

DRAFT TABLE 1
LIST OF RECEIVING WATER LIMITATIONS TO IMPLEMENT WATER QUALITY OBJECTIVES

Constituent	Limit	Water Quality Objective/Criterion ^{1,2}	Reference
All	narrative	Chemical Constituents	Sacramento/San Joaquin River Basin Plan - page III-3.00 and Table III-1
			Tulare Lake Basin Plan - page III-3
	narrative	Tastes & Odors	Sacramento/San Joaquin River Basin Plan page III-7.00
			Tulare Lake Basin Plan page III-6
narrative	Toxicity	Sacramento/San Joaquin River Basin Plan pages III-7.00 and III-9.00	
		Tulare Lake Basin Plan pages III-6 and III-7	
Parameters			
pH	6.5 - 8.5 units (a)	pH	Sacramento/San Joaquin Rivers Basin Plan page III-6.00
	6.5 - 8.3 units (b)	pH	Tulare Lake Basin Plan page III-6
Color	15 units	Chemical Constituents	California Primary MCL
	narrative	Color	Sacramento/San Joaquin River Basin Plan page III-5.00 Tulare Lake Basin Plan page III-3
Salinity*	variable	Salinity	Sacramento/San Joaquin River Basin Plan-page III-6.01 (see electrical conductivity and total dissolved solids, below)
			Tulare Lake Basin Plan - pages III-4 and III-5 (see electrical conductivity and total dissolved solids, below)
Electrical Conductivity	variable	Salinity	Sacramento/San Joaquin River Basin Plan - Tables III-3 and III-5
			Tulare Lake Basin Plan - Tables III-2 and III-3
Total Dissolved Solids	900 umhos/cm	Chemical Constituents	California Recommended Secondary MCL
	variable	Salinity	Sacramento/San Joaquin River Basin Plan - Tables III-3 and III-5
Dissolved Oxygen (minimum)	500 mg/L	Chemical Constituents	California Recommended Secondary MCL
	variable	Dissolved Oxygen	Sacramento/San Joaquin River Basin Plan - page III-5.00 and Tables III-2 and III-5 Tulare Lake Basin Plan - page III-3 and Table III-1
Sediment	narrative	Sediment	Sacramento/San Joaquin River Basin Plan page III-7.00 Tulare Lake Basin Plan page III-5
Settleable Material	narrative	Settleable Material	Sacramento/San Joaquin River Basin Plan page III-7.00 Tulare Lake Basin Plan page III-5
Suspended Material	narrative	Suspended Material	Sacramento/San Joaquin River Basin Plan page III-7.00 Tulare Lake Basin Plan page III-6
Temperature	variable	Temperature	Sacramento/San Joaquin River Basin Plan - page III-8.00 and Table III-4
			Tulare Lake Basin Plan - page III-6
Turbidity	variable increase	Turbidity	Sacramento/San Joaquin River Basin Plan page III-9.00 Tulare Lake Basin Plan page III-7
	5 units	Chemical Constituents	California Primary MCL
Fecal Coliform	200 MPN/100 ml	Bacteria	Basin Plan Objective for Inland Surface Waters designated for contact recreation
	100 MPN/100 ml	Bacteria	Basin Plan Objective for Folsom Lake
Toxicity Test			
Algae Toxicity	non-toxic	Toxicity; Pesticides	Basin Plans (see Toxicity above and Pesticides below)
Water Column Toxicity	non-toxic	Toxicity; Pesticides	Basin Plans (see Toxicity above and Pesticides below)
Sediment Toxicity	non-toxic	Toxicity; Pesticides	Basin Plans (see Toxicity above and Pesticides below)
Pesticides			
All Pesticides	variable	Pesticides	Sacramento/San Joaquin River Basin Plan - pages III-6.00 and III-6.01 and Table III-2A
			Tulare Lake Basin Plan - pages III-3 and III-4

