

2011 Maryland Soil Survey Work Planning Conference

Soil Tools (Soil Data Mart, SSURGO Data, Soil Data Viewer and Training Needs

James Brewer

Resource Soil Scientist

USDA-NRCS

Objectives

- **Use Soil Data Mart to download soils data**
- **Describe the SSURGO template**
- **Describe Soil Data Viewer and explain how it can be used to develop soil maps and reports**

Soil Data Mart

- Official repository of soil information
- Contains the most up-to-date version of every SSURGO certified soil survey
- Download spatial and tabular data in common GIS-ready formats for approximately 3000 soil survey areas across the US
- <http://soildatamart.nrcs.usda.gov/>

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

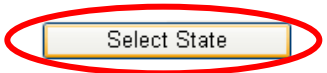
- Determine where soil tabular and spatial data is available.
- Download data for one soil survey area at a time. (Download requests for more than one survey area at a time can be submitted through the [Geospatial Data Gateway](#). Going through the Geospatial Data Gateway also provides the option to 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.

An alternative presentation of the soil survey area data contained in the Soil Data Mart, including on screen or printed soil maps and survey area manuscripts, when they exist for the corresponding survey area, is available through [Web Soil Survey](#).



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

Please either select from the list of options across the top of the page, or to request a download or generate reports, begin by selecting a state or territory.



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
AL	Alabama	67
AK	Alaska	30
AZ	Arizona	43
AR	Arkansas	66
CA	California	109
CO	Colorado	66
CT	Connecticut	1
DC	District of Columbia	1
DE	Delaware	3
FL	Florida	70
GA	Georgia	95
HI	Hawaii	7
ID	Idaho	47
IL	Illinois	102
IN	Indiana	92
IA	Iowa	99
KS	Kansas	105
KY	Kentucky	84
LA	Louisiana	64
ME	Maine	17
MD	Maryland	25
MA	Massachusetts	19

Select County

Select Survey Area

Please select a soil survey area:

Survey Area Symbol	Survey Area Name	Available Data
MD001	Allegany County, Maryland	Tabular and Spatial
MD003	Anne Arundel County, Maryland	Tabular and Spatial
MD005	Baltimore County, Maryland	Tabular and Spatial
MD009	Calvert County, Maryland	Tabular and Spatial
MD011	Caroline County, Maryland	Tabular and Spatial
MD013	Carroll County, Maryland	Tabular and Spatial
MD015	Cecil County, Maryland	Tabular and Spatial
MD017	Charles County, Maryland	Tabular and Spatial
MD019	Dorchester County, Maryland	Tabular and Spatial
MD021	Frederick County, Maryland	Tabular and Spatial
MD023	Garrett County, Maryland	Tabular and Spatial
MD027	Howard County, Maryland	Tabular and Spatial
MD029	Kent County, Maryland	Tabular and Spatial
MD031	Montgomery County, Maryland	Tabular and Spatial
MD033	Prince George's County, Maryland	Tabular and Spatial
MD035	Queen Anne's County, Maryland	Tabular and Spatial
MD037	St. Mary's County, Maryland	Tabular and Spatial
MD039	Somerset County, Maryland	Tabular and Spatial
MD041	Talbot County, Maryland	Tabular and Spatial
MD043	Washington County, Maryland	Tabular and Spatial

View Metadata

Download Data

Generate Reports

Subscribe

Select State

Select County



Please select the class of data you wish to download: (Survey Area Version 8 , Tabular Version 8 , Spatial Version 7)

- 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 18, 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	33.1	soildb_US_2002	1.7M
	US	Access 2002	33.1	soildb_NPS_2002	2.5M
	US	Access 2000	33.1	soildb_US_2000	1.7M
	US	Access 97	32	soildb_US_97	1.4M

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.

8-1-07 Three irrigation reports were added for use with 7 new national irrigation rules.
Irrigation - General and Sprinkler
Irrigation - Micro
Irrigation - Surface

Please enter your e-mail address:

amanda.mccr@md.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 your request has been processed.

Select Survey Area

Submit Request

See Disclaimer

View Metadata

Generate Reports

Subscribe

Other Things to do in SDM

- Read the metadata associated with a soil survey
 - See how the data were created and when the data was last updated
- Generate tabular reports
- Subscribe to a soil survey area
 - Get notified when the dataset changes

What is SSURGO data?

- The **Soil Survey Geographic (SSURGO)** database includes soil maps, attribute data, and metadata for a soil survey area in digital format
- Spatial data are provided as ESRI shapefiles, coverages, or e00 files in UTM, State Plane, or Geographic Coordinates
- Attribute (tabular) data are provided as a series of text files that can be imported into the “SSURGO Template”
 - A **MS Access** database that builds relationships between tables and contains a series of reports and queries

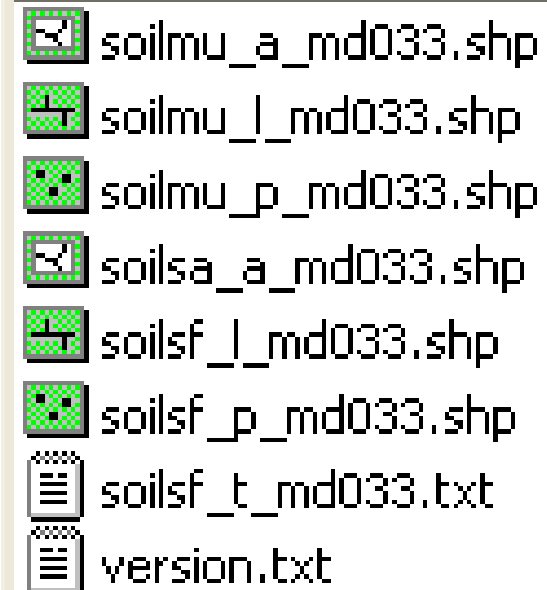
SSURGO Data Files

- **Soil_MD033**
 - **Spatial**
 - **Tabular**
 - **readme.txt**
 - **soil_metadata_md033.txt**
 - **soil_metadata_md033.xml**
 - **soildb_US_2002.zip**



