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First name: Carol
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Title:
Comments: See attachment for photos

Siuslaw Forest So-called Siuslaw "thinning"

(Photos by Willow Kasner, Coast Range Association)

Comments on NF Smith Project Draft Environmental Assessment

by Carol Van Strum, August 21, 2024

I reference here as given the comments written by Dr.Ursula Bechert on both this project and the Siuslaw Invasive Species Project, as well as my own comments on the latter, copied below, and add the following points:

The deceptive definition of "thinning"

The photos above illustrate the Forest Service definition of forest "thinning." In my fifty years of living on my farm within the Siuslaw National Forest, I have observed first-hand the Forest Service's drastically altered definition of thinning - not the removal of a few overcrowded trees per acre, but a greenwashed, barren, scarcely disguised clearcut punctuated by a few token trees.

I have observed first-hand the effects of such so-called "thinning" on the remaining trees, which very often do not long survive the loss of companion trees, roots, canopy, and windbreak. The EA does not address these effects.

I have also observed first-hand the effects of such "thinning" on what was once fertile, dark, mulch-covered, moist soil shaded by forest canopy turned to dry, sterile hardpan by exposure to wind, rain, and sun. I have observed first-hand the reduced survival of seedling trees of any species on such barren earth. The EA does not address these effects.

Given the increased temperatures we are already experiencing here, the EA's blithe assumption that red cedar, yew, maple, or other native seedlings will survive such conditions is either Pollyanna thinking or sheer stupidity.

Current "thinning" results in perpetual use of herbicide poisons

I have also observed first-hand how rapidly such vacant plots are overtaken by both native and non-native invasive species such as blackberry, fireweed, foxglove, tansy ragwort, etc. The draft EA states rather deceptively:

Project implementation will result in 8,756 acres of ground disturbance. Approximately 10% of these acres are at moderate to high risk of invasion by non-native plants. Rapid colonizers that already exist in the Project Area such as foxglove are likely to expand into areas of new ground disturbance and decreased canopy. To reduce the threat of invasive plant expansion and establishment, manual, mechanical, and herbicide treatment will be applied to current infestations prior to the start of any project activities. Treatments will reduce the quantity of seed and plant parts that are available as sources of infestation, thus reducing the overall risk. An EDRR strategy would be implemented to monitor, detect, and treat the expansion of existing infestations or new occurrences in the Project Area. Annual monitoring and treatment through the duration of the Project, and for a period following until it is determined that vegetation has stabilized, should decrease infestation size and density, keep infestations relatively small and allow for control. In addition to treatment, best management practices implemented as project design criteria will help to reduce the overall risk of expanding or introducing invasive plants in the project area. Draft EA, pp. 9-10

In other words, herbicides would be applied essentially in perpetuity, and the draft EA nowhere indicates the effects of such applications on the newly planted or surviving trees, to say nothing of effects on any other living creatures fool enough to venture into the sprayed areas or browse on the poisoned vegetation. I reference here particularly my comments on the Siuslaw Invasive Species Project.

The cost of this project far exceeds any estimated revenue from sale of "thinned" timber

Another issue is the discrepancy between the overall cost of this so-called restoration project and the estimated revenue from sale of the "thinned" timber. The EA states on p. 43 of Appendix E that the Smith River project proposes "to produce a total harvest volume of about 99 MBF" (thousand board feet). At the top of the same page it says "Approximately 50% of the timber harvested (thinning) on Siuslaw National Forest is done under stewardship contracts in which revenues from these sales are used to fund restoration projects that improve habitat, remove invasive species, and restore watershed function." Timber prices are currently around $700/mbf (https://blogs.oregonstate.edu/lanelogprices/2024/06/18/the-summer-dip-is-here-log-prices-and-trends/#more-226). "MBF" is 1000 board feet.

700/1,000 = $0.7 per board foot x 99,000 board feet = revenue of $69,300.

The total cost of the project on p. 25 of Appendix B is $5,207,732 - $5,318,732. Since revenue of $69,300 would

not generate nearly enough to cover the so-called restoration work, where would the remaining funds come from? Are tax-payer funds thereby underwriting corporate timber profits? The EA nowhere addresses these questions.

The EA fails to consider any options other than "No Action" and its preferred action.

