River Watch Items for the March 2026 UWP WHWG Meeting

- River Watch items of interest March 2026
  - March 2026 sampling was completed on March 4th (Potters Ranch and Ridgway Town). Cow Creek and Below Reservoir sites were sampled on March 1st, and Dallas Creek and CR24 were sampled on March 3rd. February and March metals samples will be shipped to Denver on March 16th or 17th.
  - No streamflow measurements were taken in March. The Global Flow Meter was sent in for repair. No indication yet on how long repair will take.
  - The River Watch volunteer situation is in fairly good shape. We have three River Watch trained volunteers, a fourth volunteer with sufficient UWP training to work on his own, and two volunteers in the midst of UWP training who accompany two River Watch trained volunteers.

- Precipitation and Streamflow:
  - Table 1 shows Snow Water Equivalent (SWE) data for the Gunnison Basin and two SNOTEL sites in the Uncompahgre Watershed through March 8th, 2026. Since February the Gunnison Basin and the two SNOTELs gained 6 – 9 percentage points relative to their median amounts, but stayed at 0 to 4 in percentile rankings. Surprisingly the Idarado and Red Mtn Pass sites gained only 0.3" to 0.4" SWE in the March 6-7 storm when Loghill north of Ridgway received about 12" on snow and 0.9" of SWE.

Table 1. Snow Water Equivalent (SWE) data for the Gunnison Basin, the Idarado SNOTEL and the Red Mountain SNOTEL as of March 7th, 2026.

Date	Gunnison SWE 15 site avg (in)	Gunnison % of Median	Percentile Ranking	Idarado SWE (in)	Idarado % of Median	Percentile Ranking	Red Mtn SWE (in)	Red Mtn % of Median	Percentile Ranking
11/12/25	0.3	16		0.0	0		0.7	25	
11/24/25	1.3	50		1.0	48		1.7	39	
12/08/25	2.8	72		2.2	69		3.8	63	
01/09/26	4.6	65		3.6	64		5.5	53	
02/06/26	5.4	56	4	4.5	55	7	6.7	48	2
03/08/26	8.5	64	4	6.8	61	0	10.2	57	2

  - Streamflow at the USGS gauge on the Uncompahgre River near Ridgway has oscillated above and below its median curve since late October. The discharge at Ridgway was 46.1 cfs on March 7th compared to the median of 48.0 cfs.
  - The USGS gauge on Dallas Creek has shown discharge generally above median flow since late November. There was evidence of snowmelt runoff during a warm period in late February and early March when discharge peaked at 50.7 cfs on March 1st. On March 7th discharge was 15 - 21 cfs with the median being 19.0 cfs.
  - Discharge at the USGS site below Ridgway Reservoir has been between 40 and 55 cfs since November 4th, when the median discharge for this period is 50 cfs. Currently the inflow to the reservoir from Dallas Cr and the Uncompahge River is about 64 cfs, compared to the outflow of about 36 cfs on March 7th. The result is that Ridgway Reservoir storage has continued to increase, reaching 71,030 acre-feet on March 7th. This storage exceeds the 75th percentile of 68,905 acre-feet by 2,125 acre-feet.

- Metal concentration changes from Red Mtn Creek at Idarado to Ridgway Reservoir

  A report by Runkel et al (2005) documented changes in the concentrations of several metals downstream of a study area on Red Mtn Creek. The study reach consisted of a 15 km segment of Red Mtn Creek from near Red Mtn Pass down to Crystal Reservoir. Additional data from samples collected by EPA in 2003 and 2004 allowed for evaluation of water quality below the USGS study area, including the lower portion of Red Mtn Creek and the Uncompahgre River from the confluence with Red Mtn Creek down to a site just upstream of Ridgway Reservoir. The current set of active River Watch sites provides an opportunity to

repeat the USGS study with data collected between 2006 and 2012. The sites used here are shown in Figures 1 and 2. Some metal analysis examples from 2010 are presented below.