SSURGO Data Files

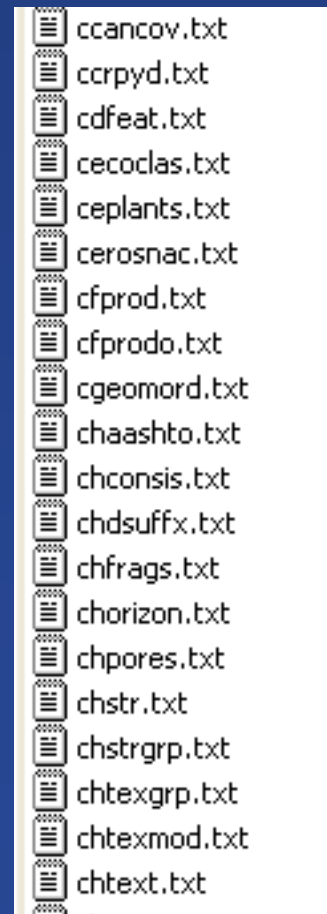
- **Spatial**
 - **Soil map unit polygons**
 - soilmu_a_md033
 - **Soil map unit lines***
 - soilmu_l_md033
 - **Soil map unit points***
 - soilmu_p_md033
 - **Soil survey area boundary**
 - soilsa_a_md033
 - **Special feature lines**
 - soilsf_l_md033
 - **Special feature points**
 - soilsf_p_md033



**Typically empty*

SSURGO Data Files

- **Tabular**
 - Contains a series of text files that include **all of the attribute data** associated with a soil survey area
 - Can be **opened in Excel**
 - Recommend importing text files into the SSURGO template

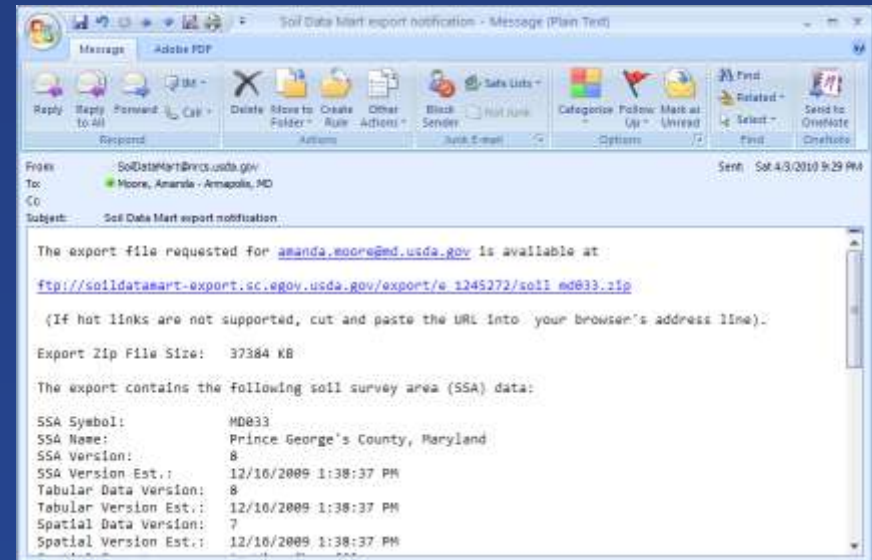


SSURGO Template

- **MS Access database that...**
 - Builds relationships between tables
 - Contains a series of reports and queries
 - Write custom queries
 - Join results to spatial data (**via MUKEY**)
- **Provided with Soil Data Mart download**

Preparing SSURGO Data

- Order soil data from Soil Data Mart
- After the order is processed, follow the link in the notification email
- Save the zip file to your data directory

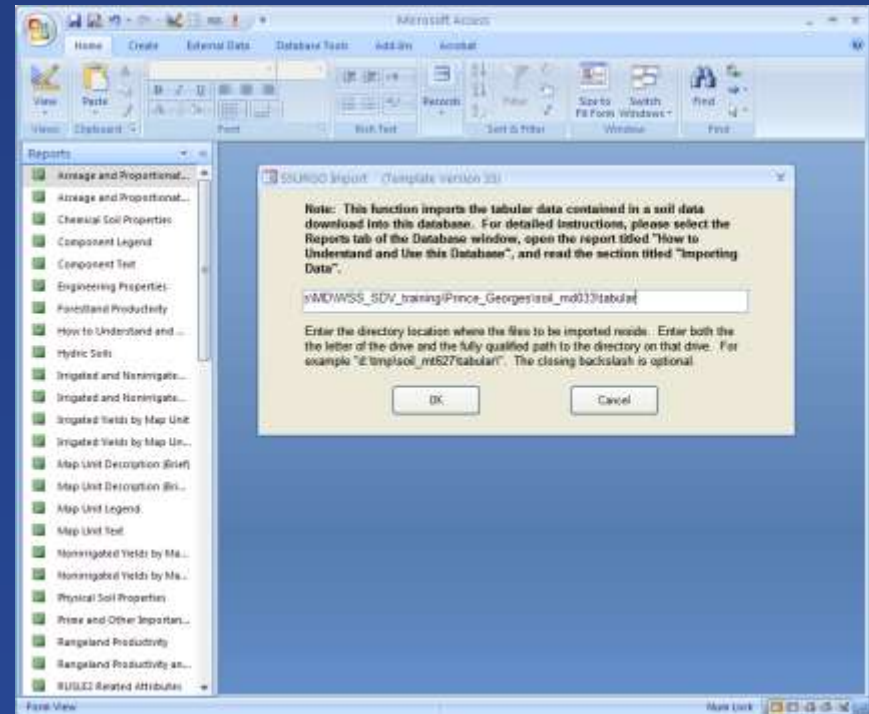


Preparing SSURGO Data

- Unzip the *.zip file (soil_md033.zip) using WinZip or other archiving software
- Unzip the **empty SSURGO template** database (soildb_US_2002.zip) and **rename** it something unique (e.g., md033_soildb_4_2010.mdb)

Preparing SSURGO Data

- **Double-click** on the SSURGO template database md033_soildb_4_2010.mdb to start the Import process
- Type (or copy) the **path to the Tabular** folder into the SSURGO Import window and click **OK**



