

Appendix I. Additional sampling performed by the Yurok Tribe  
Environmental Program.

Draft YTEP SPRAY ACTIVITIES REPORT  
SPRING 2002

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**Introduction**

The Simpson Timber Company owns and actively manages the majority of timberlands in the Lower Klamath River watershed on and to the Yurok Indian Reservation. Simpson applies herbicides biannually on forestlands to control vegetation that may compete with conifer plantations. Competing vegetation includes invasive exotic species (pampas grass, scotch broom) as well as native species of broadleaf plants (hazel, berry bushes) and deciduous trees (tan oak, alder). Herbicides not only affect the targeted plant species but also non-targeted plant species (bear grass, fern) when applied in a broadcast ground or aerial application. Applications of herbicides typically fall in the months of April-May and September-October. This report outlines activities surrounding the Spring 2002 spray season.

**2002 Spring Season**

During the October 2001 YEMWG meeting, community members and YTEP asked DPR to apply for an extension from EPA for the Forestry Herbicide Monitoring Project. DPR agreed to continue the project and contract the monitoring work to the Yurok Tribe Environmental Program (YTEP). YTEP agreed to conduct the monitoring for Spring 2002 and Fall 2002.

During the Yurok Environmental Monitoring Work Group(YEMWG) meeting on March 21,2002, the group was provided with maps of Simpson's proposed herbicide treatment areas for Spring 2002. YTEP staff had previously discussed concerns related to the 272 site (see maps) with John Pricer, Chief Forester for Simpson, because of its close proximity to the Margaret Keating Elementary School. Simpson agreed not to spray the site in lieu of hand thinning with a tribal crew. John Pricer agreed to notify YTEP staff 24 hours in advance of herbicide spraying on the provided units. John Pricer agreed to inform YTEP when herbicide applications were to take place. John anticipated the spraying would begin the second week of April. The YEMWG decided to set monitoring priorities for Johnson Creek and possibly Mettah Creek. Sites were selected based on proximity to streams, agent being applied, and accessibility for monitoring equipment.

Spraying was postponed due to rain for several weeks.

YTEP staff looked for accessibility to set auto samplers at creeks near spray units during the last two weeks in April and first week of May

YTEP staff contacted Simpson staff May 1,2002 for an update on the spray activities. Simpson was not sure what exact areas the pesticide applicators had sprayed. YTEP staff explained the importance of knowing exactly when the sites have been sprayed in order to set the auto samplers and conduct water monitoring following the first significant rain event. The previous week Simpson staff had informed YTEP that 2,4-D would be added into the tank mix for the 188 unit with Garlon, also the 79332 unit would be treated by

hack and squirt method in late May. As previously decided among the YEMWG, a monitoring point was selected for the Johnson area to catch any runoff from both the 188 and 79332 units.

Simpson informed YTEP staff that other units, previously undisclosed, in the Johnson area had been sprayed. Simpson indicated that the other units shouldn't be YTEP's concern. On April 26, 2002, YTEP staff documented a number of units along Johnson's road that had recently been sprayed. With the exception of unit 319, none of these units were disclosed to YTEP staff. (We took pictures of the areas and we might be able to generate a map). Johnson is a county road, publicly accessible to residents and Tribal members. YTEP staff had urged Simpson to post sprayed areas near the road. No postings were witnessed. YTEP staff had conversations with two residents of the Johnson area, neither of which were aware of Simpson's planned spray activities. An acquaintance, of a resident, expressed concern regarding the activities due the resident having to travel the road with their newborn child.

A possible alternate monitoring point, to the Johnson site, was located along Tulley Creek road. Units 349F and 349G are a little over 1500 feet from Andrea Meyers surface drinking water intake according to the map. According to Simpson staff that unit was re-scheduled for the fall, thus disqualifying it as a potential sample site. This unit should receive further investigation in the fall.

John Pricer sent Kevin McKernan an e-mail May 13, 2002 concerning spray progress. John informed Kevin that the program was halted on 5/1/02 due to the end of rainy season and advanced conifer growth. Simpson plans to resume the program this fall after conifer dormancy and fall rains begin, usually mid-September. Two units will be treated this summer, unit 272 (hand release) and unit 79332 (hack & squirt).

After receiving this information the only site viable to set auto sampler was Mettah Creek.

