# Technical Comments on Petitioners' WaterFix Rebuttal Testimony

Susan Paulsen, Ph.D., P.E. Exhibit Brentwood-122

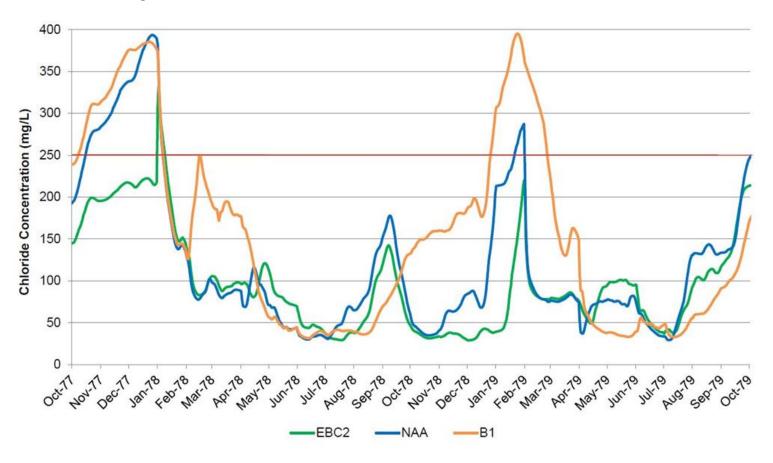


Figure 4. Daily average chloride concentrations at PP#1 for WY 1978–WY 1979, from DWR's model results. The red line indicates the 250 mg/L chloride threshold of D-1641.

Figure 1 Copy of Brentwood-102 Figure 4 showing daily average chloride concentrations at CCPP#1 for WY 1978—WY 1979 from DWR's model results.

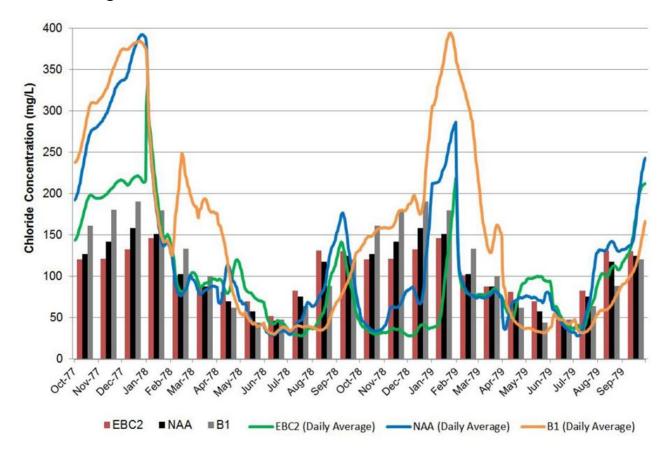


Figure 5. Daily average chloride concentrations at PP#1 for WY 1978-WY 1979 superimposed on the monthly averaged data presented in DWR-513 and recreated in Figure 3. The bars describing average salinity were repeated for each month in WY 1978 and 1979.

Figure 2 Copy of Brentwood-102 Figure 5 showing daily average chloride concentrations at CCPP#1 for WY 1978—WY 1979 superimposed on the monthly averaged data presented in DWR-513.

## Brentwood-121 Figure 3 (DWR-513 Figure C5)

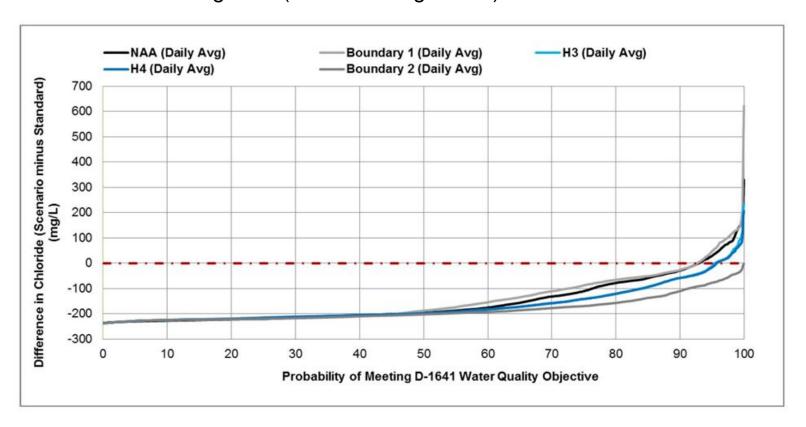


Figure 3 DWR-513 Figure C5, showing the probability of meeting the D-1641 250 mg/L chloride objective at Contra Costa Canal at Pumping Plant No. 1 (CCPP#1).