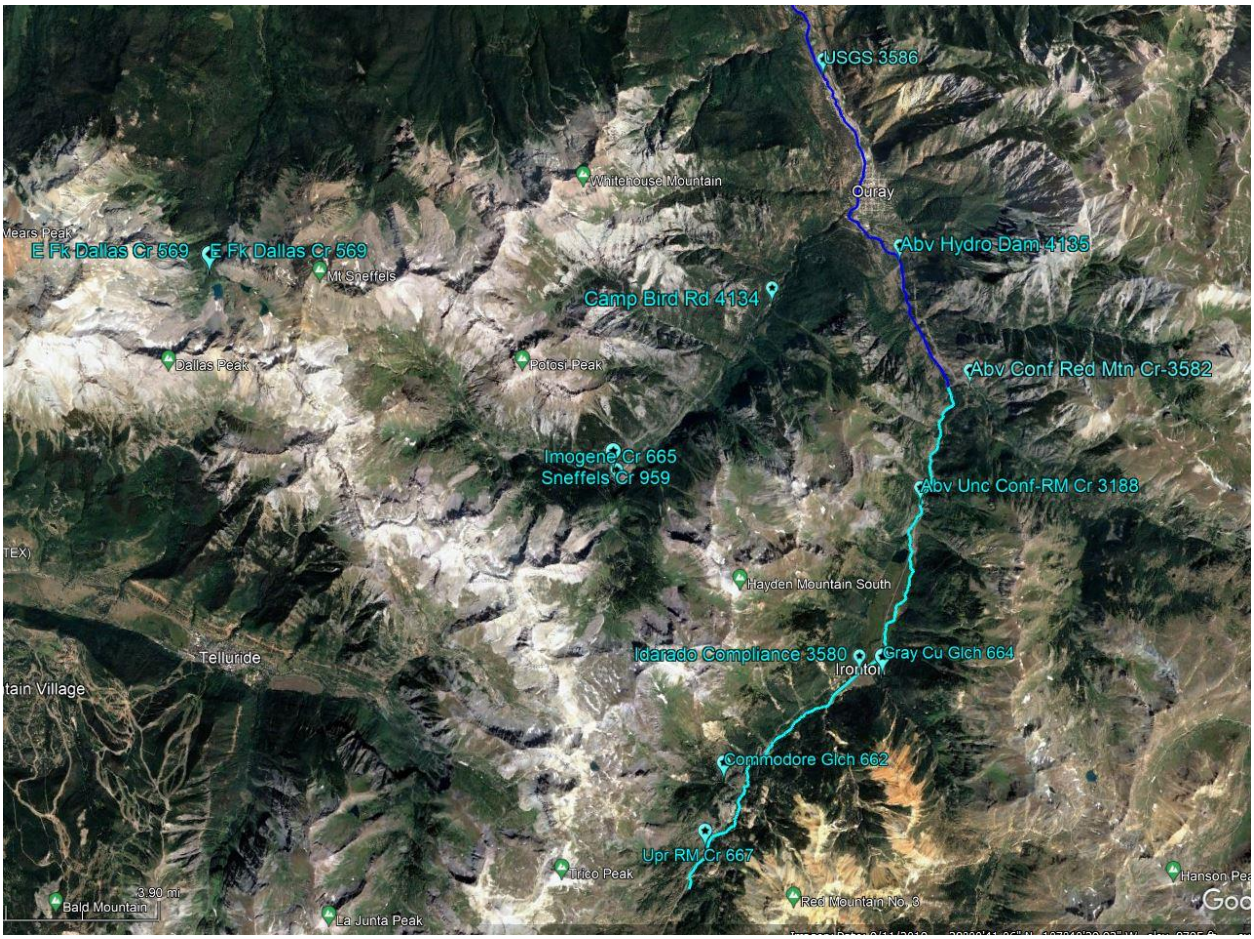

Figure 1. Map showing River Watch sites in the upper Uncompahgre Watershed. Sites used in this report are 3580, 3188, 4135 and 3586. Light blue line is Red Mtn Creek and dark blue line is the Uncompahgre River.

