



Monthly TDP* is plotted against monthly TDN concentrations from selected SBCK monitoring sites for water-years 2008 through 2011. The black solid and red dashed lines represent proposed California nutrient standards (good quality waters below and to the left of the dashed line, poor quality above and to the right of the solid line). Consider anything in the middle “acceptable,” but needs watching.

Conclusions: (1) the relatively pristine upper basin streams are in good condition; (2) San Antonio Creek is characterized by excessive nitrogen; (3) locations below the WWTP exhibit excessive concentrations of *both* nitrogen and phosphorus, although nitrogen values are not as high here as those on San Antonio; (4) nitrogen on the middle Ventura straddles the line between acceptable and poor, while phosphorus remains low; and (5) in general, excessive nitrogen is a much larger problem than excessive phosphorus. Perhaps, above all, each sampling location exhibits a wide range of nutrient concentrations. This is not, in itself, surprising considering the widely ranging conditions over the course of a year: streams go from feast to famine. Feast being the introduction of renewed nutrients from storm runoff or groundwater recharge, famine being the long dry-season when nutrients are removed by biological uptake. Some years, the wetter ones, favor feast over famine, and some, the drier years, are mostly famine.

Samples within or near the blue band provide the proper nutrient diet for an aquatic ecosystem; those lying below it are *potentially* deficient in phosphorus (>30:1); those above *potentially* deficient in nitrogen (<10:1). *Potentially* because lots of other things could limit growth long before any nutrient runs out: things like lack of sunlight, temperature, available habitat, whatever.