# Surficial Deposit Mapping of the Waynesboro East 7.5' Quadrangle, Virginia

A Data Management Plan created using DMPTool

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Template: U.S. Geological Survey (USGS)

Last modified: 11-07-2016

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## 1. Project and Contact Information

#### Surficial Deposit Mapping of the Waynesboro East 7.5' Quadrangle, Virginia

The Educational Component of the National Cooperative Geologic Mapping Program Department of the Interior Geological Survey

The primary goal of the project to produce a refined 1:24000 surficial deposit map of the Waynesboro East quadrangle (WEQ) in west central Virginia. The justification for the project is to 1) train undergraduate students in surficial deposits mapping, 2) refine the geologic map of WEQ that lacks detail in surficial deposits. A surficial deposits map will help in identifying zones that have higher susceptibility for debris flows and other slope movements. It will also help identify sites of sand/gravel and ground water resources.

The data that will be collected will include spatial distribution of various surficial deposits and their detailed descriptions. The main data product will be a hard and soft copy of the surficial deposits map accompanied by a geological report. Shapefiles of surficial deposits will also be produced.

2017-03-01

2018-02-28

Question not answered.

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Question not answered.

# 2. Plan and Acquire

The data to be collected include spatial distribution of surficial deposits and their detailed geological descriptions. The data will be collected in the field using topographic base maps and GPS units as location aids.

A previous geological map of Wayneboro East quadrangle by Gathright et al. (1977) will be used as a reference. The Waynesboro East geological map is published by the Virginia Department of Mines, Minerals and Energy.

Gathright, T, Henika, W., Sullivan, J., 1977. Geology of the Waynesboro East and Waynesboro West quadrangles, Virginia. Virginia Division of Geology and Mineral Resources-Publication 3, 53 p.

The new data, spatial distribution of surficial deposits and their detailed descriptions will be collected in the field. Spatial extent and location of the different surficial deposits will be recorded on a topographic base map.

Geologic descriptions of each unit will be recorded in field notebooks. Photographs of outcrops of surficial deposits will be documented.

The estimated data size will be anywhere between 2-3GB.

The data once published will be static.

The equipment needed for data collection are freely available topographic maps in hard and soft copies, geologic hammers, pencils, field notebooks, and compasses. There is virtually no cost attached with any of these equipment.

# 3. Describe/Metadata and Manage Quality

- 1) Spatial distribution of surficial deposits
- 2) Geologic description of surficial deposits with photographs
- 1) GeoTiff for spatial distribution of surficial deposits
- 2) .txt for geologic description of surficial deposits, .csv for any tabulated data and .tiff for the accompanying photographs

- 1) Describing surficial deposits in the field and plotting their spatial extent on a topographic map in the field.
- 2) Convert field data into digital formats.
- 3) Compile field data digitally and produce a surficial deposits map in open data format
- 4) Convert the digital geological report into an open data format

The PI of the project, Dr. Yonathan Admassu will create the metadata.

The USGS metadata wizard will be used to create the metadata for the geospatial data.

https://www.sciencebase.gov/catalog/item/50ed7aa4e4b0438b00db080a

The format to be used will be the USGS FGDC-CSDGM.

1) Before data collection

Formats of geologic description of surficial deposits will be designed to maintain consistency during field data collection. Clear geologic descriptors, codes of geologic units and measurement units will be decided upon.

2) Field Data collection

Data will be collected on field notebooks adhering to the formats decided before data collection. Data plotting on maps will also strictly use the geologic codes decided before data collection.

3) Quality Control

The PI and Co-PI will be responsible for quality control by performing field checking for accurate descriptions and spatial information of surficial deposits.

### 4. Backup/Secure and Preserve

The data will be backed up on an external hard drive.

The data will be automatically backed up on an external hard drive.

The project will be a fedrally funded USGS data for which there will be no restrictions unless the data is not approved.

The final data format will be in

- 1) .txt format for geologic descriptions of surficial deposits
- 2) Georeferenced Geotiff for the final map
- 3) .csv for any tabulated data

The PI, Dr. Yonathan Admassu will be in charge of preserving the data and metadata.

There will be no cost associated for long term storage of data.

## 5. Publish and Share

The approved surficial deposits map with its accompanying descriptions will be shared at the USGS store website: https://store.usgs.gov/b2c\_usgs/b2c/start/(xcm=r3standardpitrex\_prd)/.do

Once approved by the USGS, raw data such as shapefiles with metadata, and geologic report will be shared on http://sparcopen.org

The data is owned by the USGS and according to the USGS policy under IM OSQI 2015-03, the USGS should provide timely public access to scientific data, information, and technologies developed by the Bureau's information and research programs. Until they are approved for release, data are considered provisional or preliminary and subject to change and must be noted as such with a disclaimer statement.

There will be no restriction on an approved USGS data that was fedrally funded.

There is no anticipated publication other than what will be made available on https://store.usgs.gov/b2c\_usgs/b2c/start/(xcm=r3standardpitrex\_prd)/.do

Once approved by the USGS, raw data such as shapefiles with metadata, and geologic report will be shared on http://sparcopen.org

The USGS will assign a doi (digital object identifier) for published USGS documents using the CrossRef system,