B |
| SURGEM | $C 1$ | 5W1SSHELM | E 1 | Tallowsox | $C 1$ | tatiyee | C I | tenabo | 0 |
| SURGH | B I | SWISSTAG | B 1 | Talls | E. 1 | tatlum | 01 | tenaha | B |
| SURVUF | B I | SWISSVALE | D 1 | tallula | E 1 | tatouche | - 1 | TENAS | C |
| SURPLUS | C 1 | SWITCHAACK | $C 1$ | TALLy | -1 | TATTON | D 1 | tencee | D |
| SURPRISE | 3 . 1 | SWIJZERLAND | 81 | talmage | B 1 | tatum | e 1 | TENDOY | D |
| SURRENCY | 01 | SMOPE | $C 1$ | Talmo | A 1 | TOUNTON | C 1 | TENERIFFE | A |
| SURRETT | $C 1$ | SWORMVILLF | $C 1$ | TALMOON | 01 | tavares | A 1 | TENEX | B |
| SURVEYORS | 81 | SWYGERT | $C 1$ | talora | 01 | tamah | B 1 | TENINO | c |
| SURVYA | $C \quad 1$ | SYBLON | D 1 | TALPA | D 1 | TAWAS | A 101 | TENMILE | C |
| SUSANNA | C/DI | SYCAMORE. | B I | talouin | P/01 | tancan | $C 1$ | TENNO | D |
| SUSANVILLE | D I | MODERATELY WET, | 1 | taluce | 01 | TAYLOR | $C 1$ | TENORIO | B |
| SUSIE CFEEK | $C 1$ | SALINE | 1 | tana | E 1 | TAYLOR CREEK | $c 1$ | TENOT | c |
| SUSITHA | B 1 | SYCAMDRE. | C 1 | tamara | 01 | TAYLORSFLAT | B 1 | TENPIN | 0 |
| SUSOUEHANNA | D I | MODERATELY WET. | 1 | tamalco | 01 | taylorsflat. | C 1 | tenrag | B |
| SUTA | B 1 | CLAYEY SUBSTRATUM | 1 | tamalpais | C 1 | SALINE-ALKALI | 1 | TENSAS | D |
| SUTCLIFF | B 1 | SYCAMORE. | C 1 | TAMANEEN | E 1 | TAYLORSVILLE | C 1 | TENSED | C |
| SUTHER | $C 1$ | MODERATELY MET | 1 | TAMBA | D 1 | TAZLINA | A 1 | TENSLEEP | B |
| SUTHERLAND | 01 | SYCAMORE, DRAINED | -1 | tamely | e 1 | teagulf | $C 1$ | TENSNOIA | B |
| SUTHERLIN | $C 1$ | SYCAMORE, FLOODEO | $C 1$ | tanflat | 01 | teakean | e I | tenvorad | 0 |
| SUTKIN | 6 I | SYCAMORE, CLAY | 81 | TAMF ORD | D 1 | TEALSON | 01 | TEO | B |
| sutley | B I | SUBS TRATUM | 1 | TAMMANY CREEK | 81 | tealmelt | D 1 | TEDCULLI | B |
| SUTPMEN | - 1 | SYCAN | A 1 | TAMMING | H 1 | teanaway | 01 | TEPETE | D |
| SUTRO | C 1 | SYCLE | B 1 | T AMP | E 1 | TEAPO | C 1 | TEDUESTA | B/D |
| SUTTLER | B 1 | SYCOLINE | D 1 | TAMPICO | E 1 | TEASDALE | - 1 | TERADA | B |
| SUTION | B 1 | syenite | $C 1$ | tariama | D 1 | TEASPOON | D I | TEREIES | B |
| SUVER | D 1 | stlacauga | 01 | tamana | D 1 | tebay | E 1 | TERENCE | B |
| Suwanee | \& 1 | SYLCO | C 1 | tanana, thawed | e 1 | TE日BS | E I | terfsa | D |
| SVEA | 31 | SYLVAN | 81 | TANANA. MODERATELY | C 1 | tebo | e 1 | TERIND | D |
| SVENSEN | P 1 | SYLVANIAM | $C 1$ | WET | 1 | techado | 01 | terlan | D |
| SVERORUP | B 1 | SYLVEStEF | B 1 | tanasee | B 1 | TECHICK | B I | TERLCO | B |
| SWAGER | C 1 | SYLVIA | $c 1$ | tanazza | e 1 | TECO | e 1 | TERLINGUA | D |
| SWA INOW | 81 | sYmco | C 1 | tanbark | 01 | tecolote | 81 | TERMINAL | D |
| SWAKANE | D 1 | SYMERTON | O 1 | TANDY | D 1 | TECOMAR | D 1 | TERMD | D |
| SWALER | D 1 | SYNAREP | E 1 | TANEUM | E I | TECOPA | D 1 | teromote | B |
| Swalesilver | 01 | SYRACUSE | B 1 | TANEY | $C 1$ | TEDROW | B 1 | terouge | D |
| SWAMPYDRAW | 31 | SYRENE | B/DI | tangalr | $c 1$ | teel | - 1 | terra cela | B/D |
| SWAN | 01 | SYPETT | $C \quad 1$ | TANGI | C 1 | TEELER | B I | terra ceian tidal | D |
| SWANBOY | 01 | tabecheding | C 1 | tangle | C 1 | teemat | 01 | TERRA CEIA. | 0 |
| SWANDAD | - 1 | TABERNASH | B I | tanna | - 1 | TEESTO | 01 | FREQUENTLY |  |
| SWANLAKE | 91 | table mountain | B 1 | TANNAHILL | 21 | TEETERS | C 1 | FLOODED |  |
| SWANNER | 01 | TAELER | D 1 | tanner | C 1 | TEEWINOT | D 1 | TERRAD | $c$ |
| SWANSEA | 01 | TABOR | D 1 | TANNER. LOM | 01 | TEFTON | C I | TERRETON | 0 |
| SWANSON | $C 1$ | TACAN | 81 | PRECIPITATION | 1 | TEGURO | 01 | TERRETON, STONY | C |
| SWANTCN | crol | TACHI | D 1 | tande | e 1 | tehachapi | $C 1$ | TERRIL | B |

[^2] MODIFIERS SHOWN. E.G. GEDPOCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.

Table 2-1.-Hydrologic soil groups for U.S. soils (continued)