Microsoft Access

Home Create External Data Database Tools Add-Ins Acrobat

Views Clipboard Font Rich Text Records Sort & Filter Window Find

Reports

- Acree and Proportionat...
- Acree and Proportionat...
- Chemical Soil Properties
- Component Legend
- Component Text
- Engineering Properties
- Forestland Productivity
- How to Understand and ...
- Hydic Soils
- Irrigated and Nonirrigate...
- Irrigated and Nonirrigate...
- Irrigated Yields by Map Unit
- Irrigated Yields by Map Un...
- Map Unit Description (Brief)
- Map Unit Description (Bri...
- Map Unit Legend
- Map Unit Text
- Nonirrigated Yields by Ma...
- Nonirrigated Yields by Ma...
- Physical Soil Properties
- Prime and Other Importan...
- Rangeland Productivity
- Rangeland Productivity an...
- RUSLE2 Related Attributes

Soil Reports (Template Version: 33)

Soil Survey Area Name
Prince George's County, Maryland

Map Unit Symbol	Map Unit Name
AaB	Adelphia silt loam, 2 to 5 percent slopes
AcA	Adelphia-Aquasco complex, 0 to 2 percent slopes
AdA	Adelphia-Holmdel complex, 0 to 2 percent slopes
AdB	Adelphia-Holmdel complex, 2 to 5 percent slopes
AdC	Adelphia-Holmdel complex, 5 to 10 percent slopes
AeB	Adelphia-Holmdel-Urban land complex, 0 to 5 percent slopes
AfA	Annapolis fine sandy loam, 0 to 2 percent slopes
AfB	Annapolis fine sandy loam, 2 to 5 percent slopes
AfC	Annapolis fine sandy loam, 5 to 10 percent slopes

Select All Clear Selections Selection Help

Report Name
Acree and Proportionate Extent of the Soils

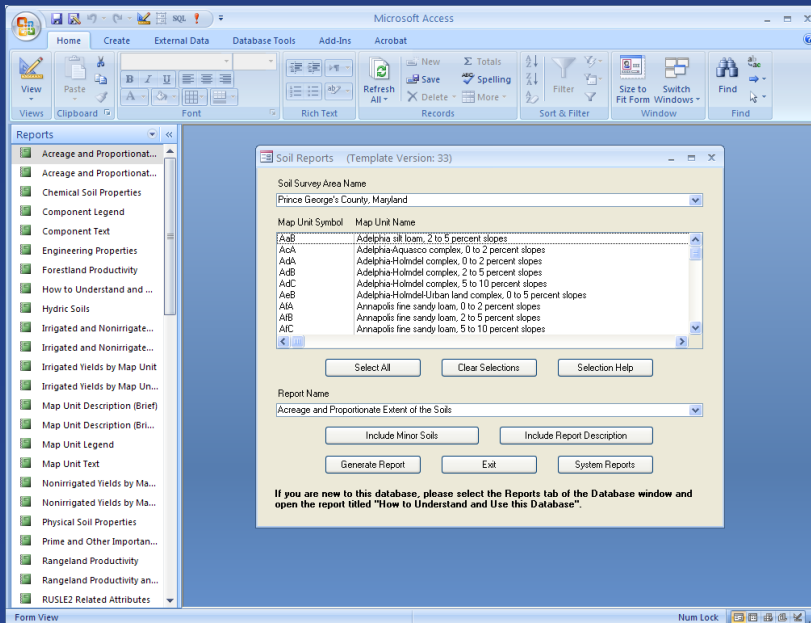
Include Minor Soils Include Report Description

Generate Report Exit System Reports

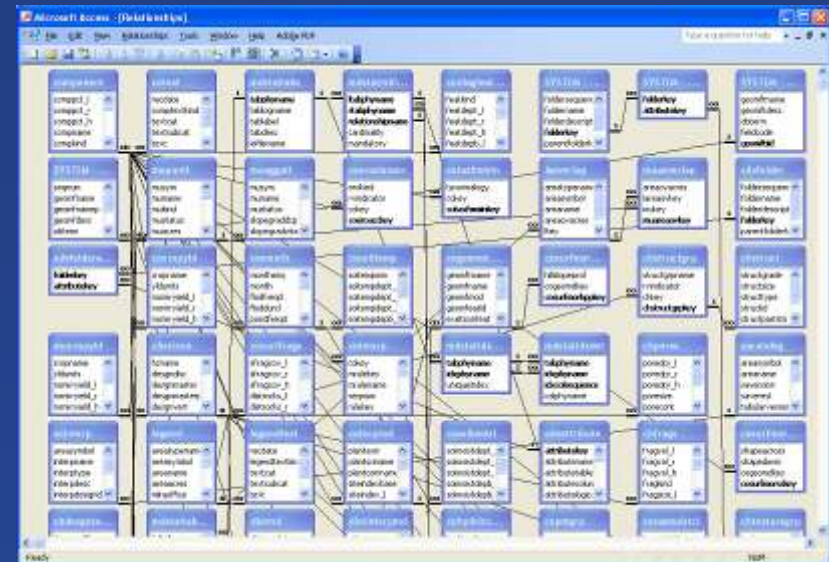
If you are new to this database, please select the Reports tab of the Database window and open the report titled "How to Understand and Use this Database".

Form View Num Lock

SSURGO Template



Prepared soil reports in the
SSURGO template



A portion of the relationship
table associated with the soil
database. **Numerous tables**
and a series of **1:Many**
relationships can make the
data challenging to work with.

Things you can do in the SSURGO template...

- Run reports for some or all of the map units in a soil survey area
- Explore data tables
- Develop custom queries and reports
- Map results in ArcGIS

Beware the 1:many relationships...

Soil Data Viewer

- An **ArcGIS 9.2 extension** that allows users to create custom soil thematic maps
- Designed to shield users from the complexity of the soil attribute database
- **Simplifies the process** of linking spatial and attribute data
- Includes processing rules to enforce appropriate use of the data
- **Uses SSURGO template** and spatial data downloaded from Soil Data Mart
<http://www.soils.usda.gov/sdv/index.html>

Soil Data Viewer | NRCS Soils - Windows Internet Explorer

File Edit View Favorites Tools Help

http://www.soils.usda.gov/sdv/index.html

Soil Data Viewer | NRCS Soils

United States Department of Agriculture
NRCS Natural Resources Conservation Service

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- Online User Guides
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Soil Data Viewer

Soil Data Viewer is a tool built as an extension to ArcMap that allows a user to create soil-based thematic maps. The application can also be run independent of ArcMap, but output is then limited to a tabular report.

