

Comments on Synthesis Report

Page	Para	Sent	Comment
iv	5th		IEP has been monitoring water quality in the Delta since 1971; the readily available data record starts in 1975. It is the continuous monitoring of DO, Temp, EC, etc at R&R that began 19 years ago.
64	3rd	1&2	<i>Idem.</i> Also, I would just characterize the IEP as a “compliance monitoring program”
65	2nd		The dependent variable in my analysis is the monthly average of the daily minimum DO concentration, which is negatively correlated with Chl at Vernalis. If Foe et al. used the R&R continuous DO data for their analysis, then the two conclusions are not really based on different data sets.
65	3rd		<p>Again, I modeled minimum DO concentration, not “DO depletion.” By itself, ammonia loading was not significantly correlated with min DO; its effect only became apparent once the variation due to other factors had been accounted for... this partial effect was negative. Also, it’s true that my analysis indicated that min DO increased with flow at Vernalis, but the bigger point is that boosting flow did not perform as well as cutting ammonia loading as a way to reduce the amount of aeration required to meet a 5 mg/L DO objective. Reducing ammonia also performed much better than reducing upstream algal biomass. These findings would seem to contradict “the results of the last three years’ studies by the TAC,” especially your box model results and the Systech model results. Perhaps this apparent contradiction should be highlighted to ensure that it gets addressed by the peer reviewers.</p> <p>Finally, you may wish to consider adding some other major findings from my analysis. Specifically, that (1) the best performing alternative would impose a 2 mg/L NH₄-N effluent limit on the City of Stockton’s wastewater treatment facility and would halve upstream chlorophyll concentration at Vernalis (i.e., we can almost fix the problem using JUST point and non-point source pollution control methods; (2) however, short of filling in the ship channel, no realistic combination of management alternatives is likely to guarantee year-round compliance with a 5 mg/L DO objective; (3) consequently, artificial aeration will probably be required during some months of most years; and (4) management scenarios that include reduction of ammonia loading may benefit salmon more than other management actions because reducing ammonia loading would shift the timing of maximum DO deficits from fall to summer.</p>
			Capitalize “lagrangian” throughout the text