

IWI Map Portal – Tools updated with new LiDAR data

[URL: https://gisapps.iwinst.org/map-portal/](https://gisapps.iwinst.org/map-portal/)

Access IWI homepage by typing into Google.com: International Water Institute ND

Scroll down and click on [IWI Map Portal](#) link



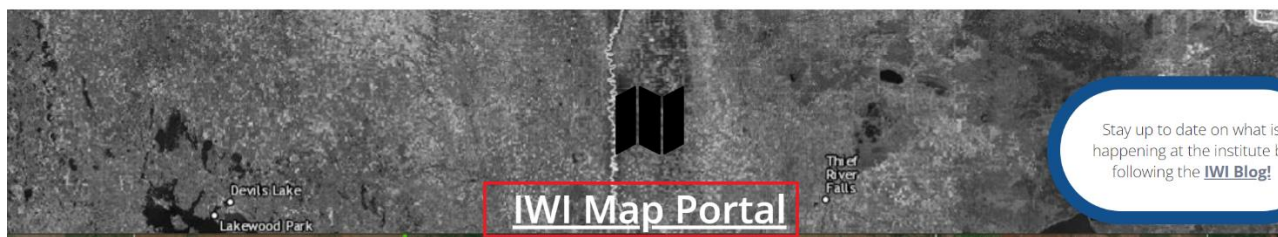
EDUCATION

The International Water Institute works with partners to develop and deliver quality watershed education programming that engages local communities, provides hands-on, experiential learning for youth, and contributes to our understanding of watershed health.

