

Carmen L. Santiago

USDA – NRCS

State Soil Scientist

# SOIL DATA MART

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# SOIL DATA MART

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- × Donde los usuarios pueden obtener la información de suelos oficial más actualizada, para cada uno de los catastros de suelos del área de interés:
  - + Datos e información en formato digital, u
  - + Originar una variedad de informes.

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Welcome to the NRCS Caribbean Area: Puerto Rico



**National Leadership Review for the Caribbean Area**

An NRCS National Leadership Review Team capped its review of the Caribbean Area with a meeting with USDA Deputy Under Secretary for Natural Resources Conservation Service, Arlen Lancaster, Conservation Districts CEO Krysta Harden, local NRCS employees, and the signing of a local conservation partnership agreement to manage resource conservation assessment project.

[...More Info](#)



**Signup Announced for 2008 Conservation Security Program**

Applications for the 2008 Conservation Security Program (CSP) will be accepted April 18 through May 16, 2008.

[...More Info](#)



**V.I. RC&D Selected for 2008 U.S. EPA Environmental Quality Award!**

The Virgin Islands Resource Conservation & Development Council, Inc. (V.I. RC&D) has been selected to receive a 2008 U.S. EPA Environmental Quality Award! The Council's award is in the category of Non-Profit Organization, Environmental or Community Group.

[...More Info](#)

**New San Germán Soil Survey Now Available**

The NRCS Caribbean Area is pleased to announce that the **Soil Survey of the San Germán Area, Southwestern Puerto Rico**, is now available. The new San Germán Soil Survey replaces the Soil Survey of the Lajas Valley Area issued in April 1965, which should no longer be used.

[...More Info](#)

**Puerto Rico Field Office Closures: Ponce, Loiza & Humacao**

The Natural Resources Conservation Service informs the public of office closures in Ponce, Loiza and Humacao counties. The Ponce office closure was effective on February 29, 2008; the Loiza & Humacao office closures were effective September 30, 2007.

[...More Info](#)

For additional information, please contact: [José A. Castro](#)

For comments about the website, please contact: [Julie Wright](#)

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources.

En la dirección electrónica del NRCS en el Área del Caribe, ([www.pr.nrcs.usda.gov/](http://www.pr.nrcs.usda.gov/)), selecciona la palabra "Soils" (Suelos)

**Information About:**

- ▶ Soils
- ▶ Water
- ▶ Air
- ▶ Plants
- ▶ Animals

**Information For:**

- ▶ Communities
- ▶ Farmers and Ranchers
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Web Soil Survey



## Search

Caribbean Area

Enter Keywords



## Technical Resources

- ▶ Agronomy
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- ▶ eFOTG
- ▶ Engineering
- ▶ Natural Resources Inventory
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## Caribbean Area Soils

Updated July 07, 2008

The Caribbean Area, comprised of Puerto Rico and the United States Virgin Islands, is part of the National Cooperative Soil Survey (NCSS) program. The National Cooperative Soil Survey (NCSS) is a nationwide partnership of federal, regional, state, and local agencies and institutions. This partnership works together to cooperatively investigate, inventory, document, classify, and interpret soils and to disseminate, publish, and promote the use of information about the soils of the United States and its trust territories. The activities of the NCSS are carried out on national, regional, and state levels.



**Web Soil Survey** is now better than ever! Originally launched in August 2005, the improved and enhanced version 2.0 is now available online. Based on user comments, [new features and enhancements](#) have been developed to make the program more responsive to its growing customer base. Some new features include a location marker, floating map unit descriptions, transparency layers, a topographic map layer, and the ability to create custom soil resource reports.

[New Mapping Tool Make](#)

USDA-NRCS introduces [MLRA](#) and Land Resource Areas (LLR) user interface that provides the user with the ability to print

that provides the user with the ability to search by Major Land Resource Areas (MLRA) and Land Resource Areas (LLR) user interface that provides the user with the ability to print Agriculture Handbook 296.

