

Using the Mapping-Our-Streams-with-FieldScope unit to Expand Your Stream Investigations in the Chesapeake Bay Watershed

by

Cassie Foster Doty

cdoty@umces.edu

University of Maryland
Center for Environmental Science
Appalachian Laboratory

Geographic Information System (GIS)



Authentic
means of
digitally

- Assembling
- Displaying
- Analyzing
Spatial data

MOS Desired Results

Essential Questions

- Is a local stream healthy, and what might be impacting its health?
- Are there ways to reduce negative impacts on local streams?

MOS Desired Results, continued

Enduring Understandings

- Stream health at a site is affected by environmental conditions in its upstream watershed.
- Human land use choices can impact the water cycle and stream ecosystems.

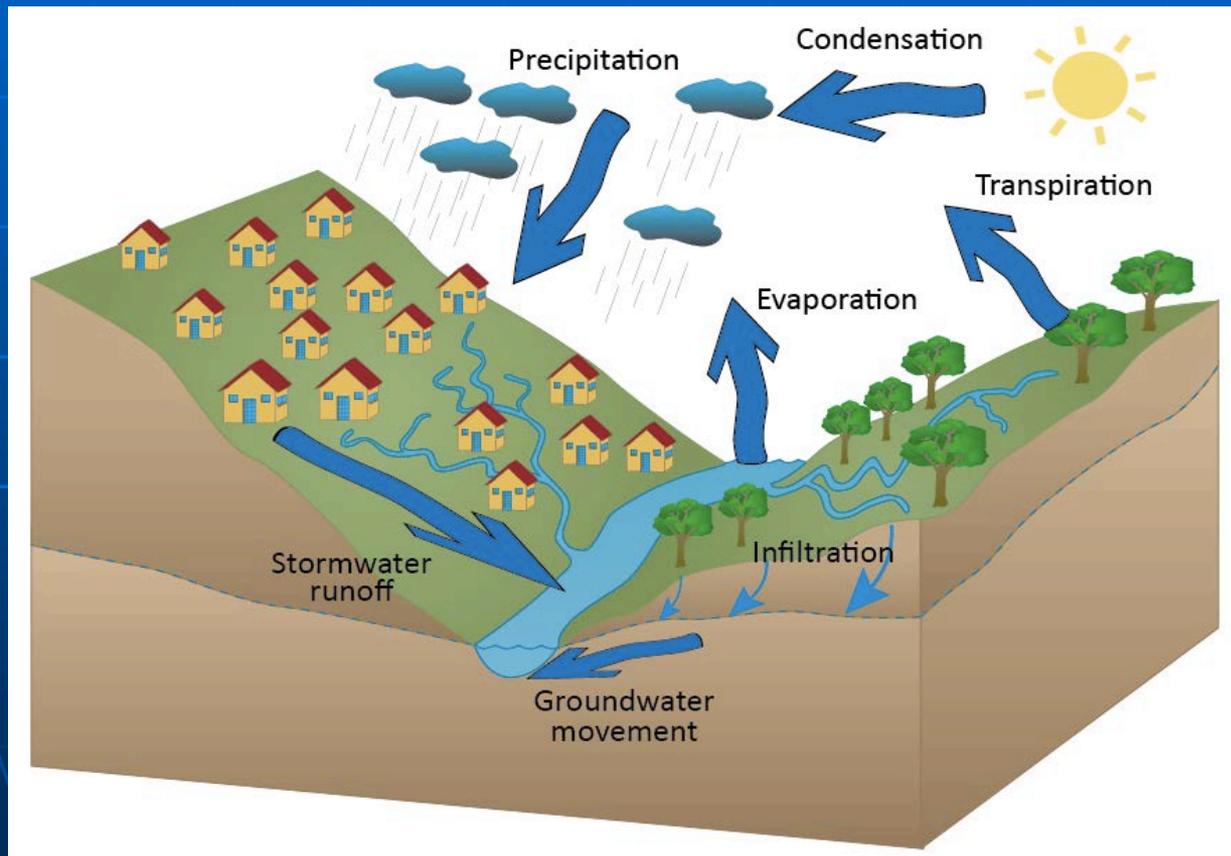
MOS Lesson 1

Is your local stream site healthy, and what might be impacting it?



MOS Lesson 2

How does impervious surface impact stormwater runoff?