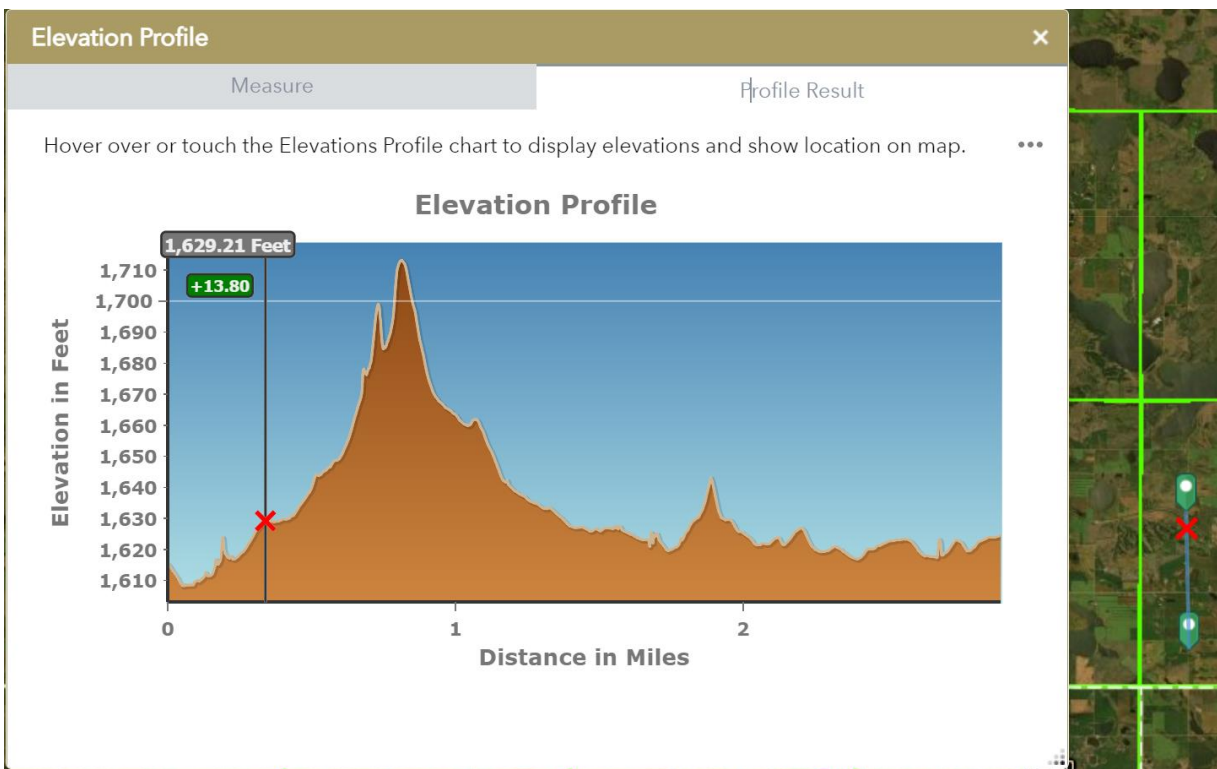
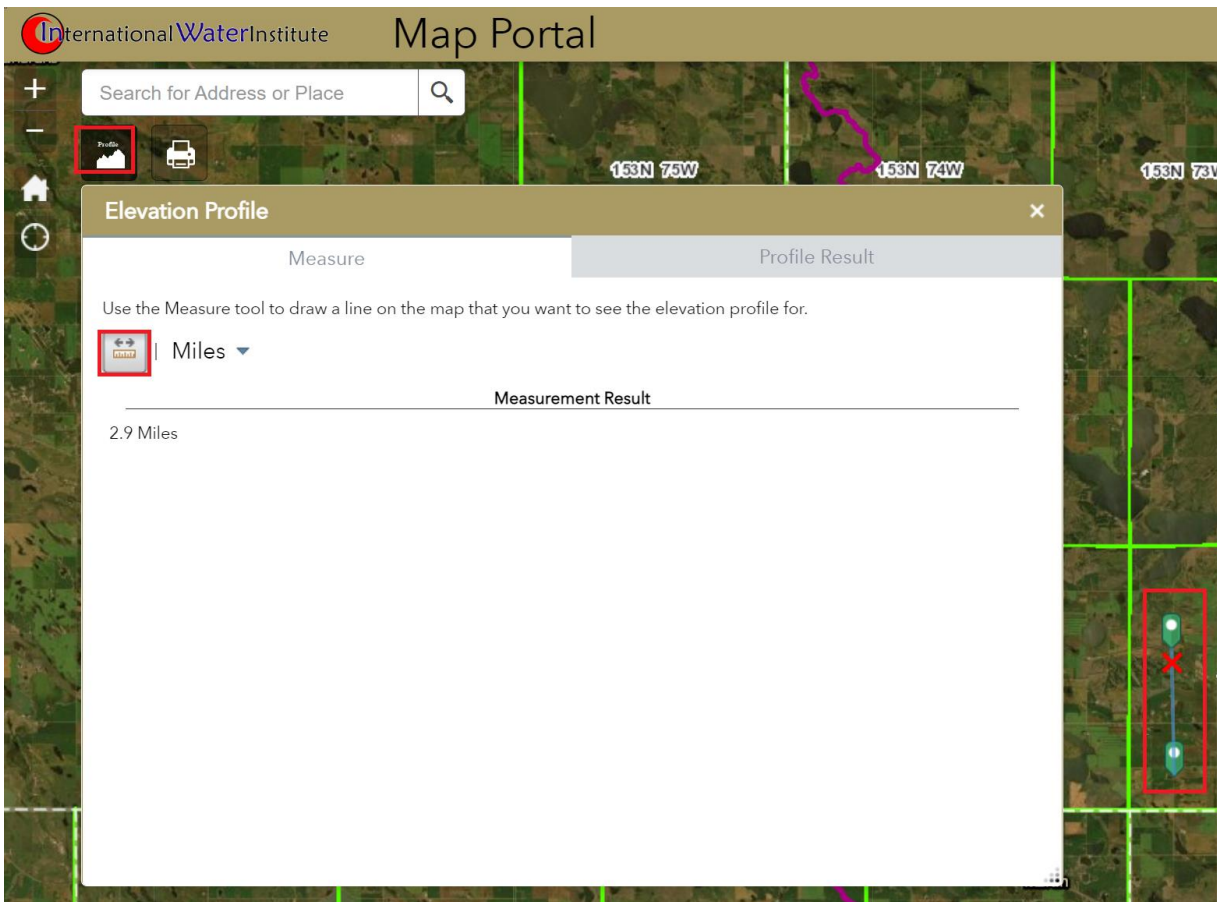


RESEARCH

The International Water Institute collaborates with watershed managers, university faculty, and federal and local government agencies to address critical water management issues related to flood damage reduction and natural resource enhancement.



