

**TABLE 3-1  
SPECIFIC WATER QUALITY OBJECTIVES FOR NORTH COAST REGION**

Waterbody <sup>1</sup>	Specific Conductance (micromhos) @ 77°F		Total Dissolved Solids (mg/l)		Dissolved Oxygen (mg/l)		Hydrogen Ion (pH)		Hardness (mg/l)	Boron (mg/l)		
	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>	Min	90% Lower Limit <sup>3</sup>	50% Lower Limit <sup>2</sup>	Max	Min	50% Upper Limit <sup>2</sup>	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>
<b>Lost River HA</b>												
Clear Lake Reservoir & Upper Lost River	300	200			5.0		8.0	9.0	7.0	60	0.5	0.1
Lower Lost River	1000	700			5.0		-	9.0	7.0	-	0.5	0.1
Other Streams	250	150			7.0		8.0	8.4	7.0	50	0.2	0.1
Tule Lake	1300	900			5.0		-	9.0	7.0	400	-	-
Lower Klamath Lake	1150	850			5.0		-	9.0	7.0	400	-	-
Groundwaters <sup>4</sup>	1100	500			-		-	8.5	7.0	250	0.3	0.2
<b>Butte Valley HA</b>												
Streams	150	100			7.0		9.0	8.5	7.0	30	0.1	0.0
Meiss Lake	2000	1300			7.0		8.0	9.0	7.5	100	0.3	0.1
Groundwaters <sup>4</sup>	800	400			-		-	8.5	6.5	120	0.2	0.1
<b>Shasta Valley HA</b>												
Shasta River	800	600			7.0		9.0	8.5	7.0	220	1.0	0.5
Other Streams	700	400			7.0		9.0	8.5	7.0	200	0.5	0.1
Lake Shastina	300	250			6.0		9.0	8.5	7.0	120	0.4	0.2
Groundwaters <sup>4</sup>	800	500			-		-	8.5	7.0	180	1.0	0.3
<b>Scott River HA</b>												
Scott River	350	250			7.0		9.0	8.5	7.0	100	0.4	0.1
Other Streams	400	275			7.0		9.0	8.5	7.0	120	0.2	0.1
Groundwaters <sup>4</sup>	500	250			-		-	8.0	7.0	120	0.1	0.1
<b>Salmon River HA</b>												
All Streams	150	125			9.0		10.0	8.5	7.0	60	0.1	0.0
<b>Middle Klamath River HA</b>												
Klamath River above Iron Gate Dam including Iron Gate & Copco Reservoirs	425	275			13		13	8.5	7.0	60	0.3	0.2
Klamath River below Iron Gate Dam	350	275			13		13	8.5	7.0	80	0.5	0.2
Other Streams	300	150			7.0		9.0	8.5	7.0	60	0.1	0.0
Groundwaters <sup>4</sup>	750	600			-		-	8.5	7.5	200	0.3	0.1
<b>Applegate River HA</b>												
All Streams	250	175			7.0		9.0	8.5	7.0	60	-	-
<b>Upper Trinity River HA</b>												
Trinity River <sup>5</sup>	200	175			7.0		10.0	8.5	7.0	80	0.1	0.0
Other Streams	200	150			7.0		10.0	8.5	7.0	60	0.0	0.0
Clair Engle Lake and Lewiston Reservoir	200	150			7.0		10.0	8.5	7.0	60	0.0	0.0

