

**From:** [jamiles](#)  
**To:** [Simi\\_Jay@Waterboards](mailto:Simi_Jay@Waterboards)  
**Subject:** Fwd: Objection to 303(d) List Revisions  
**Date:** Wednesday, October 19, 2016 2:31:10 PM

---

----- Forwarded Message -----

**Subject:** Objection to 303(d) List Revisions

**Date:** Wed, 19 Oct 2016 14:25:26 -0700

**From:** jamiles <[jamiles@ucdavis.edu](mailto:jamiles@ucdavis.edu)>

**To:** "J ay.Simi"@waterboards.ca.gov

**CC:** [sroneto@ucanr.edu](mailto:sroneto@ucanr.edu)

I understand that the Central Valley Regional Water Quality Control Board has proposed revisions to the 303(d) list that would update the 2012 list. Under the proposed revisions, there are 6 water bodies on the Stanislaus National Forest that are identified as being impaired. The proposed listings cite the pollutant as Indicator bacteria and the specific pollutant for each water body as fecal coliform and/or Escherichia coli (E. coli). The water bodies include:

- [Bell Creek \(Tuolumne County\)](#)
  - [Indicator Bacteria \(47152\)](#)
- [Bull Meadow Creek \(Tuolumne County\)](#)
  - [Indicator Bacteria \(52440\)](#)
- [Jawbone Creek \(Tuolumne County\)](#)
  - [Indicator Bacteria \(52446\)](#)
- [Jawbone Creek, unnamed tributary \(Tuolumne County\)](#)
  - [Indicator Bacteria \(52447\)](#)
- [Niagara Creek \(Tuolumne County\)](#)
  - [Indicator Bacteria \(52453\)](#)

- [Rose Creek \(Tuolumne County\)](#)
  - [Indicator Bacteria \(52460\)](#)

For each of the above proposed listings, livestock grazing is identified as the contributing factor. Under the Environmental conditions or QAPP (Quality Assurance Project Plan) section for each identified water body, the following statements can be found; “the samples were collected after cows were present in the area”, “samples were collected under the Bacteria Contamination of Surface Waters Due to Livestock Grazing in the Stanislaus National Forest, California”.

I also understand the current evaluation guidelines for determining indicator bacteria is from the US EPA Ambient Water Quality Criteria for Bacteria – 1986. The guidelines set forth in this document don’t account for species identity for fecal coliform and E. coli. Although livestock can be contributing factors to indicator bacteria in the watersheds, wildlife far outnumber livestock. Until DNA based molecular markers are used to screen species, livestock shouldn’t be identified as the sole factor.

I further understand that the data used to propose these 6 listings was submitted by a single source that has recently shifted to advocate a strong position against all livestock grazing in upper elevations of the USFS.

In 2013, researchers from the University of California Davis published a peer-reviewed study titled “Water Quality Conditions Associated with Cattle Grazing and Recreation on National Forest Lands.” Their findings tell a very different story than the data included in the listing proposal. In summary:

- Relative to USEPA’s national E. coli fecal indicator bacteria (FIB) benchmarks—the most contemporary and relevant standards for this study—over 90% of the 743 samples collected in the study were below recommended criteria values.
- FIB concentrations were significantly greater when stream flow was low or stagnant, water was turbid, and when cattle were actively observed at sampling.
- Recreation sites had the lowest mean FIB, total nitrogen, and soluble reactive phosphorus concentrations, and there were no significant differences in FIB and nutrient concentrations between

key grazing areas and non-concentrated use areas.

- The results suggest cattle grazing, recreation, and provisioning of clean water can be compatible goals across these national forest lands.

Since the samples were taken during a period of drought and since they were taken immediately following or during the grazing season, and within a short distance of actual watering locations, I do not believe they are actually indicative of the true characteristics of the streams. It is easy to collect single source data to confirm ones perception of truth. As a professional engineer and a emeritus University professor I can assure you that such data could never be published in a peer reviewed journal. Such low quality data should never be used for action such as modifying the 303(d) listing.

John Miles  
Professor Emeritus, UCD  
5001 Carbondale Road  
Plymouth California 95669