

Proposed Waste Discharge Requirements for
Nonpoint Source Discharges and Other
Controllable Water Quality Factors Related to
Timber Harvesting and Associated Activities
Conducted by Humboldt Redwood Company, LLC
in the Upper Elk River Watershed
(Order No. R1-2016-0004)

Item No. 13

June 16, 2016

Jim Burke

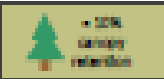


Recap of May 12th Meeting

- ❖ Board members requested clarifications:
 - Riparian Management Zones (RMZs)
 - Harvest rates
 - Hydrology monitoring
 - Wet weather requirements
 - Criteria for lifting the temporary prohibition
- ❖ Record closed and meeting adjourned

Presentation Outline

- ❖ Clarifications for Board Members
- ❖ Revisions to proposed Order
- ❖ Questions

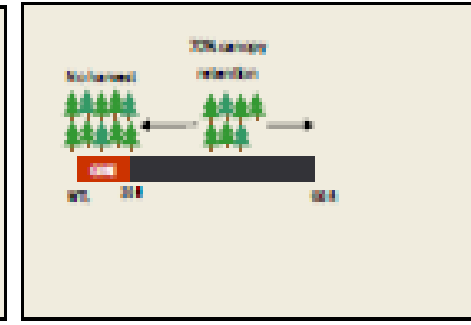
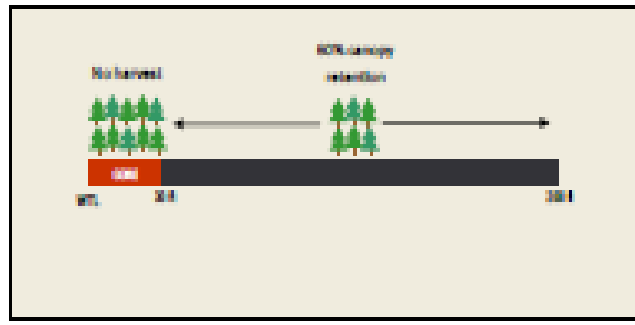
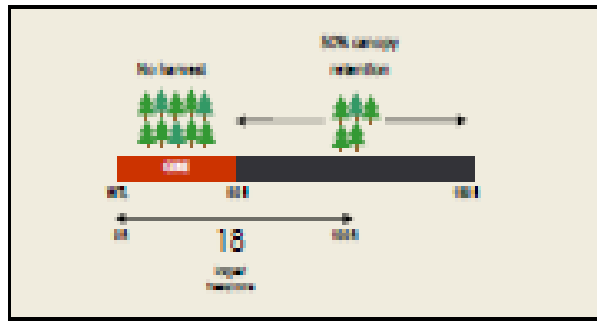


CLASS I

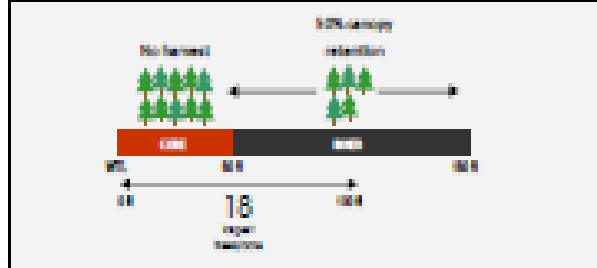
CLASS II

CLASS III

PROPOSED WDR RIPARIAN REQUIREMENTS

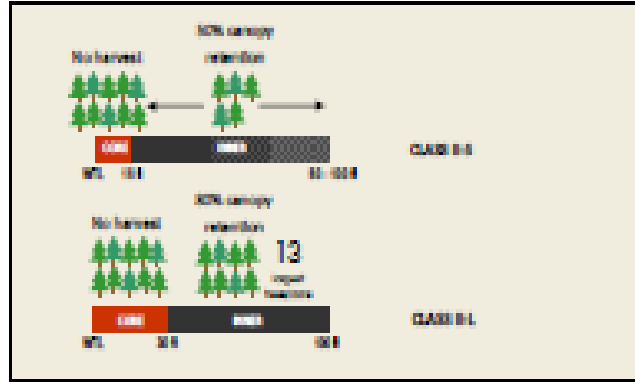
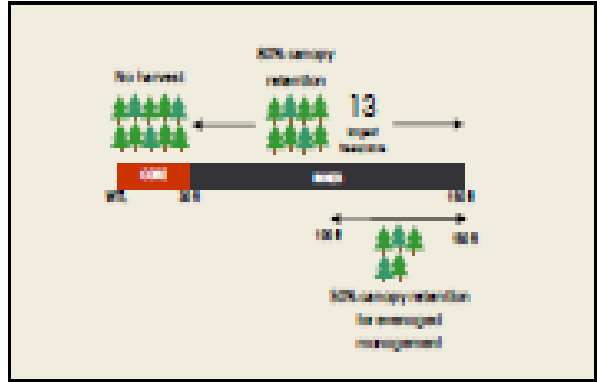


