

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

PEST MANAGEMENT PROGRAM WALLA WALLA DISTRICT

1. BACKGROUND

The U.S. Army Corps of Engineers (Corps), Walla Walla District (District) is proposing to refine and update its pest management program. The intent of this effort is to develop a more efficient and effective approach for addressing pest issues and problems found throughout District managed lands. The District's pest management program currently manages three categories of pests: noxious and nuisance weed species, vertebrates, and arthropods which have been deemed a danger to human health and/or a safety hazard to District facilities and structures.

2. PURPOSE AND NEED

Pursuant to the Federal Noxious Weed Act of 1974 (Public Law [PL] 93-629), the Carlson-Foley Act of 1968 (PL 90-583), and Executive Order 13112 (Invasive Species, 1999), the District is required to control noxious weeds and invasive species on federal lands under its jurisdiction. Noxious and nuisance weeds hinder operations at parks and projects and lower the value of wildlife mitigation lands. Vertebrate pests sometimes burrow into levees and other built structures, compromising the integrity of the structures and raising safety concerns. Arthropods such as wasps and spiders are a health and safety issue for District employees and users of District lands and facilities. While the District has an established and on-going pest management program, there is presently no comprehensive plan in-place that provides guidance on how the program should operate, the best methods to use, or how best to carry out pest management activities. The District is therefore proposing to develop a comprehensive integrated approach to its pest management program. The approach would need to ensure the District is compliant with applicable laws and regulations, can efficiently and effectively cover all District managed lands, is environmentally acceptable, provides for the safety of employees and the public, allows the District to fulfill its missions of flood risk reduction, navigation, hydropower, recreation, and fish and wildlife mitigation, and is economically feasible.

3. PROJECT ALTERNATIVES

The following alternatives were identified and evaluated for this project.

Alternative 1 (No Action [No Change] Alternative): The current pest management program in the District would continue. Noxious and nuisance weed species, vertebrates, and arthropods would continue to be treated on District lands in terrestrial and aquatic environments using manual/mechanical, biological, and chemical (pesticide) control

methods. Pesticide application would be restricted only by pesticide label requirements (as allowed under the Federal Insecticide, Fungicide, and Rodenticide Act [FIFRA]) but not in accordance with other Corps' policies and regulations. (**NOTE:** In the Environmental Assessment [EA] discussion of Alternative 1, an example of adherence to "other Corps policies and regulations" was incorrectly referenced as a requirement to develop and implement integrated pest management (IPM) plans. While the Department of Defense is mandated to use integrated pest management plans in carrying out pest management activities [Public Law 104-170, title III, Section 303, August 3, 1996, 110 Stat. 1512], there is no specific requirement in Corps policies or regulations to prepare integrated pest management plans.)

Alternative 2 (No Treatment Alternative): There would be no pest management activities whatsoever. This alternative fails to address the District's obligations to comply with federal weed management laws. It also fails to address pest damage to habitats and facilities or health and safety issues.

Alternative 3 (Chemical Treatment Only): Treatment tools would be limited to chemical methods for 100 percent of the treatment options. It is an approach with known costs, known implementation processes, and expected results are achieved. This alternative is likely more cost effective than the "no chemical" alternative. However, it does not comply with integrated pest management policy requirements (ER 1130-2-540, Chapter 3, Section 3-3) and may not be technically feasible in all cases.

Alternative 4 (Everything but Chemical Treatment): The pest management program would be much more labor intensive and costly and would result in significantly fewer acres treated per year. This alternative would utilize only manual/mechanical and biological methods which would require more frequent treatments to be effective.

Alternative 5 (Integrated Pest Management): The District pest management program would be similar to the historic treatment approach, but more likely to extend beyond the historically treated 8,000 acres per year. It would ensure analysis and prioritization of pest management issues on District lands and emphasize the development of an IPM Plan as well as an integrated approach – i.e. selecting the best combination of pest management tools for a given pest management situation. It is a known approach with known costs and with known results. This alternative would ensure that consultation with appropriate parties is done under both the Endangered Species Act (ESA) and National Historic Preservation Act (NHPA).

Screening criteria were developed and applied to each alternative. IPM was the only alternative that met all criteria and was carried forward for analysis in the environmental assessment as the preferred alternative. While the "no action" alternative does not meet the screening criteria requirements, it also was carried forward for analysis to provide baseline conditions. The other considered alternatives did not meet all the objectives of the screening criteria and were eliminated from further analysis.

4. COORDINATION

The project has been coordinated with the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Environmental Protection Agency, Washington Department of Ecology, Washington Department of Fish and Wildlife, Washington State Noxious Weed Control Board, Washington State Department of Transportation, Idaho Department of Fish and Game, Idaho Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, City of Orofino, City of Boise, Benton County Weed Control Board, Franklin County Weed Control Board, Walla Walla County Weed Control Board, Columbia County Weed Control Board, Garfield County Weed Control Board, Umatilla County Weed Control Board, Nez Perce County Weed Control Board, Clearwater County Weed Control Board, Ada County Weed Control Board, Elmore County Weed Control Board, Boise County Weed Control Board, Asotin County Weed Control Board, City of Clarkston, City of Kennewick, City of Lewiston, City of Pasco, City of Richland, Port of Clarkston, Port of Columbia, Port of Whitman County, Port of Lewiston, City of Asotin, Whitman County Parks, Nez Perce County Commissioners, Ice Harbor Marina and Benton County Parks and Recreation, Washington State Historic Preservation Office (SHPO), Oregon SHPO, Idaho SHPO, Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Yakama Indian Nation, and Colville Confederated Tribes and Wanapum Band. Each entity was contacted and provided project information.