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Pesticides - Carbamates			
Carbofuran	0.4 ug/L	Pesticide Prohibition	Sacramento/San Joaquin Basin Plan - Performance Goal - page IV-25.00
	18 ug/L	Chemical Constituents	California Primary MCL
Oxamyl	50 ug/L	Chemical Constituents	California Primary MCL
Pesticides - Organochlorines			
Total persistent organochlorine pesticides	non-detect using USEPA or standard methods	Pesticides	Sacramento/San Joaquin Basin Plan - page III-6.00
			Tulare Lake Basin Plan page III-4
DDD	0.00083 ug/L	CTR	Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)
	0.00084 ug/L	CTR	Human Health Protection, 30-Day Average - Other Waters (fish consumption only)
DDE	0.00059 ug/L	CTR	Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)
	0.00059 ug/L	CTR	Human Health Protection, 30-Day Average - Other Waters (fish consumption only)
DDT	0.00059 ug/L	CTR	Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)
	0.00059 ug/L	CTR	Human Health Protection, 30-Day Average - Other Waters (fish consumption only)
Dieldrin	0.00014 ug/L	CTR	Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)
	0.00014 ug/L	CTR	Human Health Protection, 30-Day Average - Other Waters (fish consumption only)
	0.24 ug/L	NTR	Freshwater Aquatic Life Protection - Maximum Concentration, 4-Day Average
	0.056 ug/L	NTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average
Endrin	2 ug/L	Chemical Constituents	California Primary MCL
	0.036 ug/L	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average
Methoxychlor	30 ug/L	Chemical Constituents	California Primary MCL
Pesticides - Organophosphates			
Diazinon ³	0.05 ug/L; 4-day average - not to be exceeded more than once every 3 years on average	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-2A. Applicable Water Bodies: Sacramento River from Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30). Feather River from Fish Barrier Dam to Sacramento River (40).
Malathion	0.10 ug/L	Pesticide Prohibition	Sacramento/San Joaquin Basin Plan - Performance Goal page IV-25.00
Parathion-methyl	0.13 ug/L	Pesticide Prohibition	Sacramento/San Joaquin Basin Plan - Performance Goal page IV-25.00

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Constituent	Limit	Water Quality Objective/Criterion ^{1,2}	Reference
Pesticides - Herbicides			
Atrazine	1 ug/L	Chemical Constituents	California Primary MCL
Glyphosate	700 ug/L	Chemical Constituents	California Primary MCL
Molinate	10 ug/L	Pesticide Prohibition	Sacramento/San Joaquin Basin Plan - Performance Goal page IV-25.00
	20 ug/L	Chemical Constituents	California Primary MCL
Simazine	4 ug/L	Chemical Constituents	California Primary MCL
Thiobencarb	1.0 ug/L	Pesticides	For MUN waters - Sacramento/San Joaquin Basin Plan
	1 ug/L	Chemical Constituents	California Secondary MCL
Metals (c)			
Arsenic	10 ug/L	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Sacramento River from Keswick Dam to the I Street Bridge at City of Sacramento (13,30); American River from Folsom Dam to the Sacramento River (51); Folsom Lake (50); and the Sacramento-San Joaquin Delta
	50 ug/L	Chemical Constituents	California Primary MCL
	150 ug/L	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average
Boron (Total Concentration)	2,000 ug/L (15 March through 15 September)	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - San Joaquin River, mouth of the Merced River to Vernalis
	800 ug/L (monthly mean, 15 March through 15 September)	Chemical Constituents	
	2,600 ug/L (16 September through 14 March)	Chemical Constituents	
	1,000 ug/L (monthly mean, 16 September through 14 March)	Chemical Constituents	
	1,300 ug/L [monthly mean, critical year (type of year is defined in Table IV-3)]	Chemical Constituents	
Cadmium	variable	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Sacramento River and its tributaries above State Highway 32 bridge at Hamilton City - Varies with water hardness
	5 ug/L	Chemical Constituents	California Primary MCL
	variable	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average, varies with water hardness

