

Attachment B
California Regional Water Quality Control Board
Lahontan Region

Determining Width of
Waterbody Buffer Zones

**Conditional Waiver of Waste Discharge Requirements
for Timber Harvest and Vegetation Management Activities**

The Timber Waiver contains conditions with specific equipment operation limitations and protections near waterbodies. Areas subject to these limitations and protections are called "Waterbody Buffer Zones."

One way to classify waterbodies is to categorize them as watercourses which tend to have permeable beds which connect surface waters to groundwater. A perennial stream is expected to flow throughout the year, albeit with only small dry-weather flows in some cases. An intermittent stream ceases to flow in dry periods. The flow may occur when the groundwater table is seasonally high, but there will not be flow when the groundwater table is significantly below the stream channel bed level. An ephemeral stream flows only after rain or snow-melt and has no base flow component. Because it may be difficult at times to determine when a watercourse is responding to specific groundwater conditions, this Timber Waiver classifies waterbodies by biological habitat and ability to transport sediment, as defined in the California Code of Regulations, title 14 (~~2009-2013~~ Forest Practice Rules) Watercourse and Lake Protection Zones (WLPZs). See Table B1, below.

Waterbody Buffer Zones are similar to the U.S. Forest Service concept of a "Streamside Management Zone" (SMZ), which is a zone adjacent to waterbodies designated for special management controls aimed at protection and improvement of water quality. Unlike WLPZs, universal widths for SMZs are not specified, but developed on a project-specific basis taking into account factors such as stream class, channel aspect and stability, sideslope steepness, and slope stability. For clarity and conciseness, this Waiver uses the generic term Waterbody Buffer Zone (instead of WLPZ or SMZ) to identify Waiver-specific setback distances and to recognize that not all timber harvest and vegetation management activities regulated by this Timber Waiver are subject to the Forest Practice ~~R~~rules (FPRs), or conducted by the U.S. Forest Service on U.S. Forest Service Lands.

Water Board staff will accept documents and timber waiver applications that use terminology other than "Waterbody Buffer Zones" as long as such zones or areas will not be smaller than the Waterbody Buffer Zones defined in Table B1, Waterbody Buffer Zone Widths. Such terminology may include Streamside Management Zone (SMZ), Riparian Conservation Area (RCA), and Watercourse and Lake Protection Zone (WLPZ).

Buffer Zone Designations for Class I and II Waters

Buffer Zone widths for Class I and II waters are equivalent to those in the ~~2009-2013~~ California Forest Practice Rules FPRs, California Code of Regulations (CCRs), title 14, section 916.5, Table 1, "Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures [All Districts]."

Buffer Zone Designations for Class III and IV Waters

This waiver specifies the Water Body Buffer Zones for Class III and IV Waters in Table B1, below.

Measuring Buffer Zone Widths

Waterbody Buffer Zones must be measured along the surface of the ground from the watercourse or lake transition line (as defined in ~~the 2009 Forest Practice Rules Attachment A, Definitions~~) or in the absence of riparian vegetation from the top edge of the watercourse bank (~~2009-2013 Forest Practice Rules FPRs, California Code of Regulations CCR~~, title 14, section 916.4, subdivision (b)(3)). ~~The Side~~ slope ~~of the land adjacent to the waterbody must be~~ measured from the watercourse or lake transition line to a point 100 feet upslope ~~from the watercourse or lake transition line~~, or, in the absence of riparian vegetation, from the top of the ~~waterbody watercourse bank where slope configurations are variable, -Where slope steepness varies along a slope,~~ a weighted average method shall be used to determine the sideslope percent (~~2009-2013 Forest Practice Rules FPRs, California Code of Regulations CCR~~, title 14, section 916.5, subdivision (a)(3)).

Table B1. Waterbody Buffer Zone Widths

<u>TYPE OF WATERBODY:</u>	<u>DEFINITION:</u>								
Class I	(1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area, and/or (2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning. Reference: 2009-2013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, Itable 1								
<table> <tr> <th>Slope of land adjacent to watercourse or lake:</th><th>Buffer Zone width:</th></tr> <tr> <td>< 30%</td><td>75 feet</td></tr> <tr> <td>30 – 50 %</td><td>100 feet</td></tr> <tr> <td>> 50 %</td><td>150 feet ¹</td></tr> </table> ¹ Subtract 50 feet width for cable yarding operations		Slope of land adjacent to watercourse or lake:	Buffer Zone width:	< 30%	75 feet	30 – 50 %	100 feet	> 50 %	150 feet ¹
Slope of land adjacent to watercourse or lake:	Buffer Zone width:								
< 30%	75 feet								
30 – 50 %	100 feet								
> 50 %	150 feet ¹								
Reference: 2009-2013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, table Table 1									

<u>TYPE OF WATERBODY:</u>	<u>DEFINITION:</u>
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Class II	(1) Fish always or seasonally present offsite within 1000 feet downstream, and/or (2) Aquatic habitat for nonfish aquatic species. (3) Excludes Class III waters that are tributary to Class I waters. Reference: 20092013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, tableTable 1								
<table border="1"> <thead> <tr> <th>Slope of land adjacent to watercourse or lake:</th><th>Buffer Zone width:</th></tr> </thead> <tbody> <tr> <td>< 30%</td><td>50 feet</td></tr> <tr> <td>30 – 50 %</td><td>75 feet</td></tr> <tr> <td>> 50 %</td><td>100 feet²</td></tr> </tbody> </table> ² Subtract 25 feet width for cable yarding operations		Slope of land adjacent to watercourse or lake:	Buffer Zone width:	< 30%	50 feet	30 – 50 %	75 feet	> 50 %	100 feet ²
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< 30%	50 feet								
30 – 50 %	75 feet								
> 50 %	100 feet ²								
Reference: 2009–2013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, tableTable 1									

Class III	No aquatic life present, waterbody showing evidence of being capable of sediment transport to Class I and II waters under normal high water flow conditions <u>after completion of timber operations</u>. Reference: 2009–2013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, tableTable 1, <u>applied to all waterbodies</u>.						
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< 30 %	25 feet						
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<u>TYPE OF WATERBODY:</u>	<u>DEFINITION:</u>
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Class IV	Man-made waterbodies, usually downstream, established domestic, agricultural, hydroelectric supply, or other beneficial use. Reference: 2009-2013 California Forest Practice Rules, California Code of Regulations, title 14, section 916.5, table-Table 1, applied to all waterbodies. <table border="1"> <thead> <tr> <th>Slope of land adjacent to watercourse or lake:</th><th>Buffer Zone width:</th></tr> </thead> <tbody> <tr> <td>< 30 %</td><td>25 feet</td></tr> <tr> <td>≥ 30 %</td><td>50 feet</td></tr> </tbody> </table>	Slope of land adjacent to watercourse or lake:	Buffer Zone width:	< 30 %	25 feet	≥ 30 %	50 feet
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Unclassified	Has channel with evidence of having concentrated flowing water indicated by deposit of rock, sand, gravel, or soil. No aquatic life is present, shows no evidence of being capable of sediment transport to a higher order waterbody (Class I, II, or III). These features may have riparian plant communities present. No standard buffer zone width is designated. However timber harvest and vegetation management activities must be excluded from within the channel zone, except for use and maintenance of existing roads and crossings.
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