MOS Lesson 3

What area drains to your local stream site? (FieldScope)

Chesapeake Bay FieldScope

NATIONAL GEOGRAPHIC Chesapeake Bay FieldScope

LINK SAVE

MAP SCATTER PLOT TIME SERIES PLOT

Watersheds

Click on the map to see from where the water flows to reach that point.

Transparency: 0 90

Name	Area
Watershed 1	10.2 km ²

Location Details

Elevation

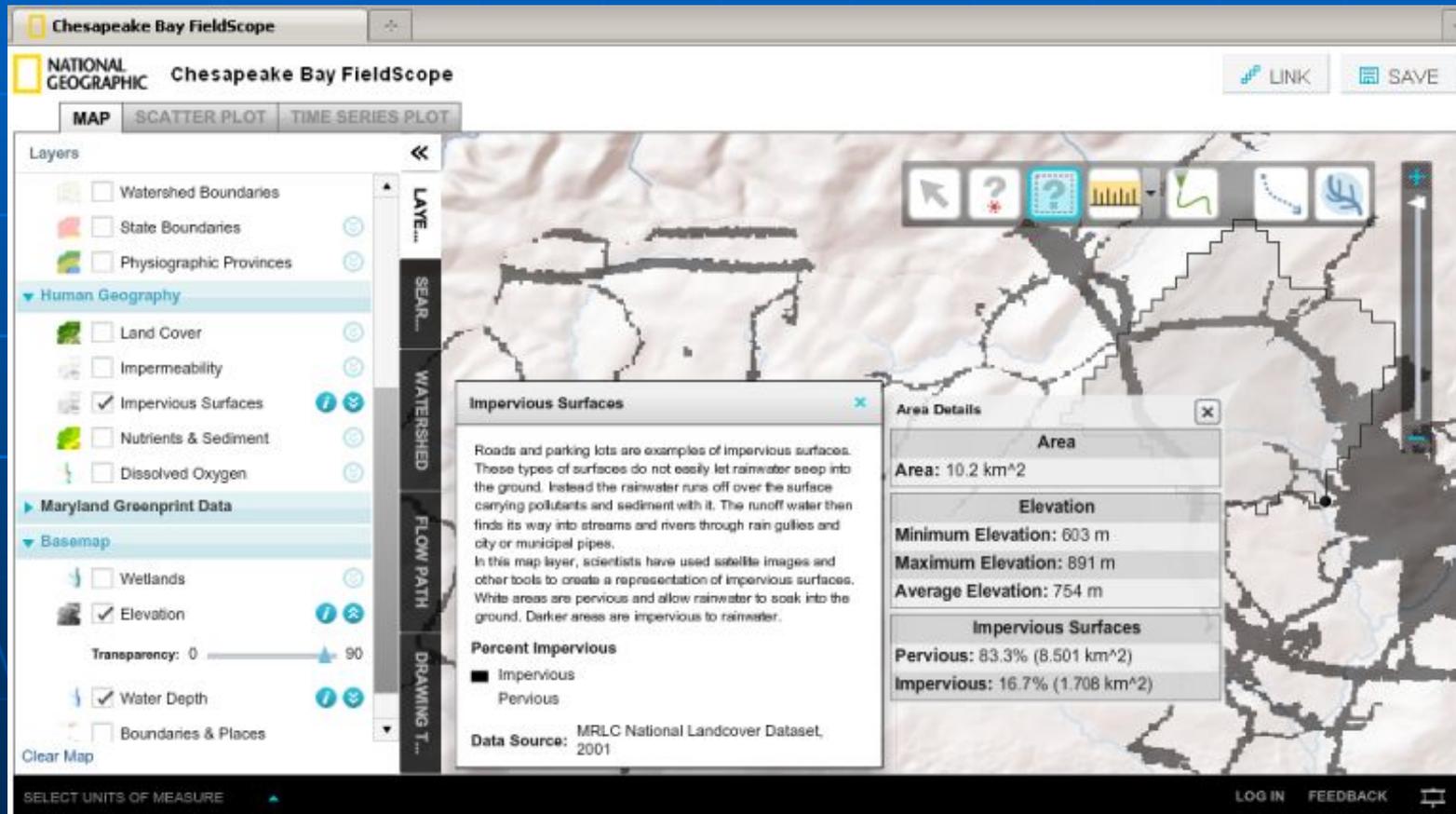
Elevation: 656 m

SELECT UNITS OF MEASURE

LOG IN FEEDBACK

MOS Lesson 4

Where are impervious surfaces in your local watershed?