HUMBOLDT REDWOOD COMPANY ELK RIVER ROWD SEPTEMBER 2015



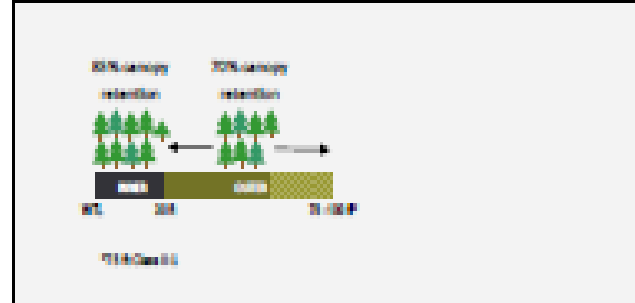
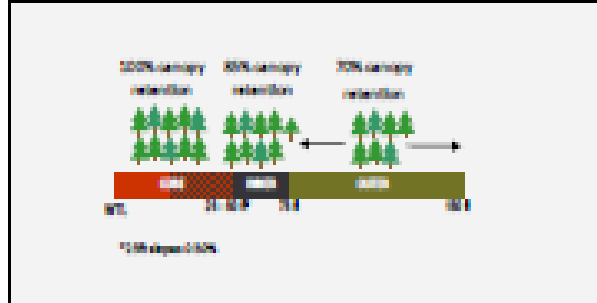
- Retain trees < 8" in dbh within 25 ft of channel
-
- 100% canopy retention (0-25 ft)

FOREST PRACTICE RULES 2015 ANADROMOUS SALMONID PROTECTION RULES

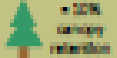


- Retain channel zone trees
 - Retain large trees stabilizing soil
 - Retain hardwoods, where feasible
-
- 100% canopy retention (0-25 ft)

GREEN DIAMOND RESOURCE COMPANY Elk River/ Salmon Creek Management Plan



- The Riparian Zone**
-
- 100% canopy retention (0-25 ft)
- Retain channel zone trees
 - Retain 25 sq ft of basal area hardwoods per acre
- 150' riparian setback**
-
- 100% canopy retention (0-25 ft)
- The 8' riparian zone**
-
- 100% canopy retention (0-25 ft)
- Retain channel zone trees
 - Retain one cord/acre 2x3 in dbh per 50 ft of stream length



CLASS I

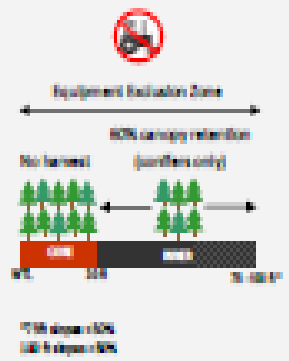


- Unstable slopes require Licensed Geologic Review
- No harvest on inner gorge slopes
- Only one entry into RMD permitted every 30 years
- Retain all pre-existing down wood in RMD
- In addition to 18 largest, retain trees with greatest likelihood for recruitment to stream
- Forestry-related mineral soil exposure within RMD (>100 ft²) to be treated
- 150' No Harvest Zone for 8 miles of Lower NP Elk River

ADDITIONAL RIPARIAN PROTECTIONS FOR SOFT BEDROCK TERRAIN SUB-BASINS

- Slopes with gradients > 50% and within 800 ft of a Class I require Licensed Geologic Review
- Maintain > 100 ft² of conifer basal area on unstable slopes
- Rock armor or slash pack haul road water bar outlets within 150 ft of downslope Class I
- Slash pack skid trails within 50 ft of watercourse
- Slash pack temporary roads at completion of operations with sound woody debris or (or equivalent). Walking or quad trails may be kept open on inside edge of road

CLASS II



- Unstable slopes require Licensed Geologic Review
- 80% minimum canopy retention requirement is specific to conifer, well-distributed and multi-storied
- Only one entry into RMD permitted every 30 years
- Retain all pre-existing down wood in RMD
- Forestry-related mineral soil exposure within RMD (>100 ft²) to be treated for erosion control (HCP 6.3.3.8)