| TERRO | C 1 | THURLONI | C 1 | TINTON | A 1 | tcltec | C 1 | TORSIDO | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TERRY | $C \quad 1$ | THURLOW | B 1 | TINYTOWN | e 1 | toluca | B 1 | tortugas | D |
| TERT | D 1 | THURMAN | A 1 | TICCANO | 01 | TOLVAR | B 1 | torull | D |
| FERWILLIGER | $C 1$ | IHUFMONT | B 1 | tloga | E 1 | TCMAH | e 1 | tosca | 8 |
| tesajo | B I | THWOOP | $C 1$ | TIPPAH | $C 1$ | tomahawk | -1 | tosser | B |
| tessfive | 01 | tiagos | 61 | tippecande | e 1 | TOMALES | 01 | TOSTON | $C$ |
| TETHRICK | 81 | TIAK | $C 1$ | TIPPER | C 1 | TOMASAKI | C 1 | totavi | A |
| TETON | $C 1$ | tIBAN | 61 | TIPPERARY | $\cdots 1$ | TOMAST | $C 1$ | totelake | B |
| tetonia | B I | TIBEITtS | E 1 | TIPPIPAH | B I | TOMBAF | $C 1$ | TOTEM | B |
| TETONKA | C/O1 | TIPS | $C 1$ | TIPPO | $C 1$ | TOMBSTONE | E 1 | TOTIER | $C$ |
| tetonvien | 01 | TIESON | B I | TIPION | B 1 | TOME | B 1 | \%oto | B/D |
| tetonville | D 1 | tiburones | D 1 | TIPTCNVILLE | P 1 | TOMEL | D 1 | totten | C/O |
| tetonville. | $C 1$ | tica | D 1 | TIPTEP | E 1 | TOMERA | C | touchet | c |
| gravelly | 1 | tICE | B 1 | TIRO | $C \quad 1$ | TOMERA, CEMENTED | D 1 | touney | B |
| TETOTUM | C 1 | ticell | 0 | TISEURY | B 1 | SUBSTRATUM | 1 | TOULA | C |
| TEvis | - 1 | TICMNO? | 01 | TISCH | D 1 | TOMICHI | A 1 | TOULON | B |
| TEW | C 1 | TlCIno | C | TISDALE | C 1 | TCMOKA | B/DI | TOURN | C |
| TEWA | B 1 | TICKAPGO | D 1 | TISHAR | B 1 | tomotley | B/01 | TOURNQUIST | B |
| tex | 81 | TICKASON | B | TISONIA | D 1 | tows | $C \quad 1$ | tours | B |
| TEXANA | 01 | TIDINGS | B 1 | TISWORTH | $C 1$ | TOMSHERRY | $C 1$ | toutle | A |
| TEXARK | 0 | TIOWELL | 01 | titus | E/01 | tomty | D 1 | TOUTLE. FLOODEO | B |
| TEXLINE | B 1 | TIERRA | D | titusville | $C 1$ | tonalea | C 1 | TOVAR | C |
| TEXROY | 81 | TIERRANEGRE | B I | TIVOLI | A 1 | TONASKET | B 1 | towave | B |
| tezuma | $C 1$ | tieside | 0 | tivy | $C 1$ | tonata | D 1 | rowhee | D |
| thacker | $\bigcirc 1$ | tieton | E 1 | TCA | B | TONCANA | B 1 | TOWNER | B |
| THACKERY | $8 \quad 1$ | TIFFANY | P/D1 | tcadlake | B 1 | toney | D 1 | TOWNLEY | C |
| THADEH | C 1 | TIFTON | 5 | toanc | 8 | TONGUE RIVER | $C 1$ | TOWNSEND | C |
| thage | $C 1$ | TIGER CFEEK | E 1 | toano | E | TONIO | e 1 | TOWOSAHGY | B |
| THATCHEF | B 1 | TIGERON | B | tceico | A/D 1 | TONKA | COD 1 | toxamay | B/D |
| thatuna | $C 1$ | T1GIT | C | TCEIN | P 1 | TONKAVAR | - 1 | tor | 0 |
| thayne | 51 | TIGIWON | B | TOEISH | C 1 | tonkawa | A 1 | TOYAM | E |
| thebes | B 1 | tigley | $\square$ | toeler | e | TCNKEY | E/DI | TOYUSKA | B |
| THEBO | D 1 | TIGON | D 1 | tcososa | c 1 | TONKIN | e 1 | TOZE | B |
| THEDALUNO | $C 1$ | tigua | [ | TCBY | e 1 | TONKIN. MODERATELY | C 1 | trabucc | C |
| THEEDLE | $C 1$ | tiJeras | e | TOCAL | C 1 | WET | 1 | TRACHUTE | B |
| THENAS | $C 1$ | TIKI | D | tocaloma | $c 1$ | TONKS | C 1 | track | D |
| THEODOR | 01 | TILfER | B/OI | TCCAN | $B 1$ | TONOPAH | A 1 | TRACK, DRAINED | C |
| THEON | $\bigcirc 1$ | tilforo | B ! | toccea | B 1 | TONOR | C 1 | TRACOSA | D |
| tmeresa | B 1 | tilleda | B I | tcek | C 1 | TONDWEK | B I | TrACY | B |
| theriot | D 1 | TILLICum | 8 | TOCOI | 8/01 | TONDA | B 1 | tradedollar | B |
| THERMO | 01 | TILLMAN | $C$ | TOODLER | E 1 | TONS INA | E 1 | TRAER | E10 |
| THERMOPOLIS | 01 | tillmant | 61 | TODDSTAV | 01 | TONTI | C 1 | trag | B |
| THESS | 81 | tillou | $C 1$ | tcooville | B 1 | tonuco | 01 | trag. cool | C |
| THETFORD | A 1 | tilma | $C 1$ | tcoos | C 1 | tooles | 01 | traham | C |
| THETIS | B 1 | TILSIt | C 1 | toenead | e 1 | TOOLESBORO | B 1 | trail | A |
| THIEFRIVER | $8 / 01$ | TILTON | E | TGEJA | B 1 | toomes | D 1 | traillamp | D |
| THIEL | B 1 | timbaliek | 01 | toem | $C 1$ | TCONE | $C 1$ | TPAILCREEK | C |
| THIESSEN | C 1 | Timeerg | $C 1$ | togcha | E 1 | todne, loamy | e 1 | traillhead | B |
| THIKE | D 1 | timeermead | B 1 | t Cogninl | D 1 | SUESTRATUM* STONY | 1 | trainer | B |
| THIOKOL | B 1 | timbefly | 51 | togo | e 1 | TOP | $C 1$ | TRAITORS | D |
| THIRST | D 1 | timeerville | B 1 | rcgus | D 1 | TOPEKI | 01 | trampas | C |
| THISTLEBURN | E 1 | TIMALIN | D 1 | TCHONA | $C 1$ | TOPEMAN | 01 | trambay | B |
| THISTLEDE. | 日 1 | timbuctoo | $C 1$ | TCIMI | $c 1$ | TOPIA | 01 | TRANOUILAR | C |
| thoeny | 01 | TIMENTWA | $B 1$ | toine | e 1 | TOPLIFF | B I | TRANSYLVANIA | B |
| THOMAS | B/01 | TIMHILL | 01 | TCISNOT | BrOI | TOPONCE | C 1 | TRAPPER | B |
| THOMHILL | B 1 | TIMHUS | B 1 | TCISNOT. PONDED | D 1 | TOPPENISH | 01 | TRAPPIST | C |
| THOMS | 01 | TIMKEN | C 1 | timyage | $C 1$ | TOPPENISH. DRAINED | c 1 | TRAPPS | B |
| THDRNEURGH | - 1 | IIMMERMAN | B I | tokay | B 1 | TOPPER | e 1 | TPASK | C |
| THORNDALE | D 1 | TIMMONS | 31 | TOKEEN | C 1 | topsey | C I | TRAVELERS | D |
| THORNDIKE | C/DI | TIMPAHUTE | C 1 | TOKLAT | 01 | tooverville | D 1 | TPAVER | B |
| TMORNOCK | 01 | TIMPANOGOS | $B 1$ | TCKOFEK | 01 | tooul | D 1 | TRAVERTINE | C |
| THORNTON | D 1 | TIMPANOGOS. | C 1 | tekul | $C 1$ | toquep | 41 | travessilla | 0 |
| THOROUGHF-ARE | Q l | MODERATELY WELL | 1 | trlany | B 1 | TCP | 01 | travis | C |
| THORD | C/DI | ORAINEO | 1 | toley | B 1 | Toreor | A 1 | travson | D |
| thout | $C 1$ | TIMPER | 01 | toledo | D 1 | TCRCHLIGHT | C I | TRAWICK | B |
| THOW | 81 | timula | B 1 | tolex | C 1 | TORDIA | D I | tray | C |
| THOWSON | 81 | TINA | C 1 | TOLICHA | C 1 | TOREX | B 1 | TREADWAY | D |
| thrash | B 1 | tinaja | B I | tclke | P 1 | TORHUNTA | $C 1$ | TREATY | B/0 |
| THREADGILL | B I | tinamou | $C 1$ | TOLL | - 1 | IORNEY | D I | TREBLE | B |
| THREE CHOP | - 1 | T indahar | A I | tollgate | B 1 | tornillo | B 1 | TREBLOC | D |
| THREEDOT | 01 | tindahay. grayelly | A 1 | tollhouse | D 1 | TORNING | B I | TREBOR | C |
| THREEK | $C 1$ | TINE | A 1 | TOLMAN | D 1 | TORODA | B 1 | TREEKOR | D |
| threemile | B 1 | tineman | B 1 | TOLNA | E 1 | TORONTO | C 1 | TREEKOR. NONSTONY | C |
| THREETOP | $C 1$ | TINEMAN. WEt | C 1 | tolo | B 1 | TORPEDO LAKE | D 1 | TREEN | D |
| THROCK | $C 1$ | TINGEY | B I | TOLONIER | B I | TORRE ON | C 1 | TREGO | C |
| THULEPAH | $C 1$ | TINKER | C 1 | tClsona | 01 | TORREON. COBBLY | D 1 | trenarne | C |
| THUMBERLAND | B 1 | TINN | D I | TOLSONA. TILL | B 1 | TORRES | - 1 | TRELK | B |
| THUNDEREIRD | D 1 | TINNIN | A 1 | SUEStRATUA | I | tCRRO | B I | trelona | D |
| THUREER | D 1 | Tinsley | A 1 | tolstei | D 1 | torry | $8 / 01$ | TREMANT | B |

NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE CRAINEO/UNDRAINED SITUATION.
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| trembles | B 1 | truscreek | B | 1 | TURSON | c 1 | UHLAND | B 1 | utaga | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| trembles. | $c$ | trussel | c | 1 | turton | D 1 | UHLIG | B 1 | utaline | B |
| moderately met | 1 | truvar | D | 1 | tusayan | C 1 | uhliorn | c | UTE | - |
| tremona | c | tryon | D | 1 | tuscan | D 1 | uinta | 8 | utica | - |
| trempe | A | tsali | c | 1 | tuscaramas | $C 1$ | UKIAM | - 1 | utley | B |
| trempealeal | B 1 | tschicoma | B | 1 | tuscanilla | c 1 | ULA | $c 1$ | urso | 8 |
| trenary | B 1 | tsirku | c | 1 | tuscola | - 1 | vien | B 1 | utuado | - |
| trenholm | - | tsosie | B | 1 | tuscosso | - 1 | ulida | D 1 | UVADA | 0 |
| trent | 81 | Tue | c | 1 | tuscumbia | - 1 | ulloa | B 1 | uvalde | B |
| trenton | D | tubac | c | 1 | tusel | - 1 | ULM | C | Uvi | - |
| TREON | - 1 | tuberet | c | 1 | tusip | B 1 | ulrant | B | UWALA | - |
| TREP | B | tucannon | c | , | Tusk | - 1 | ULRIC | c | UWHARRIE | B |
| tres hermanos | 8 | tuckamoe | E | , | tusk ahoma | D | ULRICHER | B | UZONA | 0 |
| tresano | B | tucker | c | 1 | tuskeego | C/D1 | ULTRA | D | VABEM | D |
| tresed | c | tuckerman | 0 | 1 | TUSLER | - 1 | ulupalakua | B | vabus | C |
| trestle | 8 | TUCSON | B | 1 | tusouitee | - | ULY | B 1 | vacherie | c |
| tretten | 8 | tucumcari | 8 | 1 | tuss r | D | ULYSSES | B | Vadaho | D |
| trevino | 0 | tuffit | c | 1 | tustell | C | UMA | A | vader | B |
| treviac | 8 | tuFfo | D | 1 | tustin | B | UMAPINE | D | vadnals | c |
| trey | A | tughill | D | , | tustumena | e 1 | Umapine. drained | c | vado | B |
| TRIANGLE | D | tujunga | A | 1 | tute | B 1 | umatilla | B | VAEDA | D |
| tribey | c | tukey | c | 1 | tUTHILL | 8 | UmBAPG | C | vaiden | D |
| TRICON | c | tukumilk | c | 1 | tutis | E | UMBERLAND | D | vailiton | B |
| TRID | $c 1$ | TUKwILA | 0 | 1 | tuttle | c | UMIAT | 0 | vaiva | 0 |
| trio, nonstony | 31 | tukwila. draineo | c | 1 | tutuilla | c | umikoa | e | valby | c |
| tRidell | 81 | tula | c | 1 | tutwiler | P 1 | UMIL | D | valco | c |
| TRIGGER | D | tulana. drained | B | 1 | TUWEEP | E 1 | UMPA | E | valcreek | - |
| tRigo | - 1 | tulana. nonfloodeo | c | 1 | tuxekan | B 1 | UMPCOOS | - 1 | valcrest | c |
| trimad | - 1 | tulare | D | 1 | tweba | D 1 | Umpump | B | valdez. clayey | D |
| trimble | - 1 | tulargo | e | 1 | tweba, moderately | E | UNA | D | Suestratum |  |
| trimmer | $c$ I | tularosa | - | 1 | WET | 1 | UNADILLA | 8 | valdez. Saline | 0 |
| trinidad | 0 | tulase | B | 1 | TWEBA, DRAINED | $C 1$ | UNAKA | E | valde z, clayey | C |
| trinity | 01 | TULCH | B | 1 | Theedr | C 1 | UNAKNIK | D | Suastratur, |  |
| trio | 0 | tulecan | c | 1 | tweener | D 1 | UNAWEEP | B 1 | SALINE |  |
| triomas | 8 | tulelake | D | 1 | THICK | D 1 | UNCAS | D 1 | Valdez, draineo | c |
| TRIPIT | c | tulia | - | 1 | TWIG | D 1 | UNCOMPAHGRE | - | valdosta | a |
| triplen | 8 | tulik | B | 1 | TWILIGHT | B 1 | UNDERMOOD | E | vale | B |
| TRIPOLI | 3/DI | tullahassee | c | 1 | twin creek | B 1 | Undusk | B 1 | valencia | 8 |
| TRIPP | 81 | tuller | D | 1 | twining | c | UNGERS | B 1 | valent | A |
| tristan | 8 | tullock | C | 1 | TWINSI | C 1 | UNICOI | P 1 | valentine | A |
| TRITON | D | tully | c | 1 | thisselman | $C 1$ | UNION | c 1 | valera | c |
| TRIX | B 1 | tuloso | 0 | 1 | twisselman. | D 1 | UNIONTOWN | B 1 | valhalla | A |
| trocken | B 1 | tumac | 8 | 1 | saline-alkali. | 1 | UNIONVILLE | B 1 | valkaria | 810 |
| trojan | 81 | tumalo | c | 1 | WET | 1 | UNiSON | B 1 | valkaria. | D |
| tromp | $c 1$ | tumarion | 0 | 1 | twisselman. | - 1 | unius | D 1 | depressional |  |
| tronsen | 31 | tumbleton | c | 1 | SALINE-ALKALI | 1 | univega | D 1 | vallan | - |
| trook | - 1 | tumtum | - | 1 | twomile | C/OI | UNLIC | B 1 | valle | B |
| trook, saline | c | tunbridige | c | , | Twotop | c 1 | UNSEL | B 1 | vallecitos | D |
| tropal | - | tunehill | D | I | treo | - 1 | UNSON | e 1 | valleono | 8 |
| TROPIC | 8 | tunica | D | 1 | tree | D 1 | UPDE GRAFF | E 1 | vallers | c |
| TROSI | $\bigcirc 1$ | tunis | D | 1 | tygart | D 1 | UPDIKE | D 1 | valleycity | - |
| trosky | B/01 | tunitas | C | 1 | TYGH | $C 1$ | UPSATA | E 1 | Valmar | c |
| troughs | 01 | tunk | A | 1 | trler | - 1 | UPSHUR | $\bigcirc 1$ | valmont | c |
| IROUP | A 1 | tunkhannock | A | 1 | trnoall | C 1 | UPSON | 8 I | valmy | 8 |
| trout creek | c | tunnel | B | 1 | tyndall. Drained | B 1 | UPSON, STONY | c 1 | valnor | c |
| trout river | A 1 | TUNNISON | D | 1 | trner | A 1 | UPSPRING | D 1 | valois | 8 |
| troutdale | c 1 | tucmi | B | 1 | tronek | D I | UPSTEER | B 1 | valpac | $c$ |
| trouter | c 1 | TUPELO | D | 1 | trre | A/D1 | UPTMOR | c 1 | valsetz | c |
| troutville | 81 | TUPUKNUK | 0 | 1 | trrone | C 1 | UPTON | c 1 | VALto | 0 |
| trove | B I | tuave | 8 | 1 | trson | B 1 | UPVILLE | B 1 | val ton | B |
| troxel | B 1 | turbeville | c | 1 | tyzak | D 1 | URACCA | B 1 | valverde | 8 |
| truax | - 1 | turbotville | c | 1 | uana | D 1 | URBANA | C 1 | vamer | 0 |
| truale | c 1 | turbyfill | B | 1 | ueank | B 1 | URBO | D 1 | vamont | D |
| truce | $c 1$ | TURK | c | 1 | UBAR | D 1 | UREAL | D 1 | VAMP | C |
| truchot | $c 1$ | TURKEYSPRINGS | - | 1 | uefhfie | C 1 | URICH | CIDI | van dusen | 8 |
| truckee | $c 1$ | TURLEY | B | 1 | UBIK | E 1 | URIPNES | D 1 | VAN HORN | - |
| TRUCKEE, DRAINED | B I | TURLIN | B | I | ubly | e 1 | URIPNES. GRAVELLY | C 1 | VAN NOSTERN | c |
| truckion | 8 | TURLOCK | D | 1 | uchee | A 1 | URLANO | c 1 | van wagoner | - |
| trudau | - 1 | turmouno | 0 | 1 | UCOLO | - 1 | URNE | B I | vanajo | D |
| trude | A 1 | turnaack | C | 1 | UCOP IA | P 1 | URNESS | B/DI | vananda | 0 |
| truefissure | B 1 | turnbull | D | 1 | voaho | B 1 | URSA | C 1 | vanbrunt | C |
| truesdale | $c 1$ | TURNER | B | 1 | UDEL | - 1 | URS INE | D 1 | vance | C |
| truhoy | D 1 | turnercrest | c | 1 | UDELOPE | D 1 | URTAH | c 1 | vanda | 0 |
| trulae | D 1 | turnerville | B | 1 | UNOLPHO | B/DI | URWIL | $c 1$ | vandalia | D |
| trulon | $c 1$ | turney | B | 1 | UFFENS | - 1 | USAL | $C 1$ | yandamme | B |
| truman | - 1 | turrah | C | 1 | UFFENS. Flodode | c 1 | USAL, Gravelly | B 1 | VANDAMORE | B |
| trumbull | - 1 | turret | B | 1 | ugak | - I | USHAR | B 1 | VANDERGRIFT | c |
| trump | 01 | TURRIA | 8 | 1 | UHal Di | - 1 | USINE | a 1 | vanderhoff | C |
| trunk | D 1 | TURRIA. WET | c | 1 | UHL | B 1 | USK | C I | UANDERLIP | ${ }^{\text {a }}$ |

