Appendix F - OkaWen Invasive Plant DEIS Comment Content Analysis and Response to Comment

The Okanogan Wenatchee invasive plant treatment DEIS was circulated for comment in April 2016. We received 15 letters containing about 120 comments regarding the project and its impacts. The greatest number of comments expressed opposition to the use of herbicides, specifically glyphosate. However, several comments expressed support for the project. See below for the list of topics and number of comments received on each topic.

In response to the comments, we prepared a newsletter addressing common questions and concerns and sent it to those who commented on the DEIS. We also met with some people from the Carlton community to hear their concerns. The Forest Service agreed to keep them informed about upcoming treatments and coordinate volunteer efforts in the Libby Creek watershed to help minimize herbicide use there.

We made a few changes to the Final EIS in response to the comments. We added some information about monitoring; clarified the way the annual cap was developed and used in the analysis; and adjusted the prescription on 2.3 acres of knotweed to avoid use of glyphosate as a first choice herbicide.

Comment Topic	Number of Comments
Alternative 3	**2**
Support Alternative 3	2
Alternatives Considered	**3**
Prevention and Non-herbicide Treatments	3
Aminopyralid	**2**
Support	2
EDRR	**4**
Does not Support EDRR	1
Implementation Planning Process	1
Supports EDRR	1
Timeliness	1
EIS	**1**
Public Release	1
EIS Error	**1**
Coordination with tribes	1
Endangered Species Analysis	**2**
Salmonids	2
General	**5**
Budget	2
General	1
Support	2
Glyphosate	**12**
Opposed to Glyphosate	12
Herbicide	**2**
Application Methods	1

Comment Topic	Number of Comments
Posting and Marking on the Ground	1
Herbicide Re-entry	**2**
Campgrounds	1
Edibles	1
Monitoring	**7**
Effectiveness	1
General	1
Inventory	1
More Detail Needed	3
Water Quality	1
NEPA	**8**
Confused about scoping Proposal vs. EIS	2
Disclosure	1
Incomplete and Unknown Information	1
Question	1
R6 Standards	2
Scoping and DEIS release	1
No Action	**1**
General	1
Non-Herbicide Methods	**6**
Biological Agents	2
Fertilizer	1
General	1
Mowing	1
Shading	1
Opposed to Herbicides	**27**
General	1
Best Available Science	1
Cancer	4
Ecological Impact	1
General	11
Invasive plants are not noxious	1
Low Priority Invasive Plant Species	1
Near Water	2
No herbicide alternative	1

Comment Topic	Number of Comments
Non-target impacts	1
Number of Options	1
Riparian Areas	1
Wilderness	1
Picloram	**1**
Grazing Restriction	1
Posting and Notification	**3**
Re-entry period	1
Posting on the Ground	2
Prevention	**10**
Relationship between Prevention and Treatment	10
Proposed Action	**1**
Support	1
Purpose and Need	**5**
Does not Support	1
Economic and Environmental trade offs	1
Forage	1
Invasive plants are not noxious	1
Support	1
Support Alternative 3	**1**
Herbicides as a Last Resort	1
Treatment Cap	**2**
Implementation Planning Process	1
Too Low	1
Treatment Coordination	**2**
Effect on Neighbors	1
Park Service	1
Treatment Effectiveness	**7**
Alternative Comparison	1
Methods	2
Treatment Priority	4
Wildlife	**1**
Fisher	1

This table is organized by topic according to the list above. The Okanogan and Wenatchee National Forest may be abbreviated as OkaWen, and Project Design Features are (PDFs). Full copies of letters received from agencies are included after the comment and response table.

Topic	SubTopic	Comment	Response
Alternative 3	Support Alternative 3	We favor authorizing treatment on all 16,281 acres under Alternative 3 as well as under Alternative 2, because even under Alternative 2, it is unlikely that there will be adequate funding to achieve the objectives.	All 16,281 acres are authorized for treatment in both action alternatives.
Alternative 3	Support Alternative 3	We also favor Alternative 3 because it prioritizes safety.	Thank you for your comment. All alternatives prioritize public health and safety.
Alternatives Considered	Prevention and Non-herbicide Treatments	The EIS should include an alternative to eliminate sources responsible for the spread of these invasive plants, which include grazing and roads, and to begin a long-term effort to removing them without chemical treatment. The present proposal calls for the use of herbicides on all treated areas. If the EIS is not changed to include that alternative then the "no action" alternative should be selected.	In 2005, the Regional Forester decided to adopt the current R6 PNW ROD prevention standards in order to address the spread of invasive plants, and decided not to require that herbicides be used as a last resort. The R6 2005 ROD standards do not require specific changes to land uses before herbicides could be used to treat invasive plants. The prevention standards in the R6 PNW ROD were selected "because...they will result in reduced rates of spread of invasive plants, while still maintaining the Forest Service's ability to provide for existing uses and management activities on National Forest System lands." Stricter prevention measures that required changes to land uses were considered but not adopted because "additional requirement[s] could lead to adverse effects on existing land uses or management activities, or increase the costs of invasive plant management"(R6 PNW ROD page 10). This project complies with all national, regional, and local policies and plans. The No Action Alternative would still include the herbicide use covered in other documents. Alternative 3 limits the use of

Topic	SubTopic	Comment	Response
			herbicide and relies more heavily on non-herbicide methods. However, integrated weed management including mechanical and biological methods are part of both action alternatives. Table 2.5 starting on page 31 of the DEIS describes the range of effective treatment methods for each invasive plant of concern. Herbicides are given the most attention in the analysis because they garner the most public concern and interest. An alternative to rely solely on non-herbicide methods was considered but eliminated from detailed study (DEIS page 53) because some priority invasive plants could not be effectively treated without herbicides.
Aminopyralid	Support	I am very interested in amending the Forest Plan to include the use of the new herbicide (aminopyralid) that reduces -risk and increases effectiveness of herbicide treatment. I can't recall the number of times forest personal have told me something can't be done or used because it is not in the Forest Plan. My thoughts are that any good plan is flexible enough to include changes that benefit everyone. It makes good sense to me to amend this plan to include the new herbicide.	Thank you for your comment, no response needed.

Topic	SubTopic	Comment	Response
Aminopyralid	Support	We support the proposed Forest Plan amendment to add aminopyralid to the suite of herbicides available for use. As noted on page 273 of the DEIS, science supports that aminopyralid is generally a lower risk herbicide, and that use of aminopyralid as a replacement for other herbicides will decrease risk to some non-target species.	Thank you. No response needed.
EDRR	Does not Support EDRR	If adopted, the project should treat the same 16, 281 acres every year until goals are met, NOT any 16, 281 acres.	The project includes re-treatment of target species until goals are met. The project also allows for treatment on new infestations, according to the project design features and guided by the priorities on page 64 of the DEIS. The 16,281 is a cap to ensure that impacts are within scope of the EIS analysis. As DEIS page 50 stated: "Combined treatment of known sites and sites added through EDRR would not exceed 16,281 infested acres per year, which are the current known acres of infestation. Defining this acreage “cap” allows the analysis in the EIS to proceed within well-defined parameters."

Topic	SubTopic	Comment	Response
EDRR	Implementation Planning Process	Early Detection Rapid Response language must be clear and provide direction to achieve the intended goal of Rapid Response. Framework must be set in place Forest wide to allow for species identification, determination of effective control measures, and implementation of chosen control measures and monitoring of the site to ensure control objectives have been achieved in a timely manner to prevent spread of a new invasive species. Timely control measures must occur to prevent production of propagative parts and further spread of noxious weed infestations.	The framework for selecting the proper control method was discussed on page 51 of the DEIS. Timely detection and treatment are key. Invasive plants are inventoried throughout the forest on an ongoing basis, with particular attention paid to areas where land uses are planned, especially if the land uses could contribute to the spread of invasive plants so that risk can be assessed and prevention measures applied.
EDRR	Supports EDRR	The Department shares the concern about preventing encroachments at remote sites. Both Mt. Rainier National Park and North Cascades National Park Service Complex manage backcountry and Wilderness lands where similar control efforts have been needed. Based on our experience with the extra effort required to detect and treat infestations in challenging locations, we endorse the objectives of the proposed Early Detection/Rapid Response process to facilitate rapid response to new or previously undiscovered infestations. This would allow the USFS to act quickly in instances where a site's environmental conditions and the treatment method have already been analyzed.	Thank you for your comment, no response needed.

Topic	SubTopic	Comment	Response
EDRR	Timeliness	Why has the Forest Service taken so long to address problem plants when addressing the invasive populations at the onset would have been manageable?	The intent is to treat while populations are small. This is the very reason for the large scale long term EDRR approach. Lag time between introduction, establishment, detection and public concern (and action) is very common. This project is trying to decrease this lag time. We have been implementing actions to prevent and treat invasive plants but recognized that we needed more tools, and a better mechanism for rapid response (EDRR).
EIS	Public Release	An adequate effort to inform the public of this program has not been made. This is a highly controversial proposal, and every effort should be made to accurately represent it, with total acreages, disclosure of herbicides to be used and the buffers proposed, in the mass media, at district offices, and through any other avenues available.	This information is readily available. The DEIS was sent to interested people and was posted on the Forest website, formally described in legal notices and in the federal register, and through press releases and news articles.
EIS Error	Coordination with tribes	On pg. 276, section 4.2, Consultation with Tribes, the text appears to have been cut off. This should be addressed in the Final EIS.	Thank you for finding this error. We have corrected the paragraph the final sentence of which now reads: The tribal governments have been provided courtesy advance copies of this DEIS.
Endangered Species Analysis	Salmonids	The presence of ESA listed salmonids should be specifically taken into account where they are present; an in depth analysis of possible negative impacts to them from herbicide application should be done.	Please see analysis pages 133- 166, Appendix C pages C-56 – C-68, Aquatic Restoration Biological Opinion pages 223-257 (USFWS ARBO II 2013, which is available under Supporting Documents, on the project website). Page 5 of the DEIS (Summary) stated that the project has low to no risk to the aquatic environment and by following ARBO II terms and conditions, the project would minimize risk of adverse effects to fish.
Endangered Species Analysis	Salmonids	There is an extensive list of wildlife species of local interest (pp. 19-23), but no mention of ESA-listed salmonids common to the affected watersheds. This is a serious omission and should	Comment is referring to the scoping letter, not the full DEIS, please read EIS pages 133-166, including table 3.11 (pages 137-139) which lists Threatened, Endangered, and Sensitive fish by watershed, and Appendix C pages C-56 – C-68. The

Topic	SubTopic	Comment	Response
		be dealt with more extensively than inclusion of "special status fish" in the last paragraph of the document listing "preliminary issues".	conclusion of the analysis is that he project has low to no risk to the aquatic environment and by following ARBO II terms and conditions, the project would minimize risk of adverse effects to fish.
General	Budget	The Forest should offer hand pull contracts to local residents.	This can be done regardless of alternative.
General	Budget	What is the overall budget for the entire project?	Current funding covers treatment of about 3,500 acres annually (DEIS page 53). Given current budgets, the Proposed Action would take at least 6 years or longer to achieve all goals, and is estimated to cost $2,055,500 to treat all 16,281 acres (DEIS page 61). Alternative 3 would cost at least 3 times as much as the Proposed Action and would take at least 20 years or longer to accomplish (ibid).
General	General	Based on our review, we are rating the DEIS as LO (Lack of Objections).	Thank you. No response needed.
General	Support	In our September, 2009 comments on the Notice of Intent, the EPA recommended that the DEIS focus on prevention, EDRR, and integrated pest management. We also recommended that the DEIS establish a decision key or other tool to help guide implementation decisions (i.e., under what circumstances should each control tool be applied). We appreciate the Forest's responsiveness to these recommendations. The DEIS adequately considers multiple treatment methods according to site-specific conditions, including the biology of the invasive species present, the location and size of the infestation,' and environmental factors (including .the site's proximity to water and other sensitive resources).	Thank you. No response needed.

