

DRAFT

SCIENCE ISSUES UNDERLYING IMPORTANT MANAGEMENT DECISIONS FOR THE BAY-DELTA

1. Fall X2, specifically, the relationship between the extent of abiotic habitat in the fall and subsequent abundance of delta smelt and between the average value of X2 in the fall and subsequent abundance of delta smelt
2. Spring X2, specifically the relationship between the average value of X2 in the spring and subsequent abundance of longfin smelt
3. The benefits of habitat restoration to fish and other species of concern
4. The role of predation, especially recent years' increases in predation, to abundance/escapement of salmon, delta smelt, longfin smelt, and other fish species of concern
5. The role of entrainment at SWP/CVP export pumps to the long-term abundance of delta and longfin smelt, the four races of salmon, and other species of fish
6. The adequacy of routine surveys for estimating the abundance and distribution of important species of fish and the coincident occurrence of important water quality and food web constituents
7. The effect of Sacramento Regional Treatment Plant's treatment upgrades on the Bay-Delta ecosystem
8. The relationship between river flows and survival/escapement of salmon and abundance of delta smelt and other fish species of concern
9. The differences/similarities and strengths/weaknesses of various life cycle models for salmon, delta smelt, and longfin smelt
10. The relationship of the average value of X2 in summer and subsequent abundance of delta and longfin smelt.
11. Factors important to the minimization of entrainment of various fish species
12. The importance of bypass flows for a new Sacramento River intake, relative to other factors affecting salmon survival/escapement
13. Preventing, preparing for, and dealing with a Quagga mussel invasion
14. The relative importance of factors affecting fish species of concern and opportunities of management of those factors