The EA's "my way or the highway" choices fail to consider anything between no action and a costly, destructive option with highly dubious environmental results benefiting only corporate profit. The EA does not mention any other options, such as moderate non-commercial thinning of few trees per acre without stressing remaining trees or baring soil to the elements, which would cost far less to restore.The EA nowhere calculates the cost of mitigating or correcting the damage caused by commercial thinning operations. The EA fails to consider, for example, whether the exorbitant costs of the project would be significantly reduced without any commercial "thinning," which contributes so little revenue anyway, removes far more trees than needed for restoration, and causes massive damage to soil and ecosystems, adding exorbitant costs for repair and defeating the very purpose of restoration.

Conclusion

The EA's preferred alternative paradoxically proposes to kill the forest in order to save it - "the kind of madness which is often not found out until it is too late." (Margery Allingham, "Traitor's Purse" 1941)

Submitted by

Carol Van Strum

Dr. Ursula Bechert comments on draft Smith River EA

15 August 2024

Michele Holman, District Ranger

Siuslaw National Forest

1130 Forestry Lane

Waldport OR 97394-0400

Dear Ms. Holman,

I would like to submit a written comment regarding the North Fork Smith River Restoration Project, which has two main purposes: terrestrial and aquatic restoration.

Key project activities proposed include:

Conduct a commercial thinning harvest on 4,113 acres

Great gaps up to 1 acre in size involving a total of 166 acres

Construct 15 miles of new, temporary roads

Rebuild 840 landings and create 26 new ones

Fell trees along ~20 miles of streams

Spray herbicides on ~250 acres to control invasive plants

Ensure roads are safe for public access and develop a new quarry

Commercial thinning was defined by Case et al. (2023) as cutting 60-71 year old trees as opposed to pre-commercial thinning, which targets 15-30 year old trees. Gaps are areas that are cut (not just thinned).

The project states that sales from this timber harvest are required in order to fund the restoration actions.

It is hard to envision that this level of management will result in the desired goals, which include:

Development of old-growth habitat

Decreased fragmentation

Improved aquatic ecosystems

Invasive plant control

The plan includes notes from the Late Successional Reserve Assessment that state, "Without thinning and

underplanting, the managed stands would eventually develop late-successional characteristics." While there are several studies that claim thinning accelerates development of old-growth characteristics in forests, most have been conducted over relatively short periods of time (e.g., 13 years for Case et al., 2023). The degree of accelerated growth and how much time is needed to develop old-growth characteristics is difficult to assess (Reilly & Spies, 2015), because forest succession and ecosystem development take long periods of time (Franklin et al., 2002). Additionally, competition among trees facilitates selection of the most vigorous trees, which may enhance their ability to adapt to climate change (Magalhaes et a., 2021). Carbon storage is another consideration - Carlisle et al. (2023) modeled that over a 240-year time frame, high-intensity thinning (i.e., commercial thinning) reduced total carbon sequestered for all productivity levels and harvest rotation ages. A major role in the assimilation of CO2 by mature trees (e.g., 180 year old Quercus robur L.), compared to young tree plantations, was demonstrated by Norby et al. (2024). A review exploring the pros and cons of thinning to increase resistance and resilience of trees and forest to global change by Moreau et al. (2022) stated, "At this point, our review reveals insufficient evidence from rigorous experiment to draw general conclusions."

To "manage an ecosystem" is indeed a lofty goal. The proposed project is rife with contradictions. For example, adding new roads, encouraging increased public access, thinning forests, and clearcutting to create gaps will certainly facilitate the spread of invasive plants. Trying to control invasive plants with the application of herbicides attempts to fix one problem but causes a host of others (see my recent letter regarding the invasive plant management plan for the Siuslaw National Forest). Thinning can create open canopies that can dry out surfaces and increase the risk of wildfires. Cutting down trees along streams will reduce the amount of shade they currently provide, which will affect fish populations. And so on[hellip]

I urge you to reconsider the commercial thinning harvest planned in order to fund restoration activities. The costs significantly outweigh the benefits. Thank you for your consideration.