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| VANEPPS | c | 1 | verde | C 1 | VIlLy- oraineo | B 1 | wabasso | B/DI | males o overblown | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| vanet | 0 | 1 | VERDEL | D 1 | VILOT | C 1 | VABASSO. | D 1 | Walford | 8/0 |
| VANG | B | 1 | VERDICO | 01 | vimville | 01 | DEPRESSIONAL | 1 | walhalla | 8 |
| VANGUARD | $c$ | 1 | VERDIGRIS | B 1 | vina | E 1 | WABEASEKA | 01 | WALKE | C |
| VANME TER | $c$ | 1 | VERDUN | D 1 | VINCENNES | C/01 | WABEK | - I | WALKNOLLS | D |
| VANNI | $\theta$ | 1 | VERENDRYE | B/OI | VINCENT | $C 1$ | WABEN | 61 | WALKON | C |
| VANNOY | C | 1 | VERGAS | $C 1$ | VINCOM | $C 1$ | mabuska | C 1 | wall | - |
| VANOCKER | B | 1 | VERGENNES | $C 1$ | VINDICATOR | D 1 | waca | B 1 | malla walla | 8 |
| VANOSS | 0 | 1 | VERHALEN | D 1 | VINE GARROON | $C 1$ | VACAHOOTA | D 1 | wallace | B |
| VANPETIEN | 8 | 1 | VERICK | C 1 | VINE YARO | $C 1$ | WACOTA | B 1 | WALLEN | B |
| VANSICKLE | 0 | I | VERITAS | B 1 | VINGO | B 1 | WACOUSTA | E/01 | Waller | B/0 |
| VANSON | 8 | 1 | VERJELES | C 1 | VINING | c 1 | WADAMS | B I | WALLINGTON | $C$ |
| VANSTEL | B | 1 | VERLANO | D 1 | VININI | 01 | WADOOUPS | B I | walle ILL | C/C |
| VANTAGE |  | 1 | VERLOT | D 1 | VINITA | C 1 | WADELL | 01 | WALLKILL. | B/D |
| VANVOR | B | 1 | VERMEJO | D 1 | vinje | e 1 | WADEMA | B I | NONF LOODED |  |
| VANWYPER | $c$ | 1 | VEPMILLION | $C 1$ | VINLAND | D 1 | WADENILL | B 1 | wallowa | c |
| VANZANDT | c | I | VERMISA | C 1 | VInSAD | $C 1$ | Wader | C 1 | wallrock | C |
| vaguero | D | 1 | VERNADO | D 1 | VINSON | e 1 | WADESPRINGS | $C$ I | wallsburg | D |
| VARCO | 0 | 1 | vernal | B 1 | VINT | E 1 | WADLEIGH | D 1 | WALLSON | B |
| varden | 8 | 1 | VERNALIS | e 1 | VINT, WET | C 1 | WADMALAW | D 1 | malluski | c |
| VARELUM | 8 | 1 | verndale | B 1 | VINTAS | A 1 | VADSWORTH | C I | walnett | C |
| VARELUM. CLAY LOAM | $C$ | 1 | vernia | - 1 | VINTON | e 1 | WAGES | B 1 | Walong | B |
| SUBSTRATUM |  | I | VERNON | D I | VIOLA | 01 | WAGNER | D 1 | WALPOLE | C |
| vapgas | c | 1 | VERNONIA | B 1 | VIPONT | C 1 | WAGONBCX | D I | walrees | C |
| VARICK | D | I | vero | B/DI | viraton | $C 1$ | WAGONTIRE | D I | WALSH | 8 |
| VARINA | C | 1 | VERO. DEPRESSIONAL | 01 | VIRCEN | E/DI | WAGRAM | A 1 | walsteao | B |
| VARNA | c | 1 | VERSHIRE | C 1 | VIRGELLE | C 1 | WAHA | C I | walters | B |
| varney | B | 1 | VERSON | $C 1$ | VIPGIL | 61 | wahatora | $C 1$ | WALTERSHOW | e |
| VARRE | B | 1 | VERTEL | 01 | virgin peak | D 1 | Waree | D 1 | Walti | 0 |
| VARYSBURG | E | 1 | VERTREES | B 1 | VIRGIN RIVER | $C 1$ | wahgurhe | D 1 | walum | B |
| VASA | B | 1 | ves | B 1 | virkula | $c 1$ | WAHIAWA | B I | walvan | B |
| VASHTI | $c$ | 1 | vesey | e 1 | virtue | $C 1$ | WAHIKLLI | $C 1$ | walville | B |
| vasQuez | C | 1 | VESPER | D 1 | vISTA | B 1 | WAMKEENA | B I | WAMBA | 0 |
| VASSAL30RO | 0 | 1 | VESSER | C 1 | vitale | $c 1$ | Wahluke | B I | wamba, orained | c |
| VASSAR | 8 | 1 | vessilla | D 1 | Vitzthum | 01 | WAMDO | D 1 | vamduska | A |
| VASSETT | 8 | 1 | VESTA | e 1 | viUda | 01 | WAHPETON | $c 1$ | WAMEGO | C |
| vastine | C | 1 | vESTABURG | A/C1 | VIUM | c 1 | WAHREKDAM | $C$ I | WAMIC | B |
| vastine | D | 1 | VESTON | c I | vives | B 1 | WAHSTAL | D 1 | WAMPOD | D |
| SALINE-ALKALI |  | 1 | veta | H 1 | VIVI | e 1 | WAHTIGUP | P 1 | WMMPSVILLE | e |
| vaucluse | C | 1 | vetal | B 1 | VIXEN | B 1 | WAHTUM | D 1 | WANAGAN | 8 |
| vautiman | D | 1 | veteaco | C 1 | vizcaino | 01 | WAHWEAP | 01 | wanblee | 0 |
| vavghesville | C | 1 | veyo | D 1 | vizCAPOINT | c 1 | WAIAHA | 01 | WANDA | B |
| VAY | B | 1 | VIA | e 1 | vlasaty | C 1 | waIAKOA | C I | WANDC | A |
| vayas | D | 1 | VIAN | 01 | VLECK | 01 | vaialeale | D 1 | wanetta | B |
| VEAL | B | 1 | vible | A 1 | VLY | C 1 | walalua | B 1 | wanilla | C |
| VEATCH | 6 | 1 | $v 180$ | B 1 | voats | e 1 | walawa | D 1 | WANN | B |
| VEATCH. STONY | c | 1 | viearas | 01 | voca | C 1 | vaIHUNA | $C 1$ | mannacott | B |
| veazie | A | 1 | vieorg | - 1 | VODEPMAIER | E 1 | watkaloa | e 1 | wanoga | B |
| VEBAR | B | 1 | VICEE | B 1 | VOIGHT | -1 | waikane | B I | WANOMIE | c |
| VECONT | 0 | 1 | vick | C 1 | volacora | E 1 | WAIKAPU | B 1 | WANSER | 0 |
| veedum | D | 1 | vickery | $C 1$ | VOLASH | B 1 | WAIKOMO | 01 | WANSER. DRAINEO | B |
| veEt | B | 1 | VICKING | 61 | VOLEORG | 01 | wailuku | $B 1$ | WAPAL | A |
| VEGA | $c$ | 1 | VICKING. DRY | D 1 | volcc | c 1 | waimea | B 1 | WAPAL BEDROCK | B |
| vega alta | B | 1 | VICKSBURG | B I | VOLENTE | C 1 | WaInee | B 1 | SUESTRATUM |  |
| vega baja | $C$ | 1 | vickton | -1 | VOLINIA | B 1 | WAINOLA | B 1 | WAPAL. BEDROCK | B |
| VEKOL | D | 1 | victine | D I | VOLKMAR | B 1 | WAIPAHU | C 1 | SUBSTRATUM |  |
| VEKOL, COOL | C | 1 | VICTOR | B I | VOLNEY | E 1 | Walska | B I | mAPATC | 0 |
| velasco | D | 1 | victoria | D. 1 | VOLPEFIE | C 1 | walts | B 1 | WAPELLO | B |
| VELDA | 0 | 1 | victorville | B 1 | volta | 01 | WAKE | D 1 | WAPI | D |
| VELOKAMP | 8 | 1 | victory | P 1 | voltage | B 1 | WAKEEN | E I | wapinitia | B |
| VELMA | B | 1 | vicu | c 1 | VOLTAIRE | c 1 | Wakefielo | B 1 | WAPP NG | B |
| VELJW | 8 | 1 | vida | $C 1$ | VOLTAIRE, DRAINED | C 1 | WAKELAND | C 1 | MAPP INGER | B |
| velva | B | 1 | vIDAURI | D 1 | VOLTAIRE. GRAVELLY | C 1 | WAKEPISH | B 1 | WAPPO | D |
| VENA | $C$ | 1 | vidrine | 01 | SUBSTRATUM | 1 | wakita | D 1 | WAPSHILLA | B |
| venable | 0 | 1 | viEJa | 01 | volusia | $C 1$ | Wakonda | B I | WADSIE | 日 |
| VENADITO | D | 1 | VIENNA | B 1 | VONA | e 1 | WAKONOA. TILL | C 1 | WAPTUS | C |
| VENANGO | C | 1 | viedues | E 1 | vonalee | E 1 | SUBSTRATUM | 1 | WARBA | B |
| VENAPASS | D | 1 | VIGAR | C 1 | VONASON | B 1 | wakulla | A 1 | WARDRORO | A |
| VENATOR | C | 1 | VIGIA | 01 | VOORHIES | $C 1$ | Walcan | C 1 | WARDELL | C |
| veneta | 0 | 1 | VIGNOLO | $c 1$ | VORE | A 1 | WALCOTT | B 1 | WARDEN | B |
| VENEZIA | D | 1 | VIGO | D 1 | VOSBURG | - 1 | WALDEILLIG | B I | WARDENOT | A |
| VENICE | C | 1 | vigus | B 1 | voss | 01 | Waldeck | $C 1$ | WARDWELL | C |
| VENLO | 0 | 1 | VIKING | 01 | vosset | B 1 | Walden | D 1 | ware | B |
| VENTRIS | 0 | 1 | VIL | D 1 | vulcan | C 1 | waldo | D 1 | wareagle | B |
| VENTUPE | D | 1 | VILAS | 11 | VYLACH | D 1 | WALDORF | C/OI | WAREHAM | C |
| VENUM | D | 1 | villa | $B 1$ | WAAS | e 1 | WALDPORT | A 1 | WARM SPRINGS | 0 |
| VENUS | B | 1 | VILLA GROVE | B 1 | wabanica | C 1 | WALDRON | D 1 | WARM SPRINGS. | c |
| VEREOORT | 0 | 1 | VILLEGREEN | C 1 | WABASH | 01 | WALDROUP | D 1 | DRAINED. CLAY |  |
| VERCLIFF | $C$ | 1 | viley | D 1 | vabasha | D 1 | wales | B 1 | SUBSTRATUM |  |

