

**TABLE 6-1  
CURRENT RECYCLED WATER QUALITY REQUIREMENTS FOR RECYCLED WATER USES OTHER THAN ARTIFICIAL  
GROUNDWATER REPLENISHMENT**

Parameters	Units	Undisinfected Secondary Effluent	Disinfected Secondary-23 Recycled Water	Disinfected Secondary-2.2 Recycled Water	Disinfected Tertiary Recycled Water
<b>DRAFT</b>					
Turbidity	NTU	Not required	Not required	Not required	For conventional filtration process <2 NTU within a 24-hour period <5 NTU, 95% of the time within a 24-hour period <10 NTU at any time  For membrane Processes (MF, NF, UF, or RO) <0.2 NTU, 95% of the time within a 24-hour period <0.5 NTU at any time
Total Coliform	CFU / 100 mL	Not required	< 23 MPN/100 mL for 7-day average < 240 MPN/mL in more than one sample in a 30-day period	< 2.2 MPN/100 mL for 7-day average < 23 MPN/mL in more than one sample in a 30-day period	< 2.2 5-log removal of MS-2 bacteriophage or for the polio virus < 2.2 MPN/100 mL for 7-day average < 23 MPN/mL in more than one sample in a 30-day period < 240 MPN/mL
CFU	colony-forming unit				
MPN	most probable number				
NF	nanofiltration				
NTU	nephelometric turbidity unit				

**TABLE 6-2  
CURRENT CDHS TITLE 22 AND SANTA ANA REGIONAL BOARD RECYCLED WATER QUALITY REQUIREMENTS FOR  
ARTIFICIAL GROUNDWATER REPLENISHMENT**

Classification	Constituent	Units	Secondary Effluent	CDHS Limits	Regional Board Limits
<b>DRAFT</b>					
<b>General Physical Properties</b>	Color	Color Units	20	----	<15
	Odor	T.O.N.	64	----	<3.0
	Turbidity	NTU	1.7	<2.0, <0.2 <sup>(a)</sup>	<5
	Corrosivity	---		----	non-corrosive
	Specific Conductance	µmhos/cm	740	(<900)	
	pH	pH units	8.0	----	6 to 9

<sup>(a)</sup> 0.2 NTU, 95% of the time within a 24-hour period with a membrane technology (for complete information see Table 6-1.)

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CURRENT CDHS TITLE 22 AND SANTA ANA REGIONAL BOARD RECYCLED WATER QUALITY REQUIREMENTS FOR  
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Classification	Constituent	Units	Secondary Effluent	CDHS Limits	Regional Board Limits
Microbiological	Total Coliform	MPN/100 mL		<2.2 <sup>a</sup>	<2.2
	Virus Inactivation	Log or %		5.0 or 99,999 <sup>a</sup>	----
General Minerals and Ions	Bicarbonate	mg/L	320		
	Carbonate	mg/L	260		
	Total Alkalinity	mg/L	260		
	Calcium	mg/L	56		
	Chloride	mg/L	51	(<250)	<10
	Fluoride	mg/L	0.5	<2.0	<2.0
	Hydroxide	mg/L	ND		
	Magnesium	mg/L	23		
	Nitrate (as N)	mg/L	0.5	----	<5
	Nitrite (as N)	mg/L	1.0		
	Total Nitrogen	mg/L	2.6	<10.0 <sup>a</sup> , <5.0 <sup>b</sup>	----
	Total Anions	me/L	7.51		
	Total Cations	me/L	7.80		
	Potassium	mg/L	11		
	Sodium	mg/L	65	----	<20
	Sulfate	mg/L	40	(<250)	<20
Total Dissolved Solids	mg/L	430	(<500)	<300	
Total Hardness	mg/L CaCO <sub>3</sub>	240	----	<225	

<sup>a</sup>As an average

<sup>b</sup>At a maximum frequency

DRAFT

TABLE 6-2  
CURRENT CDHS TITLE 22 AND SANTA ANA REGIONAL BOARD RECYCLED WATER QUALITY REQUIREMENTS FOR  
ARTIFICIAL GROUNDWATER REPLENISHMENT