Con la barra a tu mano derecha, muevete y selecciona "Soil Data Mart"

## Caribbean Area Soils Information

Many of these reports require [Adobe Acrobat](#)

- [New San Germán Soil Survey Now Available!](#)
- [Soil Data Mart](#) - **The most current official soil information.** Determine and download soil tabular and spatial data for one soil survey area at a time. Generate a variety of reports for one soil survey area at a time.
- Instructions on how to use Soil Data Mart ([En Español](#))
- [Web Soil Survey](#) - Access to soil survey information is provided through maps. All text and tables relate to the map symbols and the areas delineated on these maps.
- [Representative Soil of Puerto Rico](#)
- [Representative Soil of the United States Virgin Islands](#)
- [General Soil Map of Puerto Rico](#)
- [General Soil Map of the United States Virgin Islands](#) (105KB)
- [Map of Caribbean Area Major Land Resource Areas](#) (42 KB)
- [Caribbean Area Soil Survey Status Map](#) (40 KB)
- [Highly Erodible Land \(HEL\) Definitions](#)
- [Hydric Soils Criteria Definitions](#)

Welcome to the Soil Data Mart! The Soil Data Mart allows you to:

- Determine where soil tabular and spatial data is available.
- Download data for one soil survey area at a time. (Download requests for more than one survey area at a time can be submitted through the [Geospatial Data Gateway](#). Going through the Geospatial Data Gateway also provides the option to obtain data on CD or DVD.)
- Download a template Microsoft Access® database for working with downloaded data.
- Generate a variety of reports for one soil survey area at a time.
- Find out who to contact for information about soil data for a particular state.
- "Subscribe" or "unsubscribe" to a soil survey area. A person who is subscribed will automatically be notified whenever data for that soil survey area is updated. You must register and login before doing this.

alternative presentation of the soil survey area data contained in the Soil Data Mart, in the form of maps and survey area manuscripts, when they are available through [Web Soil Survey](#).



Before you start, see [Soil Data Mart - Purpose and Procedures \(2579K\)](#).

Selecciona el  
estado o  
territorio de  
interés

Select State

The Soil Data Mart may be unavailable on Tuesdays and Thursdays from 6:30 to 8:30 p.m. Mountain time due to maintenance activities.

The Soil Data Mart has been tested under Mozilla Firefox® 1.0 and later, Microsoft Internet Explorer® 5.0 and later, and Netscape Navigator® 4.7 and later for Microsoft Windows®. There are differences in site navigation and mechanics under different versions of these browsers. Some differences are more significant than others. There are some major differences under Netscape Navigator® 4.7 and 4.8. For details on site navigation and mechanics under different versions of these browsers, please see [Navigating and Using the Soil Data Mart](#) on the [Soil Data Mart Help page](#).

The Soil Data Mart provides an entry point to allow its pages to be integrated easily into other web sites. [Get detailed information.](#)

Please select a state or territory with at least one survey area:

State or Territory Code	State or Territory Name	Available Survey Areas
OR	Oregon	37
PA	Pennsylvania	61
RI	Rhode Island	1
SC	South Carolina	48
SD	South Dakota	66
TN	Tennessee	92
TX	Texas	232
UT	Utah	32
VT	Vermont	14
VA	Virginia	87
WA	Washington	43
WV	West Virginia	42
WI	Wisconsin	69
WY	Wyoming	34
PR	Puerto Rico	6
VI	Virgin Islands	1
AS	American Samoa	1
FM	Federated States of Micronesia	
GU	Guam	
MH	Marshall Islands	
MP	Northern Mariana Islands	
PW	Palau	1

**1. Selecciona a Puerto Rico**

**2. Selecciona el Catastro o Estudios de Suelos.**

Select County

Select Survey Area

1. Selecciona el Catastro de interés.

Please select a soil survey area:

Survey Area Symbol	Survey Area Name	Available Data
PR682	Arecibo Area, Puerto Rico Northern Part	Tabular and Spatial*
PR684	Mayaguez Area, Puerto Rico Western Part	Tabular and Spatial*
PR686	San Juan Area, Puerto Rico	Tabular and Spatial*
PR687	Lajas Valley Area, Puerto Rico	Tabular and Spatial*
PR688	Ponce Area, Puerto Rico Southern Part	Tabular and Spatial*
PR689	Humacao Area, Puerto Rico Eastern Part	Tabular and Spatial*

2. Para obtener los datos y formato digital.

\*Mapping for this survey area is still in progress, and the corresponding spatial and tabular data are not yet complete.