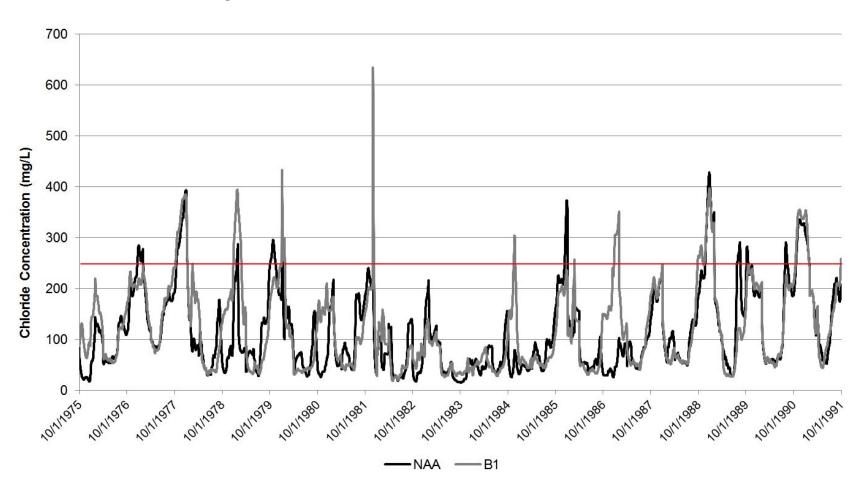


Figure 4 Daily average chloride concentrations modeled at CCPP#1 for the Boundary 1 (gray) and NAA (black) alternatives. The red line represents the 250 mg/L D-1641 water quality objective.

Chloride Exceedance Probability at CCPP#1 (Node 206) - All Years

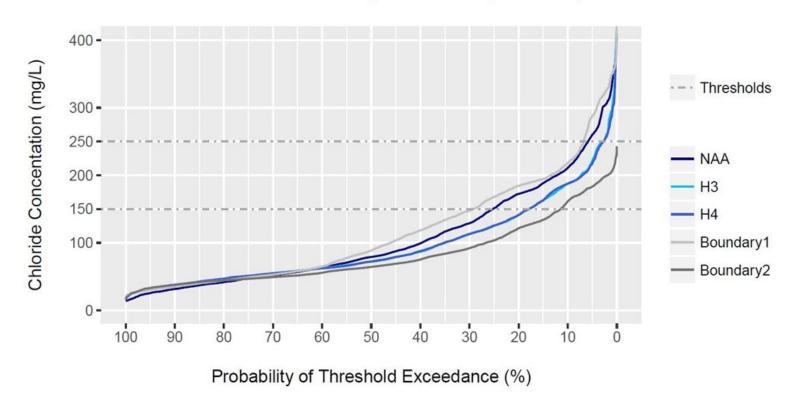


Figure 5 Probability exceedance diagram for chloride at CCPP#1 for all years (1976-1991).

Chloride Exceedance Probability at CCPP#1 (Node 206) - Critical Years

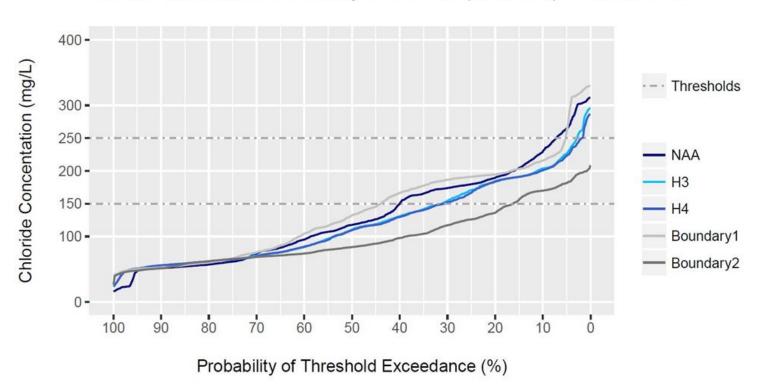


Figure 6 Probability exceedance diagram for chloride at CCPP#1 for critical years (1976, 1977, 1988, 1990, and 1991).