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General	Support	The Department supports the efforts of the USFS to restore natural ecosystem quality through control and management of invasive flora and notes that some of the target species also affect National Park Service (NPS) lands. Specifically, two units of the National Park System – Mt. Rainier National Park and North Cascades National Park Service Complex – are contiguous with Okanogan and Wenatchee National Forests.	Thank you. Coordination with neighbors to respond to invasive plants that occur across multiple ownerships is a Project Design Feature (B-1, page 45).
Glyphosate	Opposed to Glyphosate	It saddens me to point out something you and your staff should have known. You propose to apply potentially lethal chemicals to public land where families recreate and children play. I suggest you consult with a knowledgeable, competent herbicide specialist. If you apply herbicides that contain glyphosate (Roundup etc.) you will wake up each morning wondering how many people will die of cancer and how many kids will struggle through life coping with birth defects and autism … because you didn't care. The USDA has championed the use of toxic manmade chemicals for many decades and isn't about to stop now. This is why the WO does not prohibit glyphosate use on public land.	Forest Service Policy (1950 handbook) requires that pesticide and herbicide use follow registered product labels, have a specific risk assessment for the type of proposed use, and be supported by appropriate NEPA. Our project is consistent with all policies and environmental and human health standards related to herbicide use. The Okanogan-Wenatchee 2016 DEIS did not indicate that use of glyphosate as proposed in both action alternatives would have any adverse effects on worker or public health, considering the potential for toxic effects and cancer risks to subsistence populations, children, women of child bearing age and sensitive individuals.
Glyphosate	Opposed to Glyphosate	I ask you to assure that your pending NEPA document specifically states "herbicides that contain the chemical glyphosate will not be applied." If it doesn't state "herbicides that contain the chemical glyphosate will not be applied" my objection will indicate your actions will kill fish at very low concentrations in water and describe the research conclusions showing	This article is based on conjecture, makes comments not supported by the references cited, and cites conclusions that are out of context. Effects to human gut bacteria are one of the primary bases for Samsel and Seneff's article and it is neither proven nor supported by the references cited. For example, the 2013 article stated "The key pathological biological effects of glyphosate -- disruption of the gut bacteria, impairment of sulfate transport, and interference

Topic	SubTopic	Comment	Response
		casual glyphosate exposure might cause: birth defects, non-Hodgkin's lymphoma (a form of cancer), mitochondrial damage, cell asphyxia, miscarriages, attention deficit disorder, endocrine disruption, DNA damage, skin tumors, thyroid damage, hairy cell leukemia (another cancer), Parkinson disease, premature births, decrease in the sperm count, harm to the immune system, death of liver cells, severe reproductive system disruptions and chromosomal damage. [You rely on SERA 2011 to address these issues.] In many cases, the SERA report denies the causal effect. In a few cases, a word search of the SERA report indicates the tragic physical condition isn't even addressed. Incredibly, the SERA report conveniently does not acknowledge the link between glyphosate and autism in spite of the massive amount of scientific research that shows a clear link.	with CYP enzyme activity—can easily explain the features that are characteristic of autism" (2013). The studies that Samsel and Seneff cite to support the CYP enzyme effects are not CYP-specific studies. Samsel and Seneff simply "surmise" but do not demonstrate weight of evidence for the connection. The paper also speculated on many other disorders "caused' by glyphosate exposure without adequate causal evidence, basically stating that: Statements of conjecture not proven earlier in the paper, which are only hypothesized, are then later used as if they are factual (e.g., pages 1429, 1436). As such, the Samsel and Seneff paper has been widely criticized by scientists and journalists alike. The paper has been characterized as speculating "if anyone, anywhere, found that glyphosate could do anything in any organism, that thing must also be happening in humans everywhere" (Haspel, 2013). These approaches are not scientifically credible or relevant to effects from this project. Best available science regarding effects of the project on human health is discussed at DEIS Chapter 3.9.
Glyphosate	Opposed to Glyphosate	At page 63 you say this DEIS tiers to the outdated, 11 year-old R-6 2005 invasive plant FEIS/ROD. That ROD's safety conclusions are based on the 2003 SERA Report which contains information that conflicts with best science. Current research indicates that herbicides such as glyphosate pose a real risk to ecosystem health, including that of humans and animals.	Analysis in the R6 PNW FEIS remains valid, and new science is integrated into the DEIS. DEIS page 63 stated: "This document does not reconsider findings and decisions made in the R6 PNW FEIS and ROD; however, it does incorporate findings from SERA risk assessments that were updated in 2007 (aminopyralid) and 2011 (glyphosate, imazapyr, picloram and triclopyr). "Safety conclusions" in the DEIS (presumably human health impacts) are based on best available current science.

Topic	SubTopic	Comment	Response
Glyphosate	Opposed to Glyphosate	An environmental group that opposes genetically modified crops is issuing a 77-page report on the decline of the monarch butterfly that lays much of the blame on Monsanto's Roundup Ready crops and Roundup herbicide.	The concern is that glyphosate is being used more in cropland to remove milkweed, which is an important plant for the butterflies. Milkweed is not a target invasive species in this project and butterfly habitat would not be adversely affected on the Forest. DEIS pages 216-217 discussed effects of the project on butterflies, acknowledging that our analysis indicates glyphosate broadcast sprayed at maximum rates slightly exceeded the no effect threshold for honeybees (assumed as a surrogate for butterflies), assuming "upper bound" estimates. The hazard quotient values at the maximum exposure assumptions ranged from 1.1 to 2, which indicates a very low risk that is just over the no effect level. This level of exposure is not plausible for this project given the low acreage of glyphosate use, and the PDFs that limit broadcast spraying in general and in rare butterfly habitat.
Glyphosate	Opposed to Glyphosate	California has issued plans to list glyphosate—the toxic active ingredient in Monsanto's Roundup herbicide—as known to cause cancer. According to a "notice of intent" issued last week by the Cal/EPA's California's Office of Environmental Health Hazard Assessment (OEHHA), the effort falls under California's Proposition 65, in which the state is required to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm. The same law, otherwise known as the Safe Drinking Water and Toxic Enforcement Act of 1986, also requires that certain substances identified by the International Agency for Research on Cancer (IARC)—the World Health Organization's cancer arm—be listed as known to cause cancer. The state agency's Sept. 4 announcement follows a	The R6 PNW FEIS outlines reasons for using a wider variety of herbicides, why this particular set of herbicides is needed for invasive plant situations in Oregon and Washington, and why this particular set of herbicides can be used with very low risk to people and the environment. Glyphosate is one of the herbicides previously available; it is non-selective and poses low, but potentially greater risk to fish than the newer ingredients proposed for use. In the DEIS, glyphosate was indicated to be the first choice for 2.3 acres of knotweed. This has been updated in the FEIS; we found that imazapyr could be equally or more effective and thus it has been changed to be the first choice for knotweed. However, we need to keep glyphosate in the toolbox in case our first choices are not effective. SERA 2011 Glyphosate Risk Assessment thoroughly discusses the carcinogenic, mutagenic, and genotoxic potential for glyphosate, using many of the same studies reviewed by the IARC. Glyphosate is currently approved for

Topic	SubTopic	Comment	Response
		classification of glyphosate by the IARC as "probably carcinogenic to humans" in March [2015]."	continued use under the No Action alternative. In the action alternatives, about 3 acres of knotweed treatments may require glyphosate, but other places where it may be effective, it is the third choice. Best available science indicates that glyphosate proposed for use in this project would not increase anyone's risk of cancer. This was all discussed in the DEIS (page 245).
Glyphosate	Opposed to Glyphosate	There are equally effective alternatives that will accomplish the same goal --- biological and mechanical. If a person can walk to an invasive plant to spray it, a person can walk to the plant and remove it. Cost must not be a factor when human lives are at stake.	Chapter 3.2 of the DEIS discussed in detail the reasons that herbicides are needed to treat invasive plants on the Okanogan Wenatchee. In Alternative 3, herbicide use would only be on infested sites larger than one acre that cannot be controlled using biological agents (with some exceptions for small patches containing rhizomatous species or dense infestations where manual treatment would have unacceptable impacts). The design of Alternative 3 does not consider cost, and the DEIS shows that it would cost more than 3 times as much as Alternative 2. The analysis in Chapter 3.9 of the DEIS discussed effects on human health; the best available science does not support the claim that human lives would be at stake.
Glyphosate	Opposed to Glyphosate	Request for changes to be made to the final NEPA document: Assure it states "herbicides that contain glyphosate will not be applied." Failure to make this statement leaves the door open for glyphosate application. This violates: • 40 CFR 1501.2 (b), 40 CFR 1502.16(a) and (b), and 40 CFR 1508.8(b) because Chapter 3 omits important environmental effect disclosures. • The Apr. 21, 1997 Executive Order No. 13045 because the	Public health, including potential effects on children, is discussed at DEIS Chapter 3.9, and safety precautions are discussed at DEIS Chapter 2.2.2 and Chapter 3.2. The Apr. 21, 1997 Executive Order No. 13045 is addressed by EPA in the pesticide product registration process and this project does not pose specific risks to children. The weight of scientific evidence supports the conclusions in the R6 PNW FEIS, SERA 2011, and the 2016 Okanogan Wenatchee DEIS. Uncertainties are discussed at DEIS pages 71-73, with the Forest Service