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Constituent	Limit	Water Quality Objective/Criterion ^{1,2}	Reference
Metals (c) - continued			
Copper	variable	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - Varies with water hardness
	variable	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Sacramento River and its tributaries above State Highway 32 bridge at Hamilton City - Varies with water hardness
	10 ug/L	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies- Sacramento River from Keswick Dam to the I Street Bridge at City of Sacramento (13,30); American River from Folsom Dam to the Sacramento River (51); Folsom Lake (50); and the Sacramento-San Joaquin Delta. It does not apply to Sacramento River above State Highway 32 bridge at Hamilton City.
	1,000 ug/L	Chemical Constituents	California Secondary MCL
Lead	variable	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - varies with water hardness
	15 ug/L	Chemical Constituents	California Primary MCL
Nickel	variable below hardness of 215 mg/L as CaCO ₃	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - varies with water hardness
	100 ug/L	Chemical Constituents	California Primary MCL
Selenium (Total Concentration)	5.0 ug/L	NTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average
	5 ug/L (4-day average)	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - San Joaquin River, mouth of the Merced River to Vernalis
	5 ug/L (4-day average)	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Mud Slough (north), and the San Joaquin River from Sack Dam to the mouth of the Merced River
	2 ug/L (monthly mean)	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Salt Slough and constructed and re-constructed water supply channels in the Grassland watershed listed in Appendix 40
	50 ug/L	Chemical Constituents	California Primary MCL
Zinc	variable	CTR	Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - Varies with water hardness
	100 ug/L	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies- Sacramento River from Keswick Dam to the I Street Bridge at City of Sacramento (13,30); American River from Folsom Dam to the Sacramento River (51); Folsom Lake (50); and the Sacramento-San Joaquin Delta. It does not apply to Sacramento River above State Highway 32 bridge at Hamilton City.
	variable	Chemical Constituents	Sacramento/San Joaquin Basin Plan, Table III-1. Trace Element Water Quality Objective. Applicable Water Bodies - Sacramento River and its tributaries above State Highway 32 bridge at Hamilton City - Varies with water hardness
	5,000 ug/L	Chemical Constituents	California Secondary MCL

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Constituent	Limit	Water Quality Objective/Criterion ^{1,2}	Reference
Nutrients			
Ammonia	25 ug/L	Ammonia	Tulare Lake Basin Plan - page III-2
	narrative	Ammonia	Tulare Lake Basin Plan - page III-2

Notes

When more than one limit applies to a given water body and constituent, the most stringent limit becomes the receiving water limitation.

In addition to the objectives and criteria included in this table, the follow are sections of the Implementation Plan Chapter of the Basin

Plans that must be considered when determining the appropriate receiving water limitations:

- Controllable Factors Policy - Sacramento/San Joaquin River Basin Plan page IV-15.00, Tulare Lake Basin Plan page III-1, last paragraph
- Policy for Application of Water Quality Objectives - Sacramento/San Joaquin River Basin Plan pages IV-16.00 through IV-18.00, Tulare Lake Basin Plan pages IV-21 through IV-23
- Pesticide Prohibition - Performance Goals - Sacramento/San Joaquin Basin Plan page IV-25.00
- Pesticide Discharges from Nonpoint Sources - Sacramento/San Joaquin Basin Plan page IV-35.00
- Discharges to Navigable Waters - Tulare Lake Basin Plan pages IV-9 and IV-10

CTR - Title 40 of the Code of Federal Regulations, Section 131.38, www.epa.gov/OST/standards/ctrindex.html

Footnotes

¹Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and for the Tulare Lake Basin

²When water quality based limit is lower than the practical quantitation limit (PQL) for the constituent, the PQL becomes the limit.

³The Sacramento River/San Joaquin River Basin Plan includes additional requirements for Diazinon that become effective in 2008.

⁴The chlorpyrifos and diazinon limitations come from the Draft Basin Plan Amendment Staff Report, which are not effective until the Staff Report is adopted and fully approved.

* Objectives for salinity pertains to electrical conductivity, total dissolved solids, and chloride.

(a) No change from normal over 0.5 units

(b) No change from normal over 0.3 units

(c) Use total metal results for human health criteria and dissolved metal results for aquatic criteria. Boron and selenium are all total concentrations.

Abbreviations

USEPA: United States Environmental Protection Agency

CTR: California Toxics Rule

NTR: National Toxics Rule

MPN: Most Probable Number

ml: milliliters

mg/L: milligrams per liter (parts per million)

ug/L: micrograms per liter (parts per billion)