Summary of Proposed Rule Changes to Water Quality Standards and Definitions (R317-1 and 317-2)
December, 2009

Note: This summary is made available for the reader's convenience. The complete proposed changes can be viewed at http://www.waterquality.utah.gov/Rules/rulechange.htm

Minor Changes

Rule Affected	Change Summary and Rationale
R317-2-6.5(a)	Changed Union Pacific Causeway to Antelope Island Causeway to correctly define Farmington Bay
R317-2-12	Moved list of specific Category 2 Waters from R317-2-12.1 to referenced location in R317-2-12.2 Category 2 Waters.
R317-13.2(a)	Added "…Virgin River except as listed below" as originally intended to assign beneficial use classes to the whole Virgin River followed by beneficial use classes for specific reaches of the Virgin River.
R317-13.2(a)	Corrected the beneficial use class to 2A (primary contact) from 2B (secondary contact) for the North Fork of the Virgin River as originally intended.
R317-2.14.1	Added "dissolved" for inorganics analyses for clarification which is consistent with the analytical methods used for the inorganic analytes.
R317-2.14.1 Footnote 4	Corrected geographic reference from Quitchupah Creek to Ivie Creek because Quitchupah Creek is a tributary to Ivie Creek which is a tributary to the Muddy River. Quitchupah does not flow directly into the Muddy River.
R317-2.14.1	For site-specific total dissolved solids (TDS) standards on the Price River, changed the geographic reference from Soldier Creek to Coal Creek. As previously identified, the river reach between Soldier Creek and Coal Creek would have defaulted to the state-wide TDS standard between two reaches with 1,700 and 3, 000 mg/L site-specific standards. Deleted redundant listing of Green River to Soldier Creek reach.
R317-2.14.2 Footnote 9a	Added parenthesis to correct typographical error in formula for ammonia
R317-2.14.3a and R317-2.14.3b	Corrected log function typographical error in formulas from "In" to "ln"

Substantive Changes

Rule Affected	Change Summary and Rationale
R317-1-1	Added definitions for "Assimilative Capacity", "Existing Uses" and "Great Salt Lake Impounded Wetland" to support concurrent changes in R317-2.
R317-2.14.2 Footnote 2a	A new footnote was added: "These criteria are not applicable to Great Salt Lake impounded wetlands. Surface water in these wetlands shall be protected from changes in pH and dissolved oxygen that create significant adverse impacts to the existing beneficial uses." The criteria referenced are numerical standards for pH and dissolved oxygen. Open waters along Great Salt Lake above an elevation of approximately 4,208 feet are protected for their aquatic wildlife beneficial uses (Classes 3B, 3C, and 3D) through the use of the narrative standard and numeric criteria as enumerated in Table 2.14.2 of UAC R317-2-14. These criteria currently include provisions for dissolved oxygen, temperature, pH, turbidity increase, metals, organics, and inorganics based upon national water quality standards. Various stakeholder groups in Utah including the public, government agencies, and academic community have expressed concerns that the Great Salt Lake ecosystem, including its wetlands, may be impaired by nutrients and that the past approach of applying existing water quality standards to the Great Salt Lake wetlands is problematic and may not be protecting their beneficial uses. There are two main reasons the implementation of water quality standards has been problematic: 1. First, the standards that are specifically applied to wetlands are based on the geographical location of the aquatic resource rather than their ecological characteristics. For example, a set of wetland-specific standards are attributed to state WMAs and the Bear River Migratory Bird Refuge (BRMBR). Numerous classes of wetland types are located within each of those areas, each class with its own biota and distinct ecosystem processes. Water quality standards applicable to one area within a WMA, for example, may not be applicable in the area adjacent to it. The

	ecologically distinct character of each of those wetland classes and their respective beneficial uses needs to be considered when developing defensible standards, assessment methods, and protection practices. Also, the wetland areas described in current standards represent just a subset of the wetlands around Great Salt Lake. The quality of some wetlands outside of the described areas may actually be more at risk because they are not actively managed for wildlife conservation. 2. The second problem with current water quality standards lies in the types of criteria used to assess and protect the biological integrity or health of Great Salt Lake wetlands. For example, the current water quality standards have a numeric criterion for dissolved oxygen (DO). The criterion is exceeded within many impoundment class wetlands, even in non-impacted reference sites. Furthermore, there is evidence suggesting that most of these wetlands continue to support their designated uses. Conversely, lake "fringe" wetlands, also known as sheetflow wetlands, which are sometimes sustained by discharges from wastewater treatment facilities, rarely show a violation of DO criteria. Irrespective of both situations, wetland biota has adapted to environmental conditions with wide fluctuations in DO. These data suggest that measures of DO, by itself, are not a robust indicator of wetland condition. Therefore, stakeholders developed the *Development of an Assessment Framework for Impounded Wetlands of Great Salt Lake* (DWQ, 2009) to determine if the water quality in these wetlands is meeting the beneficial uses.
R317-2-3	The Clean Water Act (CWA) requires that US Environmental Protection Agency (EPA) Regional Office approve or deny any changes to water quality standards that are adopted by the states. The approval of a water quality standard indicates that EPA considers the standard adequate and that promulgation of a federal standard is not required. On 09/30/2009, EPA submitted a formal action on the changes to Rule

	R317-2 that were adopted by the Water Quality Board (WQB) on 11/10/2008. EPA disapproved portions of the state's antidegradation policy, Subsection R317-2-3.5(b)(5), that defines losses of assimilative capacity considered *de minimis* and not requiring a Level II review. Federal regulations require that any disapproval of a water quality standard be accompanied with options to solve the problem (CWA section 303(b)(2)) and provides states with 90 days to incorporate changes into their standards; otherwise, the Regional Administrator is required to promulgate a federal standard. These changes are in response to the EPAs actions.