Sincerely,

Ursula Bechert, DVM, PhD

Carol Van Strum comments on Siuslaw Integrated Invasive Species Project

The Forest Service asks for "Preliminary public feedback on invasive weed management options" for preparation of its NEPA and NFMA documents:

Siuslaw Integrated Invasive Species Project.pdf

Draft Proposed Action.pdf

Included in those options is the use of herbicides, disturbing evidence of the Forest Service reverting to thoroughly discredited unlawful behavior banned by the federal courts forty years ago:

Save Our Ecosystems v. Clark:Nos. 83-3908 et al. (9th Cir. January 27, 1984):

9. More and more chemicals are added to our environment daily without adequate information about the long-range effects on health and environment. The EPA, in effect, acknowledges that data on the herbicides in this case are inadequate since the registration is conditional under an exception to the normal registration process. See 7 U.S.C. [sect] 136a(c)(7).

13. EPA's data is partial at best, and suspect at worst, because of the testing scandals. The availability of the data of the chemical companies is also in question. See Monsanto Co. v. EPA, 564 F. Supp. 552 (E.D.Mo.1983), probable jurisdiction noted, U.S. , 104 S. Ct. 230, 78 L. Ed. 2d 224 (1983). Monsanto is opposing the disclosure of EPA health and safety data before the Supreme Court while it argues here that the Forest Service may rely on that data. These two positions appear irreconcilable. Any data relied upon in an EIS must be made available to the public. See California v. Block, 690 F.2d 753, 765 (9th Cir.1982); 40 C.F.R. [sect] 1502.21.

As the Forest Service has little or no independently sourced information on any of its proposed poisons and relies on EPA registration, the Forest Service must at the very least include in its NEPA and NFMA documents the following information :

-- The current EPA registration status of each product with particular emphasis on conditional registration;

-- For any chemical that is conditionally registered, the Forest Service must identify what testing or other data are missing from the registration.

-- Copies of or links to any and all peer-reviewed, independently funded and conducted toxicity, persistence, and environmental studies conducted by or for the U.S. Forest Service of each proposed product, its metabolites and break-down products, its inert ingredients, AND especially any and all toxicity studies of any combination of two or more proposed products;

-- Copies of or links to any and all peer-reviewed toxicity, persistence, and environmental studies conducted by nonindustry-funded research of each proposed product, its metabolites and breakdown products, its inert ingredients, AND especially any and all toxicity studies of the combination of two or more proposed products;

- Copies of or links to any studies, analyses, or reference to the presence of any PFAS "forever chemicals" in any active or inert ingredient of any of the proposed products, an important need as PFAS have been found in more than 60 percent of registered pesticides, see https://www.theguardian.com/environment/article/2024/jul/23/pfas-pesticides-epa-research:

at least 60% of active ingredients approved for use in common pesticides over the last 10 years are PFAS, and about 40% overall.

Moreover, companies are not required to disclose when PFAS are used as an inert ingredient.

See also:

https://ehp.niehs.nih.gov/doi/10.1289/EHP13954

https://ehp.niehs.nih.gov/doi/full/10.1289/EHP15445?utm_campaign=Monthly+TOC+Alert&utm_medium=email&utm_source=SendGrid

https://ehp.niehs.nih.gov/doi/full/10.1289/EHP11512

https://ehp.niehs.nih.gov/doi/full/10.1289/EHP10634

-- Copies of or links to any and all peer-reviewed toxicity, persistence, and environmental studies conducted by anyone anywhere of the combination of two or more proposed products; for example:

https://medicalxpress.com/news/2024-07-cancer-pesticides-cases.html

comparing cancer effects of exposure to multiple pesticides to cancer from smoking:

[T]he impact of pesticide use on cancer incidence rivaled that of smoking. The strongest association was among non-Hopkins lymphoma, leukemia, and bladder cancer. In these types of cancers, the effects of pesticide exposure were more pronounced than the effects of smoking.

"We present a list of major pesticide contributors for some specific cancers, but we highlight strongly that it is the combination of all of them and not just a single one that matters," (emphasis added)

See also: https://boerenlandvogels.nl/sites/default/files/Final%20version%20of%20TAP%20review.pdf, Pesticides and human chronic diseases: Evidences, mechanisms, and perspectives

- Detailed contour maps and explanations for each projected spray site showing all surface and groundwater sources within or down-slope from the site.