The soil survey attribute database associated with the spatial soil map is a complicated database with more than 50 tables. Soil Data Viewer provides users access to soil interpretations and soil properties while shielding them from the complexity of the soil database. Each soil map unit, typically a set of polygons, may contain multiple soil components that have different use and management. Soil Data Viewer makes it easy to compute a single value for a map unit and display results, relieving the user from the burden of querying the database, processing the data and linking to the spatial map.

Soil Data Viewer contains processing rules to enforce appropriate use of the data. This provides the user with a tool for quick geospatial analysis of soil data for use in resource assessment and management.

See the menu on the left for a news subscription, documentation, and to download and install Soil Data Viewer.

Last Modified: 05/26/2010

<http://www.soils.usda.gov/sdv/index.html>

Back to Top NRCS Soils Home | Site Map | Contact | Accessibility | NRCS | USDA

Local intranet 100%

Hardware and Software Requirements for Soil Data Viewer 5.2

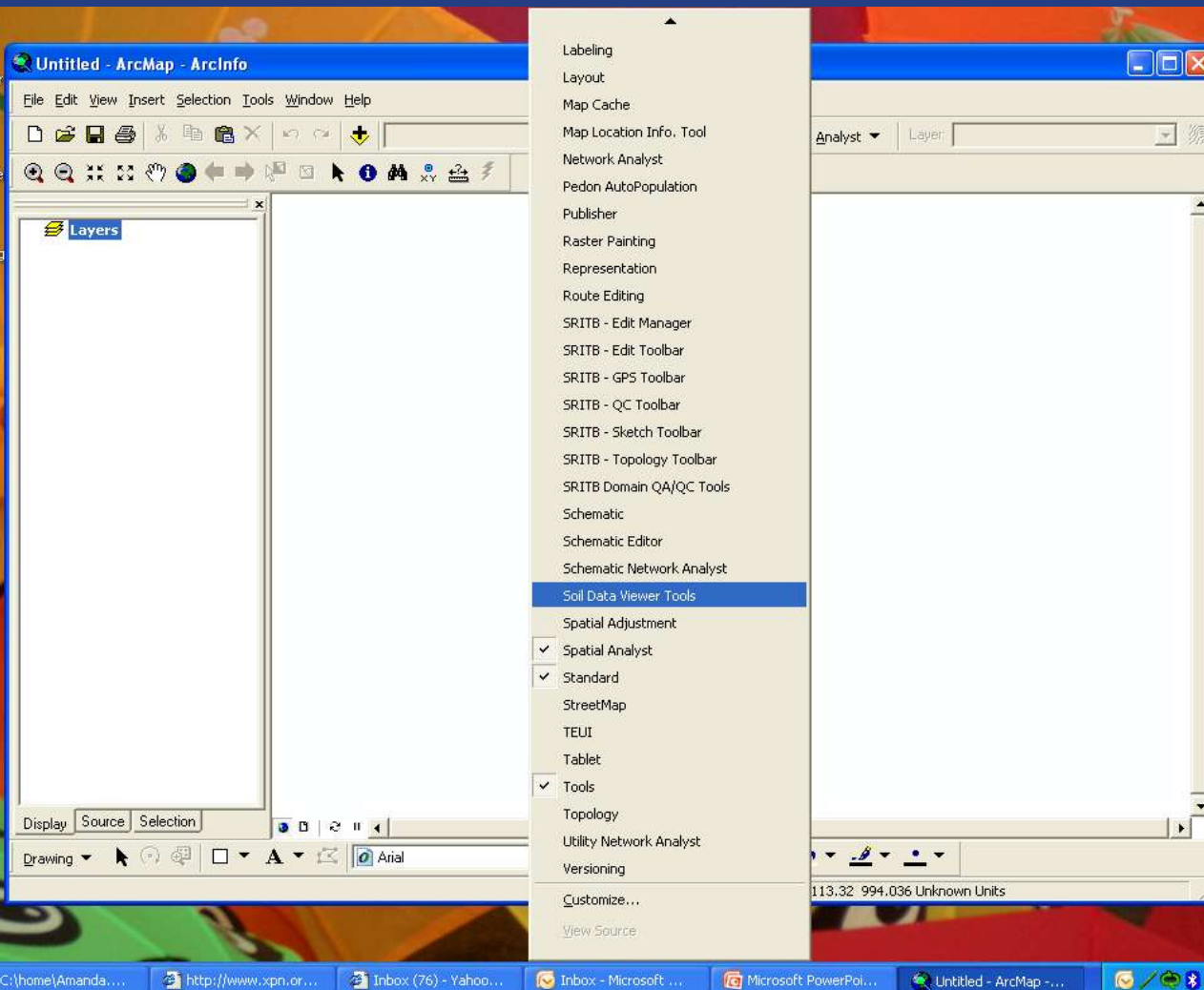
- **Windows XP Professional, Windows XP Home Edition, or Windows XP Tablet PC Edition**
- **Microsoft .NET Framework, version 2.0**
- **ArcGIS 9.2 or ArcGIS 9.3**

Installing Soil Data Viewer

- Non-NRCS/FSA/RD computers
- <http://soils.usda.gov/sdv/download.html>
- Scroll down to “Installing Soil Data Viewer 5.2 on a non-USDA CCE Platform” and click the Download icon to download the installation package
- From Windows Explorer, unzip the installation package into any folder, then double-click on the SoilDataViewer5.2.msi.
- SDV is automatically installed for All Users
- Administrative Privileges are required