Topic	SubTopic	Comment	Response
		Responsible Official does not ensure that this project will not disproportionately expose children to environmental health risks and safety risks. • 40 CFR §1508.27(b) (2) because the intensity discussion fails to discuss the degree to which the proposed action affects public health or safety.	response to the uncertainty provided. DEIS Page 70 discussed the "layers of caution" built into the project that ensure risk to the public and the environment is minimized or eliminated.
Glyphosate	Opposed to Glyphosate	In the EIS, it is stated on p. 2, "The new herbicides offer many advantages over the more limited set allowed previously, including greater selectivity, less harm to desired vegetation, reduced application rates, and lower toxicity to animals and people." Please cite the specific studies and evidence to support this statement. Please offer the rationale for utilizing the highly controversial agent, glyphosate, in your plans.	The R6 PNW FEIS outlines reasons for using a wider variety of herbicides, why this particular set of herbicides is needed for invasive plant situations in Oregon and Washington, and why this particular set of herbicides can be used with very low risk to people and the environment. Glyphosate is one of the herbicides previously available; it is non-selective and poses low, but potentially greater risk to fish than the newer ingredients proposed for use. In the DEIS, glyphosate was indicated to be the first choice for 2.3 acres of knotweed. This has been updated in the FEIS; we found that imazapyr could be equally or more effective and would be the first choice for knotweed. However, we need to keep glyphosate in the toolbox in case our first choices are not effective.
Glyphosate	Opposed to Glyphosate	"A large number of published scientific studies — mostly done outside the United States — show that as little as 1 ppm of glyphosate will kill almost all bacteria — particularly beneficial bacteria — in the gut of animals; that endocrine disruption starts at 0.5 ppm; and that even just a few ppm can cause oxidative stress, chronic inflammation, DNA damage, and many other disruptions in mammalian organ cells and tissues. Last year, the World Health Organization asked an international team of 17 senior toxicologists from 11 countries to review the status of several	The R6 PNW FEIS outlines reasons for using a wider variety of herbicides, why this particular set of herbicides is needed for invasive plant situations in Oregon and Washington, and why this particular set of herbicides can be used with very low risk to people and the environment. Glyphosate is one of the herbicides previously available; it is non-selective and poses low, but potentially greater risk to fish than the newer ingredients proposed for use. The SERA 2011 Glyphosate Risk Assessment thoroughly discusses the carcinogenic, mutagenic, and genotoxic potential for glyphosate, using many of the same studies reviewed by the IARC. Glyphosate is currently approved for continued use under the No Action

Topic	SubTopic	Comment	Response
		agricultural chemicals, including glyphosate. Their verdict regarding glyphosate's toxicity was that the scientific literature contains enough convincing evidence to classify it as a probable carcinogen." Interview with Dr. Thierry Vrain, soil biologist and genetic scientist, retired. See IARC monograph #112.	alternative. In the action alternatives descriptions in the DEIS glyphosate was indicated to be the first choice for 2.3 acres of knotweed. This has been updated in the FEIS; we found that imazapyr could be equally or more effective and would be the first choice for knotweed. However, we need to keep glyphosate in the toolbox in case our first choices are not effective, but other places where it may be effective, it is the third choice. Best available science indicates that glyphosate proposed for use in this project would not increase anyone's risk of cancer. This was all discussed in the DEIS (page 245).
Glyphosate	Opposed to Glyphosate	One specific inert ingredient [of Roundup, the most common glyphosate formulation], polyethoxylated tallowamine, or POEA, was more deadly to human embryonic, placental and umbilical cord cells than the herbicide itself – a finding the researchers call "astonishing."--Scientific American, June 23, 2009	We are not proposing to use POEA for this project (DEIS page 70).
Herbicide	Application Methods	We recommend that all herbicide applications be site specific through the use of a green-dot-red-dot type of system that requires applicators to restrict applications to areas where there actually are invasive plants. In the past, the Okanogan tried to do continuous spraying along some roads, resulting in some cases where 90% or more of road treatments occurred in weed-free areas. In addition, these areas sometimes also killed the beneficial plants resulting in more weeds.	Prescriptions are to treat invasive plants, not un-infested areas. This project does not allow the use of herbicides to control native plants on roadsides, or elsewhere. There are no area or soil treatments proposed, and broadcast spraying would only occur on sites dominated by invasive plants (DEIS page 28). Spot-spraying was chosen as the primary method of application in order to protect native plants. Treated areas will be monitored for recovery and may be seeded with local, native species if they are unlikely to recover on their own.
Herbicide	Posting and Marking on the Ground	How will the Forest Service mark areas that have been recently sprayed so the public is aware of the risk of contact? With spraying occurring even in the wilderness, many users of public lands will	Project Design Feature K-1 (page 49) specifies how the public will be notified of upcoming herbicide treatments. In addition a blue dye will be added to all herbicide mixes so that spray coverage is visible (page 28, page 43).

Topic	SubTopic	Comment	Response
		not suspect possible contamination of water and forest land.	
Herbicide Re-entry	Campgrounds	We support prioritization of treatments where it has the greatest likelihood of being spread by vehicles. These are campgrounds and parking areas, which are also high-use areas where aesthetics apply. However since these areas are also used by a diverse public including sensitive individuals, we feel it would be appropriate to exclude camping from these areas with signage for at least 6 weeks.	People can decide whether they want to camp in an area where herbicide has been applied. We intend to notify the public about upcoming herbicide treatments, contact sensitive individuals on the state list as requested; and post signs in picnic areas, roadsides and campgrounds near treatment sites (PDF K-1).
Herbicide Re-entry	Edibles	Where cultural plants exist that may be used for native harvest, including blueberries (*Vaccinium*) and wild carrot (*Perideridia gairdneri)* we do not support the use of chemicals unless there is at least a 1-year quarantine to prevent accidental ingestion and signage to prevent collection during the season. This length of time is necessary to allow for degradation of all adjuvants and accelerants that have lifetimes that are likely to persist into the summer and fall collection season.	A one year quarantine does not seem necessary in this case. Page 244 described the effects on human health from ingestion of contaminated fruit and vegetation. One herbicide ingredient, triclopyr, has potential to exceed our low threshold of concern for human health if a person were to eat sprayed vegetation. Directly sprayed plant materials would likely show signs of either dye or herbicide damage, reducing the likelihood they would be consumed. PDF K-1 further addresses wild food collection: "Notify the public about upcoming herbicide treatments via one or more of the following techniques: newspaper; Forest Service website, individual contact with sensitive individuals on the state list as requested; and signs posted in picnic areas, roadsides and campgrounds near treatment sites. Extra postings would occur when triclopyr is being applied in areas suspected to be special forest product or wild food gathering areas." No accelerants are proposed. Adjuvants and other herbicide ingredients would not affect wild food gathered near sprayed areas, and are unlikely to persist long enough to require a quarantine (see SERA risk assessments for more information).

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Monitoring	Effectiveness	We recommend that you describe a monitoring system that will allow an assessment of whether treatments are indeed effective.	Effectiveness monitoring is already in place; at least 50% of herbicide treatments must be tracked for effectiveness in Forest Service FACTS database (DEIS pages 50-52), and in practice most treatments are monitored. As stated on page 91 of the DEIS, monitoring on the Forest has shown that most sites treated with herbicides and/or a combination of herbicides plus manual treatments consistently reduced invasive plant populations.
Monitoring	General	Our support is contingent on adequate monitoring and adaptive management to direct future efforts. It is also based on adjusting some of the information in the EIS to reflect the best available science, including monitoring.	Unclear what is being requested. Implementation and effectiveness Monitoring and Adaptive management (pages 50-52) and best available science are already included.
Monitoring	Inventory	Treated acres must be inventoried and treatments monitored and evaluated.	Forest Service policy requires us to inventory invasive plant and evaluate treatment. The target for post-treatment monitoring is 50% of the acres treated. Treatments and treatment effectiveness would be recorded in the Forest Service FACTS database. Forest-level monitoring also includes maintaining and updating the Forest inventory in the NRIS database, which would help track if infestations are spreading and if new infestations are found. Monitoring and adaptive management are discussed in the DEIS on pages 50-52.
Monitoring	More Detail Needed	What kind of monitoring is the Forest Service planning for this project? Will there be any testing to see if aquatic contamination occurs? Will there be any form of implantation monitoring to see how the herbicides are actually applied? What kind of effectiveness monitoring is planned, and what is the overall budget for monitoring? Monitoring is discussed...	Best Management Practice protocols exist to determine whether measures to protect water quality were implemented and effective. Also, the R6 Invasive Plant monitoring plan includes protocols for water sampling for higher risk projects. The region sets aside adequate funding to complete the regional monitoring and BMP monitoring is also mandatory and funded. Monitoring and adaptive management are discussed in the DEIS on pages 50-52.

Topic	SubTopic	Comment	Response
Monitoring	More Detail Needed	We recommend that the FEIS include additional detail about how site-specific monitoring will proceed on the OKAWEN, or incorporate by reference Action Plans that have been developed to inventory and monitor weed populations.	In preparation for this analysis, we conducted a more comprehensive inventory and NRIS baseline data set. The FEIS has been updated to include the following details: Each District annually inventories road, trails, and vulnerable and disturbed areas for new invaders. Employees would be trained to identify invasive plants and asked to report them to the invasive plant managers. When we consider ground disturbing activities on the Forest, we generally conduct invasive plant surveys in the proposed project area. We also prioritize surveys in areas burned in wildland fires. New infestations would be recorded in the USFS NRIS database. Creation of volunteer weed watcher programs would be encouraged. Information about invasive plant infestations would be requested and collected from all Forest users including grazing permittees, recreationists, and hunters. Invasive plant managers would work closely with county weed boards to be kept apprised of infestations on private lands that could spread onto the forest.
Monitoring	More Detail Needed	The DEIS deals with implementation monitoring extremely briefly, and gives no details as to the level to which the Forest Service plans to oversee the introduction of highly toxic substances to public lands and waters.	Monitoring and adaptive management are discussed in detail on pages 50-52. All herbicide applications would be recorded on pesticide use forms and entered into a Forest Service database called FACTS. The amount and type of herbicide used, along with the location would be included. Monitoring of the treated area would also be recorded in FACTS. All herbicide use would be overseen by a licensed applicator. Contract work would be inspected by licensed Forest Service employees. For new sites treated under EDRR consistency with biological programmatic agreements would be evaluated and documented prior to implementation.
Monitoring	Water Quality	The DEIS claims there are no high risk treatment areas in the proposed largest herbicide application in the forest's history, and therefor	The regional monitoring plan requires specific monitoring activities for projects defined as high risk. There is BMP monitoring for chemical uses, associated with ARBO II, and as