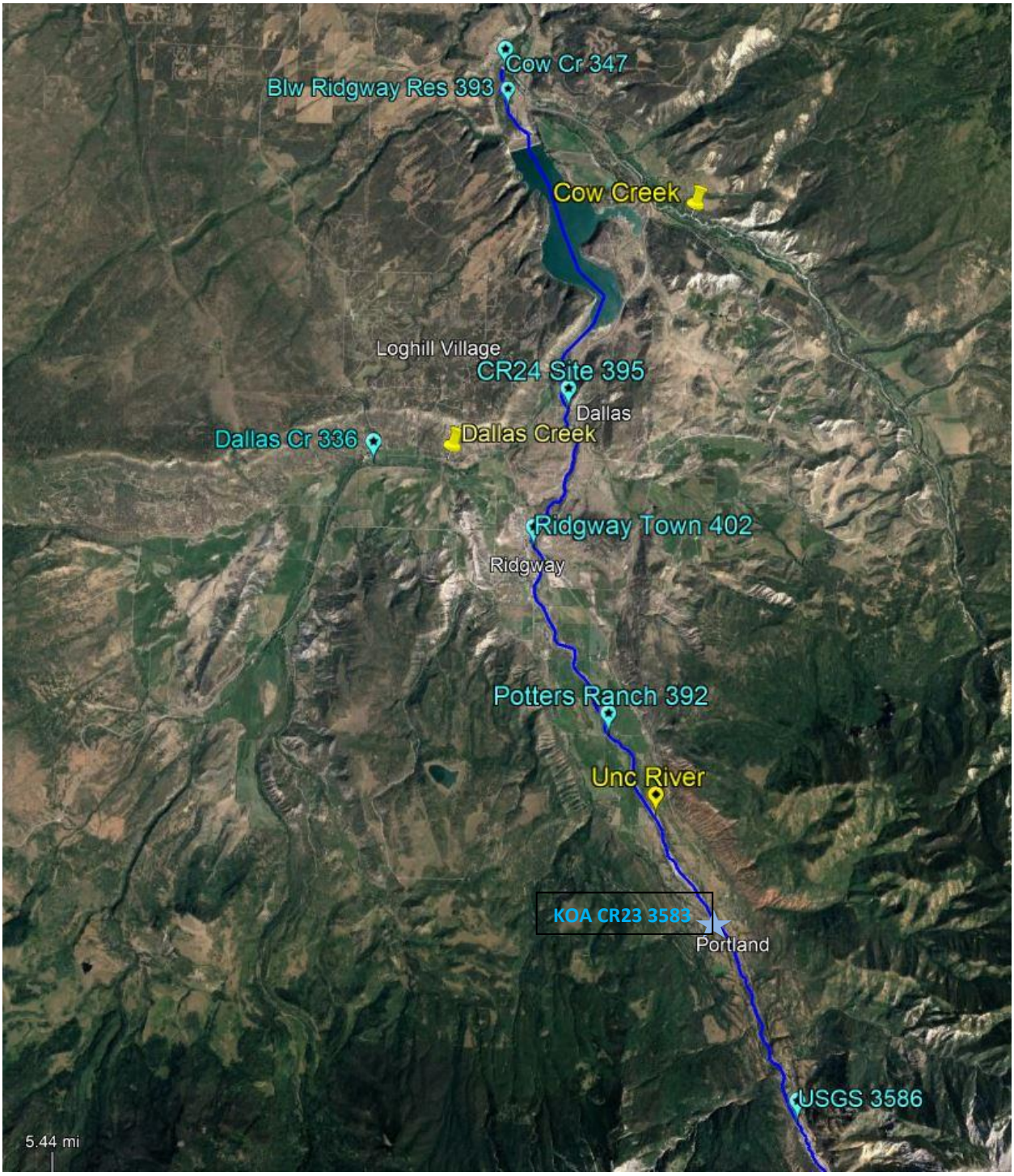

Figure 2. Map showing River Watch sites in the lower part of the Uncompahgre Watershed. Sites used in this report are 3586, 3583, 392, and 395. Dark blue line is the Uncompahgre River.

Dissolved and total copper (Cu) concentrations from June 2010 for seven River Watch sites are shown in Figure 3. The highest site is on Red Mtn Creek at Idarado, and the lowest is on the Uncompahgre River at Cr24. Note that June typically has the highest flows on Red Mtn Creek and the Uncompahgre River. The decrease in Cu concentration from Idarado to Abv Hydro, where pH was less than 7 and where total and dissolved Cu concentrations were nearly equal, was primarily due to dilution from the Crystal Reservoir outlet, the Uncompahgre River above Red Mtn Creek (shown in Figure 1), Bear Creek and other smaller tributaries with low Cu concentrations. As noted in Figure 3 pH also increased downstream to the point where Cu reactions occur (increasing between pH 4 and 7) and solid precipitates form, with the result being a decrease in the dissolved Cu concentrations. This is most obvious in Figure 3 where pH is greater than 7. The overall decrease in total Cu concentrations below the Abv Hydo site was due to both dilution and reactions. These June profiles were similar to the April 2003 copper profiles from Runkel et al (2005).