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Table 2-1.-Hydrologic soll groups for U.S. solis (continued)

| WARM SPRINGS. | C 1 | WAUPECAN | B 1 | WELD | c 1 | WETTERHORN | C I | mibaux | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DRAINED. ALKALI | 1 | wavouie | B \| | WELDA | C 1 | wetzel | D 1 | WICHITA | C |
| WARM SPRINGS. | C 1 | WAURIKA | D 1 | WELLER | C 1 | WEVERTON | 81 | WICHUP | D |
| DRAINED | 1 | wauseon | B/DI | WELLINGTON | D 1 | wemela | B I | WICKAHONEY | D |
| WARM SPRINGS * COOL | $C 1$ | mautama | 8/01 | WELLMAN | B 1 | WEWOKA | C 1 | WICKENBURG | D |
| WARMAN | B/DI | maveland | B/DI | mells | B 1 | wEYERS | C/D1 | WICKERSHAM | B |
| WARMAN: GRAVELLY | A/01 | WAVELAND. | D 1 | WELLSEORO | $C 1$ | WEYMOUTH | B 1 | WICKETT | C |
| SUBSOIL | 1 | DEPRESSI ONAL | 1 | WELLSCREEK | B 1 | WHAKANA | B 1 | WICKHAM | e |
| WARNEKE | D 1 | Waverty | B/D | mellseo | C 1 | WHALAN | B 1 | WICKIUP | C |
| WARNERS | C/DI | mamasee | B 1 | WELLSTON | B 1 | whaley | D 1 | WICKSEURG | B |
| WARNOCK | B 1 | wawina | A 1 | mellsville | B 1 | WHARTON | $C 1$ | WICUP | C |
| WARRENTON | $\bigcirc 1$ | Wax | C 1 | WELLTON | B I | WHATCOM | $C 1$ | WIDEMAN | A |
| WARSAW | 31 | Waxpool | D 1 | WELOY | C 1 | WHATELY | D 1 | WIDEN | C |
| WARSING | 81 | wayah | B 1 | WELRING | D 1 | Wheatley | A/DI | MIOTSOE | E |
| WARWICK | - 1 | waree | D 1 | WELSUM | 01 | WHEATRIDGE | B I | WIEHL | $C$ |
| wasa | D 1 | maycup | B 1 | WELTER | D 1 | WHEATVILLE | B 1 | WIELAND | C |
| WASATCH | A 1 | Wayden | 01 | WEMPLE | B I | WHEELER | B 1 | wiergate | D |
| WASCO | B 1 | waylano | C/DI | WENAS | D 1 | WHEELERVILLE | $B 1$ | WIFFO | B |
| wasoa | B/DI | WAYMJR | B 1 | WENAS. DRA INED | C 1 | WHEELING | E 1 | WIGGLER | 0 |
| WASEPI | B I | warneco | 01 | WENATCHEE | C 1 | WMEELON | 01 | WIGGLETON | B |
| WASHBURN | D 1 | warnes boro | - 1 | VENDANE | C 1 | WHE TROCK | C 1 | WIGTON | A |
| WASHINGTON | - 1 | maynetown | $C 1$ | WENDANE, DRAINED | B 1 | WHETSTONE | C 1 | wilaha | B |
| WASHINGTON. WET | C 1 | WEA | B 1 | WENDOVER | D 1 | WHICHMAN | B 1 | WILBANKS | 0 |
| SUBSTRATUM | 1 | WEASH | $C 1$ | WENDTE | D 1 | WHIDEEY | C 1 | milbraham | C |
| Washoe | B I | WEATHERFORD | 81 | WENONA | C 1 | WHILPHANG | 01 | WILBUR | B |
| washougal | B 1 | weaver | $C 1$ | WENTWORTH | E 1 | WHIPPANY | C 1 | WILBURTON | B |
| WASHTENAW | C/01 | weaverville | 61 | WEOGUFKA | c 1 | WHIPPLE | 01 | wILCO | C |
| WASILEA | 01 | WEGB | C 1 | WEPO | c 1 | WHIPSTOCK | C 1 | WILCOX | D |
| wasioja | B 1 | WEBERIDGE | B 1 | wereld | B 1 | WHIRLO | B 1 | WILCOXSON | C |
| WASKISH | D 1 | WEBBTOMN | $c 1$ | WERLOG | C 1 | WHISKEYOICK | C 1 | wildale | c |
| waskor | C. 1 | wEbER | B 1 | WERNER | D 1 | WHISPERING | $C 1$ | wildcat | - |
| WASPO | 01 | webile | $C 1$ | WERNOCK | e 1 | WHISTLE | B 1 | WILDERNESS | C |
| wassaic | B I | WEBSTER | B/D | WESCONNETT | c 1 | WHIT | B 1 | WILDGEN | 8 |
| WASSIt | D 1 | WEDEKIND | D 1 | WESOY | C 1 | WHITAKER | $C 1$ | WILDHORSE | A |
| watab | C 1 | WEDERTZ | B 1 | WESFIL | D 1 | WHITE HOUSE | C 1 | WILDORS | C |
| Watama | $c 1$ | WEOGE | A 1 | WESIX | D 1 | WHITE STORE | D 1 | WILDWOOD | - |
| watauga | B 1 | WEDLAR | $C 1$ | wESKA | D 1 | WHITE SWAN | 01 | WILE | C |
| watchabob | C 1 | WEDOMEE | - 1 | wesley | B 1 | WHITECAP | D 1 | WILEY | $B$ |
| watchaug | B 1 | WEED | B 1 | WESO | B 1 | WHITECLOUD | B 1 | WILHITE | C/D |
| WATCHUNG | D 1 | WEEDING | 01 | WESPAC | D 1 | WHITECOW | B 1 | WILHOIT | $B$ |
| WATEREURY | D 1 | WEEOMARK | 01 | WESPAC. SANDY | $C 1$ | WHITECROSS | 01 | WILKES | c |
| WATERCANYON | B 1 | WEEKIWACHEE | 01 | SUBSTRATUM | 1 | WHITEFISH | B I | WILKESON | - |
| Wateree | B 1 | WEEKS | $C 1$ | WESSEL | C 1 | WHITEFORO | B 1 | WILKINS | 0 |
| WATERMAN | D 1 | weeksville | 8/01 | WESTEROOK | D 1 | WHITEHALL | -1 | WILL | B/0 |
| WATERTOWN | A 1 | WEENA | 01 | westbury | c 1 | WHITEHILLS | C 1 | WILLABY | C |
| waterville | B 1 | WEEPAH | $C 1$ | westbutte | $C 1$ | WHITEMORN | 01 | millacy | B |
| WATKINS | B 1 | WEESAICHE | B 1 | westcamp | $C 1$ | WHITEHORSE | B 1 | millakenzie | $C$ |
| WATKINS RIDGE | B 1 | WEGA | B 1 | WESTCREEK | B 1 | WHITEKNOB | 81 | WILLAMAR | B |
| WATO | 81 | wehadkee | 01 | WESTE | $C 1$ | WHITELAKE | B 1 | willamette | B |
| WATONGA | D 1 | weigang | c 1 | WESTERVILLE | B 1 | WHITEMAN | 01 | willamette wet | c |
| Watoopah | B \| | WEIGLE | $D 1$ | WESTFORK | D 1 | WHITEPEAK | 01 | WILLANCH | D |
| watrous | B 1 | WEIKERT | C/DI | WESTHAVEN | B 1 | WHITERIVER | $C 1$ | willapa | $C$ |
| WATSEKA | 01 | WEIMER | D 1 | VESTHAVEN. | $c 1$ | WHITEROCK | D 1 | WILLARD | B |
| WATSON | C 1 | VEINBACH | $C 1$ | SAL InE-ALKALI | 1 | WHITESBDRO | C 1 | willette | 410 |
| WATSONIA | 01 | WEINGART | 01 | WESTINDIAN | C 1 | WHITESBURG | C 1 | WILLHILL | $C$ |
| watsonville | 01 | -EINGARTEN | $C 1$ | westlake | - 1 | WHITESUN | D 1 | WILLHO | 0 |
| WATT | 01 | weIR | 01 | westland | B/DI | WHITESTONE | B I | WILLIAMS | 8 |
| Watton | $C 1$ | WEIRMAN | C 1 | WESTMORE | $C 1$ | WHITETHORN | B 1 | williamsburg | B |
| watusi | C 1 | WEIRMAN, WET | 01 | WESTMORELAND | B 1 | Whitewater | 01 | WILLIAMSON | C |
| mavear | 31 | WEIRMAN. | A 1 | WESTON | 01 | WHITEWOLF | - 1 | WILLIAMSPORT | c |
| WAUBEEK | - 1 | NONFLOODED | , | WESTOVER | - 1 | WHITEWOOD | C/OI | WILLIAMSTOWN | C |
| WAUBERG | D 1 | WEISBURG | c | WESTPHALIA | B 1 | WHITEWODD. | B/DI | WILLIAMSVILLE | C |
| wavbonsie | $B 1$ | WEISER | 81 | WESTPLAIN | 01 | NONFLOODED | 1 | milliman | B/D |
| WAUCEDAH | 01 | WEISHAUPT | D 1 | WESTPORT | A 1 | WHITEWRIGHT | C 1 | WILLIS | C |
| Wauchula | 3101 | WEISSENFELS | $C 1$ | WESTPORT. THIN | 81 | WHITING | B 1 | WILLISTON | C |
| WAUCHULA. | 01 | WEITAS | B 1 | SURFACE | 1 | WHITINGER | C 1 | WILLOW CREEK | 8 |
| DEPRESSIDNAL | 1 | WEITCHPEC | $C 1$ | WESTSHORE | D 1 | WHITLEY | B 1 | WILLOMDALE | 8 |
| maucoba | D 1 | WEKODA | D 1 | wESTVACO | $C 1$ | WHITLOCK | B 1 | WILLOWEMOC | C |
| maucoma | - I | welaka | A 1 | weStVIEw | e 1 | WHITMAN | 01 | WILLOUMAN | B |
| WAUCONDA | B I | WELBY | B 1 | WESTVILLE | B | WHITNEY | C 1 | willews | 0 |
| WAUKEE | 81 | WELCH | 01 | mestuego | 01 | WHIT | e 1 | WILLMOOD | a |
| WAUKEGAN | $B 1$ | WELCH, GRAVELLY | B 1 | WESWINO | C 1 | WHITSOL | 01 | WILMA | ${ }^{8}$ |
| WAUKENA | D 1 | SUBS TRATUM. | 1 | WESWOOD | B 1 | WHITSON | D 1 | WILMER | C |
| WAUKON | B 1 | DRAINEO | , | wETA | 01 | WHITTIER | $B 1$ | WILMINGTON | D |
| WAULD | C 1 | WELCH, RARELY | B 1 | WETHERSFIELD | c 1 | WHITMELL | c 1 | WILMONT | B |
| wavmac | B 1 | FLOODED. DRAINEO | 1 | WETHEY | C 1 | WHOBREY | $C 1$ | WILMONTON | 8 |
| Waumbek | B 1 | WELCH - ORAINEO | C I | WETHEY, ORAINED | - 1 | WHOLAN | B 1 | MILPAR | C |
| wauna | $C 1$ | WELCHLAND | - 1 | metmore | D 1 | WHORLED | C 1 | MILPOINT | 0 |
| waupaca | B/01 | WELCOME | B 1 | WETSAW | C 1 | WHY | B 1 | WILSHIRE | A |

