8G.1   Chloride Methodology

Chloride was modeled quantitatively for the Delta in two ways. First, a quantitative assessment utilizing a mass-balance approach (DSM2 fingerprinting data combined with historical source water quality data) was employed. Additionally, results of a second modeling approach utilizing DSM2-QUAL modeled EC and EC to chloride relationships were used to supplement the results of the mass-balance approach. Section 8.1.1.1, 8.3.1.3, and the chloride discussion under section 8.3.1.7 provide more detailed information regarding the assessment methodology for chloride and the details of the quantitative approaches. Figures and tables to support the assessment are provided below.

Understanding the uncertainties and limitations in the modeling and assessment approach is important for interpreting the results and effects analysis, including assessment of compliance with water quality objectives. Please refer to Section 8.3.1.1, *Models Used and Their Linkages*, and Section 8.3.1.3, *Plan Area*, for a description of these limitations. In light of these limitations, the assessment of compliance is conducted in terms of assessing the overall direction and degree to which Delta chloride would be affected relative to a baseline, and discussion of compliance does not imply that the alternative would literally cause Delta chloride to be out of compliance a certain period of time. In other words, the model results are used in a comparative mode, not a predictive mode.

Table Cl-64. Number of years Bay-Delta Water Quality Control Plan 150 mg/L objective exceeded Contra Costa Canal Pumping Plant #1 for existing conditions, No Action Alternative LLT, and Alternatives 1–9.

Scenario	Total number of Years	# of Years when standards are violated	% of Years when standards are violated
Ex. Cond.	15~~16~~	1~~1~~	7~~6.25~~
~~No Act. NT~~	~~16~~	~~0~~	~~0.00~~
No Act. LLT	15~~16~~	0~~1~~	0~~6.25~~
Alt 1 LLT	15~~16~~	2~~2~~	13~~12.50~~
Alt 2 LLT	15~~16~~	2~~3~~	13~~18.75~~
Alt 3 LLT	15~~16~~	1~~2~~	7~~12.50~~
Alt 4 LLT Scn H1	15~~16~~	1~~2~~	7~~12.50~~
Alt 4 LLT Scn H2	15~~16~~	1~~2~~	7~~12.50~~
Alt 4 LLT Scn H3	15~~16~~	1~~2~~	7~~12.50~~
Alt 4 LLT Scn H4	15~~16~~	1~~2~~	7~~12.50~~
Alt 5 LLT	15~~16~~	1~~2~~	13~~12.50~~
Alt 6 LLT	15~~16~~	1~~2~~	13~~12.50~~
Alt 7 LLT	15~~16~~	3~~4~~	20~~25.00~~
Alt 8 LLT	15~~16~~	2~~3~~	13~~18.75~~
Alt 9 LLT	15~~16~~	2~~3~~	13~~18.75~~