Abstract

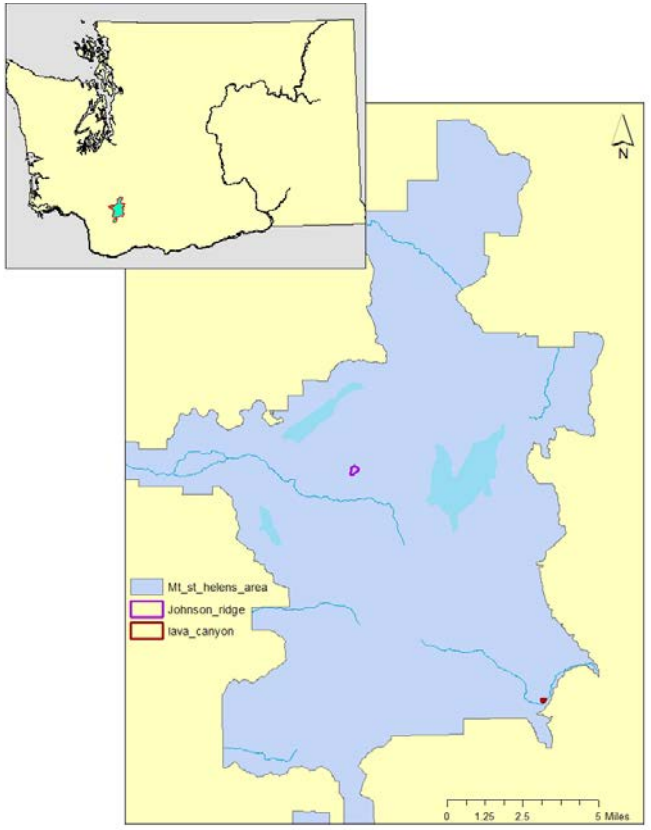
Since the 1980 Eruption of Mount Saint Helens in Southwest Washington, this area has been subject to a large amount of scientific study. This study investigates the difference between areas Northwest and Southeast of Mount Saint Helens. The Johnson Ridge Observatory in the Northwest and the Lava Canyon Interpretive Center in the Southeast were chosen as the study areas of comparison. The comparison is based on several different types of data: elevation, vegetation height, vegetation height variation, soil type, land cover type and dominate tree species data. After the data was classified, the area of each location was overlaid. The measure tool was used to calculate what percentage of the study area each classification covered. The conclusion of this study is that there is very little difference between the different data used to compare two study areas.