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

Table 2-1.-Hydrologic soll groups for U.S. solls (continued)

| WILSON | 0 | wISHARD | c 1 | wCODS CROSS | 01 | WYNOOSE | D 1 | YEGEN | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WILSONGULCH | B 1 | wISHBONE | B 1 | woodse ve | 01 | WYOCENA | B 1 | Yeguas | C |
| wilsonville | D 1 | mishevlu | C 1 | VOCDSFIELO | $c 1$ | WYOMING | A 1 | YELJACK | 8 |
| WILSOR | B 1 | WISHKAH | D 1 | WOOOSIDE | - 1 | WYRENE | 81 | yellowbay | B |
| WILST | C | WISHKAH, DRAIMED | c 1 | WOODSLAKE | 01 | WYSOCKING | C/OI | YELLOWHOUND | 8 |
| VILTON | B | WISKAN | $c 1$ | WODDSON | D 1 | XANA | E I | YELLOVROCK | A |
| vinada | $c 1$ | WISKIFLAT | -1 | WOODSTOCK | C/DI | xanadu | 61 | YELLOWSTONE | 0 |
| WINBERRY | $C 1$ | MISNER | E/01 | WODDSTOWN | $C 1$ | xavier | B 1 | YELM | C |
| VINCHESTER | A | MISTER | $C 1$ | WOOOTELL | 01 | XENIA | B 1 | YEMASSEE | C |
| WINCHUCK | $C 1$ | witbeck | $8 / 01$ | WOODVILLE | 0 1 1 | XENO | B 1 | YENCE | C |
| VINO RIVER | B 1 | WITEFELS | - 1 | WOODWARD | B 1 | XERTA | C 1 | YENLO | B |
| WINDCOAT | 01 | WITHAM | 01 | WOODWEST | c 1 | XERXES | D 1 | YENRAB | a |
| WINDER | B/01 | WITHEE | $C 1$ | WODFUS | D 1 | XICA | $C 1$ | YEOMAN | B |
| WINDER. | $\bigcirc 1$ | witherbee | ANDI | WOOLPER | $c 1$ | XINE | $C 1$ | YEOPIM | B |
| OEPRESSIONAL. | I | WITMERELL | 01 | WOOL SEY | $\theta 1$ | XIPE | 01 | YERINGTON | $\wedge$ |
| WINDHAM | B 1 | WITHERS | $C 1$ | WOOL STALF | B 1 | xipe, MODERATELY | $C 1$ | YERMO | B |
| WINDICREEK | A 1 | WIT | B 1 | WOOLSTED | B 1 | WET | , | YESUM | B |
| WINOMILL | B 1 | WITTEN | D 1 | WOONSOCKET | B 1 | XMAN | D 1 | YETtEM | B |
| WINDSOR | A | WITTENBERG | $\theta 1$ | woosley | $C 1$ | YaCOL | B 1 | Yetule | , |
| WINDTHORST | C 1 | vitzel | 01 | wooster | $C \quad 1$ | Yago | $C 1$ | YIGO | B |
| WINOWHISTLE | $C 1$ | WIX | $C 1$ | WORCESTER | $C 1$ | Yahana | $C 1$ | YIPOR | B |
| WINDWHISTLE, WARM | B 1 | WIXOM | $B 1$ | WORDEN | $C 1$ | YaHARA | $C 1$ | YLIG | C |
| WINOY | B 1 | wockley | $C 1$ | WORF | D 1 | YAHNE | $C 1$ | YOBE | c |
| WINOYPOINT | B I | m00a | 01 | WORFKA | D 1 | Yahola | B 1 | YOCHUM | $c$ |
| WINEG | B | WODEN | 81 | WORF MAN | D 1 | Yahoo | D 1 | YOCKEY | $c$ |
| WINEMA | C 1 | wODSKOW | $C 1$ | WORF STONE | C | Yalnax | - 1 | YODER | B |
| WINETTI | 81 | WDOSKOW. DRAINED | B 1 | WORK | $C 1$ | YakI | D 1 | YODY | C |
| minevada | C I | WOHLY | - 1 | YORK, GRAVELLY | 81 | YAKIMA | B 1 | YOHURT | 0 |
| WINFALL | 81 | wolco | C 1 | WORLAND | C 1 | YakUS | D 1 | YOKAYO | D |
| WINFIELD | 0 | WOLCOTT | e/01 | VORLEY | D 1 | Yakutat | $A 1$ | YOKOHL | 0 |
| WING | D 1 | woldale | $\bigcirc 1$ | VORMSER | C I | valelake | E 1 | YOKUT | B |
| WINGATE | B 1 | woldale. draineo | $C 1$ | WOROCK | $B 1$ | Yalesville | 61 | YOLLABOLLY | 0 |
| -INGER | B/D 1 | molf | a 1 | *ORSHAM | D 1 | Yallani | B 1 | YOLO | B |
| WINGINAW | 01 | MOLF POINT | $C 1$ | VORTH | $C 1$ | YALMER | B 1 | YOLOGO | D |
| WINGVILLE | D I | WOLFCREEK | Q 1 | WORTHEN | B 1 | Yamac | R 1 | YOmBA | B |
| WINIFRED | C 1 | WOLFESON | $C 1$ | WORTHING | D 1 | YAMHILL | 61 | YOMONT | E |
| WINK | B 1 | WOLFESON, WET | 01 | WCRTMAN | D 1 | YAMO | 01 | YONGES | D |
| WINKEL | D | WOLFEY | $C 1$ | WORTMAN. SANOY | A 1 | yamsay | D 1 | YONNA | D |
| WINKLEMAN | $C 1$ | WOLFPEN | A 1 | wOVOKA | C 1 | Yana | B 1 | YOREA | 0 |
| WINKLEMAN, WET | D 1 | WOLFTEVER | C 1 | WPANGELL | D 1 | YANCY | D 1 | YORK | C |
| WINKLER | B 1 | WOLLARD | $C 1$ | WRANGO | A 1 | YANKEE | 01 | YORK TOWN | D |
| WINLER | D 1 | wollent | D 1 | WGAYHA | D 1 | Yankton | 01 | YORKTREE | C |