- View Metadata
- Download Data
- Generate Reports
- Subscribe
- Select State
- Select County

1. Automáticamente, tendrás una selección escogida, o puedes modificarla.

http://soildatamart.nrcs.usda.gov/Download.aspx?Survey=PR682&UseState=PR

United States Department of Agriculture  
**NRCS** Natural Resources Conservation Service  
Puerto Rico

Select State State Contacts Template Databases SSURGO Metadata Status Map US General Soil Map Logon/Register Help

Soil Data Mart

Please select the class of data you wish to download: ( Survey Area Version 7 , Tabular Version 6 , Spatial Version 2 )

Tabular Data Only  Tabular and Spatial Data  Spatial Data Only  Template Database Only

Please select a spatial format: ArcView Shapefile

Please select a coordinate system: UTM Zone 19, Northern Hemisphere (NAD 83)

Reset Default

Please select a template database (optional): Clear Selection

State	MS Access Version	Template DB Version	Template DB Name	Size
US	Access 2002	33	soildb_US_2002	1.7M
US	Access 2000	33	soildb_US_2000	1.7M
US	Access 97	32	soildb_US_97	1.4M
AK	Access 2002	32.15	soildb_AK_2002	2.5M

**Description:** This is the national SSURGO Template Database for Microsoft Access 2002/2003. This database should be used only when no state specific customized SSURGO Template Database is available. This database is compatible with Soil Data Viewer 5.1.

Please enter your e-mail address: carmen.santiago@pr.usda.gov

If the e-mail account entered above is protected by spam blocking software, you will need to authorize e-mail from SoilDataMart@nrcs.usda.gov in order to receive e-mail notification once you receive your data.

Submit Request

Select Survey Area View Metadata Generate Reports Subscribe

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Please select the class of data you wish to download: ( Survey Area Version 7 , Tabular Version 6 , Spatial Version 2 )  
 Tabular Data Only  Tabular and Spatial Data  Spatial Data Only  Template Database Only

Please select a spatial format: ArcView Shapefile Please select a coordinate system: UTM Zone 19, Northern Hemisphere (NAD 83) Reset Default

Please select a state:

State	Description
US	
US	
US	
AK	

**Microsoft Internet Explorer**

 Your request has been logged and is currently number 15 in the queue. You will be notified via e-mail as soon as your request has finished being processed.

The time needed to process a download request varies based on which spatial format option was selected, if any, and whether or not a download for the survey area in question is already cached. The overall average time required to process a download request is 1.2 minutes. Therefore, to estimate your wait time, in minutes, multiply your initial queue position by 1.2. Please keep in mind that this is only an estimate. Please also remember that downloads are not processed from 10:00 PM to 6:00 AM, Mountain Time Zone.

OK

Recibirás un mensaje de que tu pedido ha sido procesado.

Please enter your e-mail address:  
carmen.santiago@pr.usda.gov

If the e-mail account entered above is protected by spam blocking software, you will need to add SoilDataMart@nrcs.usda.gov in order to receive e-mail notification once your request has been processed.

Select Survey Area Submit Request See Disclaimer View Metadata Generate Reports Subscribe



From: SoilDataMart@nracs.usda.gov  
To: Santiago, Carmen - San Juan, PR  
Cc:  
Subject: Soil Data Mart export notification

Sent: Wed 11/3/2010 2:29 PM

The export file requested for [carmen.santiago@pr.usda.gov](mailto:carmen.santiago@pr.usda.gov) is available at  
[ftp://soildatamart-export.sc.egov.usda.gov/export/e\\_1386968/soil\\_pr682.zip](ftp://soildatamart-export.sc.egov.usda.gov/export/e_1386968/soil_pr682.zip)

(If hot links are not supported, cut and paste the URL into your browser's address line).

Export Zip File Size: 13612 KB

The export contains the following soil survey area (SSA) data:

SSA Symbol: PR682  
SSA Name: Arecibo Area, Puerto Rico Northern Part  
SSA Version: 8  
SSA Version Est.: 8/19/2008 7:00:58 AM  
Tabular Data Version: 6  
Tabular Version Est.: 12/26/2006 12:35:07 PM  
Spatial Data Version: 2  
Spatial Version Est.: 2/15/2006 9:38:01 AM  
Spatial Format: ArcView Shapefile  
Coordinate System: UTM Zone 19, Northern Hemisphere (NAD 83)

This export file will be removed from the FTP server 10 days after the date of this notice.

After the export file has been copied to your PC, it must be unzipped using either WinZip or some equivalent application. For additional information, please see the file named "readme.txt" in the root directory of the directory structure that was created by unzipping the original export file.

