

USGS Update 6.24.19

High flow measurements were completed the second week of June. Streamflows at the White River abv. Coal Creek gauge were on the order of 2,500 cubic feet per second (cfs). Streamflow peak in 2018 at this site was closer to 1700 cfs so there was an increase in the amount of streamflow relative to last year. Another difference from 2018 is that the duration of higher flows in 2019 has been much more sustained. This offers more opportunity for channel substrate to stay in motion. Actual peak streamflows at all sites were not measured directly in 2019 because of recent rain events. We don't mind going out in the rain, we just couldn't know this event was coming and therefore didn't plan for it. Streamflows at White River abv Coal Creek reach a preliminary peak of about 4,200 cfs. Streamflow at the White River near Meeker gauge (Green Cabins) was close to 5,000 cfs - showing 4,700 cfs at the gauge. This information will help USGS calculate the thresholds at which different sizes of channel substrate are moved and to what degree and duration that may have happened in 2019.

Currently, river photos are being collected locally at several sites. These photos are being shared with the USGS through the Conservation District in order to observe algae growth. More specifically, we seek to understand when algae growth is at its peak at a given site. The USGS will continue to work closely with the District to determine when peak algae levels are occurring.

Listed below are 2019 tasks completed to date (as of June 24, 2019)

- Scouring flow measurements for 2019
- Isotopic sampling at 9 sites (4 sites had sufficient nitrate for isotopic analysis. No results back yet.)
- 'Pre' algae peak or the 'spring sampling' synoptic for nutrients. (Some results are in and being looked at.)

Listed below are 2019 tasks not yet completed (as of June 24, 2019)

- Scouring flow analysis
- Peak algae sampling
 - i. Chlor a, biomass, nutrients, salinity, streamflow