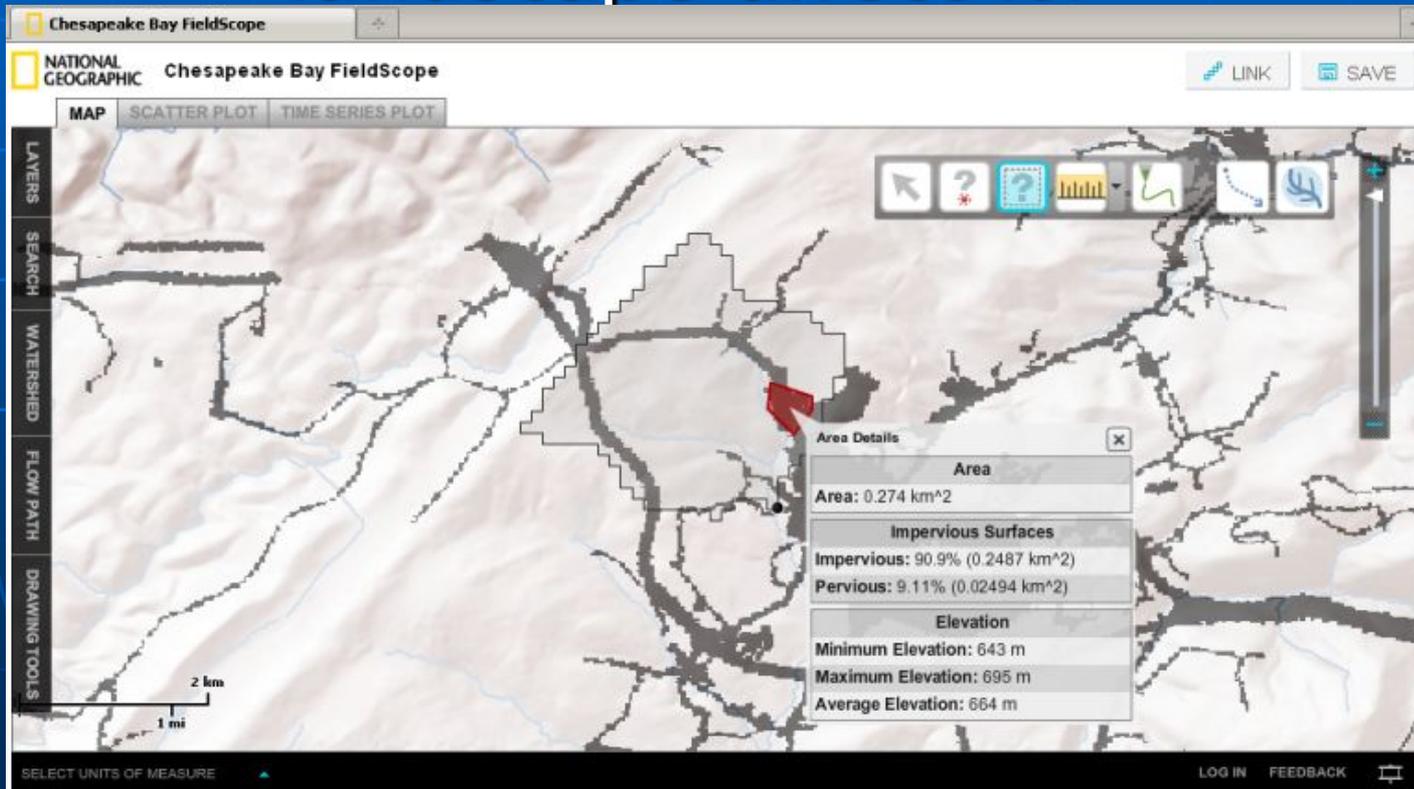
MOS Lesson 5

How much runoff flows to your stream site, and how would a change in the landscape affect it?

volume of stormwater runoff =
(area of impervious/area of watershed) x
volume of rain not evaporated or
transpired

MOS Lesson 5, continued

How much runoff flows to your stream site, and how would a change in the landscape affect it?



Thank you!

For a copy of the Mapping Our Streams with FieldScope unit or to participate in a 90-minute online workshop, contact Cassie Doty

cdoty@umces.edu

301.689.7134