



Twelve Mile Creek Stream Restoration Monitoring: Sediment Transport and Loading

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Twelve Mile Creek Stream Restoration Monitoring

- ▶ Project Goals:
- ▶ Compare sediment transport and loading under pre- and post-restoration conditions
- ▶ Assess stream bank stability and water quality under pre- and post-restoration conditions
- ▶ Project Updates:
- ▶ Pre-restoration sediment monitoring in effect since January, 2020
- ▶ Piloted service learning activities to address stream bank stability and water quality



Sediment Loading in Twelve Mile Creek



January 2015

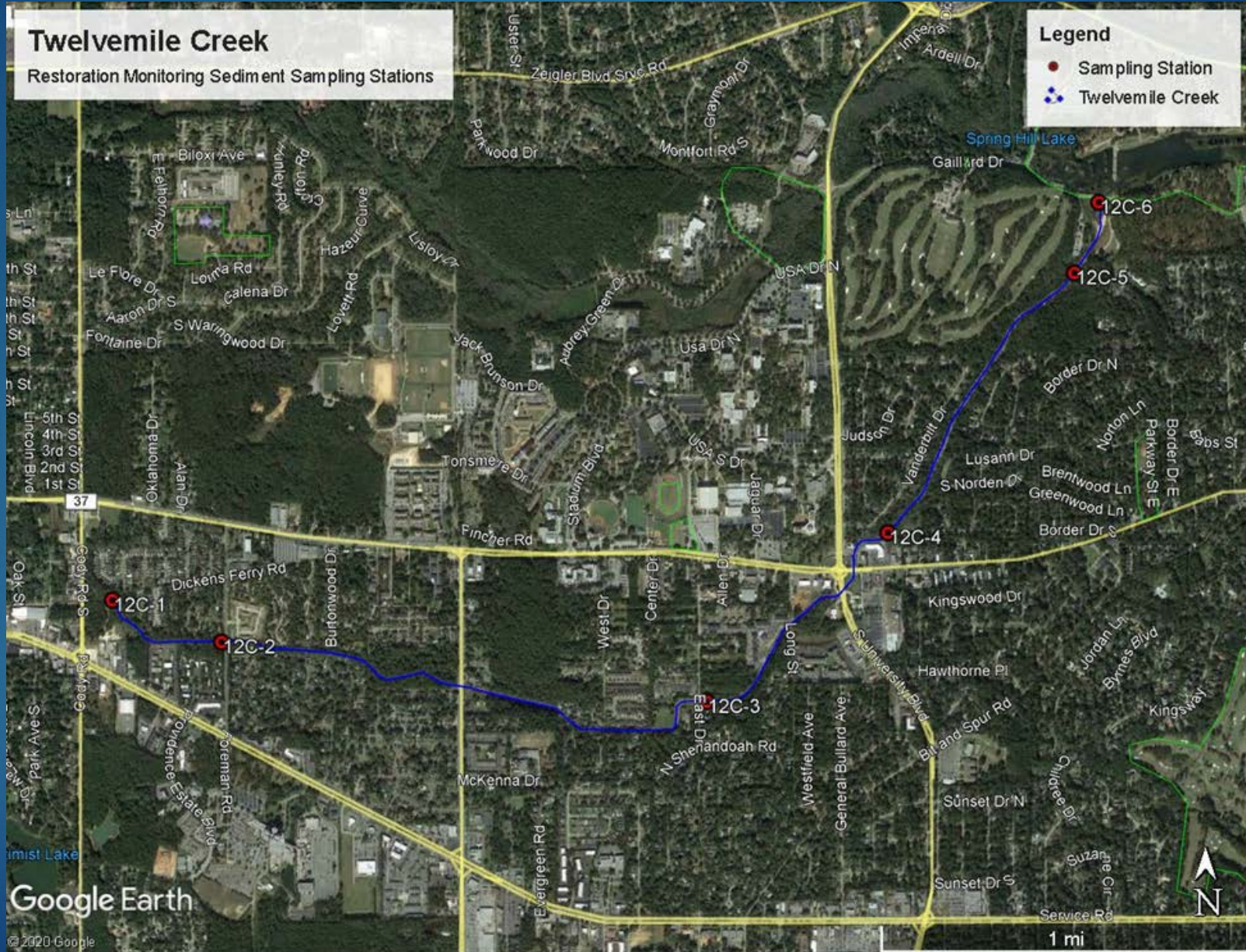


December 2016