Chloride Exceedance Probability at CCPP#1 (Node 206) - Dry Years

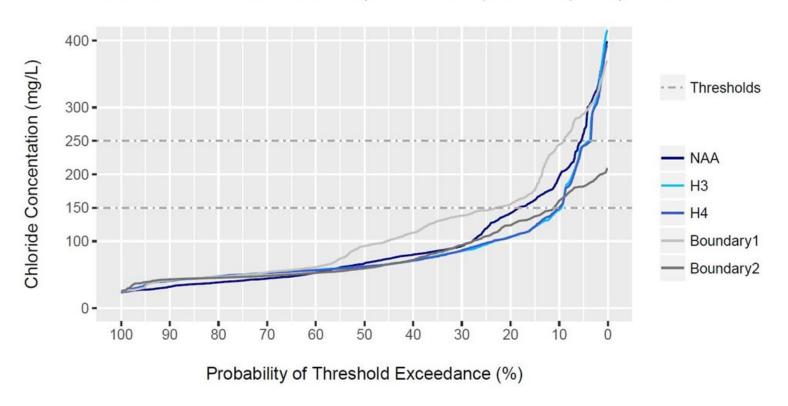


Figure 7 Probability exceedance diagram for chloride at CCPP#1 for dry years (1981, 1985, 1987, and 1989).

Chloride Exceedance Probability at CCPP#1 (Node 206) - Normal Years

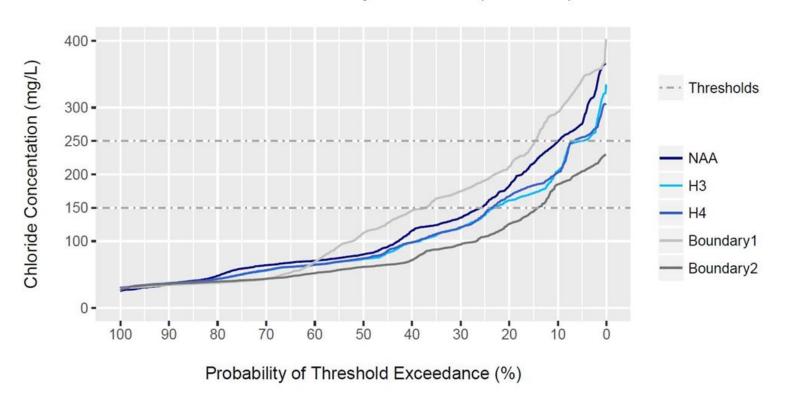


Figure 8 Probability exceedance diagram for chloride at CCPP#1 for normal (above and below normal) years (1978 – 1980).

Chloride Exceedance Probability at CCPP#1 (Node 206) - Wet Years

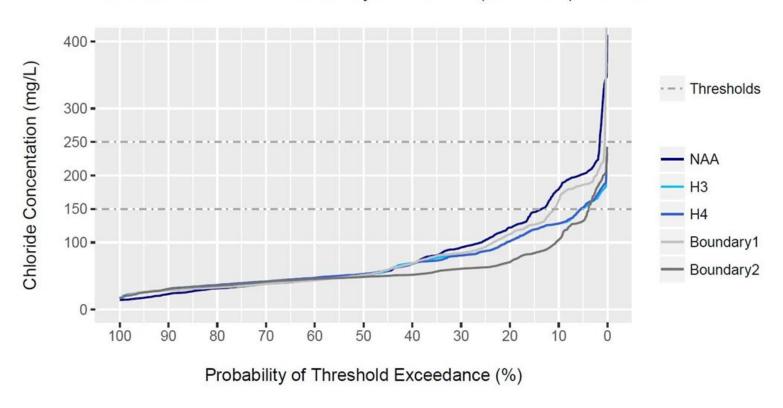


Figure 9 Probability exceedance diagram for chloride at CCPP#1 for wet years (1982 – 1984, and 1986).

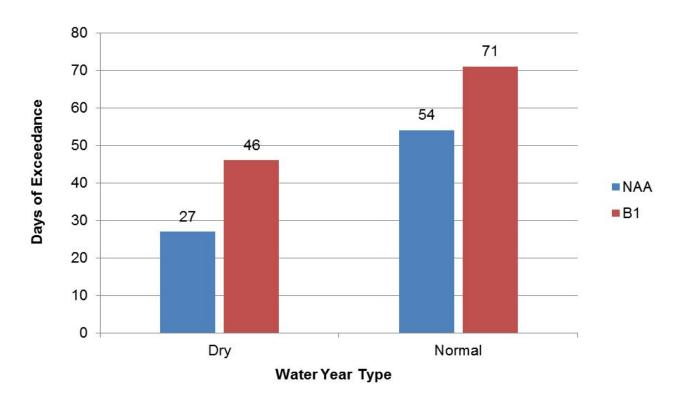


Figure 10 Average number of days per year of exceedance of the 250 mg/L water quality objective at CCPP#1. Data from Brentwood-102 Table 6 were used to develop this chart.