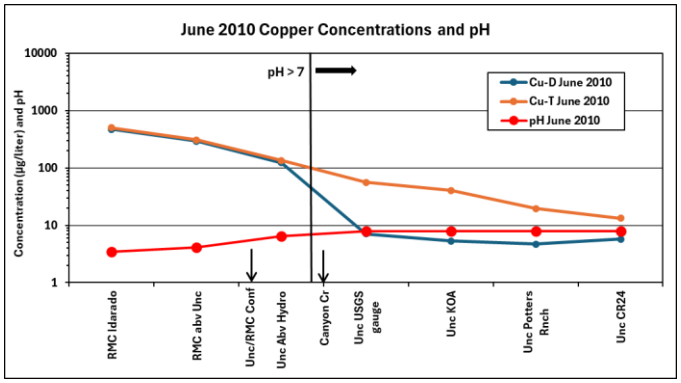

Figure 3. Profiles of concentrations of dissolved and total Cu, and pH, from samples collected in June 2010. River Watch site locations are shown in Figures 1 and 2.

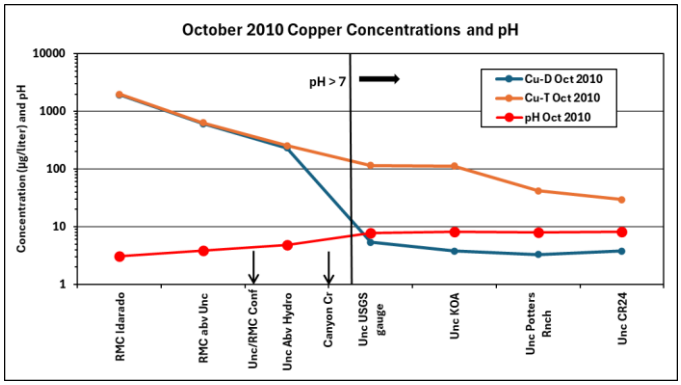

Figure 4. As in Figure 3, except showing dissolved and total Cu concentrations, and pH, from samples collected in October 2010.

Figure 4 shows Cu concentrations and pH for samples collected during low streamflow in October 2010. The upstream to downstream decreases in total Cu concentrations were like those noted in June, and the dissolved Cu concentrations also abruptly decreased where pH became greater than 7. The main differences between June and October were the much higher total concentrations at all sites in October and the somewhat lower pH values at the three highest sites in October.

Figures 5 and 6 present June and October profiles for dissolved and total iron (Fe) concentrations. Iron is highly soluble at a pH of 4 and becomes insoluble at a pH of 7. Figure 5 shows some decrease in dissolved Fe between Idarado and Abv Hydro, but then a rapid decrease below the Abv Hydro site as the pH increased to greater than 7. As with copper, the October low-flow profiles in Figure 6 show higher concentrations of total Fe at all sites.

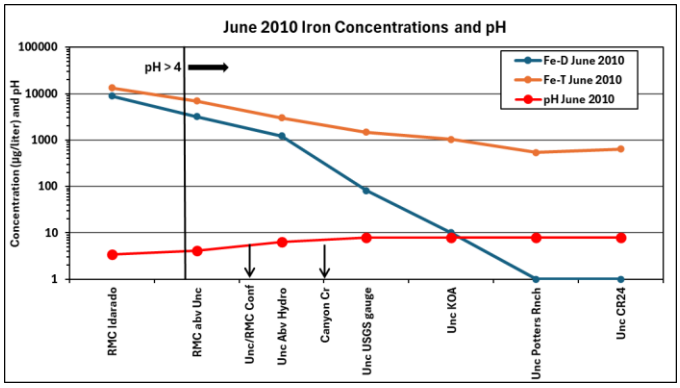

Figure 5. As in Figure 3, except showing profiles of dissolved and total iron concentrations in June 2010.