ADDITIONAL RIPARIAN PROTECTIONS FOR SOFT BEDROCK TERRAIN SUB-BASINS

- Slopes with gradients > 50% and within 800 ft of a Class II require Licensed Geologic Review
- Maintain > 100 ft² of conifer basal area on unstable slopes
- Rock armor or slash pack haul road water bar outlets within 150 ft of downslope Class II
- Slash pack skid trails within 50 ft of watercourse
- Slash pack temporary roads at completion of operations with sound woody debris or (or equivalent). Walking or quad trails may be kept open on inside edge of road

CLASS III



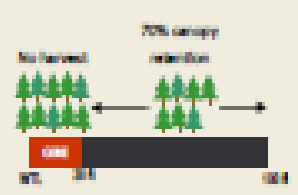
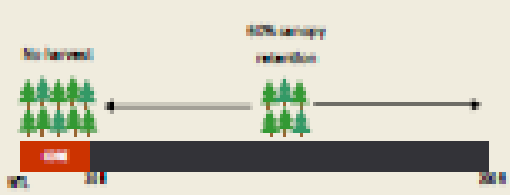
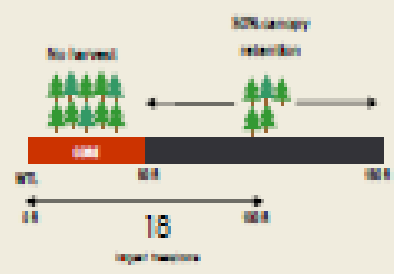
- Unstable slopes require Licensed Geologic Review
- Retain channel trees
- No harvest within 10 ft of evolve channel banks
- Retain all pre-existing down wood in RMD
- Forestry-related mineral soil exposure within RMD (>100 ft²)
- Minimum 50% conifer canopy retention required for headwall scales

ADDITIONAL RIPARIAN PROTECTIONS FOR

- No harvest within 10 feet of a Class III
- Maintain > 100 ft² of conifer basal area on unstable slopes
- Retain 150 ft² basal area/acre (if any commercial species) on headwall scales that envelope Class III source areas
- Slash pack skid trails within 50 ft of watercourse
- Slash pack temporary roads at completion of operations with sound woody debris or (or equivalent). Walking or quad trails may be kept open on inside edge of road

PROPOSED WDR RIPARIAN REQUIREMENTS

*Requirements are in addition to HRC prescriptions detailed above.



Attachment 3
Humboldt Redwood Company
 20 Year Harvest Projections - revised March 11, 2016

South Fork Elk SUBBASINS	Total Acres	HRC Acres	Proportion HRC	Harvest by 5-year Periods									
				2010-14		2015-2019		2020-2024		2025-2029		2030-2034	
				acres*	% ROH**	acres	% ROH	acres	% ROH	acres	% ROH	acres	% ROH
Lower SF	1,840.30	1,138.00	0.618	178.6	0.97%	131.9	0.72%	59.6	0.32%	24.7		0	0.00%
Clapp Gulch	654.1	581.3	0.889	0		19.1	0.29%	178.9	2.74%	236	3.61%	0	0.00%
Railroad Gulch	762	714	0.937	0		125.2	1.64%	0		308.7	4.05%	0	
Tom Gulch	1,605.90	1,188.60	0.740	189.7	1.18%	10.1	0.06%	288.7	1.80%	239		0	0.00%
McCloud Creek	1,521.00	209.6	0.138	0		39.3	0.26%	90	0.59%	0		0	
Little South Fork	2,327.00	18	0.008										
South Fork Elk	5,140.20	3,626.80	0.706	583.5	1.14%	571.9	1.11%	485.9	0.95%	247.2	0.48%	538.6	1.05%
	13,851	7,476	0.540	951.8	0.69%	897.5	0.65%	1103.1	0.80%	1055.6	0.76%	538.6	0.39%