The project EA and draft FONSI were released for a 15-day public comment period. Notice of the proposed project and the opportunity for public review of the EA and draft FONSI were published in area newspapers. The EA and draft FONSI were also available for review on the District's website. Comments and responses are included as Attachment A to this FONSI.

5. ENVIRONMENTAL IMPACTS


Fourteen environmental resources/components were identified as being relevant to this project – air quality, noise, transportation, climate change, floodplains, socioeconomics, environmental justice, topography and soils, aesthetics, cultural resources, recreation, habitats (e.g. wetlands) and species (including threatened and endangered species), water quality and cumulative effects. Environmental analysis/consequences (i.e. impacts) of the preferred and “no action” alternatives on the identified environmental components/resources are detailed in the project EA. Appendix B of the EA also contains a list of Best Management Practices (BMPs) which would be employed as part of the Integrated Pest Management approach. (NOTE: The first BMP stated that “All applicators shall be State licensed or certified, or under the direct visual supervision of a State-licensed or –certified applicator.” It has been changed to read “All applicators shall be trained/certified in accordance with Engineering Regulation/Engineering Pamphlet 1130-2-540, Chapter 3.”) The analysis concludes there would be no significant impacts to the environment resulting from implementation of the preferred alternative. Attachment B contains District Environmental Commitments.

Analysis included the District making an ESA determination of "may affect, not likely to adversely affect" for known pest management activities on the terrestrial portion of the proposed action. Both the USFWS and NMFS concurred with this determination within their respective jurisdictions. The District has also made a "No Adverse Effect" determination under the NHPA Section 106 process with regard to potential impacts from pest management activities on cultural resources. The Washington, Oregon and Idaho SHPOs concurred with the determination. The CTUIR submitted comments to which the District responded. No other tribal comments were received.

6. FINDINGS

I have taken into consideration the technical aspects of the project, best scientific information available, public comments, and the information contained in the EA. Based on this information, I have determined that the Preferred Alternative would not significantly affect the quality of the human environment, and that an Environmental Impact Statement is not required.

Date: _____



Andrew D. Kelly
Lieutenant Colonel, Corps of Engineers
District Commander

Signed

4-29-13 SS

ATTACHMENT A

**WALLA WALLA DISTRICT
PEST MANAGEMENT PROGRAM
ENVIRONMENTAL ASSESSMENT
AND
DRAFT FINDING OF NO SIGNIFICANT IMPACT**

COMMENTS AND RESPONSES

1.	<p>Comment: Upon my review I believe there is one item that will need to be reviewed and corrected prior to adoption. On page 24 of the Environmental Assessment in Table 3-3 Federally listed or Candidate terrestrial species which could occur within the proposed management areas. You have Slickspot peppergrass listed as threatened. I am attaching a recent court case dropping this species from consideration.</p>
	<p>Response: At the time of the development of the Corps' biological assessment, Slickspot Peppergrass (<i>Lepidium papilliferum</i>) was listed as Threatened on the "U.S. Fish and Wildlife Service - Idaho Fish and Wildlife Office Endangered, Threatened, Proposed, and Candidate Species With Associated Proposed and Critical Habitats in Idaho" list.</p> <p>An August 8, 2012 U.S. District Court decision vacated the ESA listing as threatened, and the status of slickspot peppergrass was changed to Proposed Threatened with designated critical habitat. Vacating the listing decision converts the plant to its previous "Proposed Threatened" status.</p> <p>Although the status of slickspot peppergrass has changed, the Corps has chosen to not reinitiate consultation based on the change in status, and to continue to analyze the potential effects of the proposed action on slickspot peppergrass in order to streamline consultations that may result from future status changes of the species and subsequent requirements under section 7(a)(2).</p>
2.	<p>Comment: Page 1. Under the Purpose and Need section the Corps refers to noxious weeds and invasive species and then in the following sentence the Corps refers to noxious and nuisance weeds WSDOT notes inconsistent terminology throughout the FONSI and Environmental Assessment documents. We are assuming that the intent is to control noxious, invasive, and nuisance vegetation found on the Corps Wall Walla District lands. In the <i>PEST MANAGEMENT PROGRAM BA (PM-EC-2011-0019)</i>, dated 2 July 2012, the phrase controlling noxious/invasive/nuisance species is used, and we suggest this wording be used in the EA and FONSI.</p>
	<p>Response: The Corps understands the technical distinction being made regarding terminology but believes the current information in the EA and FONSI still presents the factual conditions applicable to the proposed action.</p>
3.	<p>Comment: Page 2 and 3. Under #4. Coordination, following on page 3, WSDOT is listed</p>

