

MEMORANDUM

To: Lake Carmi TMDL Implementation Team Meeting

From: Thomas Bryce
Caroline Alves

Date: January 17, 2018

Subject: VAAFMS GIS Project Team - Lake Carmi Scope of Work

To Whom It May Concern:

At the request for information by the Lake Carmi TMDL Implementation Team, VAAFMS's GIS Project Team has outlined our scope of ongoing work in the Lake Carmi Watershed in Franklin, VT.

The focus of creating GIS maps of the Lake Carmi Watershed is to have accurate and current data. Assessing water quality problems within the watershed requires a high level of detail. Vermont does not have up-to-date land-use / land-cover (LULC) GIS data. We are using the existing data as a backdrop and then improving the accuracy and detail by field visits to ensure the defined categories are correct. National Land Cover Database (NLCD) is from 2011 and uses 30-meter blocks as the smallest unit. Due to these limitations, the NLCD data is very generalized.

Since areas of annual crops are often implicated as sources of higher erosion, we are delineating these areas based on 2017 cropping patterns. We also will capture the 2018 cropping patterns. The relative proportions of forested land, developed and overgrown farmland impact sediment loss throughout the watershed. Once, this data is developed we have an important baseline of actual land-use for the region.

In addition, we are compiling records of existing parcel data and land ownership within the Lake Carmi Watershed boundary. This data is being pared down to only parcels that contain agricultural cropland/production areas. This will help to develop a record of which parcels are in agricultural use to gain an understanding of land ownership patterns.

The ground truth source data for this project has consisted of 2016 Color Orthophotos for Vermont, 2016 NAIP Color Infrared Imagery for Vermont, and multiple field visits to Lake Carmi from fall 2017 and continued through summer 2018.

If you have any questions/concerns on the details of this ongoing work, please let us know.

Sincerely,

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