- Proposed detailed plans for after-spray monitoring soil and both surface and groundwater for contaminants of

the proposed products used, and the time frame for such monitoring;

-- Any and all data on each endangered or threatened species of mammal, amphibian, reptile, fish, bird, plant, insect, or other organism within a mile of the proposed spraying;

- Site-specific history of any previous application[s] of herbicides on each target site by the Forest Service or any other entity in the past 60 years, and current testing for residues, PFAS, and dioxins on any previously sprayed site;

- Detailed information about all aspects of a drone application for each proposed site, including but not limited to those described in https://www.farmprogress.com/technology/what-to-know-before-making-a-spray-drone-pesticide-application, with particular attention to the need for safety precautions and procedures for possible crashes or dumping of herbicide:

Before creating and implementing a flight plan, inspect the field properly for any obstacles or any other operational considerations that will require the drone to stop or veer from the planned flight route. In most cases, using only background maps (aerial/satellite imagery) is not reliable enough to avoid all possible obstacles in the field so in-field checks before take-off are must for safe operations and to avoid any damage to the spray drone.

Loss of signal between the drone and remote controller is common when flying large fields or tall crops like corn and creates significant crash risks for the operators. Utilizing signal transmitters like DJI relay can reduce the risk of drone losing the connection with the controller in these situations where the drone is out of sight. It is also important to set up the base on high ground so the drone is in the visual line of sight as much as possible during application.

If the Forest Service is unable or unwilling to provide all of the above information, no chemical poisons should be proposed or used for this project.

Note that all of the proposed product labels warn against contaminating ground or surface water. Given the very uneven and usually steep terrain in the Siuslaw, it's well-nigh impossible to apply any of the proposed poisons without having it run off or drain into ground water or surface water:

aminopyralid

https://www.epa.gov/pesticides/epa-addresses-ecological-risks-posed-aminopyralid

https://www.corteva.us/content/dam/dpagco/corteva/na/us/en/products/us-land-

management/DF_Aminopyralid_Family_of_Herbicides_Broch.pdf

https://www3.epa.gov/pesticides/chem_search/ppls/081927-00082-20201019.pdf

" Not for Sale, Sale into, Distribution, and/or Use in Nassau and Suffolk counties of New York State."

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. ...

Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants. Do not aerially apply this product within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants.... Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops [hellip].

Trees adjacent to or in a treated area can occasionally be affected by root uptake of this product. Do not apply Alligare Aminopyralid 2SL Herbicide within the root zone of desirable trees

fluazifop-p-butyl, Fusilade, Syngenta

https://www.solutionsstores.com/fluazifop

(by most international regulatory agencies' definitions, the active ingredient is a PFAS and what inerts, including any PFAS it contains, is unknown.)

https://pubchem.ncbi.nlm.nih.gov/compound/fluazifop-p-butyl

GHS Classification TreeHazard Statement CodesH200: Physical Hazards

H226: Flammable liquid and vapor [Warning Flammable liquids]

GHS Classification TreeHazard Statement CodesH300: Health Hazards

H317: May cause an allergic skin reaction [Warning Sensitization, Skin]

GHS Classification TreeHazard Statement CodesH300: Health Hazards

H361: Suspected of damaging fertility or the unborn child [Warning Reproductive toxicity]

GHS Classification TreeHazard Statement CodesH300: Health Hazards

H361d: Suspected of damaging the unborn child [Warning Reproductive toxicity]

GHS Classification TreeHazard Statement CodesH400: Environmental Hazards

H400: Very toxic to aquatic life [Warning Hazardous to the aquatic environment, acute hazard]

clethodim Shadow, UPL Corporation Limited Group Company. 24-UPL-1549

https://www3.epa.gov/pesticides/chem_search/ppls/070506-00484-20240411.pdf

ENVIRONMENTAL HAZARDS DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark. DO NOT apply where runoff is likely to occur. DO NOT apply where weather conditions favor drift from areas treated. DO NOT contaminate water when disposing of equipment washwater or rinsate. The use of this product may pose a hazard to the federally designated endangered species of Solano Grass and Wild Rice. Use of this product is prohibited in the following areas where the species are known to exist: Solano Grass: Solano County, California: the vernal lakes area bounded by the Union Pacific Railroad and Hastings Road to the north, Highway 113 to the east, Highway 12 to the south, and Travis Air Force Base to the west. Wild Rice: Hays County, Texas. NON-TARGET ORGANISM ADVISORY STATEMENT This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift. PHYSICAL OR CHEMICAL HAZARDS Combustible. DO NOT use or store near heat or open flame.

