



James Harris
Utah Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Re: Comments on Draft 2016 Integrated Report

Dear Mr Harris,

Following are my comments on the 2016 Draft Integrated Report;

Format of Assessment Summary Pages- The format used for the rivers and streams of starts with the Management Unit that are Not Supporting, Insufficient Data, No Evidence of Impairment, and Supportive is useful but very confusing for the untrained person to glean information from. The regular guy who is checking the condition of his favorite place to fish, for example the Weber River, has to scan through three pages of information to track the various segments of the river. I suggest listing all segments together sequentially for a river or stream then, at the end of that management unit, have a tally of the number falling into each of the categories on the last page for that Management Unit. The proposed format would help individuals and groups see the overall condition of a specific river quickly, if it is too difficult to find the information they want they will give up and you will lose your audience. The written parts of the report appear to be for the public but the Assessment Summary is not user friendly.

I know that the basis of the Integrated Report is collecting information and passing it on to the EPA. Overall this is a scientific endeavor to generate a report on the condition of Waters of the State but it is also seen and used by the public and various governmental agencies. Perhaps there is a format that would meet both needs. Maybe there needs to be a non-scientific version for the public.

Use of Overall Score- As I look through the listings of various river and streams I am confused as to the real "health" of a specific water body. The Provo River, Weber River and Sevier Rivers have intermixed listings and it is difficult for me as the "average Joe" to understand what it all means, especially if I am not familiar with that specific waterbody. Perhaps an "overall" scoring system would be beneficial for communicating this information with the public. For example the Weber River is listed as "No Evidence of Impairment" in sections 2 & 4, "Supporting" in sections 9 and 11, "Not Supporting" in sections 1, 3, 6, 7, and 8, and "Insufficient Data" for sections 5, 10, and 12. What does that mean? Perhaps a score of 85 with footnotes about phosphorus and algae blooms in and above Echo Reservoir and temperature, pH, Ecoli and O/E in the lower reaches.

Another example of a very confusing listing is the Sevier River which has listings all over the place could get a score of 60 with footnotes about issues in key locations.

The Jordan River might score a 70 with comments about high suspended solids, temperature and Ecoli overall with low DO in the lower reaches during late summer.

The Provo River has several segments not listed (see the following comment on section 3 of the Provo River) but might score a 92 with footnotes of where improvements can be made such as low DO and O/E in section 1 and E coli below Deer Creek Reservoir.

In short an overall scoring system could work well in communicating this information to the general public.

Segment 3 of the Provo River- It does not appear that segment three of the Provo River UT16020203-003 is included in the Assessment Summary. Information can be found in the Assessment Summary Data Files but not in the Assessment Summary itself.

Powell Slough Description- The Assessment Unit Description of Powell Slough UT16020202-010 has its location somewhere along the American Fork River from Utah Lake to the Mouth of American Fork Canyon. Powell Slough is the receiving water for Orem City's wastewater treatment plant, roughly 5 miles from where the American Fork River discharges into Utah Lake and Powell Slough itself flows into Utah Lake. I think the description needs to be amended to better describe its location.

Listing Jordan River Segment 5 as Impaired for Temperature. South Valley WRF is currently working with DWQ to investigate whether segments 5, 6, and 7, are properly designated as a cold water fishery. The beneficial listing as a cold water fishery has a maximum temperature of 20 degree Celsius. Dr Nielsen's from USU completed a temperature study back in 2011 for DWQ which showed that the temperature of the river through summer months averages around 23.5 degrees C. Her study included modeling for increasing the shading along the river which demonstrated that shading would not adequately reduce the temperature to keep the river below the maximum limit for the designation. Also in early 2016 DWQ contacted the Division of Fish and Wildlife about whether or not a population of cold water fish existed in this stretch of the Jordan River. The Divisions response was that there were not any cold water fish species in those segments of the river. Additional temperature information is being collected by South Valley WRF and Jordan Basin WWTP to support the summer effluent and river temperatures. The data supports changing the designation from a cold water fishery to a warm water fishery which will negate the current listing for temperature.

Listing Jordan River Segment 5 as Impaired for Total Dissolved Solids (TDS). The majority of the TDS seen in the Jordan River comes from Utah Lake whose water level is managed by a dam structure on the north end of the Lake. Water entering the Jordan River from Utah Lake is high in TDS and is usually over the irrigation threshold due to evaporation and concentration of solids in the lake. The amount of precipitation and management of the dam greatly affect the lake level and the amount of TDS entering the river. This situation lends itself to a UAA due to the "irreversible condition" which exists as defined in 40 CFR section 131.10(g) condition 4, which states, "a hydrologic modification which preclude the attainment of use and it is not feasible to restore the water body to its original condition or to operate such a modification in a way that would result in attainment of the use". Again developing a UAA for the Jordan River would remove it from the impaired list.

Listings where an Analyte Spontaneously Disappears in the Adjacent Downstream Segment- There are at least 20 instances in the summary where actionable levels of either a metal, phosphorus, pH or O/E

“disappears” in the adjacent downstream segment. From reviewing the segment descriptions, it appears that the changes in segments correspond to something along the river such as a diversion structure, bridge, or other physical reference point, location of a dam, or entrance of a tributary. It is understood that conditions can change dramatically in a short distance especially on either sides of a dam or tributary. It is also understood that some metals like zinc and lead are readily scavenged by microorganisms however other metals like selenium, arsenic, aluminum and boron are not readily scavenged and should continue downstream (EPA. 1982. Effluent Guidelines Division, Fate of Priority Pollutants in Publicly Owned Treatment Works - Final Report. Vol. 1. EPA 440/1-82/303. Washington, DC.: U.S. Environmental Protection Agency). As this is not occurring in many listings it raises questions that the segment is listed improperly. These questionable segments would be better represented being assigned a category 3, needs more data. A few examples from the Assessment Summary are listed here and a complete list will be attached;

Jordan River section 6 has been listed for selenium while the segments above and below are not listed for this analyte.

Jordan River section 8 is listed for arsenic while Utah Lake above and section 7 below are not listed for arsenic.

Jordan River section 3 is listed for Phosphorus while 2 and 4 are not.

The Escalante River Upper is impaired for O/E and TDS while the lower Escalante is listed as Supporting. TDS would also be expected to continue downstream from the upper section into the lower section.

Kanab Creek section 2 is listed for Boron and Selenium while section 1 is not listed for these parameters.

The Sevier River sections 2, 3, 17, 22, and 24 are listed for phosphorus while sections 1, 6, 7, and 20 are not. Sections 8 and 27 are supporting and 14 is listed as No Evidence of Impairment. The rest of the section of the Sevier River 5, 9, 10, 11, 12, 13, 15, 16, 18, 19, 21, 23, and 26, are listed as Insufficient Data. Again Phosphorus impairment intermixed with no phosphorus and/or supporting or no evidence of impairment. The Sevier River is a good candidate for a UAA due to the physical impairment to the river such as dams and diversion structures as per conditions listed in 40 CFR 131.10, condition #4.

The Weber River section 7 is listed for phosphorus while section 6 is not.

Thank You for considering my concerns.



Lee Rawlings
General Manager
South Valley WRF