Elevation Profile Tool (Draw a line anywhere on the map and get a cross section profile)



Elevation Labeler (Click anywhere on the map and get a point elevation)

International Water Institute Map Portal

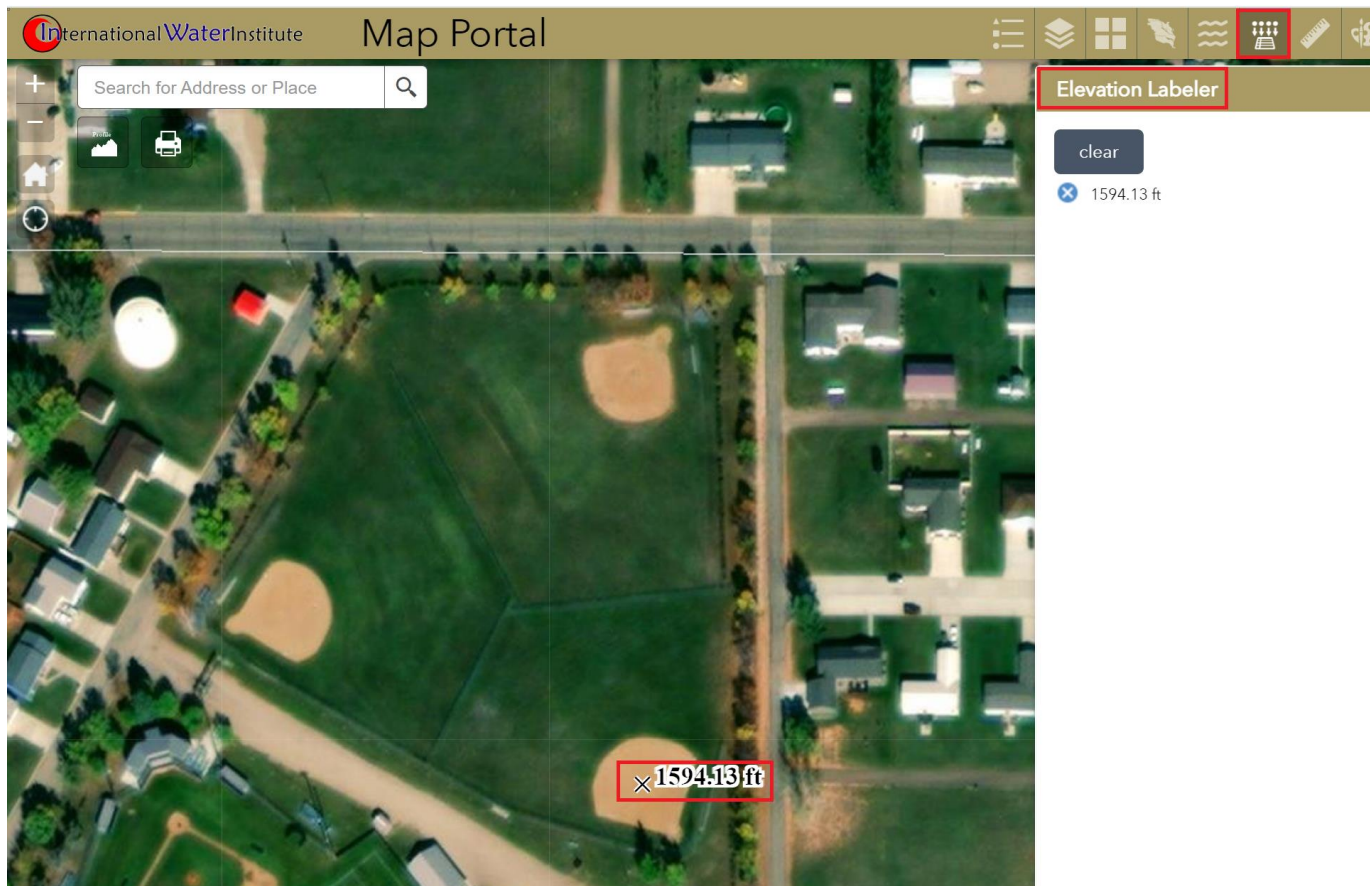
Search for Address or Place

Elevation Labeler

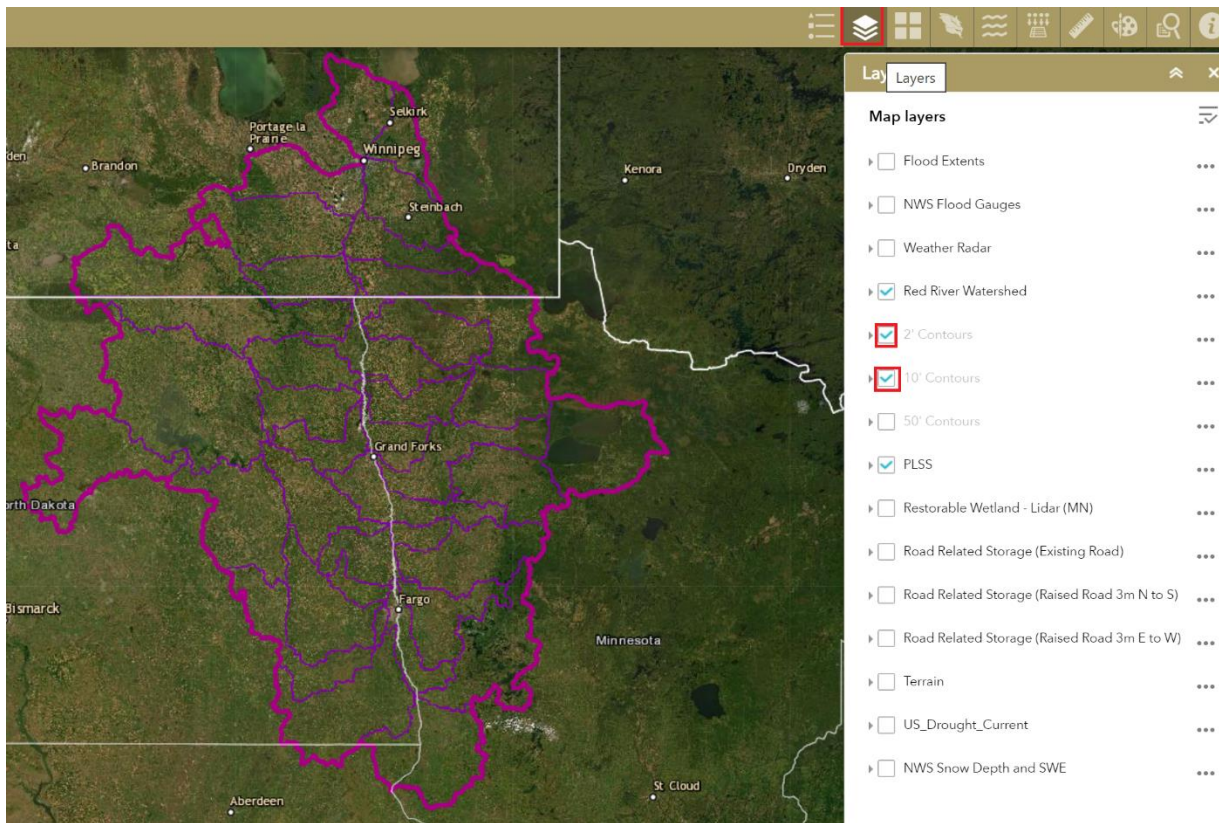
clear

1594.13 ft

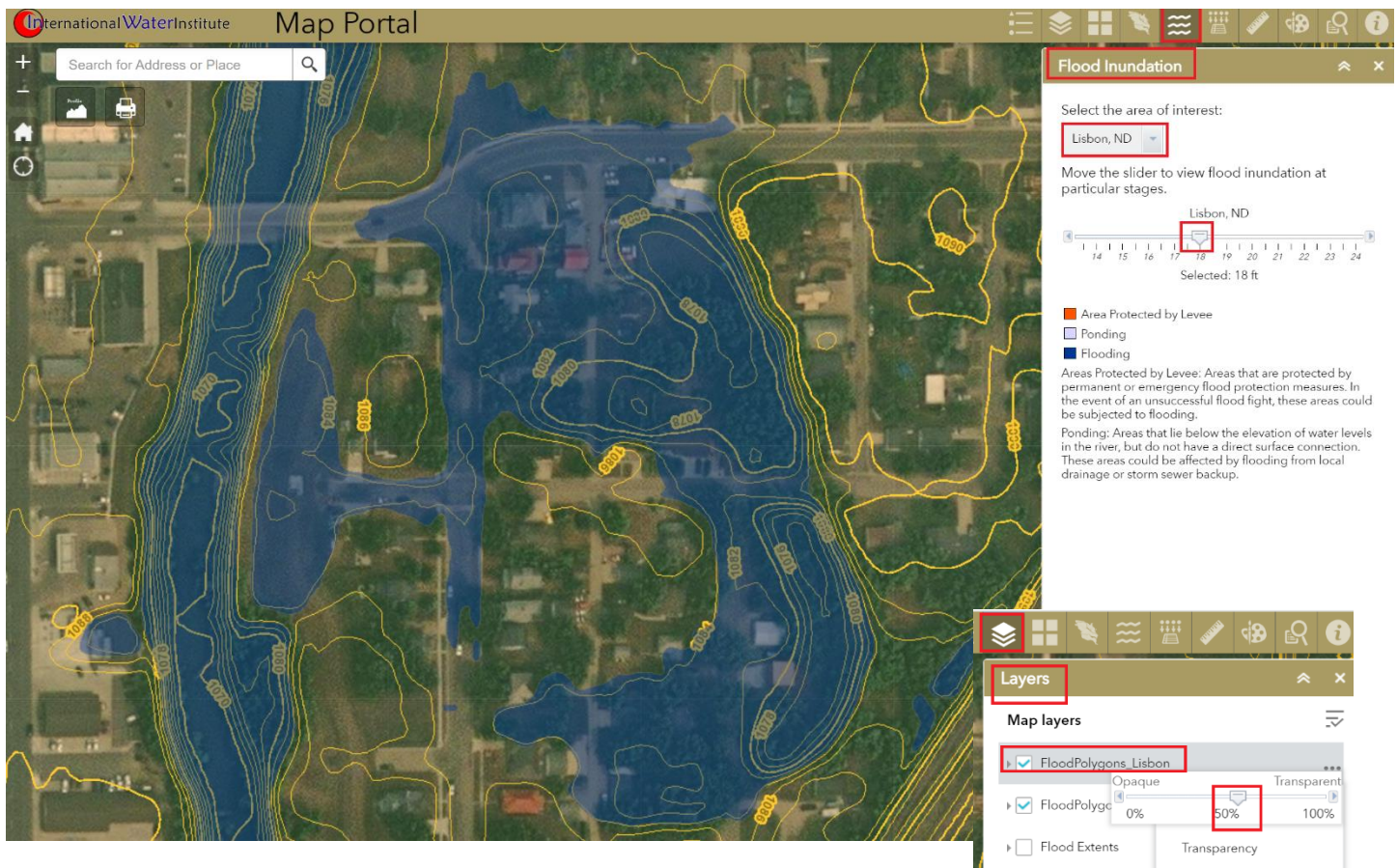
× 1594.13 ft



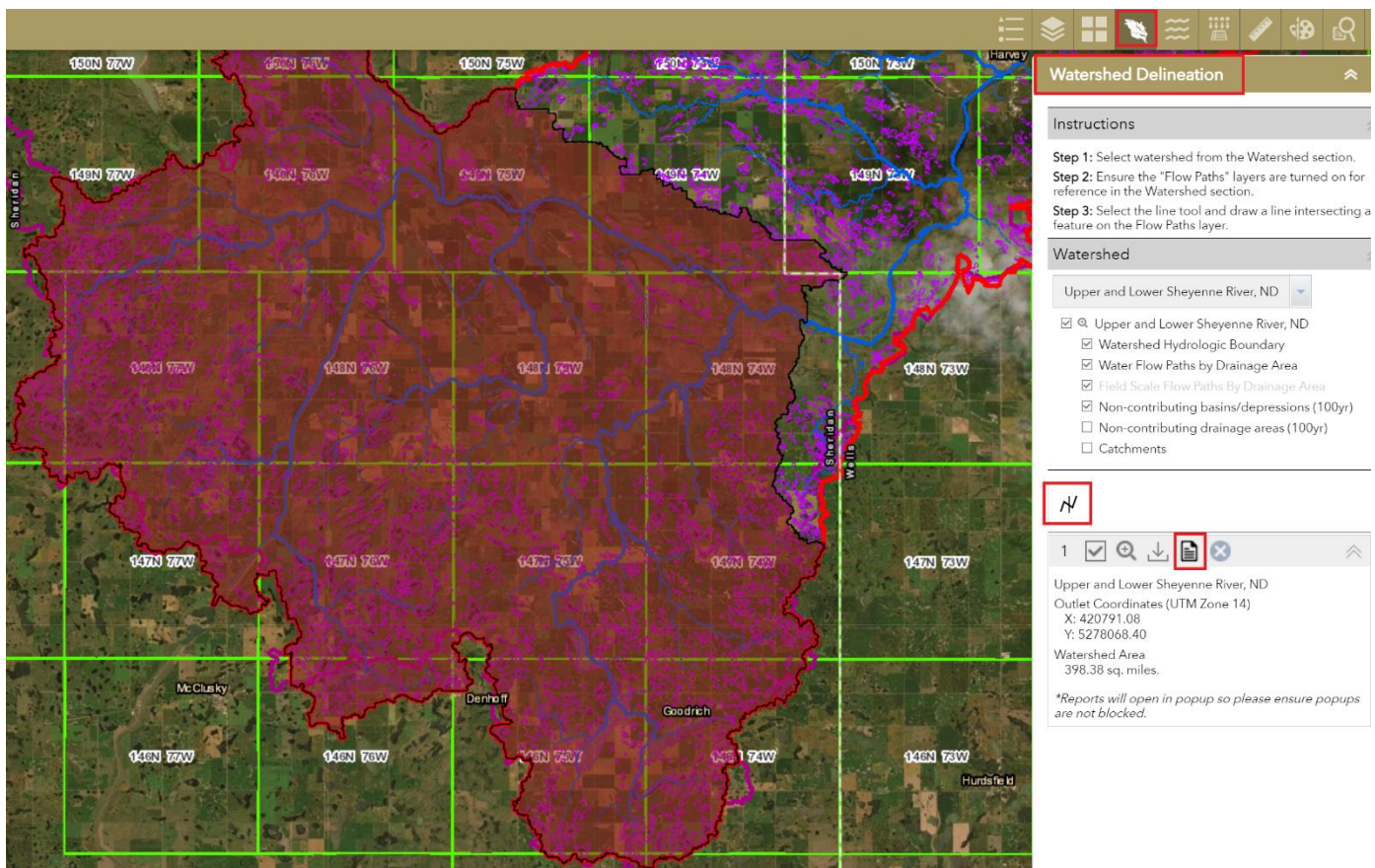
Display Contour Lines on the Map



Display Flood Inundation Extent for Fargo/Moorhead and Lisbon by Varying River Stages



Watershed Delineation Tool