Topic	SubTopic	Comment	Response
		[sic] there is no need for sample monitoring (I assume this to mean sampling for herbicides in the environment, in this case). Is the Forest Service planning no monitoring for the presence of herbicides in any streams or aquatic environments, including those with ESA listed species?	part of the regional plan (if no high risk projects occur, monitoring often occurs on lower risk projects).
NEPA	Confused about scoping Proposal vs. EIS	The preliminary issues identified during the scoping process (p. 26) require much more in-depth study before any action is taken. Until that time, I would be in support only of a "No Action" alternative.	The DEIS contains 209 pages of in-depth study on these issues (Chapter 3).
NEPA	Confused about scoping Proposal vs. EIS	The documents released in support of the proposal suffer from a number of important problems, including unclear labeling (the scoping letter attachment—proposed action has as the document title "Okanogan-Wenatchee National Forest Forest-wide Invasive Plant Treatment Environmental Impact Statement, which has been confused with the DEIS),	The different release dates, and the organization of the website make clear the distinction between scoping for an EIS and the EIS itself. The scoping information is under the heading "scoping" in the website, and the DEIS is under the heading "analysis."
NEPA	Disclosure	While it is stated that 16,281 acres will be treated in the abstract and initial discussion, it is only deep into the document (pg.23) that it becomes clear that the DEIS permits that number of acres to be treated every year. This confusing mix of information simply does not give the public a reasonable chance at understanding the proposed action and responding to it intelligently.	We have added reference to the annual cap in the table of contents/index and summary of the Final EIS. Please note that the Draft EIS was 326 pages, not counting the Appendices, so page 23 is relatively near the beginning and is appropriate given the organization of the document. The analysis was based on treating all known 16, 281 acres, this was then used as the yearly cap to ensure that all treatments in future years would be within the scope of the effects analyzed in the document. Given budget constraints it is unlikely that 16,281 acres would be treated in any given year and treating that level years in a row is implausible. A

Topic	SubTopic	Comment	Response
			discussion of budgets, costs, and typical treatment acres is included in Chapter 3.12, beginning on page 264.
NEPA	Incomplete and Unknown Information	A whole SECTION of your DEIS titled "Incomplete and Unavailable Information related to Herbicides" Nonsensically saying that YOU DON'T KNOW WHAT YOU ARE DEALING WITH!!!!!!!!!!!!!!!!!!!!	We included a section on unknown information because this information is required in an Environmental Impact Statement. Forest Service Handbook 1909.15 (Chapter 13) explains how to respond to uncertainties in effects analysis. Following this guidance, we have identified areas of uncertainty (e.g. using effects on surrogate species in laboratory tests to help estimate effects on wildlife), used best available science and also described how we are responding to uncertainty. We have summarized existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and based our analysis upon theoretical approaches or research methods generally accepted in the scientific community. We have added many layers of caution (Chapter 3.1) to prevent or minimize risk of adverse effects.
NEPA	Question	What percentage of the acres to be treated are being done primarily for the benefit of livestock?	None.
NEPA	R6 Standards	An Integrated Pest Management Program uses all the tools in the toolbox, and herbicides are an essential tool in controlling highly invasive noxious weeds. Voluntarily limiting herbicide usage by restricting or not including already approved chemicals will reduce the amount of weeds controlled in the future. Adding new herbicides with updated formulations that provide effective control at lower use rates, such as aminopyralid, is commendable. However, the process to approve and implement usage of	There is no way to speculate about need for additional chemicals in the EIS. The current list of ingredients proposed in Alternatives 2 and 3 provide us with the tools we need, while following R6 PNW ROD standards. The DEIS is site-specific because it considers the effects of treating known target species growing in actual locations. The effects of EDRR are covered because similar treatments on similar sites would have similar effects. If additional chemicals are needed in the future, they may be added assuming appropriate analysis.

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		these products is restrictive. The aminopyralid risk assessment was completed in 2007. While the NEPA process is long and daunting, it should not take nine years to prepare a document such as this draft EIS to allow its use. A framework should be established such that new herbicides can be reviewed and included in the control program in a timely manner. This may be just simple phrasing within the document like "and any new products that provide effective control while minimizing off target impacts to desired vegetation". Stating that other herbicides are not expected to be needed is like stating I don't expect to use a chainsaw because I have an axe". Sometimes you just do not need the chainsaw, but sometimes it saves a lot of time and is the most effective tool. Moreover, since science and chemical manufacturers are consistently improving old formulations and discovering new ones, restricting use to currently approved formulations is short sighted.	
NEPA	R6 Standards	We disagree that the Forest Service should be free to add additional herbicides as needed (p. 14) without first issuing a new decision document.	Page 14 states the Forest Plan standard that reads, in part: "Additional herbicides and herbicide mixtures may be added in the future at either the Forest Plan or project level through appropriate risk analysis and NEPA/ESA procedures." This is not intended to imply that we would new chemicals without further analysis or decision documentation.

Topic	SubTopic	Comment	Response
NEPA	Scoping and DEIS release	There were problems with the publication of the EIS. The scoping letter is dated 2014 on the web but the downloaded document is labeled 2009. The scoping letter was not included in the EIS diskette mailed to Conservation in care of my address. This may not meet the standard for NEPA sufficiency.	On the website, the date the document was loaded on to the website appears next to the title (for most of the documents this was 4-28-2016). This is not an indication of when it was mailed to the public. The original scoping letter is dated August 12, 2009. A cover letter was sent with the CD of the DEIS that was mailed to you and other people/organizations who responded to the original scoping and requested a CD.
No Action	General	I would like to express my support for a NO ACTION alternative regarding the proposed use of herbicides on nearly 16,000 acres in the Okanogan/Wenatchee national forest. I regard the application of these chemicals on OUR publicly held wild lands to entirely inappropriate. Furthermore as a landowner whose property borders the forest I have great personal concern for the health myself and my family.	See previous responses to similar comments.
Non-Herbicide Methods	Biological Agents	Biological control methods are questionable. "Biological control activities would include collection of beetles/insects, development of colonies for collection, transporting, and transplanting parasitic beetles/insects, and supplemental stocking of populations." (p.5) What is the clear evidence that, once deployed, these insects would not disturb other niches and have other ramifications? Sadly, in these very same forests, we have seen practices deemed at one time to be "solutions", e.g., fire suppression, now acknowledged by our local Ranger District as a leading contributor to unhealthy forests.	This project follows R6 standards for use of biological control agents in all alternatives, including No Action. These agents have undergone rigorous testing by APHIS (R6 DEIS page 27). These agents are assumed to occupy host species across their range (host species are only those invasive species with which these agents co-evolved). However, they are not always effective in meeting invasive plant treatment objectives. Only agents that have already been approved for release in Oregon and Washington would be redistributed.

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Non-Herbicide Methods	Biological Agents	While some of these species deserve to be prioritized as serious pests, it would be a waste of money to try and treat small parts of large populations covering many thousands of acres or miles of streams. Widely distributed species should be prioritized for biological controls.	Biological control agents are effective to suppress many target species (see DEIS table 2.5). They will continue to be redistributed in both action alternatives. Alternative 3 emphasizes use of biological control agents.
Non-Herbicide Methods	Fertilizer	I would be in support manual control methods; mechanical control methods and some, not all, of the cultural control methods (there is a need to clearly define what is meant by "fertilizer/soil amendments" (p.4)—specifically, just what are contained in these).	Manual and mechanical methods are part of both action alternatives. Cultural Methods and Restoration are discussed on page 27 of the DEIS. Page 4 of the scoping letter mentioned cultural treatments that could include soil amendments, however the final Proposed Action in the DEIS did not include this method. Planting, seeding, and mulching are the only cultural methods currently included.
Non-Herbicide Methods	General	I understand that the FS has some other strategies they plan to use to treat the problem. I could agree with manual, mechanical and cultural if these methods could be guaranteed not to do further harm/create a new problem.	Alternative 3 uses these methods to the extent possible but allows some herbicide use where other methods are unlikely to be feasible or affordable. The threat of invasive plants appears to outweigh the risks of treatment (DEIS Chapter 3).
Non-Herbicide Methods	Mowing	Mowing is very effective in shady areas that have grasses, for example the Twisp River road, however it depends on the use of well-sharpened mowing blades, which requires an investment in training and equipment.	The effectiveness of mowing depends on the invasive species and habitat.
Non-Herbicide Methods	Shading	The analysis did not include a complete description of cultural methods such as shading that would favor Alternative 3.	Passive restoration and active seeding, planting, and culturing of native plants to compete with invasives is included in and consistent with both action alternatives.
Opposed to Herbicides	Best Available Science	A long list of herbicides is proposed for use, with a large variety of effects on plants, animals, and micro-organisms. There are complex and controversial bodies of research on each, with much relevant scientific analysis coming to light since the R6 PNW FEIS was released in 2005. The	The DEIS incorporates updated risk assessments and attention to new research, and layers of caution in response to unknowns and even tiny risks. Endocrine disruption is discussed (again with an abundance of caution). Risk and unknowns are addressed by multiple PDFs.

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		information the Forest Service is drawing from is simply not the “best available science”. A large quantity of the published research supporting their safety has either been done by, or funded by the companies that stand to profit from their use. For example, of the 32 studies the EPA considered in their 2015 examination of glyphosate’s effects on the endocrine system, 27 were funded or done by industry. Of the remaining 5, 3 found evidence of endocrine harm. EPA Used Monsanto’s Research to Give Roundup a Pass; The Intercept, Nov 3, 2015.	
Opposed to Herbicides	Cancer	Opposition to this insane proposal to essentially give a blank check to spewing carcinogens around publicly owned lands. FOR THE RECORD I OPPOSE THIS 'TREATMENT' There just has to be some word more expansive than Ridiculous. The term totally irresponsible comes to mind.	The Forest Service does not agree with how our proposed action is characterized. We do not consider this a blank check; please see DEIS pages 41-52 for design features that would apply to the project and how we will plan and monitoring treatments in the future. An increase in cancer is not plausible.
Opposed to Herbicides	Cancer	Depending on research in regard to the long term issues with these known carcinogens that is provided in the majority by the people making and selling this crap??? Ridiculous.	We do not depend on bad research. We use best available science. The herbicide registration process is outside the scope. The analysis found no increase in cancer and no significant health risks of any kind.
Opposed to Herbicides	Cancer	I oppose the use of chemicals on invasive species. They are well known to be carcinogenic. Cancer is reaching epidemic proportions. Isn't that enough information to stop a method that is killing us? Poisoning the earth and the people is not a sustainable practice.	This project tiers to a decision made in 2005 to use herbicides according to strict standards. Even no action continues use of herbicides, these decisions have already been made. The analysis found no increase in cancer or potential for harm to the public.