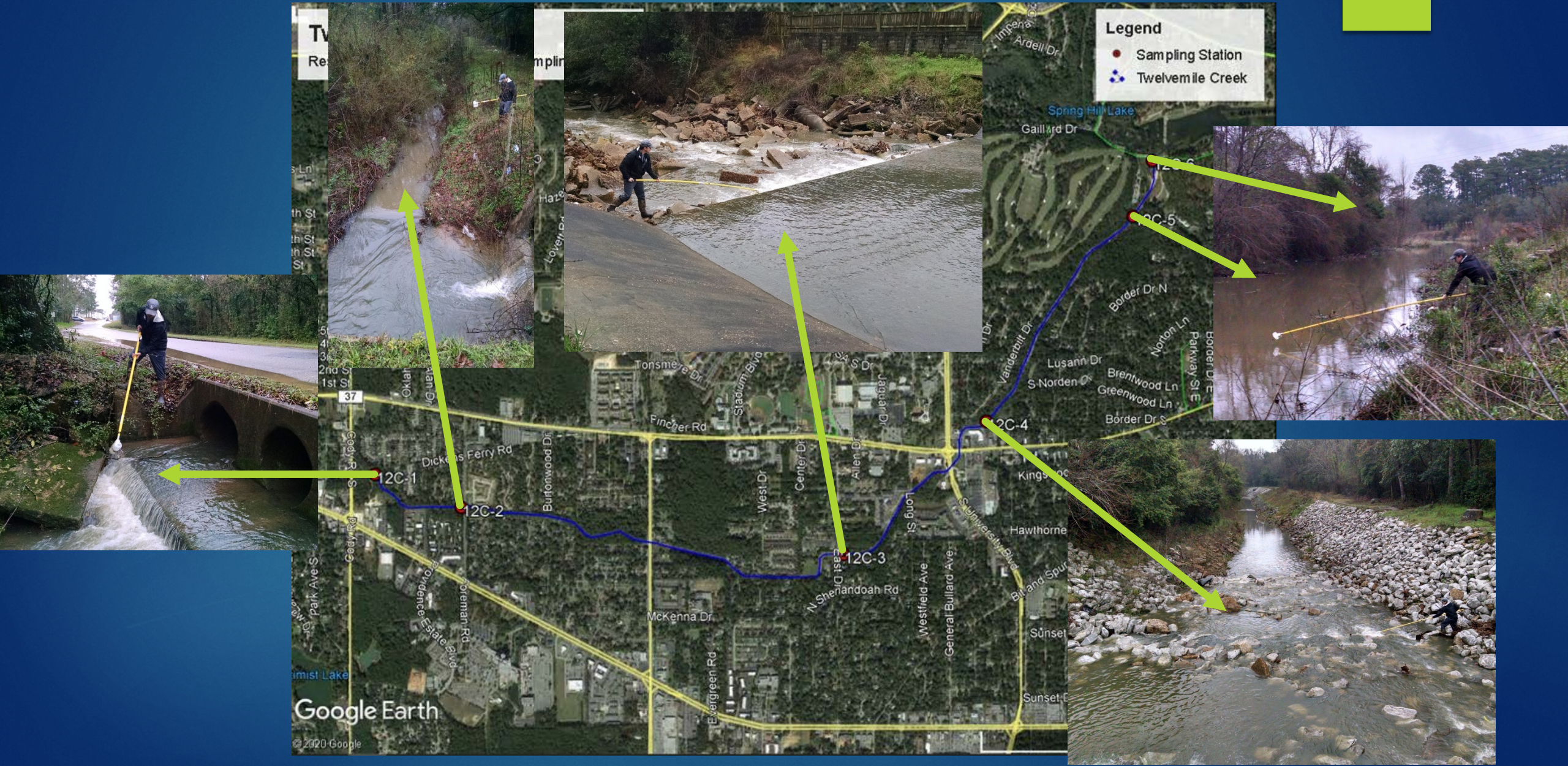


November 2019

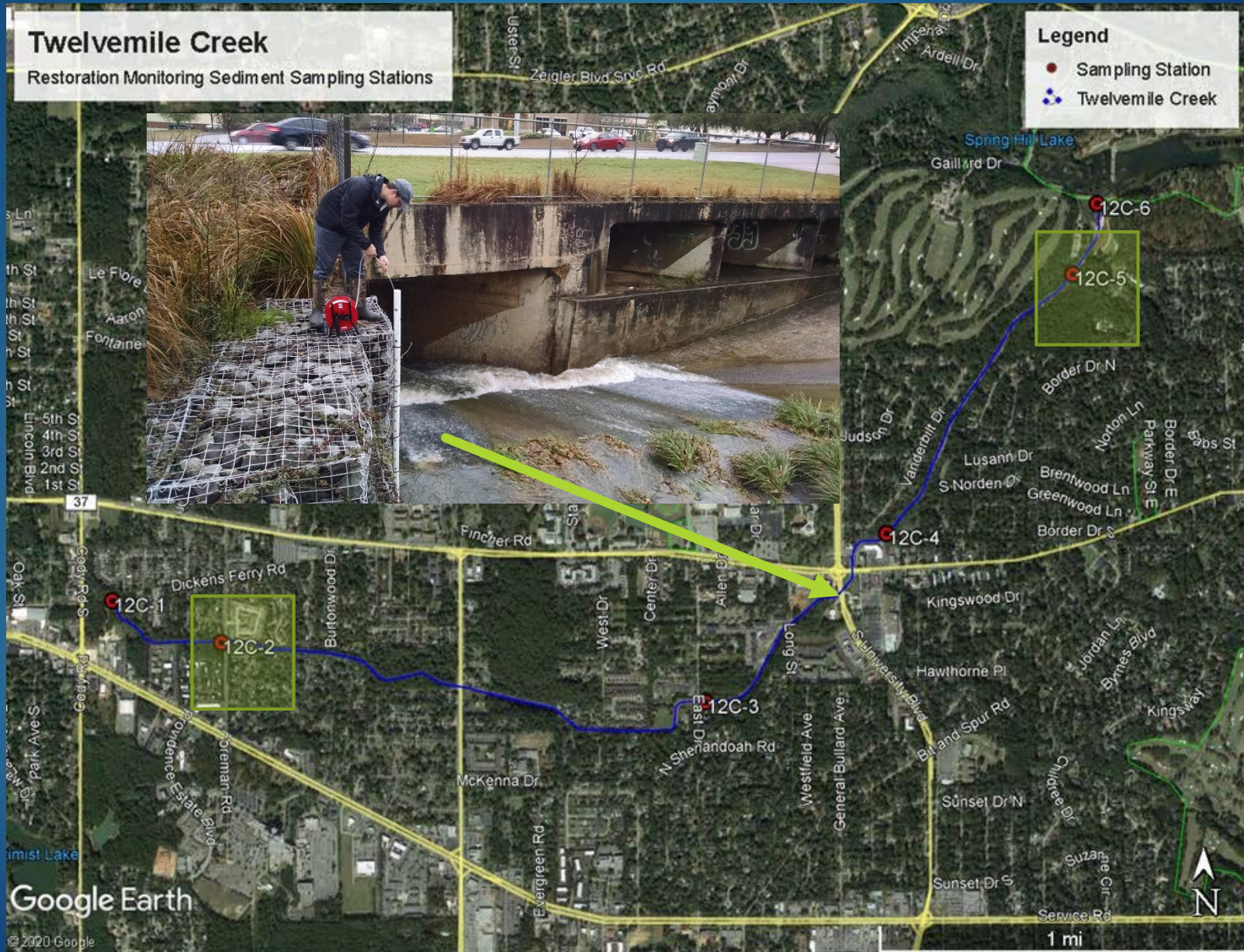
Monitoring Stations



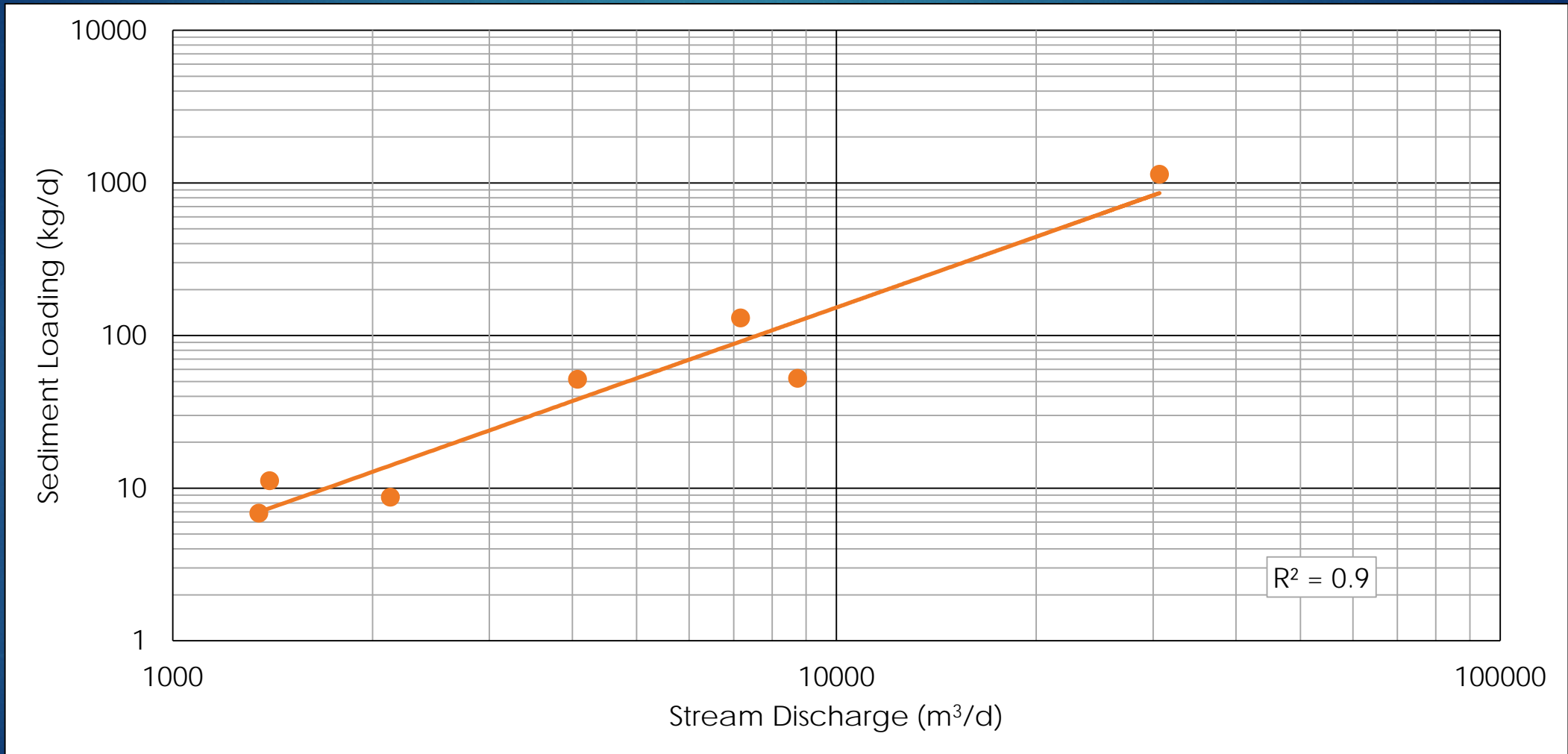
Monitoring Stations



Discharge and Stage Monitoring



