

## **Core Nutrient Team Proposal – Myers**

### ***Introduction:***

This document refines previous proposals submitted by Leland Myers to the Core Nutrient Team. My intent with this proposal is to identify a strategy which can be implemented quickly, maximizes benefit while limiting impacts and resistance from multiple stakeholders, and move the process forward toward a Utah solution. In addition, it is similar to directions being taken in other states. While EPA may not see this as an ideal solution, until they make the decision to usurp State authority, I see this as a means of making progress on a complex problem.

### ***Numeric Criteria/Indicators:***

The Utah DWQ should continue making progress toward a Utah based numeric criteria/indicator value for nitrogen and phosphorus. Once values have been determined they should be subjected to rigorous technical review and public scrutiny. Ultimately these will probably be similar to numbers from other states and if they deviate, there should be substantial verification that they are appropriate.

### ***Implementation of Criteria/Indicators:***

The state should be divided into three regions for implementation of numeric criteria/indicators. The map below may be referred for this discussion. This map is from the prior discussion on categories of water and was handed out to the core team showing the Category 1 and 2 waters. In addition, an area around the Wasatch front has been highlighted and will be discussed in the following paragraphs.

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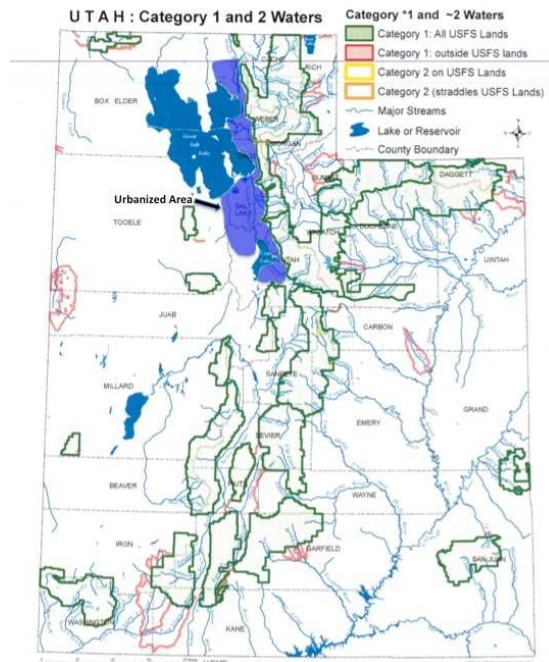


Figure 1 – Nutrient Categories

### Region 1 – Drinking Water Supply Anti-degradation Category 1 Waters

This Region is critical to drinking water quality and is currently the highest quality water in the State. This region should be offered the highest level of protection. Once state-wide nutrient criteria/indicator values are determined, the appropriate values should be added as criteria to water bodies that are located in this Region. Water bodies that are tested which exceed the state wide criteria should be listed on the 303(d) list and TMDL's performed. The outcome of the TMDL process could be load reductions or the setting of site specific criteria. This first step begins the process and demonstrates the willingness of the State to move forward with criteria, when appropriate.

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### Region 2 – Highly Urbanized Areas (Wasatch Front)

This area shown in blue on the map is the area of the State that has the greatest degree of complexity and anthropogenic impact. No state-wide criteria or indicators will be applied to this area at the present time. It is understood that water bodies in this area may have significant degradation as compared to pre-settlement conditions, including significant habitat problems, and that “human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use.” [40 CFR 131.10(g)] This does not mean that we would cease working on these ecosystems, quite the contrary. Both Utah Lake and Jordan River have active TMDL’s. At present, these TMDL’s do not indicate nutrient reduction as a means of improving water quality. Yet, Jordan River is actively being evaluated to determine how to best reduce organic matter and Utah Lake has an active carp removal program; both activities aimed at water quality improvements. The State has begun the implementation of a Great Salt Lake Water Quality Strategy. Numerous studies are being conducted by multiple organizations relating to water quality on Great Salt Lake (i.e. the fifty pond study, Willard Spur studies, continuing impounded and sheetflow wetland studies, etc.) The creation of this region is admission that state-wide nutrient criteria may not be applicable to water bodies in highly urbanized areas. Additional science based characterizations of the problems are needed.

