

Mr. Christopher Bittner  
Division of Water Quality  
Utah Department of Environmental Quality  
280 N 1460 West  
PO Box 144870  
Salt Lake City, Utah 84114-4870

Re: Comments on the Draft Rule Change:

Dear Mr. Bittner:

On Behalf of the Jordan River/Farmington Bay Water Quality Council (The Council), I am submitting the following comments on the draft rule changes to R317-2. In particular, our comments focus on the motion for removal of the numeric standards for pH and DO in the impounded portions of the 3D wetlands that surround Great Salt Lake.

It is understood that one of the purposes of the Draft MMI is to replace the numeric DO and pH standards that apply to the GSL impounded wetlands that are currently protected as Class 3D waters. The primary reason for abolishing the pH and DO numeric standards is that even those impounded wetlands that have been identified as reference or as least- impacted wetlands routinely exceed instantaneous standards for both the pH (i.e. > 9.0) and DO (i.e. < 4.0). The Council supports replacing these standards with the multi-metric approach to assessing wetlands, although, as commented elsewhere there are several issues or weaknesses in the Draft MMI document and underlying science that need to be addressed.

Several additional constituents including several toxic metals, e.g. copper, zinc, and arsenic, and possibly ammonia, also exceed their respective 3D numeric standards. There are at least four factors that indicate that numeric standards for these constituents are also inappropriate for the impounded wetlands as well as the sheetflow and open water areas of Farmington Bay. First, none of these constituents are in violation of their standards within the source waters such as the Jordan River. This suggests that some local sediment/water interaction(s), such as red-ox chemical shifts, release these constituents from the sediment. Secondly, notwithstanding their presence in the water column of various ponds, the macroinvertebrates appear to be tolerant of these events, although this needs to be more carefully investigated. Third, the sediments of these ponds and the sheetflow wetlands are greatly influenced by the Great Salt Lake itself. For example, as recently as the 1984-86 floods, all of the impounded wetlands in the duck clubs, WMA ponds (Farmington Bay, Public Shooting Grounds, Ogden Bay) and the Bear River National Wildlife Refuge) were inundated with several feet of GSL water – supplying all of these ponds, their sediments and pore water spaces with salt and metal concentrations that are typical of the GSL open waters. Such surface elevation changes of the GSL have undoubtedly caused recurring flooding of the GSL wetlands countless times over the last several hundreds to thousands of years, resulting in naturally elevated legacy concentrations of metals within the lacustrine zones of the GSL. These flooding events have and will continue to influence these

lacustrine wetland ecosystems. Further seasonal evaporation will continue to concentrate these elements to extraordinary levels. Coupled with seasonal or diel red-ox reactions, typical of wetland systems, it is possible that these deposits resolubilize and re-enter the water column, even as fresh water is returned to these wetlands. Recent data from Dr. Gennaro Decalto and Dr. Bill Johnson of the University of Utah strongly suggest that this is a common occurrence.

Finally, it should be noted that although the 3D class was specifically developed to address wetland environments, there was virtually no water quality or biological data from wetlands that supported the selection of the numeric standards that were otherwise applied to Utah's 3A through 3C waters. Without such data, unsupported assumptions were made and all of these numeric standards were misapplied to the GSL wetland systems and perhaps other Utah wetlands as well. For these reasons, we recommend that DWQ eliminate the 3D numeric standards as they are currently applied to the GSL wetlands and that this be included in the current draft rule changes. They should either be modified on a site-specific basis and/or DWQ should resume developing a Use Attainability Analysis that more accurately reflects the current and extremely variable biological and chemical conditions of the GSL impounded and sheetflow wetlands.

Thank you for the opportunity to comment on this important issue.

Sincerely,

Dal Wayment, P.E.  
General Manager

Representing:

South Davis Sewer District  
Central Valley Water Reclamation Facility; Reed Fisher, General Manager  
South Valley Water Reclamation Facility; John Newman, General Manager  
Salt Lake City Public Utilities; Jeff Niermeyer, Director  
Central Davis Sewer District; Leland Myers, General Manager  
North Davis Sewer District; Kevin Cowan, General Manager  
South Valley Sewer District; Craig White, General Manager