



PENNSYLVANIAVIEW 2019 - 2020



PENNSYLVANIAVIEW 2019 - 2020 ACTIVITIES

In 2019 – 2020 PennsylvaniaView decided to create an outdoor classroom in the Pike Run Watershed. Pike Run, a fourth-order stream in eastern Washington County, Pennsylvania, is a tributary to the Monongahela River. Its course begins at the headwaters in West Pike Run Township and winds through mostly rural and minor residential areas to its outflow between Coal Center and California Boroughs. Pike Run’s proximity to California University of Pennsylvania (CaU) makes it an ideal “outdoor classroom” for university courses in Earth Sciences and Geospatial Technology. Students use existing remote sensing imagery and geographic data to create a watershed evaluation map and pursue undergraduate research. In the Summer 2020 – Fall 2020 semesters, the PI and his fellow colleagues created a plan on creating and utilizing the outdoor classroom.

Two students won PennsylvaniaView Scholarships for their work on this project. Ms. Makayla Froseth, a GIS Major, completed a report on current spatial data on the Pike Run Watershed. Ms. Lauren Rockwell, a Geology major, completed an examination on the integration of equipment and the spatial data



Lauren Rockwell.



Makayla Froseth

The Plan for this project was to:

- 1) Collect data from the Pennsylvania Spatial Data Access website and then organize and edit remote sensing imagery and geospatial data of the Watershed area. This includes State-wide LIDAR, imagery and hydrological data
- 2) Purchase and install permanent environmental monitoring station – such as atmospheric and hydrologic instrumentation to collect real-time data including in-stream parameters and precipitation. Instruments include a tipping bucket rain gauge (~\$500), a manometer (~\$600), in-stream multiprobe (~1500), and multi-stage thermistors (~600). The Pike Run Watershed Association installed and will maintain the equipment.
- 3) Create a project involving a few select students to compile and analyze data from several sources. They will also examine the GLOBE protocols for hydrology and land cover’s specifically their data sheets and exercises for possible integration.

PennsylvaniaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

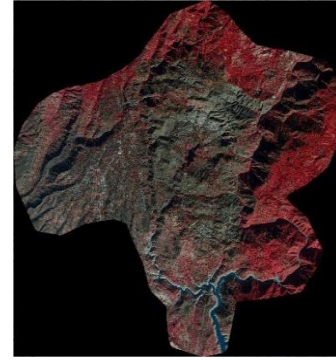


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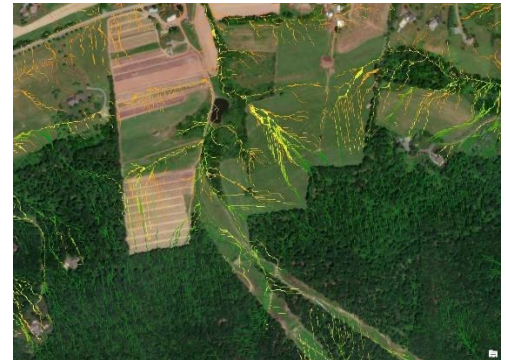
BENEFITS TO PENNSYLVANIA

PennsylvaniaView's projects are not just focused in southwestern Pennsylvania. We are a consortium of members throughout the Commonwealth of Pennsylvania. Our major goal is to educate the public about remotely sensed imagery and to provide information in a public forum. Here are a few examples:

- 1) **Penn State** hosts the PennsylvaniaView website. This website provides lessons and examples on the use of remote sensing. They also administer and host the Pennsylvania Spatial Data Center – Pennsylvania's Spatial Data Clearinghouse.
- 2) **Villanova University** used imagery to demonstrate to students how remote sensing technology can be used to undertake scientific geospatial analysis. The imagery for natural disaster assessment and environmental effects included the area of the Camp Fire in Butte County, California
- 3) **Bucknell University** used imagery and spatial data to work on an alternative, physically-based index for sediment transport in Turtle Creek Watershed in Lewisburg. Faculty and students completed this research.



SPOT false-color image of the Camp Fire



Normalized Difference Flow Index map of Turtle Creek Watershed

PENNSYLVANIAVIEW CONSORTIUM MEMBERSHIP

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