COMPARING TERRAIN DIFFERENCES AROUND MOUNT SAINT HELENS

WhitLee Powney

GEOG 493 Digital Terrain Analysis

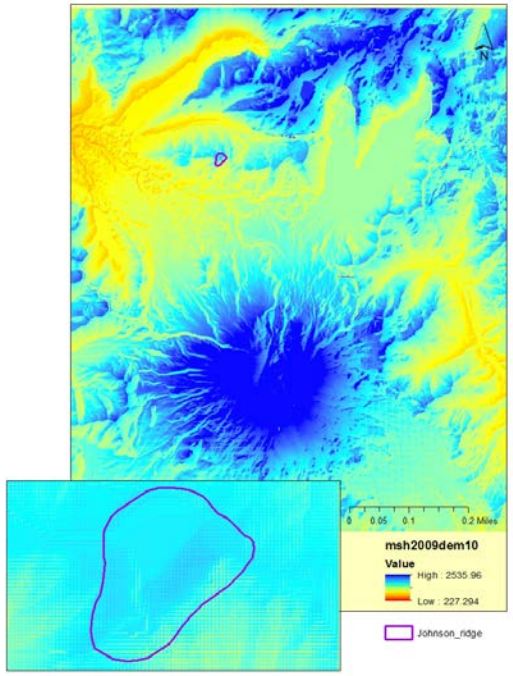
Study Areas



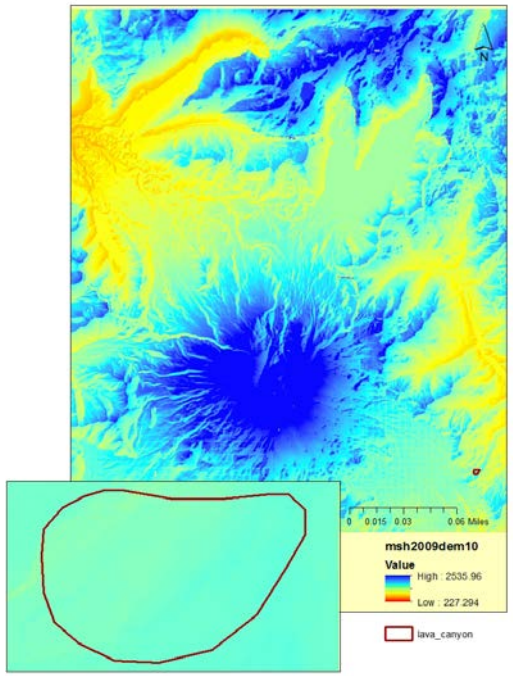
- Mount Saint Helens- SW Washington
- National Volcanic Monument- 113,205.2254 acres
- Johnson Ridge Observatory
- Lava Canyon Interpretive Center