The export also contains the following MS Access SSURGO template database:

Template DB Name: soildb\_US\_2002.mdb  
Template DB Version: 33.1  
Template DB State: US  
MS Access Version: Access 2002

(1386968:DRACO)

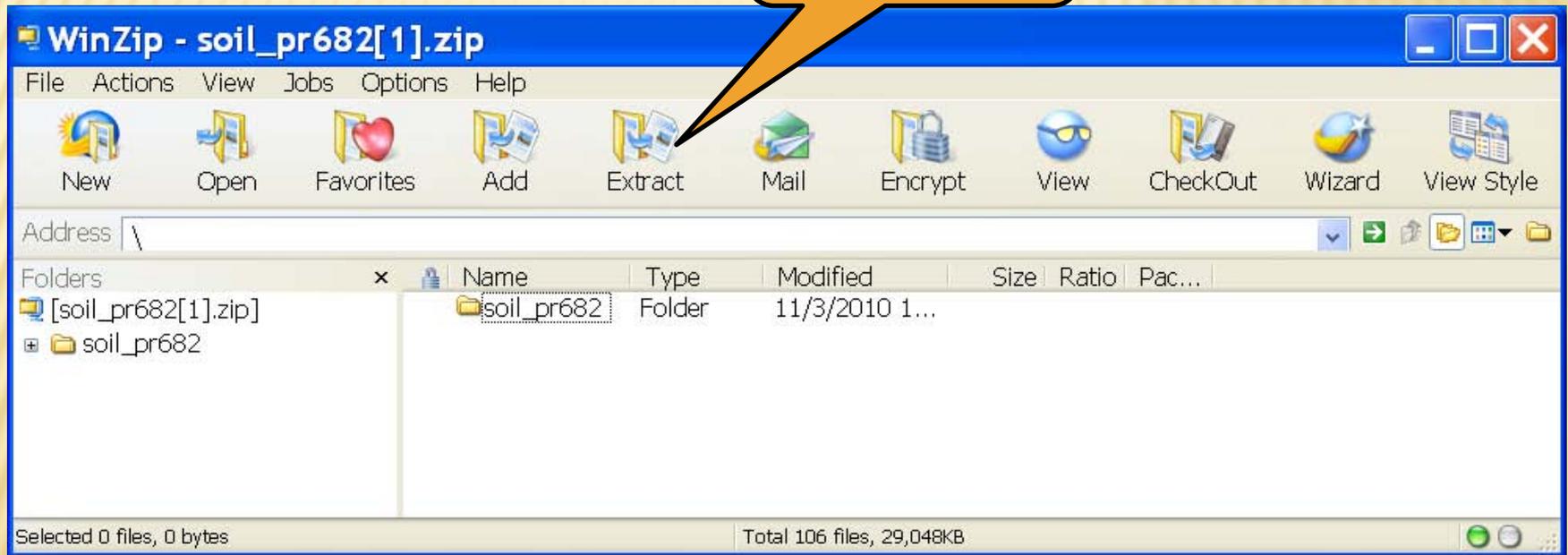
(1386968:391537:DRACO\DRACO)

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Recibirás un correo electrónico que te indica donde obtener la información. La misma está en un "zip file".

Puedes extraer  
la información.



## File Download



Do you want to open or save this file?



