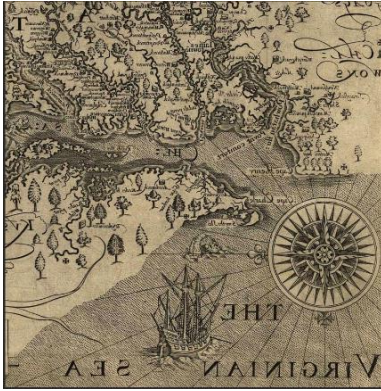


Handout #7 – Exploring a Watershed using the USGS’ National Map on-line geographic information system

Source: USGS ([The National Map | U.S. Geological Survey \(usgs.gov\)](http://www.usgs.gov))



Maps tell a story: They can summarize a situation, trace a route, and show

change over time. They can examine causes and effects and reveal in-terrelation ships. They can show patterns of movement and compare and contrast places. They can help people make plans, predict or model the future, and support decisions. They can explain, reveal, and propagandize.

A Watershed map tells us about the movement of water from the land through small streams to a larger body of water that define the watershed and then to the next watershed and eventually to either a closed basin or the ocean. Watershed maps can also tell us about the condition of the land that makes up the watershed and the quality of the water that flows through the streams and eventually the main water resource within the watershed. The story that maps tell is mainly through spatially associated layers of data.

When Captain Smith created his historic map it was an effort to tell a geographic story on the face of a map. Although we do some of this with present day paper maps, modern mapping systems “layer” information so that a more complete story can be told and graphic analysis can be more easily carried out.

One of the primary tools for watershed management is the geographic information system (GIS). In recent times the USGS, leading an intergovernmental development effort, created an on-line GIS tool and accompanying data layers that allows anyone with internet access to explore their own watershed and view and download specific information about their watershed.

*The following was copied from the USGS website*

(<https://www.usgs.gov/programs/national-geospatial-program/national-map> )

*“The National Map* is a suite of products and services that provide access to base geospatial information to describe the landscape of the United States and its territories. *The National Map* embodies 11 primary products and services and numerous applications and ancillary services.”

*“The National Map* supports data download, digital and print versions of topographic maps, geospatial data services, and online viewing. Customers can use geospatial data and maps to enhance their recreational experience, make life-saving decisions, support scientific missions, and for countless other activities. Nationally consistent geospatial data from *The National Map* enable better policy and land management decisions and the effective enforcement of regulatory responsibilities. *The National Map* is easily accessible for display on the Web through such products as topographic maps and services and as downloadable data. The geographic information available from *The National Map* includes boundaries, elevation, geographic names, hydrography, land cover, orthoimagery, structures, and transportation.”

*“The majority of The National Map* effort is devoted to acquiring and integrating medium-scale (nominally 1:24,000 scale) geospatial data for the eight base layers from a variety of sources and providing access to the resulting seamless coverages of geospatial data. *The National Map* also serves as the source of base mapping information for derived cartographic products, including 1:24,000 scale US Topo maps and georeferenced digital files of scanned historic topographic maps. Data sets and products from *The National Map* are intended for use by government, industry, and academia—focusing on geographic information system (GIS) users—as well as the public, especially in support of recreation activities. Other types of georeferenced or mapping information can be added within *The National Map Viewer* or brought in with *The National Map* data into a GIS to create specific types of maps or map views and (or) to perform modeling or analyses.”

# The National Map Viewer- "Make My Web Map"