indaziflam, Dow Chemical

https://www3.epa.gov/pesticides/chem_search/ppls/000264-01105-20110726.pdf

"This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean water mark. Do not contaminate water when disposing of equipment rinsate or washwater. This product may enter water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential of this product entering water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Surface Water Advisory: This pesticide may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. Ground Water Advisory: This pesticide has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow."

chlorsulfuron, Bayer

https://www3.epa.gov/pesticides/chem_search/ppls/000432-01561-20201005.pdf

GROUND WATER ADVISORY Chlorsulfuron is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow. SURFACE WATER ADVISORY This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils

with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of chlorsulfuron from runoff water and sediment. NON-TARGET ORGANISM ADVISORY This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area.

clopyralid

https://www3.epa.gov/pesticides/chem_search/ppls/035935-00057-20221207.pdf

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER Corrosive. Causes Irreversible Eye Damage. Harmful If Absorbed Through Skin Or Inhaled. Avoid contact with skin, eyes or clothing. Do not get in eyes or on clothing. Wear goggles or face shield when handling. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

For use only on non-residential turf such as athletic and recreational sports fields, cemeteries, golf courses, industrial sites, noncropland, parks, rights-of-way, and roadsides. Turfgrass and lawn uses are restricted to non-residential sites. Note: In the states of California, Oregon and Washington, turfgrass and lawn uses are restricted to golf courses only.

glyphosate (Roundup)

https://www3.epa.gov/pesticides/chem_search/ppls/042750-00061-20231205.pdf

(A cursory search will also bring up the THOUSANDS of lawsuits brought against Monsanto/Bayer for non-hodgkins lymphoma caused by glyphosate/Roundup,

imazapic

https://www3.epa.gov/pesticides/chem_search/ppls/071368-00099-20150528.pdf

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

imazapyr

https://www3.epa.gov/pesticides/chem_search/ppls/081927-00024-20110805.pdf

DO NOT use on food or feed crops. DO NOT use on Christmas trees. DO NOT apply this product within one-half mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within one-half mile of an active potable water intake in a standing body of water, such as a lake, pond or reservoir.

metsulfuron methyl

https://labelsds.com/images/user_uploads/Manor%20Label%205-10-19.pdf

https://www3.epa.gov/pesticides/chem_search/ppls/066222-00050-20011004.pdf (CONDITIONAL REGISTRATION)

Injury to or loss of desirable trees or other plants may result from failure to observe the foIlowng: Do not apply Metsulfuron Methyl 60DF Herbicide (except as recommended), or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tenniS courts, or similar areas. * Prevent drift of spray to desirable plants. * Do not contaminate any body of water including irrigatlon water

https://www3.epa.gov/pesticides/chem_search/ppls/000279-09593-20191126.pdf

Metsulfuron Methyl is known to leach through soil into groundwater under certain conditions as a result of label use. Metsulfuron Methyl may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow. Surface Water Advisory This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of this product from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Windblown Soil Particles Advisory This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement. Non-target Organism Advisory This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label

https://www3.epa.gov/pesticides/chem_search/ppls/000352-00439-20071108.pdf

This herbicide is injurious to plants at extremely low concentrations. Nontarget plants may be adversely effected from drift and run-off

picloram

https://assets.greenbook.net/L107372.pdf

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. ...his chemical is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetative filter strips, and areas over-laying tile drainage systems that drain to surface water

https://s3-us-west-1.amazonaws.com/agrian-cg-fs1-production/pdfs/Tordon_22K_Label1h.pdf

sethoxydim

https://www3.epa.gov/pesticides/chem_search/ppls/000228-00619-20100518.pdf

For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. ENDANGERED SPECIES CONCERNS The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal law.

https://assets.greenbook.net/00-05-03-10-07-2024-Poast_Herbicide_-_label.pdf

sulfometuron methyl

https://assets.greenbook.net/L107346.pdf

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwater or rinsate. Exposure to SFM 75 can injure or kill plants. Damage to susceptible plants can occur when soil particles are blown or washed off target onto cropland. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas.

triclopyr

https://www3.epa.gov/pesticides/chem_search/ppls/081927-00011-20210628.pdf

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

CONCLUSION

The Forest Service should withdraw herbicides from its list of options for controlling invasive species if it cannot provide the information listed above, as well as provide detailed plans and procedures for ensuring no contamination of surface or groundwater, no contamination of endangered, threatened, or non-target species, and no damage to non-target plants will occur.