Name: soil\_pr682.zip

Type: WinZip File

From: soildatamart-export.sc.egov.usda.gov

Open

Save

Cancel

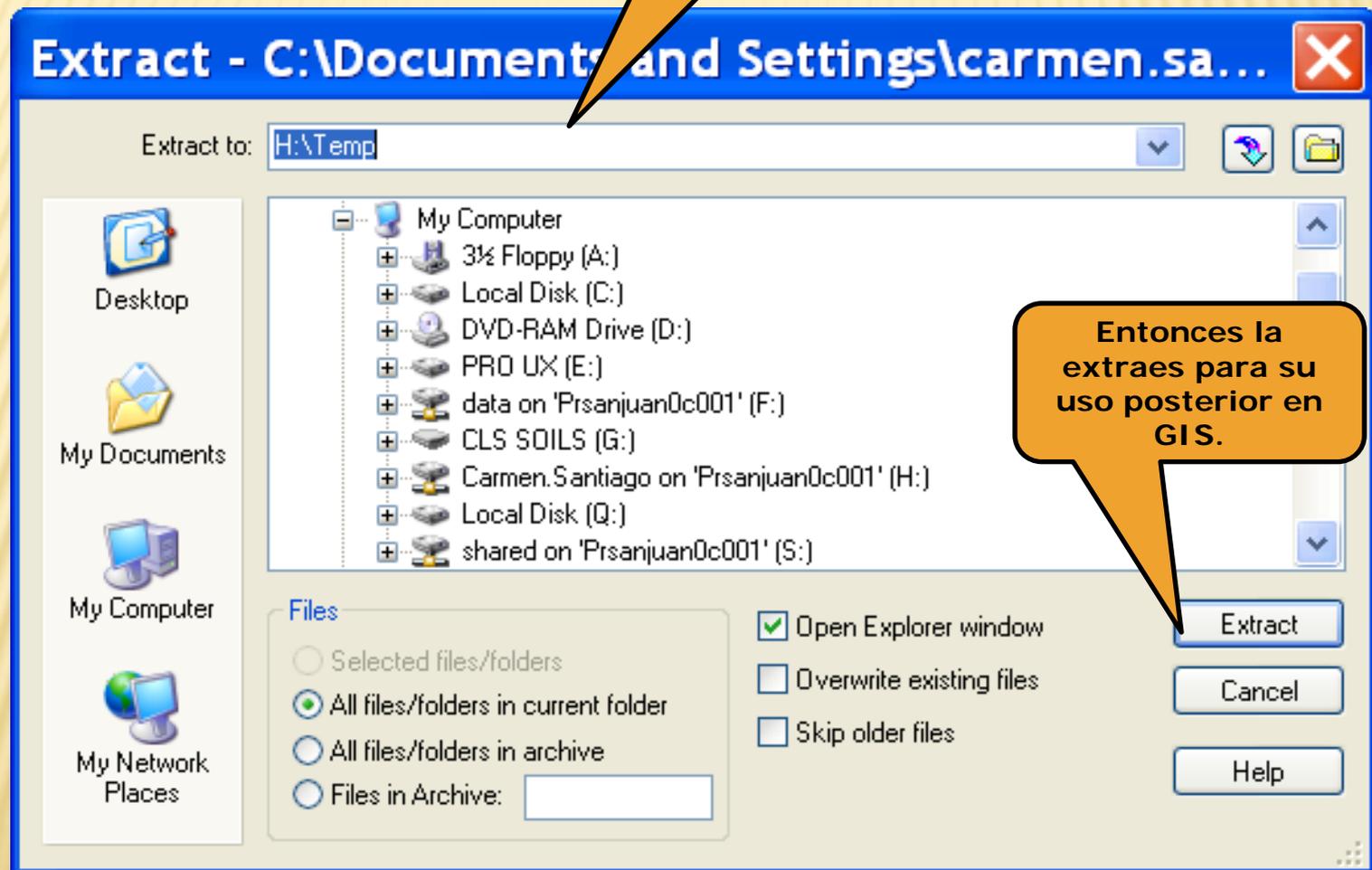
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Puedes abrir o guardar la información.

Recuerda donde guardaste la información.



Entonces la extraes para su uso posterior en GIS.

Please select a soil survey area:

Survey Area Symbol	Survey Area Name	Available Data
PR682	Arecibo Area, Puerto Rico Northern Part	Tabular and Spatial*
PR684	Mayaguez Area, Puerto Rico Western Part	Tabular and Spatial*
PR686	San Juan Area, Puerto Rico	Tabular and Spatial*
PR687	Lajas Valley Area, Puerto Rico	Tabular and Spatial*
PR688	Ponce Area, Puerto Rico Southern Part	Tabular and Spatial*
PR689	Humacao Area, Puerto Rico Eastern Part	Tabular and Spatial*

**También puedes solicitar informes.**

\*Mapping for this survey area is still in progress, and the corresponding spatial and tabular data are not yet complete.

View Metadata Download Data Generate Reports Subscribe  
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Commonly Used Soil Properties by Report (11K)

This report lists some of the more commonly used soil properties, and the report(s) in which each soil property is displayed.

Please select the map units that you would like to report on:

Map Unit Symbol	Map Unit Name
AaC	Aceitunas sandy clay loam, 5 to 12 percent slopes
AcC	Aceitunas clay, 5 to 12 percent slopes
AdF2	Adjuntas clay, 40 to 60 percent slopes, eroded
AgC	Algarrobo fine sand, 2 to 12 percent slopes
AlB	Almirante sandy loam, 2 to 5 percent slopes
AlC	Almirante sandy loam, 5 to 12 percent slopes
AmB	Almirante sandy clay loam, 2 to 5 percent slopes
AmC	Almirante sandy clay loam, 5 to 12 percent slopes
AnB	Almirante sandy loam, 2 to 5 percent slopes
AnC	Almirante sandy loam, 5 to 12 percent slopes
AoD2	Arecibo fine sand, 2 to 12 percent slopes
AoE2	Arecibo fine sand, 2 to 12 percent slopes
AoF2	Arecibo fine sand, 2 to 12 percent slopes
ArC	Arecibo fine sand, 2 to 12 percent slopes

**Puedes seleccionar todas las unidades cartográficas de suelo.**

Select All Selection Help Clear Selections

Please select the report that you would like to generate:

Acreage and Proportionate Extent of the Soils View Description

Include Minor Soils  Include Description  Rich Text Format

Generate Report See Disclaimer

Select Survey Area View Metadata Download Data Subscribe

In order to view any report, popup blocking must be disabled. In order to view a report in browser must be configured to use a PDF viewer (such as Adobe® Reader® software).