Topic	SubTopic	Comment	Response
Opposed to Herbicides	Cancer	The potential chemical treatment products listed are all known carcinogens and are dangerous to non specific plants, animals and humans. Most of these chemicals will persist in the environment for years wrecking continued havoc.	The proposed herbicides are not known carcinogens, are not considered dangerous, application methods and PDFs are intended to limit non-target damage to native plants. These herbicides won't persist for years wrecking continued havoc. The human health section 3.9 (pages 239 -248) addresses known risks and uncertainty.
Opposed to Herbicides	Ecological Impact	I am opposed to the widespread application of herbicides on public lands, and therefor to both alternatives 2 and 3 as stated, as this is their key component. The DEIS seems to assume that by simply listing at risk and ESA-listed species, that the possible impacts of herbicides on them, and the complex web of life that supports them has been adequately addressed.	The ecological risk assessments are oriented toward types of habitats and groups of species that comprise the web of life. The EIS necessarily has to organize ecological risk discussions by soils, water, plants and wildlife, etc., however we understand these are connected, thus the integrated analysis for Aquatic Conservation Strategy compliance and integrated project design. EIS contains 206 pages of analysis (plus an additional 77 pages of additional information about wildlife, plants, and fish in Appendix C), far more than a mere listing, and also includes the FWS and NMFS work on ARBO.
Opposed to Herbicides	General	I do not agree with the Proposed Action preferred alternative. I support management of invasive plants in the Forest that does not use herbicides. This project, as presented, should be dropped. The reason given for not adopting the no herbicide alternative is not good enough.	Thank you for your comment. Rationale for the selected alternative will be in the ROD. If the project is dropped, some herbicide treatments would continue as described under No Action.

Topic	SubTopic	Comment	Response
Opposed to Herbicides	General	When will the Forest recognize that we are living in a toxic world NOW, plant and animal species are disappearing from the earth at an unprecedented rate, and our water and fisheries are in peril??? How can the Forest managers justify something like this DEIS when this is the case? Are these broad, intelligent concerns part of the analysis? Most of the science and management objectives that support something like this DEIS are simply wrong if one cares about the future of natural systems and the health of future generations.	Impact on native plant and animal species is discussed in DEIS Chapters 3.3 and 3.7 (effects on fish and other aquatic organisms are discussed in Chapter 3.6). Page 107 stated that: "Despite the risk of accidental damage to individual non-target plants from any of these herbicides, invasive plant treatments are more likely to benefit native plant communities in the long term." Page 195 stated: "The herbicides proposed for use are not likely to adverse effect or impact any wildlife species. In contrast, no treatment, or ineffective treatment of invasive plants could result in adverse effects to habitats if current infestations continue to spread into riparian areas, late-successional forests, meadows and other valuable habitat areas."
Opposed to Herbicides	General	It is stated that economics were the reason for choosing alternative 2. Economics, as seen without factoring in social and natural damage, should not be the driver for choosing the project methods. Massive use of toxic chemicals should not be okay because it is “cheaper.”	The environmental impacts of herbicide use as proposed is discussed throughout the EIS. Alternative 2 allows for the most cost-effective treatments. Alternative 3 would use far less herbicide but the monetary cost is higher. Neither action alternative proposes massive use of toxic chemicals. Both minimize adverse impacts on the social and natural environment. Rationale for selected alternative will be in the ROD.
Opposed to Herbicides	General	I am opposed to all chemical methods—No herbicide use whatsoever on public lands; it is not worth the risk of adding more of these agents to our ecosystem. We do not know enough about their effects. There is much literature already published, especially related to glyphosate, and other countries are ahead of our own in suspending their use.	Thank you for your comment. Rationale for the selected alternative will be in the ROD. If the project is dropped, some herbicide treatments would continue as described under No Action.

Topic	SubTopic	Comment	Response
Opposed to Herbicides	General	There is a large body of research, of which this is a tiny sample, that indicate the proposed herbicides have harmful effects on humans and animals suggest that the FS is playing roulette with human and ecosystem health.	The project uses best available science, as discussed on page 63 of the DEIS.
Opposed to Herbicides	General	The section of the DEIS titled "Incomplete and Unavailable Information related to Herbicides" is one of the more transparent, and important discussions of the unknown factors involved in the large scale use of herbicides to be found in the document. While some of the many uncertainties in their impact are addressed, the Forest Service's response to that uncertainty is both unscientific, and inadequate in protecting precious public resources and health. Proposed alternatives 2 and 3 are gambling that the unknown factors will be insignificant, knowing what is on the table is the health of humans and endangered species. This section also implies implied that the data for herbicide registration comes from "independent researchers"; this is often not the case, as much of it is either funded by, or carried out by the herbicide manufacturers themselves.	Chemical manufacturers provide peer-reviewed research and other information as part of the pesticide registration process, but our risk assessor is independent of any chemical company.
Opposed to Herbicides	General	This is a highly controversial proposal, and every effort should be made to accurately represent it, with total acreages, disclosure of herbicides to be used and the buffers proposed, in the mass media, at district offices, and through any other avenues available.	Chapter two (pages 21-62) details the total acres of known infestations and those to be treated under each alternative, the herbicides to be used, the invasive plant species to be treated, and the buffers required. The entire DEIS is available on the website, and to anyone who requests it. We published

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			a legal notice, and sent press releases to all the newspapers on the Forest.
Opposed to Herbicides	General	The present proposal calls for the use of herbicides on all treated areas	This proposal analyzes use of herbicides wherever needed to eradicate, control, contain, or suppress invasive plants according to an integrated prescription that considers the long term values at risk from invasive plants. The project will last several years and needs to adapt to changing conditions on the ground. We do not expect the funding to be evenly distributed or adequate to treat all priority sites in a single year. Non-herbicide methods, such as biological controls, would be used for widespread infestations and other non-herbicide methods would be used in combination with herbicides where it would increase effectiveness.
Opposed to Herbicides	General	We are completely opposed to the Forest Service's DEIS (herein referred to as "the project") for invasive plant management. The project places plant communities, soils, domestic and wild water, aquatic life, wild animals, livestock, and humans at risk. The stated mission of the Forest Service is to "sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations." The mission as stated protects and enhances life; the proposed chemical methods of invasive plant management threaten all aspects of this mission.	We respectfully disagree that this project threatens any aspect of the mission of the Forest Service. National policy and the R6 PNW ROD require integrated treatment of invasive plants as a part of meeting our mission to care for the land and serve people by sustaining ecosystem health. Chapter 3 of the DEIS analyzes the effects the alternatives.

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Opposed to Herbicides	General	We live within an ecological matrix, a vast living organism called Earth; nothing we do is in "isolation." The use of chemical poisons to control invasive plant species does not stop with the plants themselves, but enters the soil, the water, and the bodies of living organisms. The earth, and all of us who are a part of it, are at risk. In this day in age, as a local and global community we must actively seek water that is not contaminated, food that is not contaminated, air that is not polluted. We look to the National Forests and Wilderness areas as beacons of healthy and pure environments; the application of herbicides is directly against the health. We request that the Forest Service act as steward of the wild and domesticated land under its guardianship.	In reality, national forests are not "beacons of a…pure environment." Healthy and pure are not the same. Invasive plants are not healthy. We have law, policy, regulation and previous analysis to support our purpose and need (see Chapter 1 of the DEIS).
Opposed to Herbicides	General	I would like to express my support for a NO ACTION alternative regarding the proposed use of herbicides on nearly 16,000 acres in the Okanogan/Wenatchee national forest. I regard the application of these chemicals on OUR publicly held wild lands to entirely inappropriate. Furthermore as a landowner whose property borders the forest I have great personal concern for the health myself and my family.	The project is tiered to the R6 PNW ROD and follows all national policy and Forest Plan guidance related to invasive plant management, including use of herbicides. A no-herbicide alternative was considered but eliminated from detailed study because we cannot effectively treat some invasive plant populations without use of herbicides. Alternative 3 minimizes herbicide use to the extent possible while still having a feasible (although more costly) alternative. Human health is discussed in section 3.9, pages 239-248).
Opposed to Herbicides	General	The Forest Service did little outreach to the general public or the residents living in the targeted areas emphasized on the map which accompanied the EIS for this project. Is this out of fear of resistance from the communities who live	The entire DEIS is available on the website, and to anyone who requests it. We published a legal notice, and sent press releases to all the newspapers on the Forest.

Topic	SubTopic	Comment	Response
		and recreate in the areas as well as who will have concerns about pollution to water resources?	
Opposed to Herbicides	invasive plants are not noxious	These tenacious weeds show up to hold the wounded soils when the fragile native ecosystem is destroyed by carelessness activities. Over time these weeds would be displaced once the healing and native vegetation could be restored. Spraying chemicals does not restore balance or heal the problems!	Invasive plants by definition are harmful to the environment and should not be confused with other early successional, native weedy species that occupy a site after disturbance. This project targets invasive plants that have adverse impacts on native plants and restoration of native plants communities.
Opposed to Herbicides	Low Priority Invasive Plant Species	We do not support the use of herbicide to try and eliminate native invasives such as reed canary grass (*Phalaris arundinacea*), at least on the Methow District, as these populations are too far advanced in their colonization to be effectively controlled.	Reed canary grass is not a priority species proposed for herbicide treatment in either action alternative (see tables 2.2 and 2.3).
Opposed to Herbicides	Near Water	As far as proximity to surface water, 150 feet is still far too close. If human exposure is considered harmful then it should not ever be permitted near water. Within the proposed area of treatment there is a potential threat to ESA listed salmonids, animals, plant species, and humans alike.	Buffers comply with the Aquatic Restoration Biological Opinion (ARBOII 2013). Page 5 of the DEIS stated our summary conclusion that drinking water, aesthetic value and fisheries will be protected. See Chapter 3.5 for detailed analysis on water quality.
Opposed to Herbicides	Near Water	We are already dealing with water shortages in the drought stricken west and to compromise any water source with chemical spray is a sin.	No water sources will be compromised. See Chapter 3.5 for detailed analysis on water quality.
Opposed to Herbicides	No herbicide alternative	While the No Action is the only alternative that takes spraying out of the equation I do support other methods of eradication ie; manual hand pulling, planting with native seed, mowing etc as opposed to spraying chemicals.	No Action does not take spraying out of the equation. Non-herbicide methods would be used independently and in conjunction with herbicide use in all alternatives. Alternative 3 maximizes use of non-herbicide methods while still aiming to meet purpose and need.

Topic	SubTopic	Comment	Response
Opposed to Herbicides	Non-target impacts	Toxic sprays don't stay still. They blow and it rains and shortly they are in Libby Creek or Twisp River and the Methow. Then we're drinking it. Poisoning the earth? There has to be a better way.	This has been analyzed in depth, and application methods and Project Design Features (pages 42-29) are intended to keep the herbicides in place.
Opposed to Herbicides	Number of Options	I am opposed to the proposed Forest Plan amendment to add aminopyralid to the list of chemicals that the Forest can use. The list should be getting smaller, not larger.	We respectfully disagree that a smaller list of chemicals contributes to meeting the purpose and need for action. The most effective approach is to have a full range of available options. Forest-wide, treatment effectiveness typically increases with the number of treatment options available (DEIS pages 84 to 86). Having a range of treatment options allows us to select the low risk options that will be cost-effective.
Opposed to Herbicides	Riparian Areas	We do not support the use of herbicides within riparian areas unless there is a realistic chance of achieving effective control. In my considerable experience surveying the forest, most infestations of riparian areas cannot be effectively controlled except on a limited area for a limited time. Invasive infestations within riparian areas become re-infected by the normal seasonal hydrologic disturbances. Examples of invasives that are extremely costly to achieve effective control in riparian areas include houndstongue (C*ynoglossum officinale)*, diffuse and spotted knapweed (C*entaurea diffusa, Centaurea maculata*) and tansy (*Tanacetum vulgare*).	The Proposed Action provides for passive and active restoration to deal with potential for re-infestation of riparian and other areas (DEIS page 27).