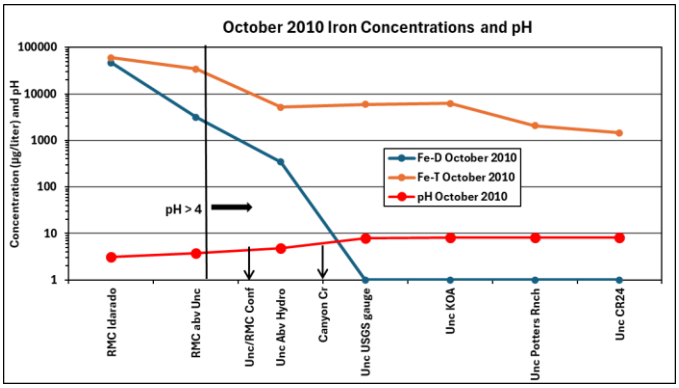

Figure 6. As in Figure 4, except showing profiles of dissolved and total iron concentrations in October 2010.

However, the decrease in dissolved Fe was much more rapid to the point where dissolved Fe was not detectable downstream of the USGS gauge site just below Ouray.

June and October zinc (Zn) profiles are presented in Figures 7 and 8. Zinc is soluble at pH 1 – 4, becoming less soluble as pH increases to 6 or 7. The June profiles for zinc in Figure 7 are similar to those for copper in Figure 3. As with copper, all zinc was in dissolved form at the upper three sites, then dissolved Zn separated from the total Zn profile as reactions occurred when pH increased to 7 below the Abv Hydo site. However, compared to dissolved Cu, there was less of a decrease in dissolved Zn after a pH of 7 was reached. The June 2010 profiles were also similar to the April 2003 Zn profiles shown in Runkel et al (2005), where dissolved and total Zn values were equal above the Red Mtn Creek-Uncompahge confluence. The October low-flow profiles in Figure 8 were like those in June with Zn being completely dissolved at the three highest sites. However, the October Zn concentrations were 1.6 to 3.6 times greater than June concentrations at the highest three sites. Although the October total Zn concentration profile was very similar to June, the dissolved profile in October showed a sharper decrease in concentrations below the Abv Hydro site, and October dissolved concentrations were lower than June values at the four lowest sites.

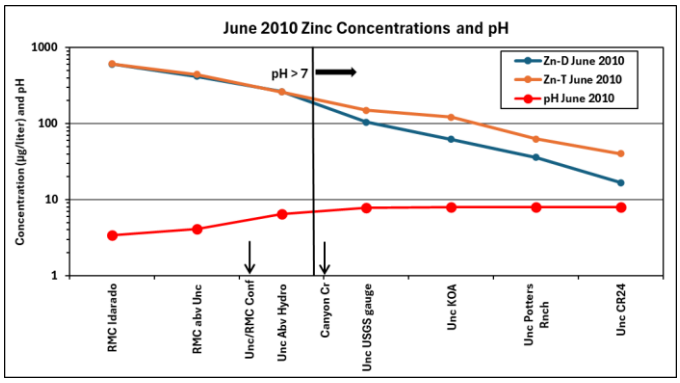

Figure 7. As in Figure 3, except showing profiles of dissolved and total iron concentrations in June 2010.

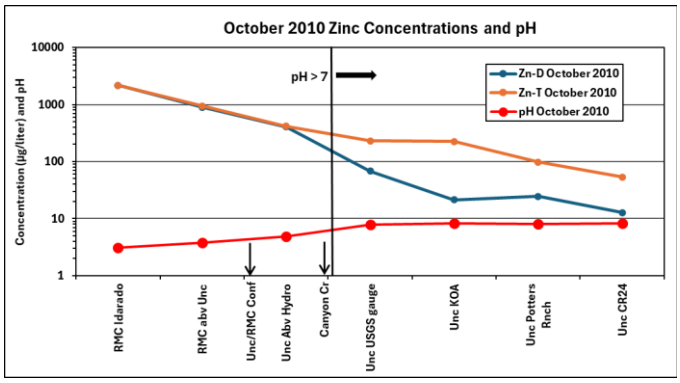

Figure 8. As in Figure 4, except showing profiles of dissolved and total zinc concentrations in October 2010.