Elevation

Johnson Ridge Observatory

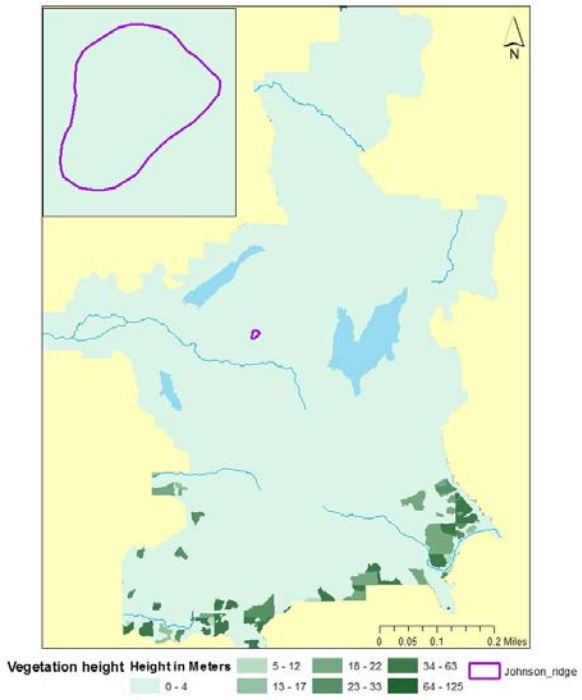


Lava Canyon Interpretive Center

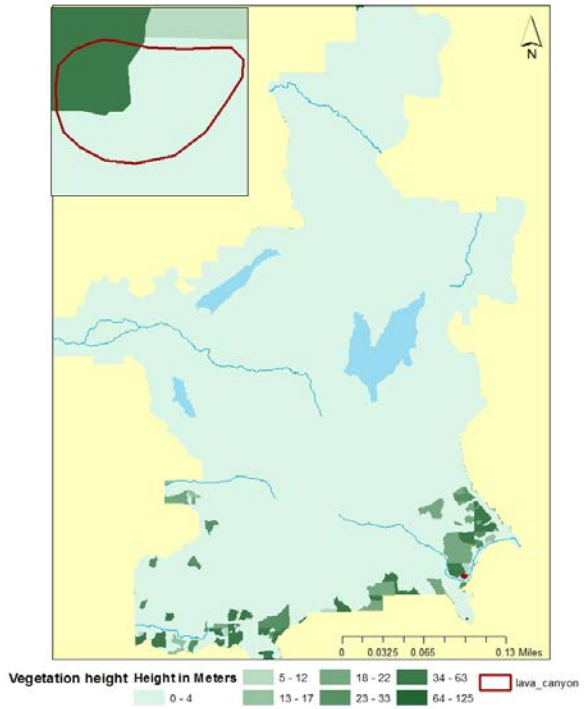


Vegetation Height

Johnson Ridge Observatory

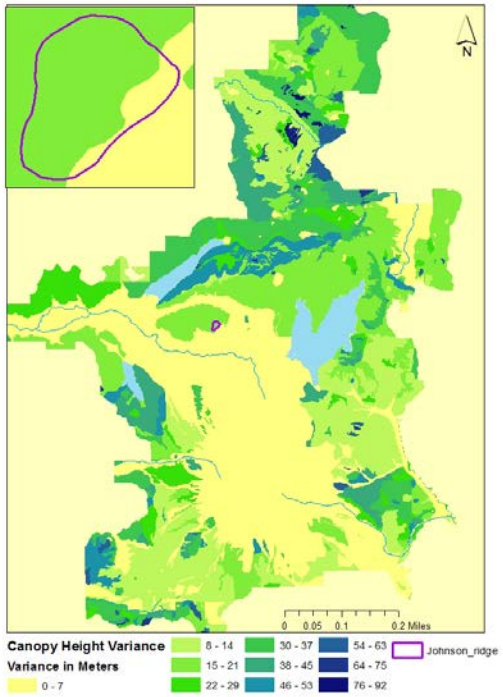


Lava Canyon Interpretive Center

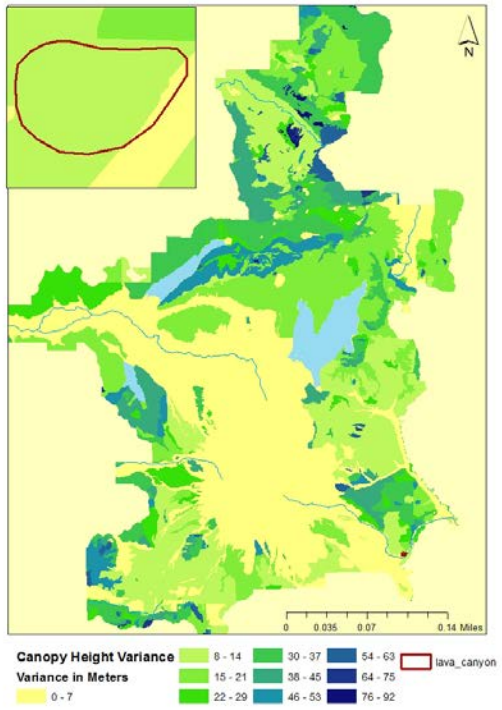


Vegetation Height Variance

Johnson Ridge Observatory

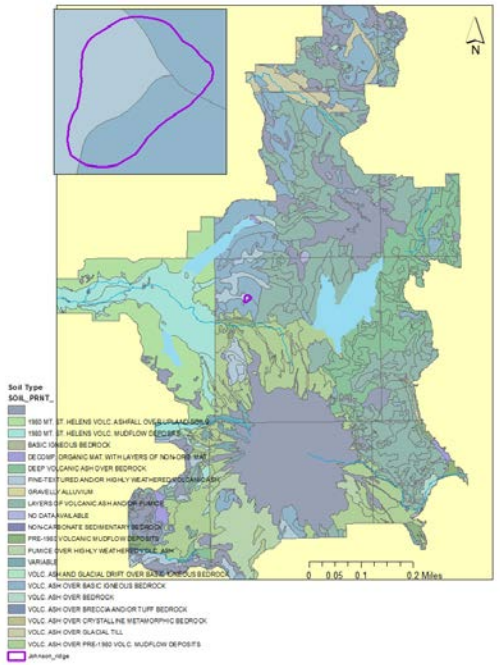


Lava Canyon Interpretive Center

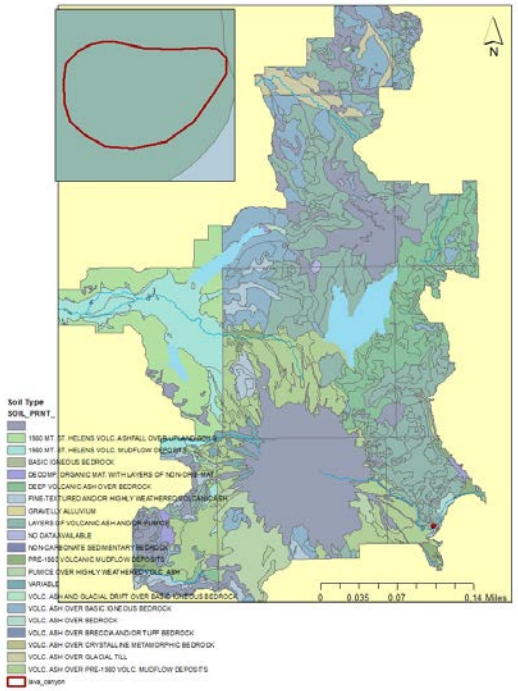


Soil Type

Johnson Ridge Observatory



Lava Canyon Interpretive Center



Data

- United States Department of Agriculture: Forest Service. FS Geodata clearinghouse. https://data.fs.usda.gov/geodata/edw/datasets.php?dsetCategory=structure
- Washington State geospatial portal http://geography.wa.gov/data-products-services/data/data-catalog
- Washington State Department of Natural Resources https://fortress.wa.gov/dnr/adminsa/DataWeb/dmmatrix.html
- State of Washington Department of Ecology http://www.ecy.wa.gov/services/gis/data/data.htm