También seleccionar una o varias unidades cartográficas, utilizando el botón de "Ctrl" de tu teclado.



[Commonly Used Soil Properties by Report \(11K\)](#)

This report lists some of the more commonly used soil properties, and the report(s)

Please select the map units that you would like to report on:

Map Unit Symbol	Map Unit Name
AaC	Aceitunas sandy clay loam, 5 to 12 percent slopes
AcC	Aceitunas clay, 5 to 12 percent slopes
AdF2	Adjuntas clay, 40 to 60 percent slopes, eroded
AgC	Algarrobo fine sand, 2 to 12 percent slopes
AlB	Almirante sandy loam, 2 to 5 percent slopes
AlC	Almirante sandy loam, 5 to 12 percent slopes
AmB	Almirante sandy clay loam, 2 to 5 percent slopes
AmC	Almirante sandy clay loam, 5 to 12 percent slopes
AnB	Almirante clay, 2 to 5 percent slopes
AnC	Almirante clay, 5 to 12 percent slopes
AoD2	Alonso clay, 12 to 20 percent slopes, eroded
AoE2	Alonso clay, 20 to 40 percent slopes, eroded
AoF2	Alonso clay, 40 to 60 percent slopes, eroded
ArC	Arecibo fine sand, 2 to 12 percent slopes

Select All

Selection Help

Clear Selections

Please select the report that you would like to generate:

Acreage and Proportionate Extent of the Soils

View Description

Include Minor Soils

Include Description

Rich Text Format

Generate Report

See Disclaimer

Select Survey Area

View Metadata

Download Data

Subscribe



In order to view any report, popup blocking must be disabled. In order to view a report in PDF format (the default format), your browser must be configured to use a PDF viewer (such as Adobe® Reader® software).



[Commonly Used Soil Properties by Report \(11K\)](#)

This report lists some of the more commonly used soil properties, and the report(s) in which each soil property is displayed.

Please select the map units that you would like to report on:

Map Unit Symbol	Map Unit Name
<input type="checkbox"/>	AaC Aceitunas sandy clay loam, 5 to 12 percent slopes
<input type="checkbox"/>	AcC Aceitunas clay, 5 to 12 percent slopes
<input type="checkbox"/>	AdF2 Adjuntas clay, 40 to 60 percent slopes, eroded
<input type="checkbox"/>	AgC Algarrobo fine sand, 2 to 12 percent slopes
<input type="checkbox"/>	AlB Almirante sandy loam, 2 to 5 percent slopes
<input type="checkbox"/>	AlC Almirante sandy loam, 5 to 12 percent slopes
<input type="checkbox"/>	AmB Almirante sandy clay loam, 2 to 5 percent slopes
<input type="checkbox"/>	AmC Almirante sandy clay loam, 5 to 12 percent slopes
<input type="checkbox"/>	AnB Almirante clay, 2 to 5 percent slopes
<input type="checkbox"/>	AnC Almirante clay, 5 to 12 percent slopes
<input type="checkbox"/>	AoD2 Alonso clay, 12 to 20 percent slopes, eroded
<input type="checkbox"/>	AoE2 Alonso clay, 20 to 40 percent slopes, eroded
<input type="checkbox"/>	AoF2 Alonso clay, 40 to 60 percent slopes, eroded
<input type="checkbox"/>	ArC Arecibo fine sand, 2 to 12 percent slopes

Puedes escoger el reporte deseado.

Select All Selection Help Clear Selections

Please select the report that you would like to generate:

Hydric Soils View Description

Include Minor Soils  Include Description  Rich Text Format

Generate Report See Disclaimer  
Select Survey Area View Metadata Download Data Subscribe

## Hydric Soils

Arecibo Area, Puerto Rico Northern Part

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
<b>AIB:</b>					
Almirante sandy loam, 2 to 5 percent slopes	Bajura	2	Depressions	Yes	2B3
<b>AmB:</b>					
Almirante sandy clay loam, 2 to 5 percent slopes	Bajura	2	Depressions	Yes	2B3
<b>AnB:</b>					
Almirante clay, 2 to 5 percent slopes	Bajura	2	Depressions	Yes	2B3
<b>Ba:</b>					
Bajura clay	Bajura	100	Flood plains	Yes	2B3
<b>CeC:</b>					
Carrizales fine sand, 2 to 12 percent slopes	Jareales	2	Coastal plains	Yes	2B3, 4
<b>Cf:</b>					
Catano sand	Reparada	2	Coastal plains	Yes	2B3, 4
<b>Cg:</b>					
Coastal beaches	Hydraquents	2	Tidal flats	Yes	2B3, 3, 4
<b>Cn:</b>					
Coloso silty clay	Bajura	10	Flood plains	Yes	2B3
<b>CrC:</b>					
Corozal clay, 5 to 12 percent slopes	Bajura	4	Depressions	Yes	2B3

