Utah Division of Water Quality
195 North 1950 West
Salt Lake City, UT 84116

VIA ELECTRONIC MAIL: egaddis@utah.gov

Re: Draft 2022 Integrated Report: Public Comment – Requesting the Inclusion of Hydrologically Impaired Waterways in Utah's 2022 Integrated Report

Earth Law Center is a nonprofit organization that advances the rights of waterways and other ecological systems. We have advocated for complete and accurate 303(d) lists and 305(b) reports for ten years, particularly in California and other Western states. We believe that the Utah Division of Water Quality (DEQ) should consider all readily available data and information, including flow data, and list waterways as "impaired" due to hydromodification where support by such data and information.

As you know, the Clean Water Act requires listing *all* sources of impairment—including hydrologically-impaired waterways, such as those with low flows. (Attachment 1 is a report from Earth Law Center on this subject; Attachment 2 is an example of hydrologically impaired waters being listed by other states).[1] Hydrologically-impaired waterways should be listed under Category 4C, which is reserved for waterways that are "impaired due to pollution not caused by a pollutant."[2] Although hydrological impairments do not trigger TMDLs, as explained by U.S. EPA, "States can employ a variety of watershed restoration tools and approaches to address the source(s) of the impairment" for Category 4C listings.[3] Some states list hydrologically impaired waterways under Category 5 for convenience. Furthermore, Federal regulations state that States must evaluate "all existing and readily available information" in developing their 303(d) lists and prioritizations.[4] Readily available data includes flow data as well as the 305(b) report itself.[5]

U.S. EPA addresses the process of identifying hydrologically impaired waters in its 2015 EPA Listing Guidance, which does not require adoption of flow standards as a prerequisite for listings, stating that:

> If States have data and/or information that a water is impaired due to pollution not caused by a pollutant (e.g., aquatic life use is not supported due to hydrologic alteration or habitat alteration), those causes should be identified and that water should be assigned to

[1] For a full legal analysis and description of state practices, *see* Earth Law Center, "Flow-Impairment Toolkit: Impairment Listings for Low-Flow Waterways under the Clean Water Act" (attachment 1).
[2] *See e.g.,* U.S. Environmental Protection Agency, "Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," p. 15 (Aug. 13, 2015).
[3] *Id.*
[4] 40 CFR § 130.7(b)(5)
[5] See *Thomas v. Jackson*, 581 F.3d 658, 661 (citing 40 C.F.R. § 130.7(b)(5)(i)).

> Category 4C. Examples of hydrologic alteration include: a perennial water is dry; no longer has flow; has low flow; has stand-alone pools; has extreme high flows; or has other significant alteration of the frequency, magnitude, duration or rate-of-change of natural flows in a water; or a water is characterized by entrenchment, bank destabilization, or channelization. Where circumstances such as unnatural low flow, no flow or stand-alone pools prevent sampling, it may be appropriate to place that water in Category 4C for impairment due to pollution not caused by a pollutant. In order to simplify and clarify the identification of waters impaired by pollution not caused by a pollutant, States may create further sub-categories to distinguish such waters.[6]

Many states, including Western States such as Wyoming, Idaho, and New Mexico, include flow alteration, flow condition, or hydromodification under Category 4C, with some making distinctions between flow alteration and hydromodification (as results from dam construction, etc.) to better regulate and create TMDLs for the water impairments.

Flow regime modification and impairment is one of the most common causes that impact stream beneficial uses, which are protected under Clean Water Act. Most significantly, it affects the aquatic ecosystem in streams and the overall physical conditions of the rivers which determines the preservation of resources for our future generations—access to water, fish, nature, etc.

Utah Is Equipped to Move Forward with Hydromodification Listings, Including for Flow Alteration

Utah has the data and methodologies necessary to list certain waterways as impaired due to hydromodification, including flow alteration. As described in your Draft 2022 303(d) Assessment Methods as well as the 2022 Draft Integrated Report, Utah's Standard Operating Procedures (SOPs) includes "Stream Flow Measurement,"[7] which provides standardized data that can support a flow impairment determination. Additionally, "flow" is listed as one of the priority parameters in Appendix 1 of the 2022 Draft Integrated Report and is "routinely measured for assessment purposes" (p. 132).

Despite this available data and information, not a single waterway is listed in Utah's Draft 2022 Integrated Report as impaired due to hydromodification,[8] such as altered flows, despite the reality that numerous rivers, streams, and other waters in Utah suffer from extremely low flows, amongst other hydromodification impacts. The lack of any Category 4C listings for hydromodification is a step backwards from previous years. For example, as acknowledged in the State of Utah's Nonpoint Source Management Plan for Hydrological Modification (2013), "Hydrologic modification account[ed] for impairment to 842 miles of Utah's streams per Utah's 2008 305(b) report to Congress," with the report also conceding that "this is most likely an underestimate…."[9]

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[6] 2015 EPA Listing Guidance, *supra,* p.15

[7] *See* https://documents.deq.utah.gov/water-quality/monitoring-reporting/sop/DWQ-2019-001929.pdf.