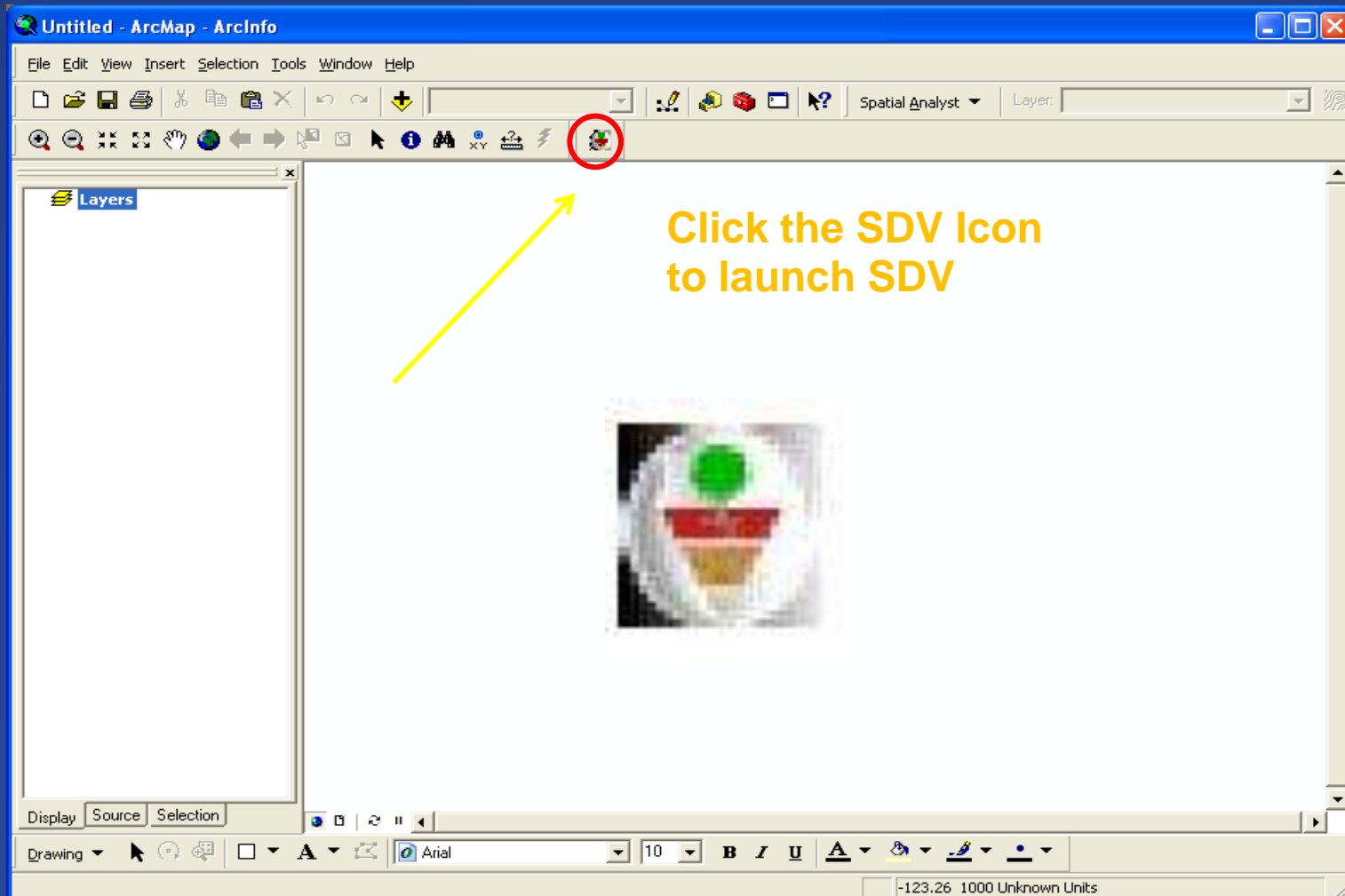


Adding the Soil Data Viewer Extension to ArcMap



1. Start ArcMap
2. Right-click in the empty space next to a toolbar
3. Scroll down to Soil Data Viewer Tools and Select

Adding the Soil Data Viewer Extension to ArcMap



Soil Data Viewer - ArcMap

File View Help

Attribute Folders

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion Factors
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management

Attribute/Folder Description | Rating Options | Report Options

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use.

Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.


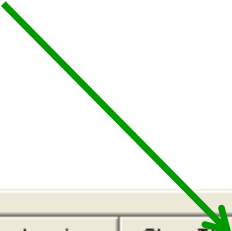

Basic Mode Advanced Mode

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: No valid soil map layer is currently loaded into ArcMap.

Map Layer: _____

Database: I:\Geodata\soils\soil_md047\md047_soildb_US_2002.mdb



SDV Data Requirements

- **Soil spatial data in SSURGO format**
- **Soil attribute data imported into a SSURGO template**
- ***Note: SDV can be used with any dataset that follows the proper formatting (e.g., portion of a county, one county, or multiple counties)***

Getting Started

- **Add the soil data layer to ArcMap, along with other data layers**
- **Click the SDV Icon to launch SDV**
- **Link spatial data to the appropriate SSURGO template database**

Untitled - ArcMap - ArcInfo

File Edit View Insert Selection Tools Window Help

1:550,037 Spatial Analyst Layer:

Layers

- soilmu_a_md033

Please select a soil map layer.

Map Layer Source	Map Layer Name
C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md033.shp	soilmu_a_md033

OK Cancel

Display Source Selection

Drawing Arial 10 B I U A

320844.507 4336432.662 Meters

Soil Data Viewer - ArcMap

File View Help

Attribute Folders

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion Factors
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management

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Basic Mode Advanced Mode

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: All map units in sync. ?

Map Layer: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md033 soilmu_a_md033

Database: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\md033_soildb_4_2010.mdb

Soil Data Viewer - ArcMap

File View Help

Attribute Folders

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion Factors
- Soil Physical Properties
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Basic Mode Advanced Mode

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: All map units in sync.