On May 18, 2002 Lori Harder received a call from Pam Richards, a Klamath community member. Pam was aware of spray activities near her family's fishing hole and was concerned about unit 286 located near the Klamath River and Terwer Riffle. She told Lori that several of her friends and family members set nets on that portion of the river. Pam asked Lori when the site had been sprayed and what Lori was going to do about it. Lori informed Pam that the site had been sprayed with Oust early April. Lori said it was too late to monitor for runoff because there had been a significant storm following the application. Also, DPR was not able to analyze for Oust

Marty Geslak and Ken Fetcho took grab samples from Mettah Creek Monday May 20, 2002 following a rain event. According to data from the Notchko Weather station, less than a half of an inch of rain fell that weekend. Lori Harder mailed samples for analysis to DPR laboratory on May 21, 2002.

A chance of rain was forecasted the weekend of May 24<sup>th</sup>. Lori and Ken set up the auto sampler Friday May 24<sup>th</sup> and set a rain gauge on site. Lori and Ken checked the site on May 28<sup>th</sup> to find that it rained .3 inches, not enough to activate the sampler. Lori and Ken checked the site on May 29<sup>th</sup> to find that the creek had risen but it did not rain enough to set off the sampler. On Thursday May 30, 2002 Lori and Ken removed the auto sampler because no rain was forecasted for the weekend. Keeping with DPR protocol no further attempts at sampling were made (sample within 30 days of the herbicide application).

Water sampling results at Mettah Creek in spring 2002:

Sample Number	Sample Type	Sampler Type	Sample Date	Sample Time	Concentration (ppb)			
					atrazine	DEA	ACET	DACT
1446	water	Grab	5/20/02	11:40	ND*	ND	ND	ND
1453	water	Grab	5/20/02	12:10	ND	ND	ND	ND
1447	water	Field blank	5/20/02	12:10	ND	ND	ND	ND

Additional sampling during the fall of 2002:

Two sites were selected by the Yurok Tribe Environmental Program for sampling tanoak acorns and huckleberry berries adjacent to ground application areas of 2,4-D and garlon. Unit 188, located in the Johnson Creek watershed, was treated in the spring of 2002 and Unit 179, located in the Klamath River watershed, was treated in August 2002. The samples taken from Unit 188 were collected 5 – 15 feet from the edge of the application area and the samples collected in Unit 179 were collected 25 – 75 feet from the edge of the application.

In addition to the plant samples, water samples were collected during the first rainfall event following an atrazine application in the Williams Ridge area. The samples were split for analysis between in-house analysis with the Rapid Assay atrazine kit and the CDFA laboratory (laboratory used by DPR).

Plant sampling results:

Sample Number	Sample Date	Plant Type	Unit	Site	Concentration (ppb)	
					2,4-D	triclopyr
1309	9/6/02	huckleberries	179	Background A	ND*	ND
1310	9/6/02	huckleberries	179	Background B	ND	ND
1316	9/13/02	huckleberries	179	A	ND	ND
1317	9/13/02	huckleberries	179	B	ND	ND
1313	9/13/02	huckleberries	179	C	ND	ND
1319	9/20/02	huckleberries	188		ND	ND
1311,1312, 1308	9/6/02	acorn	179	Background	ND	ND
1315,1314, 1318	9/13/02	acorn	179		ND	ND
1320	9/20/02	acorn	188		ND	ND

\*ND = No detectable amount. MDL = 0.05 ppm

Water sampling results at Tulley Creek in fall 2002:

Sample Number	Sampler Type	Sample Date	Sample Time	Concentration (ppb)			
				Atrazine	DACT	DEA	ACET
1462	Grab	11/8/02	14:51	ND*	ND	ND	ND
1463	Autosampler	11/9/02	9:31	ND	ND	ND	ND
1461	Autosampler	11/9/02	11:31	ND	ND	ND	ND
1455	Autosampler	11/9/02	14:22	ND	ND	ND	ND
1464	Autosampler	11/9/02	15:22	ND	ND	ND	ND
1458	Autosampler	11/9/02	16:22	ND	ND	ND	ND
1459	Field blank	11/9/02	13:24	ND	ND	ND	ND
1460	Field blank	11/10/02	8:55	ND	ND	ND	ND

\*ND = No detectable amount. MDL = 0.05 ppb