Don Russell

In order for surface water quality standards to be protective of aquatic life (salmon) and assure safe beneficial human use there needs to be standards for iron (total iron not to exceed 1 mg/L, soluble iron not to exceed 0.35 mg/L); nitrate-nitrogen (not to exceed 2.0 mg/L since nitrate-nitrogen in excess of this standard adversely impacts fish hemoglobin's ability to transport oxygen and fosters filamentous green algae blooms); soluble reactive phosphorus (not to exceed 10 ug/L since higher concentrations foster harmful Cyanobacteria blooms); and total phosphorus (not to exceed 20 ug/L). There should also be surface water standard for cyanotoxins, i.e., microcystin not to exceed 6 ug/L and anatoxin not to exceed 1 ug/L.

The current suite of standards are not protective of salmon (e.g., iron, nitrate-nitrogen, soluble reactive phosphorus in Clarks Creek) or beneficial use by humans (e.g., 80% of the lakes in the Puget Sound Basin, many with streams flow to Puget Sound, experience recurring harmful Cyanobacteria blooms presenting a hazardous condition for both salmon and humans)