Map Layer: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md033 soilmu_a_md033

Database: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\md033_soildb_4_2010.mdb

Basic vs Advanced Mode

- **Basic Mode**
 - Uses **preset options** for all reports and maps
 - Recommended for **individuals unfamiliar** with soils data
- **Advanced Mode**
 - Users can **choose aggregation method**, % cutoff values, tie-break rules, which layers to use, and how to interpret null data
 - Requires **some familiarity** with soil databases

Aggregation

- **The process of reducing a set of component (and/or horizon) values to a single value that represents the entire map unit**
- **Soil map units usually have > 1 component**
- **Soil components usually have > 1 horizon**
- **Only one value at a time can be displayed for a given soil polygon**

Aggregation Methods

- **Dominant Component (specific to a map unit)**
- **Dominant Condition (generally the default; specific to a property)**
- **Weighted Average**
- **Lowest Value (all components)**
- **Highest Value (all components)**

Dominant Component

- **Map unit AbC**

Component	% of Map Unit
Alpha	45
Beta	25
Gamma	15
Delta	10
Epsilon	5
Total	100

- **Component Alpha is the Dominant Component in this map unit**

Dominant Condition

- **Map unit AbC**

Component	% of Map Unit	HSG	LCC
Alpha	45	A	II
Beta	25	B	III
Gamma	15	C	III
Delta	10	B	III
Epsilon	5	B	IV
Total	100		

HSG – Dominant Condition is A (45% = A, 40% = B, 15% = C)

LCC – Dominant Condition is III (50% = III, 45% = II, 5% = IV)

Soil Data Viewer - ArcMap

File View Help

Attribute Folders | Attribute/Folder Description | Rating Options | Report Options

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
 - Conservation Tree and Shrub Group
 - Ecological Site ID
 - Ecological Site Name
 - Farmland Classification
 - Forage Suitability Group ID (Component Table)
 - Hydric Rating by Map Unit
 - Irrigated Capability Class
 - Irrigated Capability Subclass
 - Nonirrigated Capability Class**
 - Nonirrigated Capability Subclass
 - Soil Taxonomy Classification
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion Factors
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management

Basic Mode | Advanced Mode

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: All map units in sync.

Map Layer: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md03 | soilmu_a_md033

Database: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\md033_soildb_4_2010.mdb

Attribute/Folder Description

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Soil Data Viewer - ArcMap

File View Help

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 - Ecological Site Name
 - Farmland Classification
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 - Hydric Rating by Map Unit
 - Irrigated Capability Class
 - Irrigated Capability Subclass
 - Nonirrigated Capability Class**
 - Nonirrigated Capability Subclass
 - Soil Taxonomy Classification
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion Factors
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management

Attribute/Folder Description **Rating Options** Report Options

Basic Options
Result Column Name: NirrCpCls

Advanced Options
Aggregation Method: All Components [Method Description]

Component Percent Cutoff
[] Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule
 Lower Higher
The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Basic Mode Advanced Mode

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: All map units in sync. [?]

Map Layer: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md03 | soilmu_a_md033 [?]

Database: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\md033_soildb_4_2010.mdb [?]

Soil Data Viewer - ArcMap

File View Help

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- Water Features
- Water Management

Attribute/Folder Description | Rating Options | **Report Options**

Aggregation Report Options

Rating Options Additional Reports

Select map units to be included in the tabular report from the set of map units currently selected in the current soil map layer:

All Map Units			
	Survey Area	Map Unit	Map Unit Name
<input checked="" type="checkbox"/>	MD033	AaB	Adelphia silt loam, 2 to 5 percent slopes
<input checked="" type="checkbox"/>	MD033	AcA	Adelphia-Aquasco complex, 0 to 2 percent slopes
<input checked="" type="checkbox"/>	MD033	AdA	Adelphia-Holmdel complex, 0 to 2 percent slopes
<input checked="" type="checkbox"/>	MD033	AdB	Adelphia-Holmdel complex, 2 to 5 percent slopes
<input checked="" type="checkbox"/>	MD033	AdC	Adelphia-Holmdel complex, 5 to 10 percent slopes
<input checked="" type="checkbox"/>	MD033	AeB	Adelphia-Holmdel-Urban land complex, 0 to 5 percent slo
<input checked="" type="checkbox"/>	MD033	AfA	Annapolis fine sandy loam, 0 to 2 percent slopes
<input checked="" type="checkbox"/>	MD033	AfB	Annapolis fine sandy loam, 2 to 5 percent slopes
<input checked="" type="checkbox"/>	MD033	AfC	Annapolis fine sandy loam, 5 to 10 percent slopes
<input checked="" type="checkbox"/>	MD033	AfD	Annapolis fine sandy loam, 10 to 15 percent slopes
<input checked="" type="checkbox"/>	MD033	AfE	Annapolis fine sandy loam, 15 to 25 percent slopes
<input checked="" type="checkbox"/>	MD033	AfF	Annapolis fine sandy loam, 25 to 40 percent slopes
<input checked="" type="checkbox"/>	MD033	AnB	Annapolis-Urban land complex, 0 to 5 percent slopes
<input checked="" type="checkbox"/>	MD033	AnD	Annapolis-Urban land complex, 5 to 15 percent slopes
<input checked="" type="checkbox"/>	MD033	ApA	Aquasco silt loam, 0 to 2 percent slopes, occasionally po

Select All | Unselect All | View Selected Map Units

Basic Mode | **Advanced Mode**

Aggregation Report | Map Unit Desc. Report | Map | Synchronize | Clear Themes

Synchronization Status: All map units in sync. ?

Map Layer: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\spatial\soilmu_a_md03 | soilmu_a_md033 ?

Database: C:\home\Amanda.Moore\Presentations\MD\WSS_SDV_training\Prince_Georges\soil_md033\md033_soildb_4_2010.mdb ?

Reports

- “Aggregation report”
- Contains single value for each map unit

Nonirrigated Capability Class

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Prince George's County, Maryland
Survey Area Version and Date: 8 - 12/16/2009