Submitted by Carol Van Strum

Dr. Ursula Bechert comments on Siuslaw Invasive Species Project:

6 August 2024

Katie Isacksen

Siuslaw National Forest

3200 Jefferson Way

Corvallis OR 97331

Dear Ms. Isacksen,

I would like to submit a written comment regarding invasive weed management plans for the Siuslaw National Forest. Developing a comprehensive approach to treating invasive weeds is a good idea; however, given the variety of weeds, landscapes, and topographies, I imagine that each project will still need specific strategies.

Identifying and prioritizing which plant species should be managed is critically important. "Once an invasive species becomes established, it is rarely possible to eradicate." (https://www.doi.gov/blog/invasive-species-finding-solutions-stop-their-spread). For example, Himalayan blackberry seeds are spread by birds, which is why they are commonly found under perching sites, such as along fence rows and under power lines. Many people pick blackberries to eat and make preserves out of them. If they're sprayed with an herbicide, these individuals will be poisoned. This alert is posted on https://solvepestproblems.oregonstate.edu/weeds/himalayan-blackberry:

If swaths of land are sprayed with herbicides via backpack sprayers and drones, other edible food sources (e.g.,

salmon berries, mushrooms) will undoubtedly also become contaminated. "Proposed activities may occur in all management areas including Wilderness, Wild and Scenic River corridors, Research Natural Areas and National Recreation." The herbicides listed are known to leach into groundwater and/or can contaminate surface waters (see attached comments from Carol VanStrum). Indeed, "[hellip] the actions clearly [must] outweigh the potential harm caused by invasive species." It seems that, if herbicides are used, the objective "to reduce adverse impacts from invasive and native species, pests, and diseases" is diametrically opposed to the objective: "to restore and maintain healthy watersheds and diverse habitats" (US Forest Service National Strategic Plan, USDA 2007).

The current proposal would amend the existing Siuslaw Forest Plan to add 4 additional chemicals to herbicide formulation options, bringing the total number of chemicals that could be applied to forested lands to 14. I am strongly opposed to this. Instead, I encourage the Forest Service to work with local communities and organizations on implementing the other methods listed (e.g., manual, biological, mechanical) to control invasive weeds.

The proposed action plan states, "Fluazifop targets grasses which makes it a valuable tool in treating butterfly habitat." This is ironic, because Mallick et al. (2023) found that herbicides adversely affect butterfly species - specifically fluzifop-pbutyl, along with sethoxydim, glyphosate, and imazapyr, which are all on the plan's herbicide list. Additionally, triclopyr is "very toxic to aquatic life with long lasting effects" and aminopyralid methyl has "a biodegradation half-life of 462 to 990 days in sediment-water systems". Herbicide sprays can have devastating consequences on both the local wildlife and the surrounding environment. A recent study detected pesticides (e.g., hexazinone and atrazine) used in forestry management practices in 38% of the bivalves samples along the Oregon Coast (Scully-Engelmeyer et al. 2021). Pesticides used in forestry practices have been linked to behavioral abnormalities in salmon (e.g., swimming performance, seaward migration, adult returns), compromised immune systems, endocrine disruption (Ewing, 1999).

The first proposed action described in the plan is prevention: "Prevention is, by far, the most effective means of controlling invasive plant species." Similarly, it would be so much easier to prevent contamination of Siuslaw Forest lands with herbicides! The State of Oregon Pesticide Management Plan for Water Quality Protection states "Prevention of water contamination is a major component of effective resource management." Many of the herbicides proposed for use in the control of invasive weeds are listed in the plan's appendix B listing "Oregon Pesticides of Interest: potential to occur at concentrations approaching or exceeding a Federal, State, or Tribal human health or environmental reference point." Moreover, it is very challenging to monitor water quality, yet based on the research cited above, it is clear that herbicides HAVE contaminated our forests and water systems.

I urge you to severely restrict the use of, or ideally avoid using, herbicides in the management of invasive weeds. Creating new, more insidious problems in an effort to eliminate an existing problem does not make sense. Thank you for your consideration.

Sincerely,

Ursula Bechert, DVM, PhD