[8] In Utah's 2022 Integrated Report, only two AUs are listed in Category 4C, both for Nutrient/Eutrophication Biological Indicators, those being 1) Upper Provo River (AU ID UT16020203-002_00; AU Name "Provo River 2") and 2) Weber River (AU ID UT16020102-010_00; AU Name South Fork Ogden River-1).

[9] https://documents.deq.utah.gov/legacy/programs/water-quality/watersheds/docs/2013/03Mar/hydromod.pdf

A formal assessment methodology is unnecessary to make Category 4C determinations. Utah's 303(d) Assessment Methodology from 2016 (released as a draft in 2014) stated in regard to Category 4C that "DWQ is not placing new waterbodies into this category until a listing methodology is developed."[10] While such a methodology has not been developed in the seven years since that statement, it is not necessary to list those waterways that are clearly impaired due to hydromodification. As long as an impairment of a beneficial use can be shown, the waterway is impaired. Numerous other states successfully list for flow impairment without a standardized methodology, as described Attachment 2.

Utah DWQ Should Consider all Readily Available Data and Information Potentially Supporting the Hydrological Impairment of Waterways in Utah, including the Colorado River.

Seventy percent of Utah's rivers are altered—the equivalent of 8,331 miles. According to a report by the Center for American Progress, Utah's rivers are more altered than any other Western state.[11] This report also found that "40 percent of rivers no longer flow freely due to obstructions and development within rivers—most notably the 832 major dams in the state."[12] While this is only a high-level snapshot, Utah DWQ has the data and information necessary to begin listing at least some of these waterways as impaired due to hydromodification.

We believe you should begin by listing some or all AUs of the Colorado River. The Colorado River is perhaps the most obvious example of a hydrologically impaired waterway in the United States. At one time, the Colorado River, the world's seventh-longest river, carried water from the Rocky Mountains 1,500 miles south into the Gulf of California. This is no longer the case. The Colorado River now regularly falls about 50 miles short of even reaching the sea because all of its water is diverted for irrigation and domestic uses.[13] Beneficial uses being impaired by altered flow include public water supply, hydroelectric power, municipal water, irrigation, recreation areas, tribes, national parks, wildlife refuges, mining, livestock, aquaculture, thermoelectric power, wastewater, commercial supply, and industrial supply.

Low flows suffered by the Colorado River are going to worsen as climate change is expected to decrease the river's flow up to 20 percent in the next 30 or so years. Dams constructed on the Colorado River also have huge ecological repercussions: Natural habitats have been destroyed, unnatural flow regimes have been created, sediments have become trapped that are essential to the creation of certain riparian habitats, and water temperatures have been altered, all of which devastates native fish populations.[14] The Colorado River clearly and unequivocable suffers from hydrological impairment.

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[10] https://documents.deq.utah.gov/legacy/programs/water-quality/monitoring-reporting/assessment/docs/2015/05May/B_JRatner.pdf
[11] https://disappearingwest.org/rivers/factsheets/DisappearingRivers-UT-factsheet.pdf
[12] *Id.*
[13] Sarah Zielinski, *The Colorado River Runs Dry,* SMITHSONIAN INSTITUTION (Oct. 2010), www.smithsonianmag.com/science-nature/the-colorado-river-runs-dry-61427169/
[14] Kurt Repanshek, *Report Raises Concerns Over How Colorado River Basin Dams Impact National Parks*, NATIONAL PARKS TRAVELER (May 1, 2011), www.nationalparkstraveler.org/2011/05/report-raises-concerns-over-how-colorado-river-basin-dams-impact-national-parks8019.

Additionally, we ask that you relist those waterways previously listed as impaired under Category 4C that were removed without actually addressing the cause of impairment, such as flow alteration recognized within the Utah Lake-Jordan River Watershed Management Unit.[15] If you had the necessary data and information to list such waterways as impaired due to hydromodification in previous Integrated Reports (and/or 305(b) reports) and causes of impairment have not improved, then such listings are still justified.

In sum, we urge the Utah DWQ to list all impaired hydrologically impaired waterways under Category 4C and include readily available data and information in the 2022 Integrated Report. Thank you for the opportunity to submit these comments. If you have any questions or would like additional information, please do not hesitate to contact us.

Sincerely,

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[15] *See e.g.,* https://documents.deq.utah.gov/legacy/programs/water-quality/monitoring-reporting/assessment/docs/2011/04Apr/IR2008/Part2/chp2.6UtahLakeJordanRiverWMU.pdf