Sediment Rating Curves



Twelve Mile Creek Flashiness



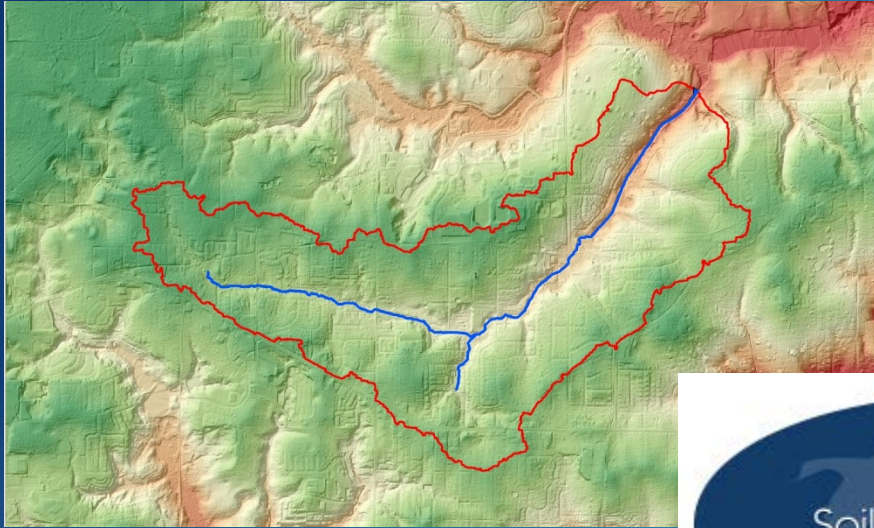
April 23rd – ~1/2 Inch at KMOB



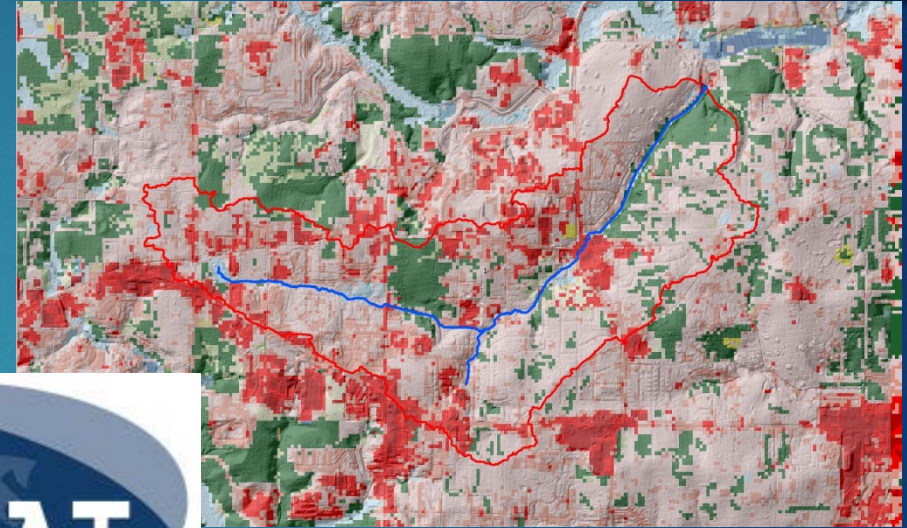
June 7th – Cristobal ~ 5 Inches at KMOB