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Opposed to Herbicides	Wilderness	Spraying herbicides in Wilderness should absolutely not be permitted, even if there is a technical reason in code that it is okay. Wilderness treatment should be No action or only hand pulling.	We respectfully disagree. Invasive plants have adverse effects on wilderness character because they can disrupt natural processes (DEIS page 252). The 215 acres of current wilderness infestations would have high priority for treatment (ibid. page 256). Treatment methods that result in the least adverse effects to wilderness resources would be used (ibid. page 257). The Wilderness Act requires land managers to both protect and manage to preserve natural conditions. Treatment of "unnatural" invasive species is consistent with the act because all work would be substantially unnoticeable and would restore natural native species (ibid. page 259).
Picloram	Grazing Restriction	We do not support the use of picloram or mixtures containing picloram, in areas where cattle grazing would occur, as that is a violation of the label directions for picloram. Note that the Forest was cited for this violation in the past.	Label requirements will be followed in all herbicide application.
Posting and Notification	Posting on the Ground	How will the Forest Service mark areas that have been recently sprayed so the public is aware of the risk of contact? With spraying in the wilderness, many users of public lands will not suspect possible contamination of water and forest land. Every sprayed area, every time it is sprayed, should be adequately posted with clearly visible signs at road entries and water sources with: when it was sprayed, what chemical was used, what cautions to take, how long the spray lasts, and where to find more information on the effects of the spray.	Adequate signing is required by R6 PNW ROD standard 23. PDF K1 (page 49) meets the standard: "Notify the public about upcoming herbicide treatments via one or more of the following techniques: newspaper; Forest Service website, individual contact with sensitive individuals on the state list as requested; and signs posted in picnic areas, roadsides and campgrounds near treatment sites. Extra postings would occur when triclopyr is being applied in areas suspected to be special forest product or wild food gathering areas. This is intended to meet public notification requirements regarding herbicide use on National Forest and to specifically minimize inadvertent (and unlikely) public exposure to triclopyr (see Chapter 3.8). "The distribution and frequency of signs would be determined by the location of the invasive plant treatment site.

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Posting and Notification	Re-entry period	We recommend that all treatments with herbicides be signed for at least 6 weeks to protect sensitive groups.	Adequate signing is required by R6 PNW ROD standard 23. PDF K1 (page 49) meets the standard: "Notify the public about upcoming herbicide treatments via one or more of the following techniques: newspaper; Forest Service website, individual contact with sensitive individuals on the state list as requested; and signs posted in picnic areas, roadsides and campgrounds near treatment sites. Extra postings would occur when triclopyr is being applied in areas suspected to be special forest product or wild food gathering areas. This is intended to meet public notification requirements regarding herbicide use on National Forest and to specifically minimize inadvertent (and unlikely) public exposure to triclopyr (see Chapter 3.8). "The duration of posting would be determined by the location of the invasive plant treatment site and the herbicide used.
Prevention	Relationship between Prevention and Treatment	The EIS does not deal with the common routes of introduction, spread, and growth of invasive plants. Eliminating disturbances of Forest soils, by roads, logging, livestock grazing, and recreational driving within areas where noxious weeds are found should be the initial action in controlling the spread of these invasive plants. I also support the Forest Service acting as true stewards and making real changes to the management practices that allow the conditions for these invasive plants to take hold. Please note that this comment is a summary of comments from a few people.	The R6 PNW FEIS thoroughly discussed vectors for invasive plant movement, policies and methods regrading prevention, and how land uses could or should be altered to reduce risk of introduction, establishment and spread of invasive plants. This resulted in an amendment to the Okanogan and Wenatchee Forest Plans (R6 PNW ROD). Adherence to R6 standards is intended to address the cause of the problem. See Appendix E for Forest prevention measures applied to all land uses. The R6 PNW FEIS described the link between ground disturbance and spread of invasive species. We addressed these vectors in the context of cumulative effects in the DEIS on pages 80-82. The R6 PNW ROD page 6 stated that certain prevention measures (such as eliminating disturbance on forest soils) because of their potential to result in unintended

Topic	SubTopic	Comment	Response
			adverse consequences to land management activities and land uses (see R6 PNW FEIS Chapter 4.6). For example, the R6 PNW ROD Standard 6 requires that administrative mechanisms to incorporate invasive plant prevention practices be integrated into rangeland management. Examples of administrative mechanisms include, but are not limited to, revising permits and grazing allotment management plans, providing annual operating instructions, and adaptive management.
Prevention	Relationship between Prevention and Treatment	The top management priority to be "responsive to our goal to control, contain, or eradicate invasive plants..." should be: A) reduce grazing; B) limit livestock travel patterns; C) close and decommission more roads. The root causes of the spread of invasive plants are not addressed as a priority in this project. The mistaken priority seems to be to use toxic chemicals instead of slowing and controlling the introduction of these plants.	Prevention of future spread of invasive plants will do nothing to control or eradicate existing invasive plant infestations or to keep them from becoming denser or better established in currently infested areas. Changing land uses would not eliminate all introductions or spread of invasive plants. The prevention standards in the R6 PNW ROD were selected "because...they will result in reduced rates of spread of invasive plants, while still maintaining the Forest Service's ability to provide for existing uses and management activities on National Forest System lands." Stricter prevention measures that required changes to land uses were considered but not adopted because "additional requirement[s] could lead to adverse effects on existing land uses or management activities, or increase the costs of invasive plant management (R6 PNW ROD page 10).

Topic	SubTopic	Comment	Response
Prevention	Relationship between Prevention and Treatment	The Record of Decision prevention standards are far too general. No specifics are given and the attempt to look like prevention is being considered is perfunctory. What does the Forest Service perceive the main vectors for the introduction of invasive plants to be? If it is livestock, roads, and soil disturbing activities such as logging, why are road closures and changes in grazing policy not the priority, instead of high risk chemical treatments?	Besides the R6 PNW ROD standards, the Okanogan Wenatchee National Forest adopted a prevention plan (see DEIS Appendix E). The need for effective invasive plant treatment and restoration occurs regardless of prevention emphasis. Continued implementation of prevention measures in the 2002 Okanogan and Wenatchee National Forest Noxious Weed Prevention Strategy and the 2005 R6 PNW FEIS ROD would reduce the spread of weeds. As a result, current project activities are likely less disruptive than past ones. However, continued use and management of the Forest does present continued risk for new species to invade, and for existing weed infestations to spread (DEIS page 163-164). Current practices involve prevention of spread of weeds by limiting ground disturbance and maintaining native vegetation, using weed-free products, working with range permittees to avoid spreading weeds, washing equipment, and other measures as required by policy and the Forest Plans (DEIS page 86).
Prevention	Relationship between Prevention and Treatment	I would like the USFS use the EIS to address the spread of invasive plants, how these routes of introduction occurred and focusing on those practices which likely encourage its continued spread. I would like to see specific studies of the impact of practices which disturb the soil, i.e., logging and commercial cattle grazing in advance of plans to eradicate, control, contain, and suppress because I suspect that their [sic] is a link between those practices and the spread of invasive species. Eliminating disturbances and practices upon forest soils created by logging and the continued permitting of commercial cattle grazing, should be the first step in controlling the	The R6 PNW FEIS described the link between ground disturbance and spread of invasive species. We addressed these vectors in the context of cumulative effects in the DEIS on pages 80-82. The R6 PNW ROD page 6 stated that certain prevention measures (such as eliminating disturbance on forest soils) because of their potential to result in unintended adverse consequences to land management activities and land uses (see R6 PNW FEIS Chapter 4.6).

Topic	SubTopic	Comment	Response
		spread of these invasive plants. Where did the invasive seeds come from? Logging? Cattle grazing?--those 2 institutions that are not to be questioned.	
Proposed Action	Support	In considering the number and size of forest fires in the past few years, I think that any reduction of the fuels on the floor of the forest can only help. Therefore I support the proposed action (Alternative 2) and hope it can be implemented soon.	Thank you for your comment. EIS page 52 discusses that site specific invasive plant treatments have been approved either as stand alone or actions connected to other vegetation, fuels management and restoration projects.
Purpose and Need	Does not Support	I do not agree with the original Purpose and Need. The Forest may need to expand its treatment options and area treated, but it does not need to use chemicals.	Herbicides are needed to effectively treat current populations of invasive plants. As the DEIS stated (page 53), "For some invasive plant sites, the size of the population, density of the population, and/or nature of the invasive species requires the application of herbicides for effective treatment."
Purpose and Need	Economic and Environmental trade offs	It is stated "Currently, invasive plants on the Forest are displacing native plants, reducing forage and habitat for wildlife and livestock, threatening native plant communities; contributing to increased soil erosion and reduced water quality; altering the physical and biological properties of soil, affecting the intensity and frequency of fires, and degrading the quality of recreational experiences." In an economic analysis of the above mentioned effects, which of those warrant the cost of herbicides to produce a positive outcome? I submit that only the reduction of forage for livestock has any significant economic impact and it is precisely one of the primary reasons that the invasive plants are there.	We have not placed a value on the economic value of the ecological services provided by healthy native plant communities. Native plant communities are priceless and Forest Service policy requires that invasive plants be managed to reduce impacts on native plant communities. There are no treatment areas where the only purpose for treatment is livestock forage improvement.

Topic	SubTopic	Comment	Response
Purpose and Need	Forage	It is disappointing that the Forest includes concern for habitat and forage requirements of commercial livestock, which introduce and spread invasive plants, when the objective is to manage for healthy native ecosystems.	Improved forage is an outcome of invasive plant treatment and an incentive for permittee cooperation in prevention and timing of grazing. However, even if cattle grazing were not currently occurring, these treatments would be needed to restore native plants. Cattle are addressed as a vector of invasive plant spread in the R6 PNW FEIS and ROD.
Purpose and Need	invasive plants are not noxious	Current research indicates that the view of invasive plants as noxious and detrimental is outmoded and unsupported. We request that the Forest Service take into consideration the role of invasive plant species in ecosystem recovery and health. We request that the Forest Service consider the impact of invasive plant management within a broader scope, one that recognizes the natural wisdom of the earth itself and takes into consideration future generations. We request that the project be amended to reflect environmental considerations that protect and enhance life, as well as current research free from economic interests. Otherwise, a "no action" alternative should be selected, and the project dropped immediately.	No Action includes some continued herbicide use. Forest Service policy and executive action, state law all require invasive plant control. Current research free of economic interests is a vague term, but our risk assessments are done by an independent scientist who critically evaluated best available science. Intent is to minimize or eliminate any adverse impact of herbicide use while targeting specific plants that are causing ecological harm now or pose risks for the future.
Purpose and Need	Support	The EPA recognizes the threat posed to public land by invasive species, and we are broadly supportive of the proposed action. Currently, invasive plants on the Forest are displacing native plants, reducing forage and habitat for wildlife and livestock, threatening native plant communities; contributing to increased soil erosion and reduced water quality; altering the physical and biological properties of soil, affecting	Thank you. No response needed.