Map symbol	Map unit name	Rating
AaB	Adelphia silt loam, 2 to 5 percent slopes	2
AcA	Adelphia-Aquasco complex, 0 to 2 percent slopes	2
AdA	Adelphia-Holmdel complex, 0 to 2 percent slopes	2
AdB	Adelphia-Holmdel complex, 2 to 5 percent slopes	2
AdC	Adelphia-Holmdel complex, 5 to 10 percent slopes	3
AeB	Adelphia-Holmdel-Urban land complex, 0 to 5 percent slopes	8
AA	Annapolis fine sandy loam, 0 to 2 percent slopes	1
AB	Annapolis fine sandy loam, 2 to 5 percent slopes	2
AC	Annapolis fine sandy loam, 5 to 10 percent slopes	3
AD	Annapolis fine sandy loam, 10 to 15 percent slopes	4
AE	Annapolis fine sandy loam, 15 to 25 percent slopes	5
AF	Annapolis fine sandy loam, 25 to 40 percent slopes	7
AnB	Annapolis-Urban land complex, 0 to 5 percent slopes	2
AnD	Annapolis-Urban land complex, 5 to 15 percent slopes	4
ApA	Aquasco silt loam, 0 to 2 percent slopes, occasionally ponded	3
ApB	Aquasco silt loam, 2 to 5 percent slopes	3
AuB	Aquasco-Urban land complex, 0 to 5 percent slopes	3
BAA	Beltzville silt loam, 0 to 2 percent slopes	2
BaB	Beltzville silt loam, 2 to 5 percent slopes	2
BaC	Beltzville silt loam, 5 to 10 percent slopes	3
BgB	Beltzville-Grostown-Woodstown complex, 0 to 5 percent slopes	2
BuB	Beltzville-Urban land complex, 0 to 5 percent slopes	2
BuD	Beltzville-Urban land complex, 5 to 15 percent slopes	4
BwC	Brinklow channery loam, 8 to 15 percent slopes	3
BwD	Brinklow channery loam, 15 to 25 percent slopes	6
ByD	Brinklow-Blocktown channery loams, 15 to 25 percent slopes	6
ByF	Brinklow-Blocktown channery loams, 25 to 65 percent slopes	7
CaB	Chillum silt loam, 0 to 5 percent slopes	2
CaC	Chillum silt loam, 5 to 10 percent slopes	3
CaD	Chillum silt loam, 10 to 15 percent slopes	4
CdB	Chillum-Urban land complex, 0 to 5 percent slopes	8
CdD	Chillum-Urban land complex, 5 to 15 percent slopes	4
CdE	Chillum-Urban land complex, 15 to 25 percent slopes	6
CcC	Christiana-Downer complex, 5 to 10 percent slopes	3
CcD	Christiana-Downer complex, 10 to 15 percent slopes	4
CcE	Christiana-Downer complex, 15 to 25 percent slopes	6
CcF	Christiana-Downer complex, 25 to 40 percent slopes	7
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	4
CdE	Christiana-Downer-Urban land complex, 15 to 25 percent slopes	6
CF	Codonus and Hatboro soils, frequently flooded	5
Ch	Codonus-Hatboro-Urban land complex, frequently flooded	8
CkA	Colemantown silt loam, 0 to 2 percent slopes	5
CnA	Collington-Wist complex, 0 to 2 percent slopes	1
CnB	Collington-Wist complex, 2 to 5 percent slopes	2
CnC	Collington-Wist complex, 5 to 10 percent slopes	3
CnD	Collington-Wist complex, 10 to 15 percent slopes	4
CnE	Collington-Wist complex, 15 to 25 percent slopes	6

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Reports

- **Map Unit Descriptions**

Map Unit Description

Prince George's County, Maryland

[Minor map unit components are excluded from this report]

Map unit: AaB - Adelphia silt loam, 2 to 5 percent slopes

Component: Adelphia (75%)

The Adelphia component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, drainageways, depressions, swales. The parent material consists of glauconite bearing loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: ACA - Adelphia-Aquasco complex, 0 to 2 percent slopes

Component: Adelphia (50%)

The Adelphia component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, swales, drainageways, uplands. The parent material consists of glauconite bearing loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Aquasco (30%)

The Aquasco component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad interstream divides, uplands. The parent material consists of silty eolian deposits over loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 0 to 40 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 14 inches during December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Map unit: AdA - Adelphia-Holmdei complex, 0 to 2 percent slopes

Component: Adelphia (50%)

The Adelphia component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, drainageways, swales, uplands. The parent material consists of glauconite bearing loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Holmdei (25%)

The Holmdei component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, depressions, drainageways, swales. The parent material consists of glauconite bearing loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during February. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Map unit: AdB - Adelphia-Holmdei complex, 2 to 5 percent slopes

Component: Adelphia (55%)

The Adelphia component makes up 55 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, swales, drainageways, depressions. The parent material consists of glauconite bearing loamy fluviomarine deposits. Depth to a root restrictive

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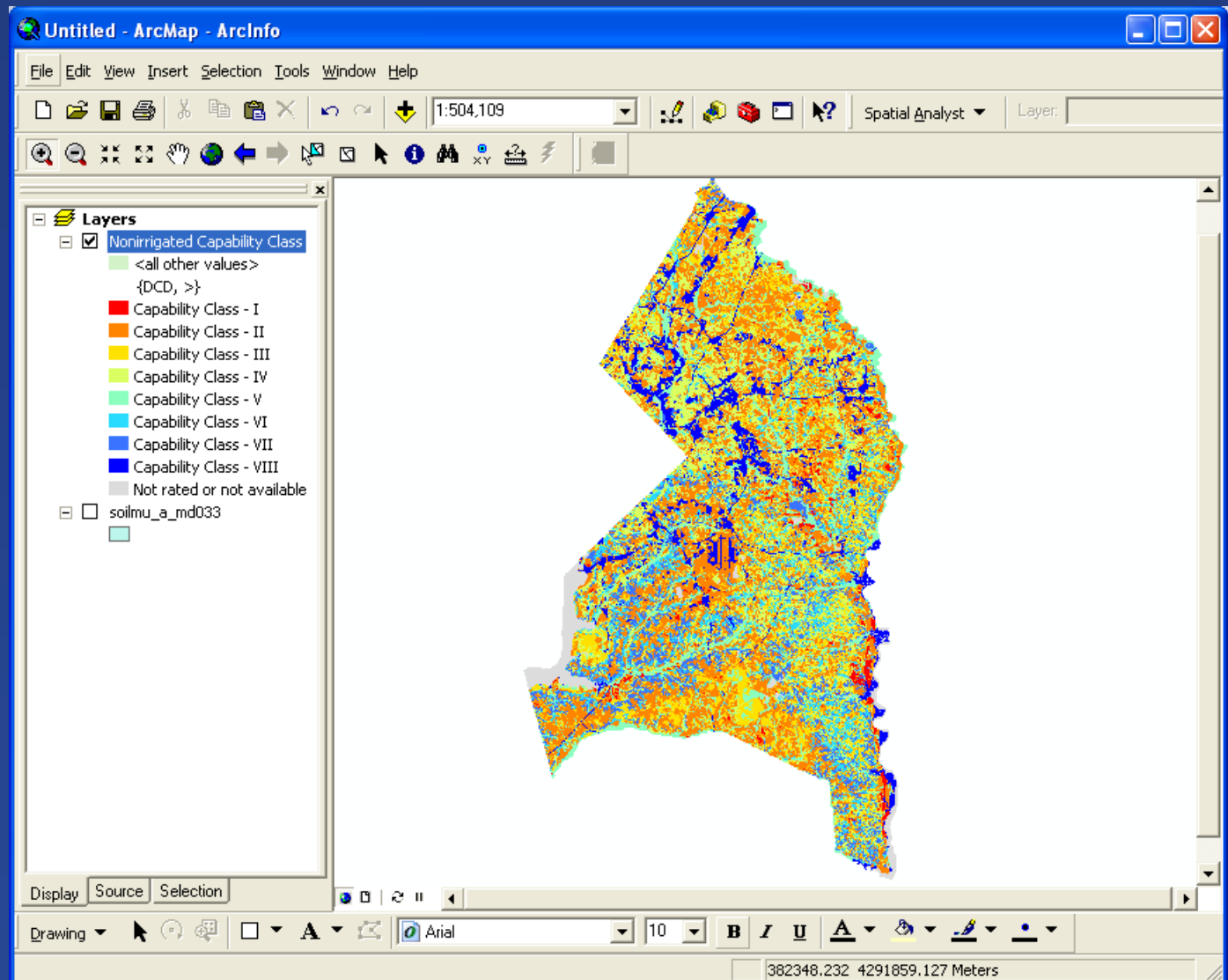
Survey Area Version: 8
Survey Area Version Date: 12/16/2009