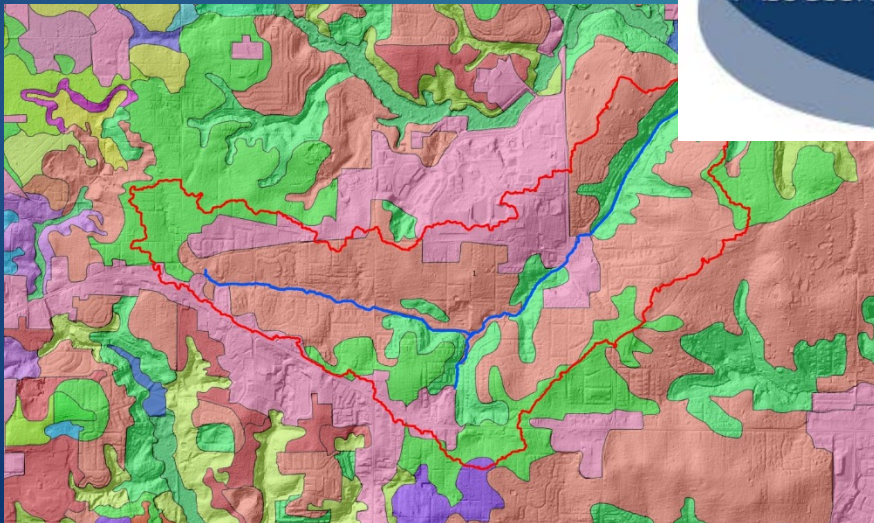
SWAT Model



Terrain



Land Cover

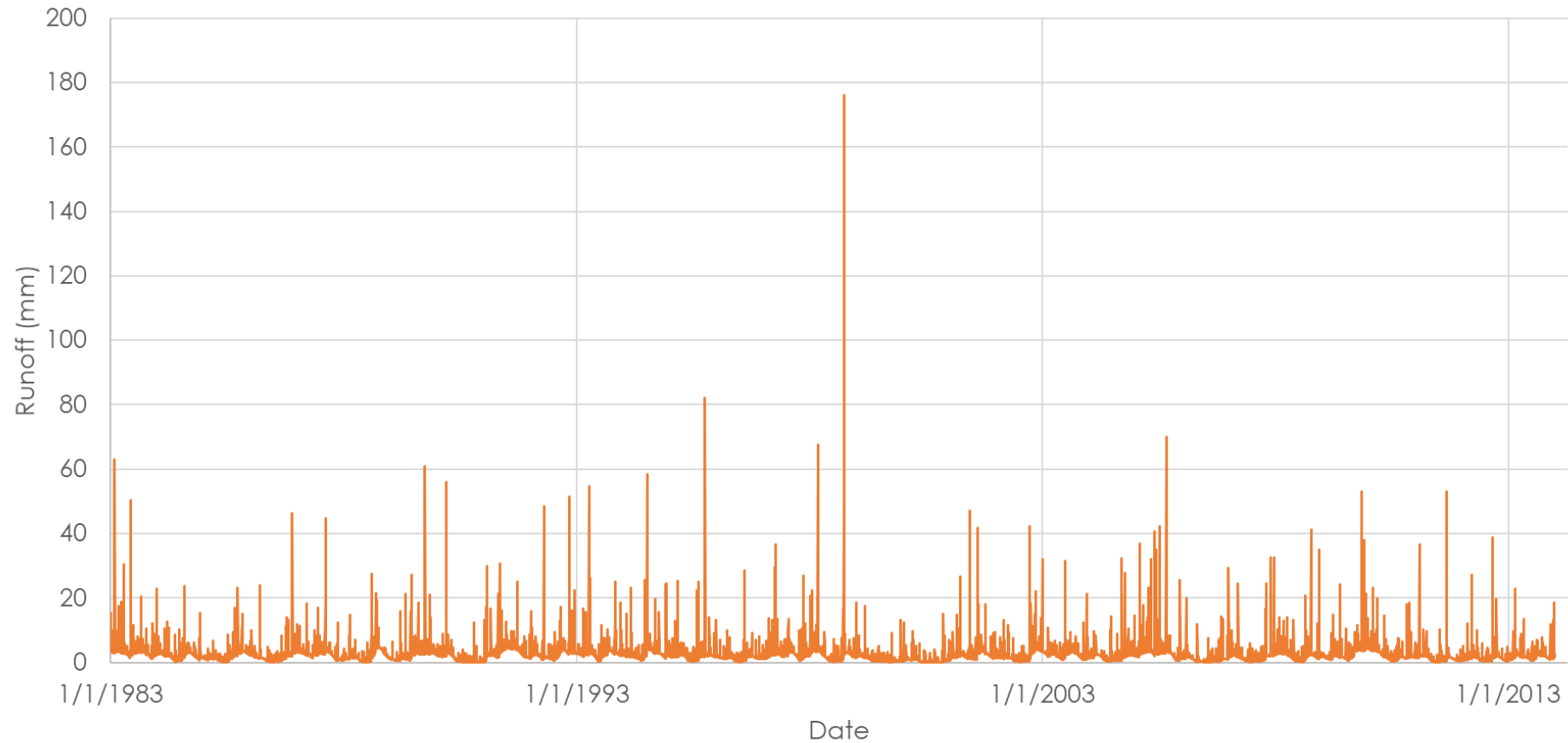


Soils



Weather

SWAT Model



Soils

Weather

Service Learning – Geomorphology, Hydrology, and Field Geology

