**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 8**
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Ref: 8WD-CWQ December 3, 2022

Ms. Jodi Gardberg
Manager, Watershed Protection Section
Utah Department of Environmental Quality
195 North 1950 West
Salt Lake City, UT 84116

Subject: EPA comments on Utah Department of Environmental Quality proposed 2022 303(d) list

Dear Ms. Gardberg:

The purpose of this letter is to provide the Environmental Protection Agency's (EPA) comments on the Utah Department of Environmental Quality (DEQ) proposed 2022 303(d) list. UDEQ has done an excellent job in the development of the 303(d) list, and EPA appreciates the opportunity to provide comments. EPA has provided detailed comments in Attachment 1. In addition to providing comments in this letter, EPA will upload these comments via the online tool available at https://deq.utah.gov/water-quality/2022-integrated-report.

We look forward to receiving your final 2022 303(d) list and continuing to collaborate with Utah DEQ. If you have any questions or would like to discuss these comments, please contact me at (303) 312-6888 or reems.shera@epa.gov. Again, thank you for you and your team's hard work on the 2022 303(d) list.

Sincerely,

SHERA REEMS

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Date: 2021.12.03 15:25:39 -07'00'

Shera Reems,
Monitoring and Assessment Team
Water Quality Section
Clean Water Branch
Water Division

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Attachment 1

EPA Comments on Utah's Proposed 2022 303(d) List

Implementation of Numeric Nutrient Criteria.

- EPA appreciates the work conducted by the UDEQ to apply the headwaters numeric nutrient criteria in the 2022 303(d) list process. To ensure transparency in how UDEQ made assessment decisions, please provide the data considered to the public.
- As a future enhancement, EPA recommends UDEQ consider including a column in the table, "Draft Integrated Report: 305(b) and 303(d)" that identifies headwater assessment units for which the numeric nutrient criteria apply.
- In its May 1, 2020 action letter on Utah's headwaters nutrient criterion, EPA noted that "within the middle range of nutrient concentrations, the combined nutrient criterion relies on a combination of numeric nutrient criteria thresholds and ecological response indicators (i.e., gross primary production (GPP)[1], percent filamentous algae cover, and ecosystem respiration (ER)[2]) to protect aquatic life uses in Utah's headwater streams." EPA further stipulated that "[f]or filamentous algae, the EPA remains concerned that the 33% filamentous algae threshold is not protective of aquatic life uses in headwater streams as a sole measure of nutrient enrichment but is a reasonable response indicator to be used *in conjunction with* other measures of adverse effects. In other words, the EPA views the data and analysis UDWQ submitted as supporting the construction of the combined criterion that includes the threshold for filamentous algae cover <u>as a component of the full suite of all three response variables</u> to determine that a stream fully supports its aquatic life uses.[3]" [emphasis added]
- EPA's review of the data file associated with Utah's draft 2022 IR[4] identified data for several assessment units where TN or TP concentrations are within the "moderate" range of nutrient concentrations and there is not data for the full suite of response variables, yet the assessment unit is identified as fully supporting in the draft IR. EPA's action on the headwaters nutrient criterion requires affirmative confirmation from all three response variables for assessment units to be fully supporting within this "moderate" range of nutrient concentrations. EPA recommends the state place these assessment units in Category 3 "insufficient data and/or information" until such time that data is collected for all three response variables to align with EPA's action on Utah's headwaters nutrient criterion. To ensure this approach is consistently applied, EPA recommends Utah review the available data. Here are a few examples:
    - Fish Lake Tributaries, Row 16, has a total phosphorus (TP) concentration of 0.043 mg/L (within the "moderate" range); filamentous algae cover of 22 %; no data for GPP or ER.

[1] GPP is a stream metabolism metric that measures oxygen production in the stream.
[2] ER is a stream metabolism metric that measures oxygen consumption in the stream.
[3] The EPA interprets Table 8: Decision Matrix That Will Be Used to Assess Support of Headwater Aquatic Life Uses for Nutrient-related Water Quality Problems (Proposal, page 43) as requiring that all three response indicators thresholds must be met for a stream to be considered as fully supporting when the TN and TP concentrations are "between the lower and upper thresholds."
[4] Excel file provided to EPA on 11/23/2021 labeled "hncc_asmnts_v4.lsx".

        - Salt Creek-2, Row 32, has a TP concentration of 0.053 mg/L and a total nitrogen concentration of 0.4 mg/L (within the "moderate" range); filamentous algae cover of 32%; no data for GPP or ER.
    - EPA also encourages UDEQ to review the available data for several assessment units where the data file indicates a 303(d) impairment for nutrients and this information is not reflected on the draft 2022 303(d) list. These include:
        - La Sal Creek-1, Row 20, has a TP concentration of 0.039 mg/L; ER value of 4.9; filamentous algae cover of 30%; and GPP of 0.6 with a relatively high canopy cover. These results suggest a developing nutrient enrichment problem. EPA recommends that the state collect additional data for the La Sal Creek as part of the 2024 IR process.
        - East Fork Virgin River-1, Row 12, impaired for nitrogen, and column G identifies the assessment unit as not supporting
        - Boulder Creek, Row 8, impaired for phosphorus and algae, and column G identifies the assessment unit as not supporting.
        - Strawberry-4, Row 39, impaired for nitrogen. Currently, the 303(d) list only identifies pH and dissolved oxygen.
        - Manning Creek, Row 23, impaired for phosphorus. Currently, the 303(d) list only identifies pH and dissolved oxygen.

Lakes delisting report.

- Update the delisting comment for all of the lakes to include a rationale, similar to the information provided in the rivers and streams delisting report, for removing the lakes from the 303(d) list.

Rivers and streams delisting report.

- Update the delisting comment for Pariette Draw Creek. As currently written, the write-up is not clear on the data used for making the assessment determination to remove this waterbody from the 303(d) list.
- Update the delisting comment for Provo River 6-3. The comment should explain what is meant by "tripped" and spell out the acronym POR.
- Update the delisting comment for Freemont River – 2 and Freemont River – 3 to include the TMDL ID in ATTAINS R8-UT-2021-01.