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Maps

Non-Irrigated Land Capability Class

Dominant Condition



Aggregation Report

Map Unit Desc. Report

Map

Synchronize

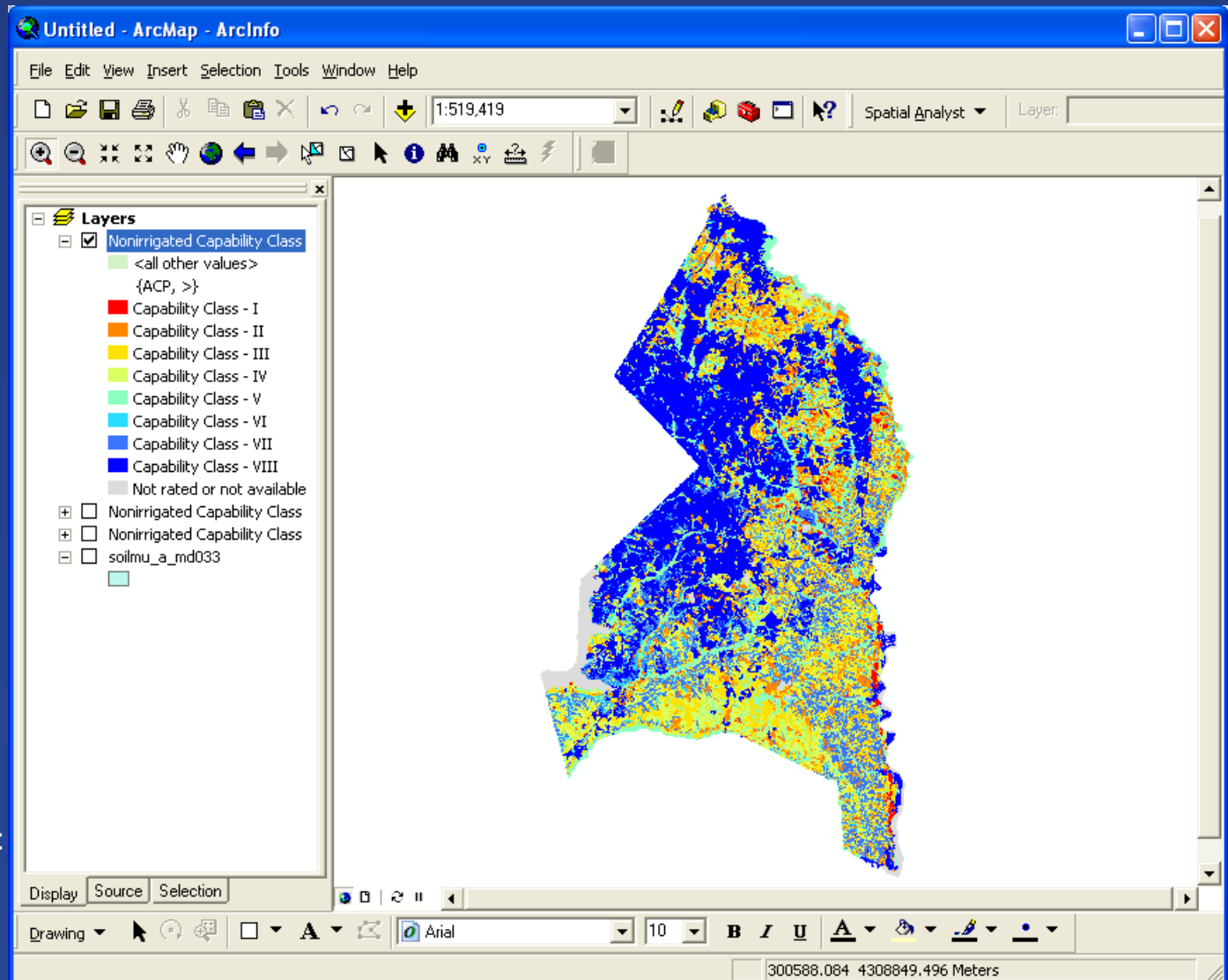
Clear Themes

Maps

Non-Irrigated Land Capability Class

Highest Value

(note – in this case, the highest value is actually the worst LCC)



Aggregation Report

Map Unit Desc. Report

Map

Synchronize

Clear Themes

Soil Data Viewer Themes

- SDV data layers are **temporary**
- Clicking “Clear Themes” will remove all of the SDV data layers from ArcMap
- To **save a data layer**, right-click on it in the ArcMap TOC and choose either “Save as Layer File” (to maintain symbology) or Data > Export Data to make a new data layer

Questions?



2011 Maryland Soil Survey Work Planning Conference

Training Needs?????