In addition, for watershed area Region 2 it is suggested that a technically based water quality standard is imposed on point source dischargers.

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This will effectively reduce existing pollutant loads and “dial back” the clock while the ecosystem can be better understood and correct criteria/indicators developed. The suggested criteria would be a 1 mg/L phosphorus standard. For those who can’t tolerate phosphorus only technically based standard, an alternative would be 1 mg/L for phosphorus and a 20 mg/L for total nitrogen (TN). An alternative to the 20 mg/L TN could be the imposition of 15 mg/L total inorganic nitrogen (TIN). This approach is similar to Colorado and like Colorado, it is suggested that the requirement be implemented external to the water quality standard, thus removing the need for EPA approval. Also, all technically based standards should be annual averages for permit compliance.

### Region 3 – All of Utah Excluding Regions 1 & 2

This last region contains the remainder of the State of Utah. Areas in this region have little to some anthropogenic impacts. In this region it is suggested that the state-wide criteria/indicators developed by DWQ be included in the water quality standards as indicators. DWQ is required to develop a basin by basin priority system for nutrient reduction. This priority system would be used to direct technical evaluation of individual basins. During the drainage basin review, DWQ staff can develop and use various biological and physical/chemical indicators for the evaluation. The indicators need to be evaluated to insure they are appropriate for that basin, and that other factors such as use attainability do not dictate the need for site specific criteria. Once a basin has been evaluated and the indicators vetted, the applicable criteria for the basin can be established.

In Region 3, a variance procedure should be developed to off ramp point sources if significant or wide spread economic harm to the community is caused by compliance with approved numeric nutrient criteria. This could be done on a case-by-case basis, or as in Montana could be done by

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statute enacted by the legislature. Other off ramps to a stringent nutrient criteria could be developed as needed. Like in Montana, when a point source is off ramped, they would be required to meet a technically based standard. A starting point for this standard would be 1 mg/L phosphorus and 10 mg/L TIN. Also, like Montana, lagoons could be capped at their current or design waste load for nutrients.

### *Agricultural Non-Point Source Nutrient Management*

A Wisconsin model for dealing with agricultural non-point source pollutants should be adopted to insure farmers are not financially irreparably harmed by nutrient load reduction. DWQ would be given explicit powers to require the use of best management practices on farms and ranches but the exercise of these powers would be limited to circumstances where grants reimburse 90% of a project's cost through federal or state funding sources. Existing federal funds could be used as well as new state funds being solicited. Generally, vitally important Utah farming and ranching operations would get a pass until we could allocate the funds from identified sources.

In addition to state and local funding sources, DWQ could also implement a nutrient trading program to provide new sources of funding. Where it is cost effective, point sources could elect to provide on-farm reduction in nutrient loading as an alternative to additional treatment. An effective program would have to be established. Nutrient reductions would have to be measurable, achievable, and point sources should not be looked as an endless source of money.

### *Stormwater System Improvements and Additional Requirements*

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Stormwater systems would be evaluated whenever a TMDL is developed or implemented or when the basin by basin evaluation occurs for that specific area. The basin or TMDL approach should indicate a pollutant(s) of concern and specific load reductions required. The allocation of such load reduction could be presented to a stormwater utility and specific BMP's identified or required to reduce the load. Most likely this would be a negotiated process with the stormwater utility.

### ***Conclusion:***

The procedure outlined in this proposal could form the basis for a unifying path forward on nutrient management. Some folks may believe that the imposition of technology based standards are inappropriate until significant science and policy (read UAA) have demonstrated a need and benefit from the expenditures required by point sources and their rate payers. Others will argue that this approach is an attempt to side step the need for drastic nutrient reduction from all point and non-point sources. In addition, we should base our actions on the precautionary principal. Both of these arguments have some truth, but the Core Team is tasked with developing a path forward that can be implemented. By providing a logical and cost effective goal for nutrient reduction accomplished through adequate biological and physical habitat studies where necessary, I suggest this proposal is a major step forward and this step can be taken without significant political upheaval. This step will represent significant progress in protecting State waters.