Classification	Constituent	Units	Secondary Effluent	CDHS Limits	Regional Board Limits
Other Ions	Perchlorate	µg/L	ND		
	Cyanide	mg/L	ND	<0.15	<0.15
	Bromide	mg/L	0.064		
Metals and Metalloids	Aluminum	µg/L	63.0	<1,000 (<200)	<200
	Antimony	µg/L	ND	<6	<6
	Arsenic	µg/L	ND	<50	<50
	Barium	µg/L	ND	<1000	<1000
	Beryllium	µg/L	ND	<4	<4
	Cadmium	µg/L	ND	<5	<5
	Total Chromium	µg/L	ND	<50	<50
	Cobalt	µg/L		---	<200
	Copper	µg/L	ND	<1,300 (<1,000)	<1000
	Iron	µg/L	43	(<300)	<300
	Lead	µg/L	ND	<15	<50
	Manganese	µg/L	13	(<50)	<50
	Mercury	µg/L	ND	<2	<2
	Nickel	µg/L	ND	<100	<45,000
	Selenium	µg/L	ND	<50	<5
	Silver	µg/L	ND	(<100)	<50
	Thallium	µg/L	ND	<2	<2
	Total Silica	mg/L	24		
	Zinc	µg/L	55	(<5,000)	<5,000

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Classification	Constituent	Units	Secondary Effluent	CDHS Limits	Regional Board Limits
<b>Radioactivity</b>	Radium-226 + Radium-228	pCi/L		<5	<5.0
	Radioactivity, gross alpha	pCi/L		<15	<15.0
	Tritium	pCi/L		<20,000	<20,000
	Strontium-90	pCi/l		<8	<8.0
	Radioactivity, gross beta	pCi/L		<50	<50.0
	Uranium	pCi/L		<20	<20.0
<b>Miscellaneous</b>	Asbestos	MFL		<7	<7.0
<b>Disinfection By-products</b>	Bromate	mg/L		10	
	Chloramines	mg/L		4	
	Chloride	mg/L		(<250)	
	Chlorine	mg/L		4	
	Chlorine dioxide	mg/L		0.8	
	Chlorite	mg/L		1	
	Bromodichloromethane <sup>a</sup>	µg/L		80	
	Bromoform <sup>4</sup>	µg/L	ND	80	
	Chloroform <sup>4</sup>	µg/L	ND	80	
	Dibromochloromethane <sup>a</sup>	µg/L		80	
	Monochloroacetic acid <sup>5</sup>	µg/L		60	
	Dichloroacetic acid <sup>5</sup>	µg/L		60	
	Trichloroacetic acid <sup>5</sup>	µg/L		60	
Monobromoacetic acid <sup>5</sup>	µg/L		60		
Dibromoacetic acid <sup>5</sup>	µg/L		60		

<sup>a</sup>80 µg/L MCL is for summation of 4 trihalomethanes (Total THMs)

<sup>b</sup>60 µg/L MCL is for summation of 5 haloacetic acids (HAAs)

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Classification	Constituent	Units	Secondary Effluent	CDHS Limits	Regional Board Limits
<b>Organics</b>	Foaming Agents (MBAS)	mg/L	ND	(<0.5)	<0.05
	Total Organic Carbon	mg/L	6.5	<16	----
<b>Organochlorine Pesticides</b>	Alachlor	µg/L	ND	<2	<2
	Aldrin	µg/L	ND		
	Chlorothalonil	µg/L	ND		
	Dieldrin	µg/L	ND		
	Endrin	µg/L	ND	<2	<2
	Lindane	µg/L	ND	<0.2	<0.2
	Methoxychlor	µg/L	ND	<30	<30
	Toxaphene	µg/L	ND	<3	<3
	Chlordane	µg/L	ND	<0.1	<0.1
	Heptachlor	µg/L	ND	<0.01	<0.01
	Heptachlor Epoxide	µg/L	ND	<0.01	<0.01
	Hexachlorobenzene	µg/L	ND	<1	<1
	Hexachloro-cyclopentadiene	µg/L	ND	<50	<50
	Propachlor	µg/L	ND		
	Polychlorinated Biphenyls (PCBs)	µg/L	ND	<0.5	<0.5
<b>Organochlorine Herbicides</b>	2,4-D	µg/L	ND	<70	<70
	2,4,5-TP Silvex	µg/L	ND	<50	<50
	Bentazon	µg/L	ND	<18	<18
	Dalapon	µg/L	ND	<200	<200
	Dicamba	µg/L	ND		
	Dinoseb	µg/L	ND	<7	<7
	Picloram	µg/L	ND	<500	<500
Pentachlorophenol	µg/L	ND	<1	<1	