Hydrology Report Tool (Receive information on slope characteristics, curve number, hydrologic soil groups and estimated peak discharges)

Delineated Watershed Physical Characteristics

Slope Characteristics

Characteristic	Value	Units	Data Source
Total Contributing Drainage Area	398.61	Sq. Miles	Hydro Conditioned DEM Derived from LIDAR
Proportion of Area < 3%	45.0%	Percent	DEM Derived from LIDAR
Proportion of Area > 3% and <= 6%	28.8%	Percent	DEM Derived from LIDAR
Proportion of Area > 6%	26.2%	Percent	DEM Derived from LIDAR
Maximum elevation	2,187.4	Feet (1988 NAVD)	DEM Derived from LIDAR
Minimum Elevation	1,581.1	Feet (1988 NAVD)	DEM Derived from LIDAR
Elevation at Outlet	1,582.0	Feet (1988 NAVD)	DEM Derived from LIDAR
Maximum Elevation Change	606.3	Feet	DEM Derived from LIDAR

Hydrology Summary

The top five curve number derived from soils and land use combinations for the delineated watershed are:

Curve Number (CN) Value	Acres
74	107,986.0
58	52,245.5
81	17,619.3
85	17,103.6
100	17,079.7

Hydrologic Soils Group Summary

The dominant hydrologic soils group for this subwatershed is: B.

Hydrologic Soil Group	Acres
A	15,754.0
B	178,890.7
C	30,159.9
D	675.8
A/D	581.2
B/D	7,828.9
C/D	17,817.0
No Data	0.0

Estimated Discharges Using U.S. Geological Survey Regression Equations

Peak discharges are computed using the <https://pubs.er.usgs.gov/publication/sir20155096> report. The report should be reviewed to ensure the reasonableness of input parameters used to develop peak flow rates.

Basin Characteristics:

- Total Drainage Area (area draining to outlet point digitized by user) = 398.61 sq. Miles

2 Year = 270.0 Cubic Feet per Second

10 Year = 876.0 Cubic Feet per Second

15 Year = 1,506.6 Cubic Feet per Second

25 Year = 2,534.5 Cubic Feet per Second

50 Year = 3,457.3 Cubic Feet per Second

100 Year = 4,491.3 Cubic Feet per Second

500 Year = 7,186.2 Cubic Feet per Second

See USGS Report [link](#) for accuracy and limitations of the techniques used to generate this report.