MS-GIST Projects Summer 2023
Friday, August 04

* There will be 5 minute breaks between each back-to-back presentation to facilitate transitions in Zoom.
** Zoom links are available on request. Please contact Andrew Grogan - atgrogan@arizona.edu

Date/Time	Presentation Title	Student Name
08/04/23 10:30 - 10:55 AM	LACKAWANNA RIVER WATERSHED SPATIAL ANALYSIS	Jacob Becker
08/04/23 11:00 - 11:25 AM	Public Works Planning Branch Web Solution	Jessica Gerski

LACKAWANNA RIVER WATERSHED SPATIAL ANALYSIS

Jacob Becker

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08/04/23, 10:30 - 10:55 AM

Abstract:

The purpose of this study is to create and display a spatial analysis study on the Lackawanna
River Watershed in Northeastern Pennsylvania. Specifically, an analysis that displays data
containing contaminants in the air and water within the watershed study area, potentially
correlating with the areas heavy use of coal mining historically. Using fugitive emission data
to
measure air contaminants and water pH, sulfates, and hard metals data to examine
potentially
polluted waters will show how this small yet essential watershed has been impacted. It is
extremely important to run these studies to show the damage that is caused by coal mining
and
create preventative measures for the future. Protection of watersheds is paramount in
conserving
the local flora and fauna that feed us and nurture their surrounding ecosystems.

Keywords: analysis, mining, statistics, pollution, spatial, watershed

Public Works Planning Branch Web Solution

Jessica Gerski

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08/04/23, 11:00 - 11:25 AM

Abstract:

In a Marine Corps Installation public works department, the planning branch and Geospatial Information and Services branch needed a solution for collecting geospatial sites and data in a hybrid working environment. In the past, printed maps were passed back and forth between the branches with many details missed or not communicated properly. This project develops a web solution for collecting data and displaying the data at a glance. By using Field Maps, the planning branch can easily create new projects, modify existing information, or archive no longer needed projects. This data is displayed using standardized symbology on a web map and popups are enabled to show additional information as needed. A dashboard was also created to easily show the web map, project information, and number of project sites and project boundaries. Coordination and communication would still need to exist between the branches, but this solution greatly reduces the amount of hours and personnel needed to create and maintain the future project data.

Keywords: Field Maps, Web Maps, Dashboards, Public Works, Data Sharing