American River Watershed, Hg TMDL Policy Formulation: Draft Numeric Target Document (2/17/2011

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The Draft numeric target document describes a range of fish consumption rates and corresponding fish mercury targets. The logical flaw in developing this draft policy is that the hypothesized feasibility of a standard of 0.07 ppm mercury in fish tissue is used as the basis for choosing a fish consumption rate upon which to base the TMDL. The correct logical flow is to 1) recognize (or measure) current high-end fish consumption rates (most exposure) in the population fishing in the American River (beneficial use quantification), 2) calculate the corresponding fish tissue Hg concentration for that high-end rate (meeting beneficial use), 3) calculate the gap between current conditions and the condition allowing the beneficial use (beneficial use impact quantification), 4) develop corresponding load allocations for public and private entity discharger contributing from point sources (e.g., mines, municipal discharge, reservoirs), 5) estimate feasibility of meeting targets and resources needed to meet the targets in a reasonable amount of time (10-20 years).

The Regional Board argument is that to "allow" safe fish consumption at rates >4 meals/week is infeasible because it is infeasible to get fish tissue mercury concentrations below a threshold of 0.07 ppm, allowing safe consumption at this rate. The Board cites a USGS report (Peterson *et al*., 2007) stating that the current reasonable background is >0.07 ppm mercury because in the USGS survey, this concentration threshold was not reached in "almost none" of the waterways examined.

There have been edible fish tissue concentrations measured in the American River watershed that are below 0.07 ppm, the infeasible target. There have been fish tissue concentrations measured below 0.16

Number of fish below various concentrations of Hg in tissue, addressing feasibility of meeting various fish consumption standards. (date from Regional Board database, February 15, 2011)

129 fish measured in American river watershed

<0.07 ppm 4 fish (3%) – 4 meals/week

< 0.10 ppm 9 fish (7%) – 2 meals/week

<0.16 ppm 18 fish (14%) – 1 meal/week

By focusing in this indirect way on infeasibility, staff seems to be encouraging a way of thinking about the problem that starts with "we can't do it" and leads backwards to a desired target fish tissue concentration that seems feasible, without actually determining if it is. This was done more subtly in the Delta TMDL, leading to the illegal finding that the TMDL should be based upon almost 10-year-old San Francisco Bay fish consumption rates, rather than protect the actual high-end fish consumer in the Delta. If feasibility is to be determined, it should be done in a straightforward and comprehensive way, with the inclusion of the failure to meet targets factored in. In other words, what are the health and social costs of not meeting the targets, assuming that people will continue to eat fish at will from the American River watershed, exercising their legally-protected right under the Clean Water Act? What are the cultural impacts on Native people when targets are not met and traditional uses impaired?