## Hydric Soils

Arecibo Area, Puerto Rico Northern Part

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Vg: Vigia muck	Vigia	100	Depressions	Yes	1, 4
Vm: Vivi loam	Bajura	2	Flood plains	Yes	2B3

### Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
  - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
  - B. are poorly drained or very poorly drained and have either:
    - 1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
    - 2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
    - 3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

## Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and Vasilas, 2006).

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

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

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

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

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

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

The criteria for hydric soils are represented by codes in the table (for example, 2B3). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folistels.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
  - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
  - B. are poorly drained or very poorly drained and have either:
    - 1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
    - 2) a water table at a depth of 0.5 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or

Please select at least 1, but no more than 3 are included in your report.

**1. Puedes seleccionar hasta un máximo de tres informes, usando el botón de "Ctrl".**

Soil Interpretation
ENG - Construction Materials; R
ENG - Construction Materials; S
ENG - Construction Materials; T
ENG - Daily Cover for Landfill
ENG - Dwellings W/O Basements
ENG - Lawn, Landscape, Golf Fairway
ENG - Local Roads and Streets
ENG - Sanitary Landfill (Area)
ENG - Sanitary Landfill (Trench)
ENG - Septic Tank Absorption Fields
ENG - Sewage Lagoons
ENG - Shallow Excavations
ENG - Small Commercial Buildings
MIL - Bivouac Areas (DOD)
MIL - Excavations Crew-Served Weapon Fighting Position (DOD)
MIL - Excavations for Individual Fighting Position (DOD)
MIL - Excavations for Vehicle Fighting Position (DOD)
MIL - Helicopter Landing Zones (DOD)
MIL - Trafficability Veh. Type 1, 1-pass wet season (DOD)

Report Title (<= 80 characters):  
Selected Soil Interpretations

1st Selected Soil Interpretation Column Heading (<= 80 characters):  
ENG - Sanitary Landfill (Area)

2nd Selected Soil Interpretation Column Heading (<= 80 characters):  
ENG - Sanitary Landfill (Trench)

3rd Selected Soil Interpretation Column Heading (<= 80 characters):  
ENG - Septic Tank Absorption Fields

**2. Presiona aquí, para que obtengas el informe.**

Selection Help  
 Include Minor Soils  
 Include Description  
 Rich Text Format

**Generate Report** Cancel

## Selected Soil Interpretations

Arecibo Area, Puerto Rico Northern Part

**Obtendrás el informe solicitado.**

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

\*This soil interpretation was designed as a "limitation" as opposed to a "suitability". The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation.

Map symbol and soil name	Pct. of map unit	ENG - Sanitary Landfill (Area) *		ENG - Sanitary Landfill (Trench) *		ENG - Septic Tank Absorption Fields *	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>AcC:</b>							
Aceitunas	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Too clayey	0.50	Slow water movement	0.50
				Slope	0.04	Slope	0.04
<b>AdF2:</b>							
Adjuntas	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
				Too clayey	0.50	Slow water movement	0.50
<b>AgC:</b>							
Algarrobo	100	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Too clayey	1.00	Slow water movement	0.82



In order to view any report, popup blocking must be disabled. In order to view a report in PDF format (the default format), your browser must be configured to use a PDF viewer (such as Adobe® Reader® software).



[Commonly Used Soil Properties by Report \(11K\)](#)

This report lists some of the more commonly used soil properties, and the report(s) in which each soil property is displayed.

Please select the map units that you would like to report on:

Map Unit Symbol	Map Unit Name
AaC	Aceitunas sandy clay loam, 5 to 12 percent slopes
AcC	Aceitunas clay, 5 to 12 percent slopes
AdF2	Adjuntas clay, 40 to 60 percent slopes, eroded
AgC	Algarrobo fine sand, 2 to 12 percent slopes
AlB	Almirante sandy loam, 2 to 5 percent slopes
AlC	Almirante sandy loam, 5 to 12 percent slopes
AmB	Almirante sandy clay loam, 2 to 5 percent slopes
AmC	Almirante sandy clay loam, 5 to 12 percent slopes
AnB	Almirante clay, 2 to 5 percent slopes
AnC	Almirante clay, 5 to 12 percent slopes
AoD2	Alonso clay, 12 to 20 percent slopes, eroded
AoE2	Alonso clay, 20 to 40 percent slopes, eroded
AoF2	Alonso clay, 40 to 60 percent slopes, eroded
ArC	Arecibo fine sand, 2 to 12 percent slopes

Select All

Solicita el informe.

