

CALFED Water Quality Targets for Parameters of Concern

Parameter	Sacramento River	San Joaquin River	Delta
Selenium	Water: 20 µg/l (1 hour maximum) ^{b,c} 5.0 µg/l (4 day average) ^{b,c}	Water: South of Merced River: 20 µg/l (1 hour maximum) ^{b,c} 5.0 µg/l (4 day average) ^{b,c}	Water: East of Antioch Bridge: 20 µg/l (1 hour maximum) ^{b,c} 5.0 µg/l (4 day average) ^{b,c}
	Tissue: ^a 4-12 ppm (fish, whole body, dry weight) 3-7 ppm (fish food items, food chain, dry weight)	North of Merced River: 12 µg/l (maximum) ^{b,c} 5.0 µg/l (4 day average) ^{b,c}	West of Antioch Bridge: 20 µg/l (1 hour average) ^{b,c} 5.0 µg/l (4 day average) ^{b,c}
	Human Health: ^a EPA is not promulgating human health criteria for this contaminant regarding consumption of water and organisms and organisms only. ^{a,c}	Tissue: ^a 4-12 ppm (fish, whole body, dry weight) 3-7 ppm (fish food items, food chain, dry weight)	Tissue: ^a 4-12 ppm (fish, whole body, dry weight) 3-7 ppm (fish food items, food chain, dry weight)
		Human Health: ^a EPA is not promulgating human health criteria for this contaminant regarding consumption of water and organisms and organisms only. ^{a,c}	Human Health: ^a EPA is not promulgating human health criteria for this contaminant regarding consumption of water and organisms and organisms only. ^{a,c}

Grasslands, etc., limits

Note:
Water quality targets have no regulatory meaning within the context of CALFED.

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Parameter	Sacramento River	San Joaquin River	Delta
PCB's	<p><u>Water:</u> 0.014 µg/l (4 day average)^c (each of 7 congeners)</p> <p><u>Sediment:</u>^d 50 ppm (dry weight, total)</p> <p><u>Tissue:</u>^e 0.5 µg/l (whole fish, wet weight, total)</p> <p><u>Human Health:</u>^{aa} 0.00017 µg/l (water and organisms)^{aaa} 0.00017 µg/l (organisms only)^{aaa}</p>	<p><u>Water:</u> 0.014 µg/l (4 day average)^c (each of 7 congeners)</p> <p><u>Sediment:</u>^d 50 ppm (dry weight, total)</p> <p><u>Tissue:</u>^e 0.5 µg/l (whole fish, wet weight, total)</p> <p><u>Human Health:</u>^{aa} 0.00017 µg/l (water and organisms)^{aaa} 0.00017 µg/l (organisms only)^{aaa}</p>	<p><u>Water:</u> East of Antioch Bridge: 0.014 µg/l (4 day average)^c (each of 7 congeners)</p> <p>West of Antioch Bridge: 0.014 µg/l (24 hour average)</p> <p><u>Sediment:</u>^d 50 ppm (dry weight, total)</p> <p><u>Tissue:</u>^e 0.5 µg/l (whole fish, wet weight, total)</p> <p><u>Human Health:</u>^{aa} 0.00017 µg/l (water and organisms)^{aaa} 0.00017 µg/l (organisms only)^{aaa}</p>

(sum of congeners)

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Parameter	Sacramento River	San Joaquin River	Delta
Chloride			<p>Water:</p> <p>Agricultural Intakes: For surface irrigation:^{1b} SAR: < 3^{1c}</p> <p>For sprinkle irrigation:^{1d} < 3 me/l</p> <p>Drinking Water Intakes: 250 mg/l^{1e}; 150 mg/l^{1f}</p>
Nutrients (Nitrate)			<p>Water:</p> <p>Agricultural Intakes: < 5.0 mg/l</p> <p>Drinking Water Intakes: 10 mg/l²; no increase in nitrate levels^{2a}</p>
Salinity (EC _w)			<p>Water:</p> <p>East of Antioch Bridge:</p> <p>West of Antioch Bridge:</p> <p>Agricultural Intakes: < 0.7 dS/m or mmho/cm^{3a}</p>
Salinity (EC)	<p>Water:</p> <p>Knights Landing above Colusa Drain:^{3a,3b} ≥ 230 mmho/cm (50 percentile) or ≥ 235 mmho/cm (90 percentile)</p> <p>1 Street Bridge:^{3a,3b} ≥ 240 mmho/cm (50 percentile) or ≥ 340 mmho/cm (90 percentile)</p>	<p>Water:</p> <p>Friant Dam to Gravelly Ford:^{3a} ≥ 150 mmho/cm (90 percentile)</p>	

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Parameter	Sacramento River	San Joaquin River	Delta
Temperature	<p><u>Water:</u> Kerwick Dam to Hamilton City: < 56° F^{4a}</p> <p>Hamilton City to I Street Bridge: < 68° F^{4a}</p> <p>I Street Bridge to Freepost: < 68° F^{4a}</p> <p>I Street Bridge to Freepost, January 1 through March 31: < 66° F^{4a}</p>	<p><u>Water:</u> At Vernalis: < 68° F^{4a}</p>	<p><u>Water:</u> West of Antioch Bridge: < 5° C increase above for receiving water designated as cold or warm freshwater habitat.^a Alteration of temperature shall not adversely affect beneficial uses.^a</p> <p>Agricultural Intakes:</p>
Turbidity			<p><u>Water:</u> West of Antioch Bridge: No adverse effect or > 10 % change</p> <p>Drinking Water Intakes: 0.5 or 1.0 NTU^b; 50 NTU^{4a}</p> <p>Agricultural Intakes:</p>
Toxicity of Unknown Origin ^c			<p><u>Water:</u> West of Antioch Bridge: Acute- A median of not less than 90 % survival and a 90 percentile of not less than 70 % survival Chronic - no chronic toxicity in ambient waters</p>

See basin plan WQS

^a dissolved form

^b total recoverable form

^c The effects of these concentrations were measured by exposing test organisms to dissolved aqueous solutions of 40 mg/l hardness that had been filtered through a 0.45 micron membrane filter. Where deviations from 40 mg/l of water hardness occur, the objectives, in mg/l shall be determined using the following formulas:

$Cu = e^{(0.007)(\ln \text{hardness})} \cdot 1.612 \times 10^{-3}$

$Zn = e^{(0.012)(\ln \text{hardness})} \cdot 0.289 \times 10^{-3}$

$Cd = e^{(0.015)(\ln \text{hardness})} \cdot 5.777 \times 10^{-3}$

⁴ Central Valley Regional Water Quality Control Plan

⁵ General EPA 304(a) guideline

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