Extension
UtahStateUniversity

BEAVER COUNTY, August 19, 2026

Beaver Producer Bulletin

Cottonwood Fire: Water Quality Assessment for Livestock

Following the Cottonwood Fire and subsequent flooding, USU Extension tested water from **12 locations throughout Beaver County** to determine whether water quality meets recommended standards for livestock and irrigation.

Chemical testing was conducted by Utah State University's Analytical Laboratory (USUAL), which compares the results to established guidelines for livestock and irrigation water.

E. coli testing was conducted by the Utah Department of Agriculture and Food's regional watershed coordinator in partnership with the Utah Division of Water Quality.

Test Sites

Water Quality Results

Overall, **most water measurements were within the laboratory's recommended ranges for livestock.** However, some locations showed elevated results that producers should be aware of.

Areas to Watch

From Chemical Analysis 7/29/26 (monitoring monthly)

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Location	Measure	Result	Livestock Standard
Beaver River 4	Aluminum	**8.7 mg/L**	< 5.0 mg/L
North Creek 7	Aluminum	**5.1 mg/L**	< 5.0 mg/L

Note: Because aluminum can tie up magnesium and phosphorus, the state veterinarian suggests keeping mineral blocks out when cattle are drinking surface water with elevated aluminum.

From E. coli Analysis, 1st = August 3, 2026; 2nd = August 10, 2026 (monitoring biweekly)

Location	1st E. coli (MPN/100 mL)	2nd E. coli (MPN/100 mL)	Livestock Standard
Beaver River 2	not tested	94.1	< 100 cfu/100mL*
Beaver River 4	92.4	site dry - not tested**	< 100 cfu/100mL*
Beaver River 5	**559.3**	**1,859.6**	< 100 cfu/100mL*
North Creek 8	**2,202.9**	site dry - not tested**	< 100 cfu/100mL*
Beaver River 11	**1,070.8**	**124.15**	< 100 cfu/100mL*

Note: 1 MPN/100 mL is generally equivalent to 1 CFU/100 mL

*<100 cfu/100 ml is the standard for adult cattle. <1 cfu/100 ml is recommended for juvenile or lactating cattle and other animals.

**E. coli can survive in soil for months. E. coli may surge at these sites when water returns.

For areas west of 1-15, it is recommended to seek alternate water sources until healthier E. coli levels are observed. If animals are accessing surface waters, it is recommended to watch for diarrhea or other distress.

pH Analysis 7/29/26

Location	Week 2	Livestock Standard
Beaver River (sites 1, 2, 3, 11)	8.0-8.2	5.5-8.3

North Creek (site 8)	8.2	5.5-8.3
Beaver River (sites 9, 10, 12)	**8.4**	5.5-8.3

Note: Elevated pH can result from wildfire and ash runoff. Animals may avoid drinking water if pH rises above 8.5. The state veterinarian recommends watching animals for dehydration.

Harmful Algal Blooms

Some sites are elevated for phosphorus. This may contribute to the overgrowth of cyanobacteria. Unlike regular algae, this "blue-green algae" can produce toxins that are dangerous or fatal to animals. Community members are encouraged to watch ponds, reservoirs, and slow-moving water for **harmful algal blooms (HABs)**.

If you suspect a harmful algal bloom:

- Keep animals away from the water and avoid touching the suspected material.
- Use a stick to gently scoop the material from the water. If long green "hair-like" strands attach to the stick, it is likely **harmless** filamentous algae.
- If the material stays suspended and does not catch on the stick (or comes up in "globs"), this may be a harmful algal bloom. In this case, please take photos (close up and standing back from the water), and send with a location pin to **rhett.marshall@usu.edu**.

The Bottom Line - What This Means for Producers

Most of the water tested remains within the recommended ranges for livestock. With some concern for elevated aluminum at Beaver River 4, and greatest concern for E. coli levels exceeding established standards for livestock (< 100 cfu/100 ml water for adult cattle, and much lower amount for juvenile/lactating cattle and other animals).

When possible, alternate water sources are recommended in areas with elevated E. coli counts. These levels will continue to change as waterborne pathogens get flushed downstream. USU Extension and our partners at the Division of Water Quality and the Utah Department of Agriculture and Food will keep producers informed through these changing conditions.

Please contact Rhett Marshall with specific questions.

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In collaboration with the USU Analytical Laboratory, the Utah Department of Agriculture & Food, the Utah Division of Water Quality, and the Beaver Board of Commissioners.