Topic	SubTopic	Comment	Response
		the intensity and frequency of fires, and degrading the quality of recreational experiences.	
Support Alternative 3	Herbicides as a Last Resort	It is a tenet of integrated pest management that herbicides are a tool of last resort. This is due to our limited knowledge of their effects in native environments as well as a diverse public that includes sensitive groups. Therefore we recommend that herbicides be used as the method of last resort.	Integrated pest management is defined as an interdisciplinary pest management approach for selecting methods for preventing, containing and controlling noxious weeds in coordination with other resource management activities to achieve optimum management goals and objectives (DEIS page 83). This does not imply herbicides "as a last resort." On page 27 of the R6 PNW ROD, the regional forester specifically rejected the concept of herbicides as a last resort, because it would "deviate from the IWM principles that are part of Forest Service manual direction (FSM 2080.5), by requiring that herbicides be used as a tool of last resort, rather than as a part of a safe, integrated prescription aimed at achieving optimum results. "

Topic	SubTopic	Comment	Response
Treatment Cap	Implementation Planning Process	16k acres EVERY year with no further review??? Ridiculous.	The Forest Service does not agree with how our proposed action is characterized. Analysis is based on treating all existing infestations in a single year, this becomes the upper limit for effects analysis. Other PDFs limit extent and intensity, for instance, no more than 10 percent of a riparian area in a 6th field watershed may be treated in a year. We are not likely to treat 16k per year, and if we could afford to treat 16k in any one year, treatment would necessarily be less in subsequent years. PAGE 51: "An invasive plant assessment review team will be assembled on each Ranger District as needed to ensure consistent and effective treatment is applied, appropriate Project Design Features are implemented, and necessary monitoring and reporting are completed. Team members and a team leader will be assigned by the District Rangers, and will include fish and wildlife biologists, range conservationists and botanists as needed. In addition, some specialist input is required for treatment in certain areas. Project does not propose max treatment every year. In all likelihood, the Forest Service would treat some portion of the current infested area (initial or follow up treatment) each year, and new detections would be prioritized for treatment. Invasive plant treatment and restoration takes decades to accomplish, with intensity of treatment varied across the landscape. Prevention and early detection is always emphasized. "

Topic	SubTopic	Comment	Response
Treatment Cap	Too Low	Given that current funding levels are inadequate to treat existing levels of noxious weeds should not be sufficient reason to limit future levels of control. Limiting treatment acres to 16,281 annually across the forest because of existing funding and a 7-year-old survey seems a bit naive. Funding levels since the survey completion ensure that the noxious weed acreage has increased. Since the Okanogan Wenatchee covers 4.1 million acres and current funding levels only allow treatment of 3,500 acres, placing limitations on acreages identified for control seems counterproductive. If limitations are required on treatment acres, 250,000 is justifiable given the current and continuing rate of noxious weed spread.	The current extent of invasive plants on the Forest is estimated at 16,281 acres. The analysis considers treating all acres in a single season. We used this acreage as our annual cap because it matches the analysis assumptions. However, we currently are funded to treat an average of 3,500 acres per year and we do not expect the annual cap to be counterproductive.
Treatment Coordination	Effect on Neighbors	On pg. 8, Figure 1, Known Invasive Species Locations, invasive species appear to extend to the Mount Rainier National Park boundary at Chinook Pass on SR 410. If invasive plants extend into the park and this area is to be treated, please consult with Mount Rainier National Park well in advance of treatment to coordinate or potentially partner with the NPS. The park will need sufficient time to complete environmental compliance and to timely plan for public notification efforts. Park and forest visitors sides of the pass in this very popular area. In addition, we request regular communication to provide for advance coordination of control efforts at each project location along the Pacific Crest Trail (PCT), and where hikers and stock might cross	The website includes a complete atlas of known infestations on larger scale maps. This project does not propose any treatments on National Park Service land. Project Design Feature B-1 on page 45 of the DEIS addresses coordination.

Topic	SubTopic	Comment	Response
		boundaries periodically along the trail. Please note that the map on pg. 8 does not show NPS boundaries or the PCT. The Final EIS should include site-specific maps that are larger scale to better understand locations of treatment areas and assess site-specific impacts, as well as to facilitate necessary public outreach.	
Treatment Coordination	Park Service	In conclusion, the Department supports advance consultation about treatments – particularly herbicide use – so as to increase the effectiveness of implementation of this long-term program, and we look forward to collaborating with Wenatchee and Okanogan National Forests as this mutually beneficial initiative evolves.	Agreed. Project Design Feature B-1 on page 45 of the DEIS addresses coordination.
Treatment Effectiveness	Alternative Comparison	The comparison of alternative by ranking an extremely limited hand-pulling scenario versus a speculative 100% effective roadside herbicide treatment that includes adaptive management and monitoring is unrealistic for either Alternative.	DEIS Page 82 described some of the assumptions in the economic analysis. Acres where “all tools are available” are assumed to reduce population by 80 percent each entry. Acres where all tools are not available are assumed to reduce population by 50 percent each entry (Desser, 2006). We do not agree that Alternative 3 represents "an extremely limited hand pulling scenario." Adaptive management, monitoring and some herbicide use is part of both action alternatives.
Treatment Effectiveness	Methods	The table of effective treatment options is flawed (Table 2.5, p. 30). For instance, the first plant, baby’s breath, is prioritized for effective riparian treatment using aquatic glyphosate, which ignores that point that baby’s breath doesn’t even grow in riparian areas, and if it did, cultural methods such as shading by shrub growth would be far more effective. If this had been given more thought, it would have been obvious that healthy riparian areas have a	Baby’s breath does grow in disturbed riparian areas. Alternative 3 would not use herbicide on baby's breath. Alternative 2 would allow herbicides to be used (in conjunction with other methods), depending on the situation at the time of treatment. Table 2.5 will be updated over time and is not intended, in itself, to guide treatments. As stated at DEIS page 30, at the time of treatment, "The appropriate integrated treatment methods, including herbicide ingredient and application methods, would be determined and appropriate design features would be incorporated into the

Topic	SubTopic	Comment	Response
		healthy mix of trees and shrubs that provide shade for healthy fisheries, and incidentally, healthy vegetation that lacks sun-loving invasives. This also points to a lingering bias within the document toward using herbicides first rather than honestly weighing the options.	prescription." Changes to treatment methods are expected over time (page 41). Analysis based on following PDFs. General mix of chemicals is based on Table 2.5 and design of each alternative.
Treatment Effectiveness	Methods	We recommend that Table 2.5 (p. 30) not be used to guide treatments, and recommend adoption of a prioritization method similar to the one described above that would be a blend of both Alternatives 2 and 3.	Table 2.5 provides a sense of current thinking on the prescription options, see implementation planning process that applies to 2 and 3.
Treatment Effectiveness	Treatment Priority	All state listed Class A and B-Designated species should receive priority status. Control should occur as required at the county level and all Class A and B-Designated noxious weeds are required control at the county level. Control is required to ensure compliance with RCW 17.10. Excluding federal lands from these control efforts increases the spread and burden of control to private and state landowners. Additionally, targeting widespread noxious weeds for control reduces funding levels to those species not so well established.	Table 3.1 on page 64 of the DEIS shows Washington State Class A and B noxious weeds as having high priority for control
Treatment Effectiveness	Treatment Priority	Effectiveness needs to include a realistic (practical) prioritization and acknowledgement that there will always be a need for more treatments.	See table 3.1 in the DEIS for a discussion about prioritization. UPDATE Chapter 3.2 to note that some populations of invasive plants will persist and there will always be the need for more treatment.

Topic	SubTopic	Comment	Response
Treatment Effectiveness	Treatment Priority	We recommend that Alternative 3 treatments be prioritized by (1) treatment of Class A invasives, followed by (2) treatment of high priority sites such as those with sensitive plants or campgrounds, followed by (3) monitoring and re-treatment of the prior sites, followed by (4) treatment along open roads with mowing and seeding with native species.	This perspective is consistent with the current project, and would be compatible with both action alternatives. Treatment priority is discussed on page 64. Other considerations for priority include: sites in or near unique plant habitat or areas of high diversity (e.g. fens, Botanical Areas, Research natural areas, wetlands, meadows), and sites that could impact Threatened, Endangered, or Sensitive plant, wildlife, or fish habitat,
Treatment Effectiveness	Treatment Priority	We appreciate the Alternative 2 prioritization by species in table 2.2 (p. 24). However, some of the priority species cannot be effectively treated except in limited areas, because they are widely distributed in remote areas or along dense riparian areas. These include burdock, diffuse knapweed, bull thistle, tansy, and houndstongue.	DEIS Table 2.2 discussed the range of methods proposed for target species. Page 64 table 3.1 further describes how treatment sites would be prioritized. It describes the treatment objectives associated with different situations. For instance, sites with low risk of spread that are expected to decline with forest succession are low priority for treatment (table 3.1). Existing large infestations of priority species have a medium priority, with a focus on containment within the boundaries of the infestation (ibid.).
Wildlife	Fisher	Please update references to the Pacific Fisher in the Final EIS with information about recent reintroduction efforts jointly undertaken by the Washington Department of Fish and Wildlife, Mt. Rainier National Park, and North Cascades National Park Service Complex (see https://parkplanning.nps.gov/RestoreFisher). The references that should be updated include the following: pg. 171, Table 3.21: Federally Listed and Propose Species; pg. 177, Pacific Fisher, second to last paragraph; pg. 228, Table 3.30: Table C-1: Federally Listed and Proposed Species and their occurrence, Findings and Determinations; pg. C-1 (appendix), on the	The FEIS has been updated to address the current status of the fisher, and to include the recent reintroduction efforts.

Topic	SubTopic	Comment	Response
		Okanogan-Wenatchee National Forest; pg. C-14, Pacific Fisher.	