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3. WATER QUALITY OBJECTIVES

TABLE 3-1 (CONTINUED)  
 SPECIFIC WATER QUALITY OBJECTIVES FOR NORTH COAST REGION

Waterbody <sup>1</sup>	Specific Conductance (micromhos) @ 77°F		Total Dissolved Solids (mg/l)		Dissolved Oxygen (mg/l)			Hydrogen Ion (pH)		Hardness (mg/l)	Boron (mg/l)	
	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>	Min	90% Lower Limit <sup>3</sup>	50% Lower Limit <sup>2</sup>	Max	Min	50% Upper Limit <sup>2</sup>	90% Upper Limit <sup>3</sup>	50% Upper Limit <sup>2</sup>
	<u>Hayfork Creek</u>	400	275			7.0		9.0	8.5	7.0	150	0.2
Hayfork Creek												
Other Streams	300	250			7.0		9.0	8.5	7.0	125	0.0	0.0
Ewing Reservoir	250	200			7.0		9.0	8.0	6.5	150	0.1	0.0
Groundwaters <sup>4</sup>	350	225			-		-	8.5	7.0	100	0.2	0.1
<u>S.F. Trinity River HA</u>												
S.F. Trinity River	275	200			7.0		10.0	8.5	7.0	100	0.2	0.0
Other Streams	250	175			7.0		9.0	8.5	7.0	100	0.0	0.0
<u>Lower Trinity River HA</u>												
Trinity River	275	200			8.0		10.0	8.5	7.0	100	0.2	0.0
Other Streams	250	200			9.0		10.0	8.5	7.0	100	0.1	0.0
Groundwaters <sup>4</sup>	200	150			-		-	8.5	7.0	75	0.1	0.1
<u>Lower Klamath River HA</u>												
Klamath River	300 <sup>6</sup>	200 <sup>6</sup>			13		13	8.5	7.0	75 <sup>6</sup>	0.5 <sup>6</sup>	0.2 <sup>6</sup>
Other Streams	200 <sup>6</sup>	125 <sup>6</sup>			8.0		10.0	8.5	6.5	25 <sup>6</sup>	0.1 <sup>6</sup>	0.0 <sup>6</sup>
Groundwaters <sup>4</sup>	300	225			-		-	8.5	6.5	100	0.1	0.0
<u>Illinois River HA</u>												
All Streams	200	125			8.0		10.0	8.5	7.0	75	0.1	0.0
<u>Winchuck River HU</u>												
All Streams	200 <sup>6</sup>	125 <sup>6</sup>			8.0		10.0	8.5	7.0	50 <sup>6</sup>	0.0 <sup>6</sup>	0.0 <sup>6</sup>
<u>Smith River HU</u>												
Smith River-Main Forks	200	125			8.0		11.0	8.5	7.0	60	0.1	0.1
Other Streams	150 <sup>6</sup>	125 <sup>6</sup>			7.0		10.0	8.5	7.0	60 <sup>6</sup>	0.1 <sup>6</sup>	0.0 <sup>6</sup>
<u>Smith River Plain HSA</u>												
Smith River	200 <sup>6</sup>	150 <sup>6</sup>			8.0		11.0	8.5	7.0	60 <sup>6</sup>	0.1 <sup>6</sup>	0.0 <sup>6</sup>
Other Streams	150 <sup>6</sup>	125 <sup>6</sup>			7.0		10.0	8.5	6.5	60 <sup>6</sup>	0.1 <sup>6</sup>	0.0 <sup>6</sup>
Lakes Earl & Talawa	-	-			7.0		9.0	8.5	6.5	-	-	-
Groundwaters <sup>4</sup>	350	100			-		-	8.5	6.5	75	1.0	0.0
Crescent City Harbor	-	-										
<u>Redwood Creek HU</u>												
Redwood Creek	220 <sup>6</sup>	125 <sup>6</sup>	115 <sup>6</sup>	75 <sup>6</sup>	7.0	7.5	10.0	8.5	6.5			
<u>Mad River HU</u>												
Mad River	300 <sup>6</sup>	150 <sup>6</sup>	160 <sup>6</sup>	90 <sup>6</sup>	7.0	7.5	10.0	8.5	6.5			
<u>Eureka Plain HU</u>												
Humboldt Bay	-	-	-	-	6.0	6.2	7.0	8.5	7			
<u>Eel River HU</u>												
Eel River	375 <sup>6</sup>	225 <sup>6</sup>	275 <sup>6</sup>	140 <sup>6</sup>	7.0	7.5	10.0	8.5	6.5			
Van Duzen River	375	175	200	100	7.0	7.5	10.0	8.5	6.5			

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3. WATER QUALITY OBJECTIVES

**TABLE 3-1a**  
**SPECIFIC DISSOLVED OXYGEN OBJECTIVES FOR THE MAINSTEM KLAMATH RIVER<sup>1</sup>**

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<u>Waterbody<sup>2</sup></u>	<u>Percent DO saturation based on natural receiving water temperatures<sup>3</sup></u>	<u>Time period</u>
<u>Stateline to Scott River (RM 209.3 to 143.0)</u>	<u>90%</u> <u>85%</u>	<u>October 1 through March 31</u> <u>April 1 through September 30</u>
<u>Scott River to Hoopa Valley Indian Reservation (RM 143.0 to 45.0)</u>	<u>90%</u>	<u>Year round</u>
<u>Hoopa Valley Indian Reservation to Turwar (RM 45.0 to 5.7)</u>	<u>90%</u> <u>85%</u>	<u>September 1 through May 31</u> <u>June 1 through August 31</u>
<u>Turwar to Hunter Creek (RM 5.7 to 1.2)</u>	<u>90%</u> <u>85%</u>  <u>80%</u>	<u>November 1 through May 31</u> <u>June 1 through July 31 and</u> <u>September 1 through October 31</u> <u>August 1 through August 31</u>
<u>Hunter Creek to River Mouth (RM 5.7 to 1.2)</u>	<u>For the protection of estuary habitat (EST), the dissolved oxygen content of the lower Klamath estuary shall not be depressed to levels adversely affecting beneficial uses as a result of controllable water quality factors.</u>	

### 3. WATER QUALITY OBJECTIVES

<sup>1</sup> States may establish site specific objectives equal to natural background (USEPA, 1986. Ambient Water Quality Criteria for Dissolved Oxygen, EPA 440/5-86-033; USEPA Memo from Tudor T. Davies, Director of Office of Science and Technology, USEPA Washington, D.C. dated November 5, 1997). For aquatic life uses, where the natural background condition for a specific parameter is documented, by definition that condition is sufficient to support the level of aquatic life expected to occur naturally at the site absent any interference by humans (Davies, 1997). These DO objectives are derived from the T1BSR run of the Klamath TMDL model dated November 5, 2009 and described in Tetra Tech, December 23, 2009 *Modeling Scenarios: Klamath River Model for TMDL Development*. They represent natural DO background conditions due only to non-anthropogenic sources and a natural flow regime.

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<sup>2</sup> These objectives apply to the maximum extent allowed by law. To the extent that the State lacks jurisdiction, the Site Specific Dissolved Oxygen Objectives for the Mainstem Klamath River are extended as a recommendation to the applicable regulatory authority.

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<sup>3</sup> Corresponding DO concentrations are calculated as daily minima, based on site-specific barometric pressure, site-specific salinity, and natural receiving water temperatures as estimated by the T1BSR run of the Klamath TMDL model dated November 5, 2009 and described in Tetra Tech, December 23, 2009. Modeling Scenarios: Klamath River Model for TMDL Development. The estimates of natural receiving water temperatures used in these calculations may be updated as new data or method(s) become available. After opportunity for public comment, any update or improvements to the estimate of natural receiving water temperature must be reviewed and approved by Executive Officer.

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