Clear Selections

Please select the report that you would like to generate:

Camp Areas, Picnic Areas, and Playgrounds

View Description

Include Minor Soils

Include Descriptions

Rich Text Format

Generate Report

See Disclaimer

Select Survey Area

View Metadata

Download Data

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**Obtendrás el informe solicitado**

## Camp Areas, Picnic Areas, and Playgrounds

Arecibo Area, Puerto Rico Northern Part

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>AcC:</b>							
Aceitunas	100	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
<b>AdF2:</b>							
Adjuntas	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50	Too clayey	0.50	Depth to bedrock	0.80
		Slow water movement	0.26	Slow water movement	0.26	Too clayey	0.50
						Slow water movement	0.26
<b>AgC:</b>							
Algarrobo	100	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
						Slope	1.00

**In order to view any report, popup blocking must be disabled. In order to view a report in PDF format (the default format), your browser must be configured to use a PDF viewer (such as Adobe® Reader® software).**



Commonly Used Soil Properties by Report (11K)

This report lists some of the more commonly used soil properties, and the report(s) in which each soil property is displayed.

Please select the map units that you would like to report on:

Map Unit Symbol	Map Unit Name
AaC	Aceitunas sandy clay loam, 5 to 12 percent slopes
AcC	Aceitunas clay, 5 to 12 percent slopes
AdF2	Adjuntas clay, 40 to 60 percent slopes, eroded
AgC	Algarrobo fine sand, 2 to 12 percent slopes
AlB	Almirante sandy loam, 2 to 5 percent slopes
AlC	Almirante sandy loam, 5 to 12 percent slopes
AmB	Almirante sandy clay loam, 2 to 5 percent slopes
AmC	Almirante sandy clay loam, 5 to 12 percent slopes
AnB	Almirante sandy clay loam, 5 to 12 percent slopes
AnC	Almirante sandy clay loam, 5 to 12 percent slopes
AoD2	Almirante sandy clay loam, 5 to 12 percent slopes, eroded
AoE2	Almirante sandy clay loam, 5 to 12 percent slopes, eroded
AoF2	Almirante sandy clay loam, 5 to 12 percent slopes, eroded
ArC	Almirante sandy clay loam, 5 to 12 percent slopes

**Puedes añadir la descripción a tu informe, al marcar el cuadrito.**

**Otra manera de solicitar la descripción del informe.**

Select All

Selection Help

Clear Selection

Please select the report that you would like to generate:

Camp Areas, Picnic Areas, and Playgrounds

View Description

Include Minor Soils

Include Description

Rich Text Format

Generate Report

See Disclaimer

Select Survey Area

View Metadata

Download Data

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Ejemplo de la descripción.

## Camp Areas, Picnic Areas, and Playgrounds

The soils of the survey area are rated in this table according to limitations that affect their suitability for camp areas, picnic areas, and playgrounds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

"Camp areas" require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, Ksat, and toxic substances in the soil.

"Picnic areas" are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, Ksat, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, Ksat, and toxic substances in the soil.

# **IGUALDAD DE OPORTUNIDADES**

**El Departamento de Agricultura de los Estados Unidos, USDA por sus siglas en Inglés, prohíbe el discrimen en todos sus programas y actividades por razones de raza, color, origen nacional, edad, incapacidad, y donde aplique, por razones de sexo, estado civil, estado familiar, estado parental, religión, orientación sexual, información genética, creencias políticas, reprimendas, o debido a que parte o la totalidad del ingreso de la persona se derive de cualquier programa público de asistencia. (No todas las prohibiciones aplican a todos los programas). Las personas con impedimentos que requieran métodos alternos de comunicación (Braille, impresos con letras de mayor tamaño, audio cintas, etc.) deberán referirse al Centro TARGET del USDA al (202) 720-2600 (voz y TDD).**

**Para radicar una querrela por discrimen escriba al USDA, Director, Oficina de Derechos Civiles, 1400 Independence Avenue, S.W. Washington, D.C. 20250-9410 o llame, libre de cargos al (800) 795-3272 (voz) o al (202) 720-6382 (TDD).**