January 8, 2006 *Electronically transmitted*

EMC0257

Brian Amme, Vegetation EIS Project Manager
BLM
P.O. Box 12000
Reno, NV 89520-0006

Re: ProgrammaticVegetation Treatments EIS (PEIS) and Programmatic Environmental Report (PER)

Dear Mr. Amme,

1 In light the on-going discoveries (see below) of the severe toxic effects to the biosphere of herbicides that were once assured by their makers as safe, these comments favor animal, or mechanical extraction techniques (or no action) and are in opposition to the use of any herbicide for the purpose of removing unwanted vegetation.

2 Since there are mechanical alternatives that can be committed to that are clearly safer than the use of herbicide, a *precautionary principle* can and should be applied to commit to letting nature follow its own genetic logic without accidentally targeting species into endangerment or extinction. Beloved native vegetation, like cottonwood, are after all, not endangered, but preferred.

3 THE PRECAUTIONARY PRINCIPLE (Raffensperger, Montague, and others) says, "When an activity raises threats of harm to human health or the environment, precautionary measures shall be taken, even if some cause-and-effect relationships are not fully established scientifically". "The precautionary principle always inquires about alternatives. Is there a less dangerous option?" "The precautionary principle advocates zero degradation of the environment because of the uncertainty of risk assessment. Why? The webs of ecological relationships are too complex for science totally to disentangle." http://**www.bioneers.org/programs/books/reviews.php**

4 These comments focus upon Round-up as an example. Round-up is used alone or in combination with other herbicides such as Arsenal-- Arsenal mixed with Round-up.

5 WEED OUT ROUND-UP: The worldwide die-off of amphibians has been partly attributed to the "properly applied" and "safe" Monsanto herbicide, Round-up (see article, study & discussions in the NOTES). Yet Round-up mixed with Arsenal is said to be "successful". The recent discovery in 2005 that there are far-reaching impacts from the use of Round-up upon frogs is evidence that caution is needed. What don't we yet know about Garlon 4 and Arsenal?

6 EPA has in the past unquestioningly relied upon the word of conflicted manufacturers. Here is a disturbing example apropos from an EPA Draft Environmental Assessment (Galisteo Dam & Reservoir Salt Cedar Eradication & Restoration Project) where the EPA was relying upon the conflicted manufacturer, Monsanto: "Based on test results submitted to the EPA *BY THE MONSANTO* and American Cyanamid companies, this herbicide [Arsenal], when properly applied, should pose minimum risks to representative wildlife species occurring in the area." p. 26 [emphasis added]. Here the fox had left the den and entered the EA.

7 RECOMMENDATION: I would like to see a real commitment within the BLM that does not pit the chemical industries against healthier nontoxic agricultural solutions. Often there are other alternatives that

can be committed to that are clearly safer than the use of herbicides, like mechanical removal of vegetation, the use of goats as follow-up, or the No-Action alternatives.

NOTES

8 **1. Article: Monsanto's Roundup Herbicide Killing Off Frogs Worldwide**
http://www.commondreams.org/cgi-bin/print.cgi?file=/news2005/0808-08.htm
FOR IMMEDIATE RELEASE:
AUGUST 8, 2005, 3:15 PM
CONTACT: GM Watch Daily
Karen Hoffman, University of Pittsburgh, 412-624-4356

9 PITTSBURGH - August 8 [2005] - As amphibians continue to mysteriously disappear worldwide, a University of Pittsburgh researcher may have found more pieces of the puzzle. Elaborating on his previous research, Pitt assistant professor of biological sciences Rick Relyea has discovered that Roundup(r), the most commonly used herbicide in the world, is deadly to tadpoles at lower concentrations than previously tested; that the presence of soil does not mitigate the chemical's effects; and that the product kills frogs in addition to tadpoles.

10 In two articles published in the August 1 issue of the journal Ecological Applications, Relyea and his doctoral students Nancy Schoeppner and Jason Hoverman found that even when applied at concentrations that are one-third of the maximum concentrations expected in nature, Roundup(r) still killed up to 71 percent of tadpoles raised in outdoor tanks.

11 Relyea also examined whether adding soil to the tanks would absorb the Roundup(r) and make it less deadly to tadpoles. The soil made no difference: After exposure to the maximum concentration expected in nature, nearly all of the tadpoles from three species died.

12 Although Roundup(r) is not approved for use in water, scientists have found that the herbicide can wind up in small wetlands where tadpoles live due to inadvertent spraying during the application of Roundup(r).

13 Studying how Roundup(r) affected frogs after metamorphosis, Relyea found that the recommended application of Roundup(r) Weed and Grass Killer, a formulation marketed to homeowners and gardeners, killed up to 86 percent of terrestrial frogs after only one day.

14 "The most striking result from the experiments was that a chemical designed to kill plants killed 98 percent of all tadpoles within three weeks and 79 percent of all frogs within one day," Relyea wrote.

15 Previous studies have determined that it is Roundup(r)'s surfactant (polyethoxylated tallowamine, or POEA, an "inert" ingredient added to make the herbicide penetrate plant leaves) and not the active herbicide (glyphosate) that is lethal to amphibians.

16 This research was funded by the National Science Foundation, Pitt's McKinley Fund, and the Pennsylvania Academy of Science.

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2. FURTHER READING on NonTargeted organisms & Round-up:

17 **--[THE STUDY:]** "This study represents one of the most extensive experimental investigations of pesticide effects on aquatic communities and offers a comprehensive perspective on the impacts of pesticides when nontarget organisms are examined under ecologically relevant conditions. http://**www.esajournals.org/esaonline/?request=get-abstract&issn=1051-0761&volume=015&issue=02&page=0618**\

18 **--[Dr. Relyea responds to Monsanto's concerns:]** "A recent paper in Ecological Applications (Relyea 2005a) has demonstrated highly lethal effects of the herbicide Roundup® on amphibians.

A brief description of the Relyea (2005a) study: "To determine the effect of Roundup on tadpoles in ponds, Relyea (2005a) added Roundup to pond mesocosms (1000-liter outdoor tanks that contained algae, zooplankton, snails, tadpoles, and several species of insect predators). After two weeks, we went back and determined how many tadpoles survived. The result was widespread death for many of the amphibian species when exposed to Roundup compared to amphibians in the control tanks. Furthermore the death rate was much higher than expected based on previous studies of Roundup." http://**www.pitt.edu/~relyea/Roundup.html**

19 --"Unfortunately, it looks like frogs don't have a Roundup-ready gene, which is too bad considering they have no choice but to live and breed in watersheds and ... http://**www.gmwatch.org/print-archive2.asp?arcid=5068**

20 --ROUNDUP KILLS FROGS, MAY EXPLAIN GLOBAL DECLINE "A study published by a University of Pittsburgh researcher finds that Roundup, the herbicide most commonly ... http://**www.gmwatch.org/archive2.asp?arcid=5079** -

21 --"Pitt assistant professor of Biology Rick Relyea found that Roundup is extremely lethal ... Leopard frog tadpoles and gray tree frog tadpoles were completely ... http://**www.gmwatch.org/print-archive2.asp?arcid=5079**