| WINLO | 01 | wOLOT | e 1 | WREDAH | B 1 | YaNUSH | B 1 | YORKVILLE | D |
| WINN | C 1 | WOLVERINE | 11 | WRENCOE | $\bigcirc 1$ | YAP | B 1 | Yost | D |
| minnebago | B 1 | WOMACK | c 1 | WRENMAN | $C 1$ | YAPOAH | E 1 | YOST, ORAINED | C |
| minne conne | $C 1$ | moo | B 1 | WRENTHAM | $c 1$ | YAOUI | B I | Youd | 0 |
| WINNE COOK | C | WOO. OVERWASM | $C 1$ | WRIGHT | $c 1$ | YaOUINA | 01 | youga | B |
| WINNEMUCCA | B I | W00. WET | $C 1$ | WPIGHTMAN | $c 1$ | Yaduina. draineo | $C 1$ | YOUGA. SANDY | D |
| WINNESHIEK | B 1 | WOOD RIVER | 01 | WFIGHTSEORO | C 1 | Yarco | D 1 | SUBSTRATUM |  |
| WINNETT | D 1 | WOODBECK | B 1 | WRIGHTSVILLE | D 1 | YafDLEY | $C 1$ | roujar | D |
| WINNSEORO | 01 | moode ine | 81 | WRIGHTWDOD | E 1 | YaRTS | e 1 | YOUMAN | c |
| WINOM | 01 | moodbridge | $C 1$ | WUKOKI | $B 1$ | yatamoney | $c 1$ | YOUNGSTON | B |
| WINDNA | D 1 | WOODEURN | $c 1$ | WUKSI | A 1 | Yatahoney. Stony | 01 | YOUNGSTON. WET | C |
| WINOOSK1 | B 1 | WOODBURY | 01 | WULFERT | D I | yates | D 1 | YOURAME | B |
| WINOPEE | B I | WOODCOCK | B 1 | WUNJEY | B I | Yauco | $C 1$ | YOUTLKUE | D |
| WINRIDGE | D 1 | wOODFORO | 01 | WUPATKI | D 1 | Yauhannah | B 1 | YOVIMPA | D |
| WINSHIP | C 1 | WOODGULCH | A 1 | WURNO | $C 1$ | YaUPON | D 1 | YPSI | C |
| WINSPECT | 81 | WOODHALL | $C 1$ | WURS TEN | B 1 | YAWDIM | D 1 | YRIBARREN | 0 |
| WINSTON | e 1 | WOODHURST | $c 1$ | WURTSBORO | $C 1$ | YAWHEE | 01 | YSIDORA | $c$ |
| WINT | D 1 | W000IN | C 1 | mralusing | D I | Yatkey | B 1 | YTURBIDE | , |
| WINTERFIELD | A.DI | WOOO INGTON | 8101 | mYandotte | D 1 | YAXON | B 1 | YTURRIA | a |
| WINTERHAVEN | 61 | \#OODINVILLE | 01 | WYANT | C 1 | YEAGER | 11 | ruba | D |
| WINTERIDGE | B 1 | WOOOINVILLE. | $C 1$ | WYAPD | e 1 | YEARY | c 1 | YUKD | 0 |
| WINTERS | $c 1$ | DRA INED | 1 | wyagno | e 1 | YEATES HOLLOW | $B 1$ | YUKON | D |
| WINTERSBURG | $C 1$ | WOODLAWN | 81 | WYatt | $C 1$ | YEATES HOLLOW, | $C 1$ | YULEE | 0 |
| WINTERSET | $C 1$ | OODLEAF | $C 1$ | wrcolo | $C 1$ | LOAMY SUBSTRATUM. | 1 | YUNES | D |
| WINTHROP | A 1 | WOODLY | B 1 | WYE | B 1 | STONY | 1 | runaue | C |
| WINTLEY | $B 1$ | WOODLYN | D 1 | WYEAST | D 1 | YEATES HOLLOW, | c 1 | YURM | D |
| UINTON | $C 1$ | WOODMANSIE | B 1 | WYETH | B 1 | Loany Substratum | 1 | vutrue | 0 |
| WINTONER | B 1 | WOODMERE | e 1 | wreville | C 1 | yeates hollow. | c 1 | ruvas | D |
| WINU | $C 1$ | WOODMONT | C 1 | WYICK | 01 | STONY | 1 | ZAAR | D |
| WINZ | D 1 | moodpass | 51 | WYKEHAM | B I | YEATES HOLLOW, | C 1 | ZAEA | B |
| wIOTA | 81 | WOODROCK | C 1 | WYKOFF | B I | NONSTONY | 1 | zaca | 0 |
| WIPPLE | $C 1$ | MOODRO: | B 1 | WYMAN | P I | YEATES HOLLOM. DRY | C 1 | zacharias | B |
| WIRT | B I | MOODROW, | C 1 | WYMCRE | D I | YEATES HOLLOW, | $C 1$ | ZACHARY | C |
| WISCOW | D 1 | SALINE-ALkALI | 1 | WYNDMERE | B 1 | cobbly | 1 | zACK | D |
| *15E | $C 1$ | mooorow. | C 1 | WYNN | B 1 | YEATON | C 1 | zadog | 41 |
| WISEMAN | A 1 | OCCASIONALLY | 1 | WYNNVILLE | C 1 | YECROSS | A 1 | zADVAR | D |
| WISFLAT | D 1 | FLOODEO | 1 | WYNONA | C 1 | YEDLICK | B 1 | ZAFRA | B |

NOTES: TWO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE DRAINEDIUNDRAINED SITUATION.
MODIFIERS SHOWN. E.G.. BEDROCK SUBSTRATUM, REFEK TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGEND.


NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS E/C INDICATE THE DRAINED/UNDRAINED SITUATION. MODIFIERS SHOWN. E.G. BECROCK SUBSTRATUM. REFER TO A SPECIFIC SOIL SERIES PHASE FOUND IN SOIL MAP LEGENO.

Table 2-2.-Runoff depth for selected CN's and rainfall amounts'

