

Operation of intakes and the impact of chloride on drinking water treatment operations

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Conclusions

1. Drinking water intakes are not managed on an hourly or sub-hourly basis. Frequent changes in hydraulic behavior adversely affect unit processes, particularly regarding particle removal.
2. There is nothing that can be done by the City of Stockton to modify water quality at the intake through intake operation.
3. Chloride is not removed by the processes at the treatment plant and the concentrations presented in Dr. Paulsen's Rebuttal Testimony will not adversely impact process performance.

Conclusions (cont.)

4. Chloride is not regulated as a primary, health related standard and is only regulated as a secondary standard (aesthetics). There is no reason to operate the City of Stockton intake on an hourly or sub-hourly basis from a regulatory perspective.
5. The City of Stockton's "operational threshold" for chloride of 110 mg/L may be based upon customer preferences or their wastewater discharge permit. These thresholds are not absolute maximums and are used for guidance.
6. Hourly or sub-hourly increases in chloride would be dampened by water stored in the system and therefore the City would track distribution system chloride and make any changes at the intake after a week or two, or longer, if the chloride concentrations were expected to remain elevated. It would make those changes after deliberate discussions with its operators.