North Fork Elk SUBBASINS	Total Acres	HRC Acres	Proportion HRC	Harvest by 5-year Periods									
				2010-14		2015-2019		2020-2024		2025-2029		2030-2034	
				acres*	% ROH**	acres	% ROH	acres	% ROH	acres	% ROH	acres	% ROH
Lower NF	1,578.70	1,309.80	0.830	141.0	0.89%	0		35.7		292.7	1.85%	217.3	1.38%
Dunlap	423.8	411.4	0.971	201.2	4.75%	0		0		0		0	
Browns	574	573.8	1.000	201.2	3.51%	0		0		0		0	
Bridge Creek Elk	1,420.90	1,419.80	0.999	98.2	0.69%	52.7	0.37%	45.5	0.32%	280.9	1.98%	152.1	1.07%
McWhinney	810.1	810.1	1.000	93.5	1.15%	0		147.4	1.82%	59.5	0.73%	131.1	1.62%
Lake Creek	1,362.40	1,362.40	1.000	579.4	4.25%	0		0	0.00%	320.7	2.35%	466.2	3.42%
South Branch NF	1,234.90	1,234.90	1.000	120.1	0.98%	0	0.00%	227		337.1	2.75%	147.1	1.20%
North Branch NF	2,560.60	2,560.60	1.000	12.6	0.05%	1044.5	4.08%	87	0.34%	382.3	1.49%	381.9	1.49%
North Fork Elk	2,795.10	2,795.10	1.000	0		618.4	2.21%	608.5	2.18%	239.7	0.86%	0	
Upper NF	1,644.20	1,644.20	1.000	248.5		0		77.2	0.47%	0		514.4	3.13%
	14,395	14,112	0.980	1695.7	1.18%	1715.6	1.19%	1228.3	0.85%	1912.9	1.33%	2010.1	1.40%

Mainstem Elk	5,564	320	0.057	0	0.00%	221.5	0.40%	0	0.00%	56.9	0.10%		0.10%
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Elk River	33,809	21,908	0.648	2648	0.78%	2835	0.84%	2331	0.69%	3025	0.89%	2549	0.75%
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10 Year Period	
2010-2019	
acres	% ROH
310.5	0.84%
19.1	0.15%
125.2	0.82%
199.8	0.62%
39.3	0.13%
1155.4	1.12%
1849.3	0.67%

10 Year Period	
2015-2024	
acres	% ROH
191.5	0.52%
198	1.51%
125.2	0.82%
298.8	0.93%
129.3	0.43%
1057.8	1.03%
2000.6	0.72%

10 Year Period	
2020-2029	
acres	% ROH
84.3	0.23%
414.9	3.17%
308.7	2.03%
527.7	1.64%
90	0.30%
733.1	0.71%
2158.7	0.78%

10 Year Period	
2025-2034	
acres	% ROH
24.7	0.07%
236	1.80%
308.7	2.03%
239	0.74%
0	0.00%
785.8	0.76%
1594.2	0.58%

10 Year Period	
2010-2019	
acres	% ROH
141	0.45%
201.2	2.37%
201.2	1.75%
150.9	0.53%
93.5	0.58%
579.4	2.13%
120.1	0.49%
1057.1	2.06%
618.4	1.11%
248.5	0.76%
3411.3	1.18%

10 Year Period	
2015-2024	
acres	% ROH
35.7	0.11%
0	0.00%
0	0.00%
98.2	0.35%
147.4	0.91%
0	0.00%
227	0.93%
1131.5	2.21%
1226.9	2.19%
77.2	0.23%
2943.9	1.02%

10 Year Period	
2020-2029	
acres	% ROH
328.4	1.04%
0	0.00%
0	0.00%
326.4	1.15%
206.9	1.28%
320.7	1.18%
564.1	2.30%
469.3	0.92%
848.2	1.52%
77.2	0.23%
3141.2	1.09%

10 Year Period	
2025-2034	
acres	% ROH
510	1.62%
0	0.00%
0	0.00%
433	1.52%
190.6	1.18%
786.9	2.89%
484.2	1.98%
764.2	1.49%
239.7	0.43%
514.4	1.56%
3923.0	1.36%

221.5	0.20%
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56.9	0.00%
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56.9	0.05%
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5482	0.81%
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5166	0.76%
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5357	0.79%
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5574	0.82%
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* harvest acres are acres of selection silviculture
 ** % ROH is in clearcut equivalent



LEGEND

- ▲ ATM Stations
- Hydrology Monitoring Stations
- Elk River Watershed Limits
- Class I
- Class II
- MMCA

Humboldt Redwood Company, LLC

Active ATM and Hydrology Monitoring Stations in Elk River, CA



Wet Weather Requirements

- ❖ Retain restrictions on operations through May 1st



Revisions

- ❖ Temporary prohibition expires in 10 years
- ❖ Prohibition does not apply to THP 1-12-110 HUM (McCloud Shaw)

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5357	0.79%
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5574	0.82%
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* harvest acres are acres of selection silviculture
 ** % ROH is in clearcut equivalent

Revisions

- ❖ 2% equivalent clearcut acres per year now treated as a threshold of concern



Staff recommendation:

**Adopt proposed Order No. R1-2016-0004 and
Mitigated Negative Declaration**