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

IN REPLY REFER TO:
9043.1
ER16/0255

June 20, 2016

Michael Williams, Forest Supervisor
Okanogan-Wenatchee National Forest
215 Melody Lane
Wenatchee, WA 98801

Dear Mr. Williams:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (EIS) prepared by the U.S. Forest Service (USFS) for the Okanogan Wenatchee National Forest Forest-wide Site-Specific Invasive Plant Management Project in Washington State. The Department supports the efforts of the USFS to restore natural ecosystem quality through control and management of invasive flora and notes that some of the target species also affect National Park Service (NPS) lands. Specifically, two units of the National Park System – Mt. Rainier National Park and North Cascades National Park Service Complex – are contiguous with Okanogan and Wenatchee National Forests. The Department offers the following comments for use in the development of the Final EIS for this project:

1. Please update references to the Pacific Fisher in the Final EIS with information about recent reintroduction efforts jointly undertaken by the Washington Department of Fish and Wildlife, Mt. Rainier National Park, and North Cascades National Park Service Complex (see https://parkplanning.nps.gov/RestoreFisher). The references that should be updated include the following: pg. 171, Table 3.21: *Federally Listed and Propose Species*; pg. 177, *Pacific Fisher*, second to last paragraph; pg. 228, Table 3.30: *Findings and Determinations*; pg. C-1 (appendix), Table C-1: *Federally Listed and Proposed Species and their occurrence on the Okanogan-Wenatchee National Forest*; pg. C-14, *Pacific Fisher*.

2. On pg. 8, Figure 1, *Known Invasive Species Locations*, invasive species appear to extend to the Mount Rainier National Park boundary at Chinook Pass on SR 410. If invasive plants extend into the park and this area is to be treated, please consult with Mount Rainier National Park well in advance of treatment to coordinate or potentially partner with the NPS. The park will need sufficient time to complete environmental compliance and to timely plan for public notification efforts. Park and forest visitors commonly visit both sides of the pass in this very popular area.

In addition, we request regular communication to provide for advance coordination of control efforts at each project location along the Pacific Crest Trail (PCT), and where hikers and stock might cross boundaries periodically along the trail. Please note that the map on pg. 8 does not show NPS boundaries or the PCT. The Final EIS should include site-specific maps that are larger scale to better understand locations of treatment areas and assess site-specific impacts, as well as to facilitate necessary public outreach.

3. On pg. 276, section 4.2, *Consultation with Tribes*, the text appears to have been cut off. This should be addressed in the Final EIS.

4. The Department shares the concern about preventing encroachments at remote sites. Both Mt. Rainier National Park and North Cascades National Park Service Complex manage backcountry and Wilderness lands where similar control efforts have been needed. Based on our experience with the extra effort required to detect and treat infestations in challenging locations, we endorse the objectives of the proposed Early Detection/Rapid Response process to facilitate rapid response to new or previously undiscovered infestations. This would allow the USFS to act quickly in instances where a site's environmental conditions and the treatment method have already been analyzed.

In conclusion, the Department supports advance consultation about treatments – particularly herbicide use – so as to increase the effectiveness of implementation of this long-term program, and we look forward to collaborating with Wenatchee and Okanogan National Forests as this mutually beneficial initiative evolves.

For additional park-specific information as might be needed for preparation of the Final EIS, please contact Karen Thompson, Environmental Coordinator, Mt. Rainier National Park (360-569-6507, karen_thompson@nps.gov) and Elly Boerke, Environmental Coordinator, North Cascades National Park Service Complex (360-854-7328, elly_boerke@nps.gov).

If you have any other questions or concerns, please feel free to contact me at 503-326-2489.

Sincerely,

Allison O'Brien
Regional Environmental Officer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL REVIEW
AND ASSESSMENT

June 17, 2016

Michael Williams, Forest Supervisor
Okanogan-Wenatchee National Forest
215 Melody Lane
Wenatchee, Washington 98801

Dear Mr. Williams:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the proposed Forest-wide Site-Specific Invasive Plant Management Project on the Okanogan-Wenatchee National Forest (EPA Project Number 09-047-AFS). Our review was conducted in accordance with EPA responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act.

The DEIS analyzes the range of effects of three alternatives: the no action alternative and two action alternatives. The action alternatives are designed to suppress, contain, control and/or eradicate invasive plant infestations on the Okanogan-Wenatchee National Forest (OKAWEN). The DEIS identifies 5,528 sites in need of treatment, covering 16,281 acres within the OKAWEN. The Proposed Action (Alternative 2), which is the preferred alternative, would authorize treatment on all 16,281 infested acres over the next 15 years. Several treatment methods would be approved, including manual, mechanical, cultural, biological, and chemical. Alternative 2 also includes an Early Detection and Rapid Response (EDRR) component and a Forest Plan amendment to add aminopyralid to the list of available herbicides. Alternative 3 is similar to Alternative 2, but would restrict the use of herbicides to larger or more aggressive infestations.

The EPA recognizes the threat posed to public land by invasive species, and we are broadly supportive of the proposed action. Currently, invasive plants on the Forest are displacing native plants, reducing forage and habitat for wildlife and livestock, threatening native plant communities; contributing to increased soil erosion and reduced water quality; altering the physical and biological properties of soil, affecting the intensity and frequency of fires, and degrading the quality of recreational experiences.

In our September, 2009 comments on the Notice of Intent, the EPA recommended that the DEIS focus on prevention, EDRR, and integrated pest management. We also recommended that the DEIS establish a decision key or other tool to help guide implementation decisions (i.e., under what circumstances should each control tool be applied). We appreciate the Forest's responsiveness to these recommendations. The DEIS adequately considers multiple treatment methods according to site-specific conditions, including the biology of the invasive species present, the location and size of the infestation, and environmental factors (including the site's proximity to water and other sensitive resources).

We also appreciate the inclusion of the EDRR component. As the EIS is finalized, we recommend that the inventory and monitoring component of the EDRR be more fully developed. We recognize that the action alternatives are tiered to the Forest Service Region 6 Invasive Species Record of Decision (R6 PNW ROD) which includes an inventory and monitoring framework. We also note, however, that the framework in the R6 PNW ROD is intended to guide the development of detailed monitoring plans at

the site-specific scale. We recommend that the FEIS include additional detail about how site-specific monitoring will proceed on the OKAWEN, or incorporate by reference Action Plans that have been developed to inventory and monitor weed populations.

Finally, we support the proposed Forest Plan amendment to add aminopyralid to the suite of herbicides available for use. As noted on page 273 of the DEIS, science supports that aminopyralid is generally a lower risk herbicide, and that use of aminopyralid as a replacement for other herbicides will decrease risk to some non-target species.

Based on our review, we are rating the DEIS as LO (Lack of Objections). We appreciate the opportunity to review and comment on the DEIS, and we look forward to furthering our understanding of this project. If you have any questions about our review, please contact me at (206) 553-1601, or by electronic mail at littleton.christine@epa.gov. Or you may contact Teresa Kubo of my staff at 503-326-2859 or by electronic mail at kubo.teresa@epa.gov.

Sincerely,

Christine B. Littleton

Christine B. Littleton, Manager
Environmental Review and Sediment Management Unit

OKANOGAN COUNTY
NOXIOUS WEED CONTROL BOARD

149 3rd N. Rm. 102, PO Box 791, Okanogan, WA 98840

Email noxiousweeds@co.okanogan.wa.us
www.okanogancounty.org/nw
OFFICE 509-422-7165

OFFICE STAFF

MANAGER:
Anna Lyon
509-422-7168

Field Supervisor
Janet Nelson
509-422-7295

Asst. Manager
Larry Hudson
509-422-7167

Field Inspector
Joan Mason
509-422-7165

BOARD MEMBERS:

AREA # 1
Connie Humphrey
509-422-5615

AREA # 2
Bonnie Lawrence
Chair
509-826-3195

AREA # 3
Steve Kieffer
509-429-9900

AREA # 4
Vicki Davis
509-486-2714

AREA #5
Jan Asmussen
509-846-2138

To: Brigitte Ranne, Project Coordinator, Invasive Plant DEIS
Date: June 8, 2016

Thank you for the opportunity to provide comment on the forest wide Invasive Plant DEIS. We support the proposed action but OCNWCB has several concerns regarding Alternative 2.

Given that current funding levels are inadequate to treat existing levels of noxious weeds should not be sufficient reason to limit future levels of control. Limiting treatment acres to 16,281 annually across the forest because of existing funding and a 7-year-old survey seems a bit naive. Funding levels since the survey completion ensure that the noxious weed acreage has increased. Since the Okanogan Wenatchee covers 4.1 million acres and current funding levels only allow treatment of 3,500 acres, placing limitations on acreages identified for control seems counterproductive. If limitations are required on treatment acres, 250,000 is justifiable given the current and continuing rate of noxious weed spread.

All state listed Class A and B-Designated species should receive priority status. Control should occur as required at the county level and all Class A and B-Designated noxious weeds are required control at the county level. Control is required to ensure compliance with RCW 17.10. Excluding federal lands from these control efforts increases the spread and burden of control to private and state landowners. Additionally, targeting widespread noxious weeds for control reduces funding levels to those species not so well established.

An Integrated Pest Management Program uses all the tools in the toolbox, and herbicides are an essential tool in controlling highly invasive noxious weeds. Voluntarily limiting herbicide usage by restricting or not including already approved chemicals will reduce the amount of weeds controlled in the future.

Adding new herbicides with updated formulations that provide effective control at lower use rates, such as aminopyralid, is commendable. However, the process to approve and implement usage of these products is restrictive. The aminopyralid risk assessment was completed in 2007. While the NEPA process is long and daunting, it should not take nine years to prepare a document such as this draft EIS to allow its use. A framework should be established such that new herbicides can be reviewed and included in the control program in a timely manner. This may be just simple phrasing within the document like “and any new products that provide effective control while minimizing off target impacts to desired vegetation”.

Stating that other herbicides are not expected to be needed is like stating I don't expect to use a chainsaw because I have an axe". Sometimes you just do not need the chainsaw, but sometimes it saves a lot of time and is the most effective tool. Moreover, since science and chemical manufacturers are consistently improving old formulations and discovering new ones, restricting use to currently approved formulations is short sighted.

An Invasive Plant Assessment Team will be a valuable asset to the Forest Service. Because noxious weeds affect every aspect of Forest Service lands, a specialist from each resource area must be included on the team. The Team lead needs to be an Invasive Weed Specialist to provide a professional and unbiased perspective to noxious weed identification and control.

Early Detection Rapid Response language must be clear and provide direction to achieve the intended goal of Rapid Response. Framework must be set in place Forest wide to allow for species identification, determination of effective control measures, implementation of chosen control measure and monitoring of the site to ensure control objectives have been achieved in a timely manner to prevent spread of a new invasive species. Timely control measures must occur to prevent production of propagative parts and further spread of noxious weed infestations.

While we appreciate the opportunity to comment, with time limitations we were unable to peruse the entire document. We will continue to read the DEIS and provide comment as additional concerns arise. Please keep us informed as to further efforts with this DEIS.

Anna Lyon
OCNWCB, Coordinator