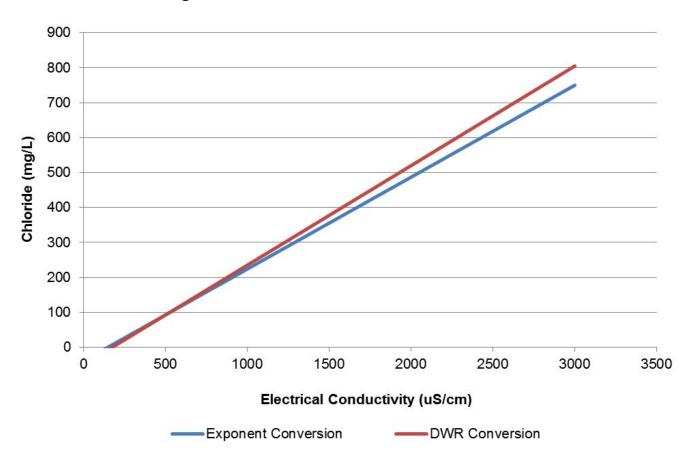
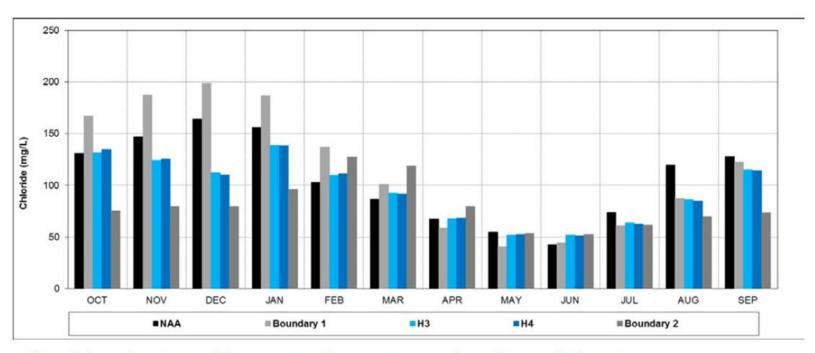


Figure 11 Comparison of the conversion factors used by Exponent and DWR in postprocessing of DSM2 output data.

#### Brentwood-121 Figure 12 (DWR-513 Figure CL1)

Figure CL1: Monthly Average Chloride Concentration at Contra Costa Canal



<sup>\*</sup>Model results are used for comparative purposes and not for predictive purposes

Figure 12 DWR-513 Figure CL1 showing monthly average chloride concentrations at Contra Costa Canal for the 16-year modeled period (1976-1991).

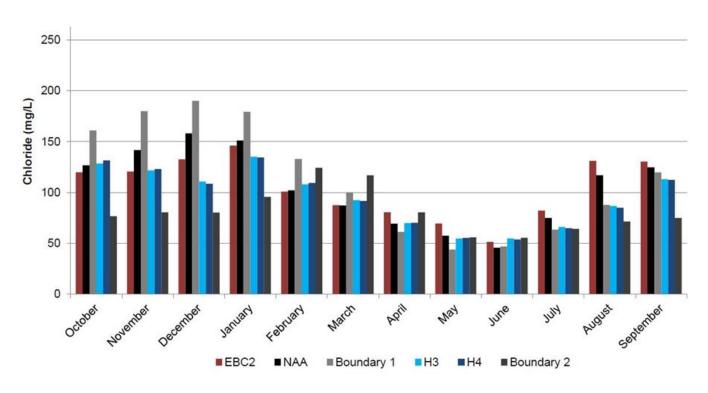


Figure 3. Monthly average chloride concentration at PP#1 from the 16-year modeled record. Note that the bars for the NAA, Boundary 1, H3, H4, and Boundary 2 scenarios were provided by DWR in DWR-513 (values may differ slightly due to different salinity conversions); Exponent has added the bar representing the existing condition (EBC2) scenario as modeled by DWR.

Figure 13 Copy of Brentwood-102 Figure 3, including the original caption noting that values differ slightly due to salinity conversions.