

Total Residual Chlorine Basin Plan Amendment

BACWA Annual Meeting

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POTW TRC Excursions

- Total Residual Chlorine (TRC) continuous monitoring
- Basin Plan 0.0 mg/L instantaneous maximum limit
 - POTWs report 24 every-hour-on-the-hour readings daily (MMPs)
 - Per RWB/BACWA 2004 letter agreement
- CIWQS query: 01/01/2010 – 12/31/2019 (10 years)
 - TRC excursions w/MMPs = **36**
 - Median concentration = **1.66 mg/L**
 - Median duration = **15.0 minutes**

Sodium Bisulfite (SBS)

- Excess SBS dosing required for TRC compliance
- Survey FY 2018/2019 SBS usage
 - 12 POTWs > 10 mgd design capacity
 - Excess dosing typically 2 – 4 mg/L above TRC level
 - Total excess SBS cost \$840,000 (7 of 12 POTWs reporting)

Basin Plan Amendment

- Delete 0.0 mg/L limit from Basin Plan Table 4-2
- Replace with water quality based effluent limits
- Add 1984 EPA chlorine water quality criteria to BP
 - Saltwater: **13 ug/L 1-hour average**; 7.5 ug/L 4-day average
 - Freshwater: **19 ug/L 1-hour average**; 11 ug/L 4-day average
- TRC WQBEL may be adjusted to account for dilution
 - Consistent with SIP procedures
 - Use actual dilution value same as used for ammonia limits

Dilution & 1-hr Avg Limits

Discharger	Design Flow (mgd)	Acute Initial Dilution	TRC Limit (mg/L)
EBDA	107.8	79:1	1.04
EBMUD	120	25:1	0.34
SFPUC SE	84.5	51:1	0.68
West County	28.5	117:1	1.50
Sunnyvale	29.5	0	0.013
		4:1	0.052

Limit calc = WQBEL x dilution = 0.013 mg/L x 4 = 0.052 mg/L

1-Hour Average Calculation

- Arithmetic average of SCADA readings every 60 minutes
- Calculate 24 1-hour average values per day
- Compare each hourly value to 1-hour average WQBEL
- Proposed reporting level (RL) of 0.05 to 0.10 mg/L
 - Important for shallow water dischargers with no dilution credit
 - Values < RL treated as zero in 1-hour average calculations

Estimated Schedule

- Finalize Basin Plan Amendment (BPA) – Winter 2020
- RWB holds BPA CEQA scoping hearing – Spring 2020
- Publish BPA for public review/comment – Summer 2020
- Respond to BPA comments – Fall 2020
- RWB BPA adoption hearing – Late 2020
- Forward BPA for SWB approval – Winter 2021
- Send SWB approved BPA for OAL approval – Mid 2021
- Send OAL approved BPA to USEPA – Fall 2021
- Approvals complete/begin implementation – Late 2021