Bi-Monthly Progress Report:
Project Number and Title: 4.4: Bridge-stream Network Assessments to Identify Sensitive Structural, Hydraulic, and Landscape Parameters for Planning Flood Mitigation
Research Area: Thrust 4 Connectivity for Enhanced Asset and Performance Management
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Reporting Period: *06.01.2019 to 07.31.2019*
Date: *July 29, 2019*

<u>**Overview:**</u>

The Mad River was chosen for one of the two remaining project sites. Terrain data were collected and a HEC-RAS 2D model has been started. A 2D flow area has been formatted and the river path has been established. Cross section data are in the process of being interpolated so a computational mesh can be calibrated to further the 2D model. We discussed potential project sites for a second location with Cassidy Cote and Nick Wark of the Vermont Agency of Transportation. Josh Carvajal, RME in the Southwest region of Vermont, suggested other locations that meet the criteria including at least one gage. We are currently working on the model for the Mad River and collecting data (reach length, gradient, number of bridges and culverts, USGS gage locations, presence of dams and their purposes) on the recent suggestions to finalize a second project site.
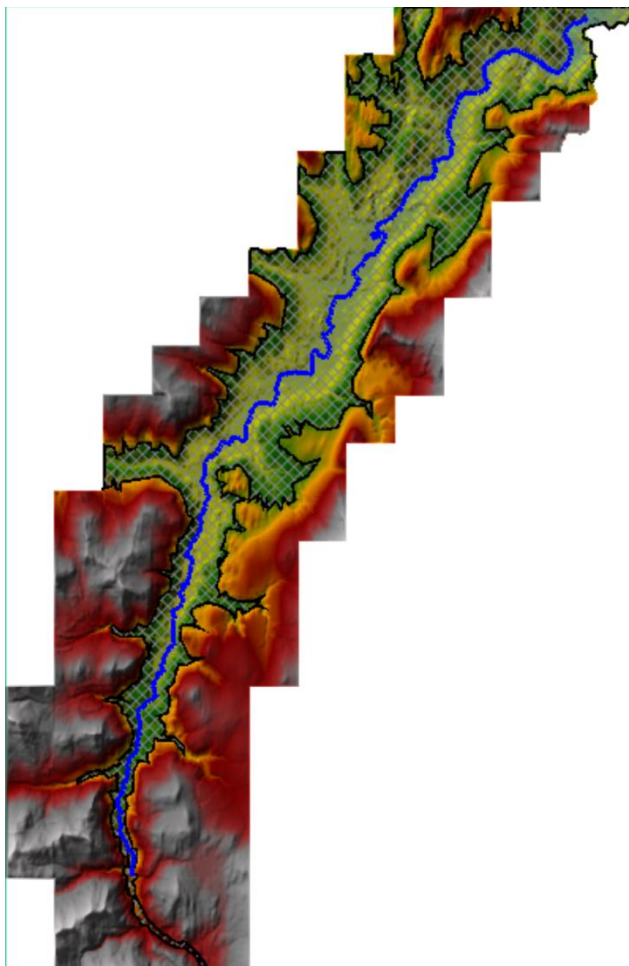

Figure 1: The Mad River terrain displayed in HEC-RAS showing the 2D flow area and river path

Planned Activities:

Interpolate cross sections and manipulate computational mesh to represent the Mad River. Finish collecting data on the newly recommended project locations to finalize the second site.