1	Appendix 7A
2	Groundwater Model Documentation

3 7A.8 Model Application Methodology

4 5

7A.8.7 Alternatives 2A, 3, 4, 5, 6A, 7, and 8—Dual or Isolated Conveyance with Tunnel

All alternatives that include a tunnel (as part of either a dual-conveyance system or an isolated 6 7 conveyance system) would be simulated with similar modifications in CVHM-D that were 8 incorporated for Alternative 1A. For the construction simulations, the only changes between 9 alternatives would be due to the number and location of intakes, which would influence the amount 10 of groundwater dewatering required and the footprint of the dewatering impact. Dewatering impacts would increase with each additional intake, assuming they are constructed at the same time. 11 For Alternative 4, dewatering is required for excavation operations at the Intermediate Forebay. 12 notably to build the embankments. However, no specific geotechnical or hydrogeologic information 13 is available at this time, so conservative assumptions are made regarding construction dewatering 14 requirements. In CVHM-D, the dewatering target depth was assumed at 35 ft bgs and the duration of 15 dewatering was assumed to be 12 months total. 16

17 Relative impacts due to construction dewatering for each alternative are described in the EIR/EIS
18 report in Section 7.3, Environmental Consequences.

19 For operations simulations, the only modifications would be due to operational flows in the Delta 20 and the changes in Delta exports (both north and south) as simulated by CALSIM II. Groundwater 21 impacts due to operations of the tunnel would be very similar between these alternatives (except for Alternative 4), as described in the EIR/EIS report in Section 7.3, Environmental Consequences. 22 Alternative 4 has a different Intermediate Forebay size and location compared to the other 23 alternatives with a tunnel conveyance. The smaller forebay size would result in lesser impacts, as 24 described in the EIR/EIS. Alternative 4 also includes an expanded Clifton Court Forebay as opposed 25 to a separate Byron Tract Forebay adjacent to the existing Clifton Court Forebay. However, the 26 overall footprint would be the same, and therefore impacts in the Clifton Court Forebay area would 27 28 be similar for all the alternatives using tunnel conveyance.

29