| Rainfall | Runoff (Q) for curve number of- |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 |
|  |  |  |  |  | - | - - in | hes |  |  |  |  |  |
| 1.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.08 | 0.17 | 0.32 | 0.56 |
| 1.2 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 03 | . 07 | . 15 | . 27 | . 46 | . 74 |
| 1.4 | . 00 | . 00 | . 00 | . 00 | . 00 | . 02 | . 06 | . 13 | . 24 | . 39 | . 61 | . 92 |
| 1.6 | . 00 | . 00 | . 00 | . 00 | . 01 | . 05 | . 11 | . 20 | . 34 | . 52 | . 76 | 1.11 |
| 1.8 | . 00 | . 00 | . 00 | . 00 | . 03 | . 09 | . 17 | . 29 | . 44 | . 65 | . 93 | 1.29 |
| 2.0 | . 00 | . 00 | . 00 | . 02 | . 06 | . 14 | . 24 | . 38 | . 56 | . 80 | 1.09 | 1.48 |
| 2.5 | . 00 | . 00 | . 02 | . 08 | . 17 | . 30 | . 46 | . 65 | . 89 | 1.18 | 1.53 | 1.96 |
| 3.0 | . 00 | . 02 | . 09 | . 19 | . 33 | . 51 | . 71 | . 96 | 1.25 | 1.59 | 1.98 | 2.45 |
| 3.5 | . 02 | . 08 | . 20 | . 35 | . 53 | . 75 | 1.01 | 1.30 | 1.64 | 2.02 | 2.45 | 2.94 |
| 4.0 | . 06 | . 18 | . 33 | . 53 | . 76 | 1.03 | 1.33 | 1.67 | 2.04 | 2.46 | 2.92 | 3.43 |
| 4.5 | . 14 | . 30 | . 50 | . 74 | 1.02 | 1.33 | 1.67 | 2.05 | 2.46 | 2.91 | 3.40 | 3.92 |
| 5.0 | . 24 | . 44 | . 69 | . 98 | 1.30 | 1.65 | 2.04 | 2.45 | 2.89 | 3.37 | 3.88 | 4.42 |
| 6.0 | . 50 | . 80 | 1.14 | 1.52 | 1.92 | 2.35 | 2.81 | 3.28 | 3.78 | 4.30 | 4.85 | 5.41 |
| 7.0 | . 84 | 1.24 | 1.68 | 2.12 | 2.60 | 3.10 | 3.62 | 4.15 | 4.69 | 5.25 | 5.82 | 6.41 |
| 8.0 | 1.25 | 1.74 | 2.25 | 2.78 | 3.33 | 3.89 | 4.46 | 5.04 | 5.63 | 6.21 | 6.81 | 7.40 |
| 9.0 | 1.71 | 2.29 | 2.88 | 3.49 | 4.10 | 4.72 | 5.33 | 5.95 | 6.57 | 7.18 | 7.79 | 8.40 |
| 10.0 | 2.23 | 2.89 | 3.56 | 4.23 | 4.90 | 5.56 | 6.22 | 6.88 | 7.52 | 8.16 | 8.78 | 9.40 |
| 11.0 | 2.78 | 3.52 | 4.26 | 5.00 | 5.72 | 6.43 | 7.13 | 7.81 | 8.48 | 9.13 | 9.77 | 10.39 |
| 12.0 | 3.38 | 4.19 | 5.00 | 5.79 | 6.56 | 7.32 | 8.05 | 8.76 | 9.45 | 10.11 | 10.76 | 11.39 |
| 13.0 | 4.00 | 4.89 | 5.76 | 6.61 | 7.42 | 8.21 | 8.98 | 9.71 | 10.42 | 11.10 | 11.76 | 12.39 |
| 14.0 | 4.65 | 5.62 | 6.55 | 7.44 | 8.30 | 9.12 | 9.91 | 10.67 | 11.39 | 12.08 | 12.75 | 13.39 |
| 15.0 | 5.33 | 6.36 | 7.35 | 8.29 | 9.19 | 10.04 | 10.85 | 11.63 | 12.37 | 13.07 | 13.74 | 14.39 |

Interpolate the values shown to obtain runoff depths for CN's or rainfall amounts not shown.

Table 2-3a.—Runoff curve numbers for cultivated agricultural lands'
$\left.\begin{array}{lllllll}\hline & & & & & \\ \hline & \text { Cover description } & & & \text { Curve numbers for } \\ \text { hydrologic soil group- }\end{array}\right]$
${ }^{1}$ Average runoff condition.
${ }^{2}$ Crop residue cover (CR) applies only if residue is on at least $5 \%$ of the surface throughout the year.
${ }^{3}$ Hydrologic 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 $\geqslant 20 \%$ ), 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 2-3b.-Runoff curve numbers for other agricultural lands ${ }^{1}$

| Cover description |  |  | Curve numbers for <br> hydrologic soil group- |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cover type | Hydrologic <br> condition | A | B | C | D |

${ }^{1}$ Average runoff condition.
${ }^{2}$ Poor: $<50 \%$ 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.
${ }^{3}$ Poor: < $50 \%$ ground cover.
Fair: 50 to $75 \%$ ground cover.
Good: >75\% ground cover.
${ }^{4}$ Actual curve number is less than 30 ; use $\mathrm{CN}=30$ for runoff computations.
${ }^{5} \mathrm{CN}$ '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.
${ }^{6}$ Poor: Forest, litter, small trees, and brush have been 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 2-3c.-Runoff curve numbers for arid and semiarid rangelands'

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

[^3]| Cover description |  | Curve numbers for hydrologic soil group- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cover type and hydrologic condition | Average percent impervious area² | A | $B$ | C | D |
| Fully developed urban areas (vegetation established) |  |  |  |  |  |
| 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-ofway). |  | 98 | 98 | 98 | 98 |
| Streets and roads: |  |  |  |  |  |
| Paved; curbs and storm sewers (excluding right-ot-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 |
| Developing urban areas |  |  |  |  |  |
| Newly graded areas (pervious areas only, no vegetation) ${ }^{5}$. ........... . Idle lands (CN's are determined using cover types similar to those in table 2-2a). |  | 77 | 86 | 91 | 94 |

[^4]Table 2-4.-1a values for runoff curve numbers

| Curve <br> number | $\mathbf{l}_{\mathbf{a}}$ <br> (in) | Curve <br> number | $\mathbf{I}_{\mathbf{a}}$ <br> (in) |
| :---: | :---: | :---: | :---: |
| 40 | 3.000 | 68 | 0.941 |
| 41 | 2.878 | 69 | 0.899 |
| 42 | 2.762 | 70 | 0.857 |
| 43 | 2.651 | 71 | 0.817 |
| 44 | 2.545 | 72 | 0.778 |
| 45 | 2.444 | 73 | 0.740 |
| 46 | 2.348 | 74 | 0.703 |
| 47 | 2.255 | 75 | 0.667 |
| 48 | 2.167 | 76 | 0.632 |
| 49 | 2.082 | 77 | 0.597 |
| 50 | 2.000 | 78 | 0.564 |
| 51 | 1.922 | 79 | 0.532 |
| 52 | 1.846 | 80 | 0.500 |
| 53 | 1.774 | 81 | 0.469 |
| 54 | 1.704 | 82 | 0.439 |
| 55 | 1.636 | 83 | 0.410 |
| 56 | 1.571 | 84 | 0.381 |
| 57 | 1.509 | 85 | 0.353 |
| 58 | 1.448 | 86 | 0.326 |
| 59 | 1.390 | 87 | 0.299 |
| 60 | 1.333 | 88 | 0.273 |
| 61 | 1.279 | 89 | 0.247 |
| 62 | 1.226 | 90 | 0.222 |
| 63 | 1.175 | 91 | 0.198 |
| 64 | 1.125 | 92 | 0.174 |
| 65 | 1.077 | 93 | 0.151 |
| 66 | 1.030 | 94 | 0.128 |
| 67 | 0.985 | 95 | 0.105 |
|  |  |  |  |
|  |  |  |  |

Worksheet 1: Runoff curve number (CN)


## Worksheet 2: Time of concentration and peak discharge



## Estimating time of concentration

1. Data:

| Rainfall distribution type............................................. $=$ | (I, IA, II, III) |
| :---: | :---: |
| Drainage area . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . A A $=$ | ac |
| Runoff curve number . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . CN $=$ | (Worksheet 1) |
| Watershed slope . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Y Y = | \% |
| Flow length . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\boldsymbol{\ell}=$ | H |
| $T_{c}$ using $\ell, Y, C N$ and figure 2-27. . . | hrs |

or using equation 2-5
$T_{C}=\frac{\left.0^{0.8}\left[\frac{(1000}{C N}\right)-9\right]^{0.7}}{1140 Y^{0.5}}=\frac{()^{0.8}()^{0.7}}{1140()^{0.5}}=$ $\qquad$

Estimating peak discharge

1. Frequency

| Storm \#1 | Storm \#2 | Storm \#3 |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |

2. Rainfall, P (24-hour)
in

3. Initial abstraction, $I$
in
(Use CN with table 2-4)

4. Unit peak discharge $q_{u}$ cfs/ac/in

(Use $T_{c}$ and $I_{a} / P$ with exh:bit 2-11)
5. Runoff, Q
in

6. Peak discharge, $q_{p}$. cts (Where $q_{p}=q_{u} A Q$ )


[^0]:    NOTES: TWO MYOROLOGIC SOIL GRCUPS SUCH AS $5 / C$ INOICATE THE DRAINED/UNDRAINED SITUATION.
    MODIFIERS SHOWN. E.G. BEDROCK SUBSTRATUN. REFEN TO A SPEGIFIC SOIL SEPIES PHASE FOUND IN SOIL MAP LEGENO.

[^1]:    NOTES: TWO HYOROLOGIC SOIL GROUPS SUCH AS B/C INDICATE THE CRAINEDAUNRAINED SITUATION.

[^2]:    NOTES: TWO HYDROLOGIC SOIL GROUPS SUCH AS E/C INDICATE THE DRAINED/UNDRAINED SITUATION.

[^3]:    ' Average runoff condition. For rangelands in humid regions, use table 2-36.
    ${ }^{2}$ Poor: $<30 \%$ ground cover (litter, grass, and brush overstory).
    Fair: $30 \%$ to $70 \%$ ground cover.
    Good: $>70 \%$ ground cover.
    ${ }^{3}$ Curve numbers for group A have been developed only for desert shrub.

[^4]:    ${ }^{1}$ Average runoff condition.
    ${ }^{2}$ The 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.
    ${ }^{3} \mathrm{CN}$ 's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.
    ${ }^{4}$ Composite CN's for natural desert landscaping should be computed based on the impervious area ( $\mathrm{CN}=98$ ) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.
    ${ }^{5}$ Composite CN's to use for the design of temporary measures during grading and construction should be computed using the degree of development (impervious area percentage) and the CN's for the newiy graded pervious areas.