	as an agency that the Corps coordinated with. WSDOT Aviation is not commenting on behalf of all WSDOT divisions and programs, which may be impacted if the Corps' Pest Management Program is implemented. WSDOT Aviation is receiving support on these comments from WSDOT's Environmental Services Office (ESO) and Maintenance Office State Weed Control Specialists related to airport management needs only. These comments do not necessarily reflect other divisions or departments that may be impacted through other property interests such as Highways, Rail, or Marine divisions.
	Response: Noted
4.	Comment: Since one of the objectives of the EA is to allow the use of 14 different pesticides within Corps property, it would be beneficial if each of the four general upland habitat management areas listed in the EA were addressed, including the specific pesticides likely to be used in those areas. It would also be helpful if the management areas were broken down to aquatic, riparian, and upland control measures. This would allow us to comment on more specific elements.
	Response: There are 13 herbicides being proposed, 3 insecticides, and 2 rodenticides. These pesticides may be used as directed by the labels, with the addition of adherence to specific BMPs outlined in the documents to minimize the environmental impacts and effects to ESA-listed species and critical habitats. The Corps has not restricted the use of each chemical by habitat type in the EA, except for aquatic pesticide use, and only until ESA-consultations are complete on aquatic use of pesticides.
5.	Comment: Since the EA does not specifically cover maintenance activities specific to the WSDOT-managed airports (Lower Monumental, Little Goose, and Lower Granite), WSDOT will, as previously agreed to, conduct a Biological Evaluation for current maintenance activities that will include airport specific conservation measures for review.
	Response: The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions on Corps land and received concurrence from each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.
6.	Comment: The chemicals listed in the EA are primarily selective products used for controlling broad leaf weeds, which are good for general weed control. Glyphosate is included, which controls all vegetation, but there are no residual or bare-ground chemicals that are typically used on the airports, roadsides, and Corps facilities. It is WSDOT Aviation's position that the use of glyphosate can achieve desired results; however, multiple applications (3- 4 per year) will be needed to keep the sites clean. We believe there would be greater environmental impacts associated with multiple applications, including increased fuel consumption and maintenance costs for servicing these remote locations several times a year. It is not efficient and effective use of limited state resources. Many of the 38 conservation measures (BMPs) listed in the EA are excellent, but several are expensive, time-consuming and of questionable merit. WSDOT Aviation recognizes that the Corps selected BMPs have improved over the interim guidance previously imposed; however, the measures could be improved even more through someone with practical field experience. BMP number 18 is an example. No mixing is allowed without

	125% containment. Our interpretation of this is that anytime a backpack, four wheel ATV, or truck needs to add mix, crews must set up containment. This is not practical and the containment requirement is not necessary in most locations. Operationally, it doesn't really reduce the chance of a spill. Even if there is a spill it is extremely unlikely that it would impact the aquatic environment, particularly with the products being used.
	Response: The Corps consulted on and received concurrence from NMFS and USFWS for use of the identified BMPs outlined in the documents. These actions were identified and consulted on to meet Corps needs and compliance requirements. If there is a demonstrated need in the future to revise BMPs, the Corps will pursue such revisions through further consultation with NMFS and USFWS. Until that time however, the Corps and other entities with approval for use of Corps land are committed to following the currently approved BMPs.
7.	Comment: WSDOT Aviation supports choosing staging areas carefully and mixing in an area that is free of aquatic resources etc.; however, proper inspection and maintenance of equipment and good site selection are the primary methods for reducing potential impacts.
	Response: The BMPs outlined in the documents will be implemented to minimize the environmental impacts and effects to ESA-listed species and critical habitats. Some of the BMPs specifically address inspection of equipment.
8.	Comment: WSDOT is not aware of any cases where a catastrophic failure of a spray tank or major spill has occurred. In many cases the products used are not soil active and there would be limited if any impact to the soil and aquatic environments as long as the applicator used an appropriate staging site.
	Response: The BMPs outlined in the documents will be implemented to minimize the environmental impacts and effects to ESA-listed species and critical habitats. Spill prevention BMPs are included in the list of BMPs.
9.	Comment: Page I, 3 rd & 4 th paragraphs: In the State of Washington the Class A, B, & C lists are for 'Noxious' weeds (WAC 16-750) and there is no reference to nuisance weeds. As written in these paragraphs it appears the Corps is limiting discussion (and coverage) to Class A, B, & C noxious weeds and we assume that is not the case. We feel it is important to include 'nuisance' and 'invasive' weeds since they are the typical types of vegetation that need to be controlled around operational facilities.
	Response: The vegetation that may be treated includes all of the species listed by the Washington, Oregon or Idaho state Departments of Agriculture. Nuisance native plants such as dandelion (<i>Taraxacum</i> spp.) and common plantain (<i>Plantago major</i>) will be treated in landscaped areas. The Corps also treats some vegetation through removal (e.g. Russian olive (<i>Elaeagnus angustifolia</i>)) and replacement with species that are better for wildlife. This approach also helps to eliminate monocultures. Vegetation treatments will include manual and mechanical, biological, and chemical methods to control or eradicate nuisance and noxious weeds. All Class A listed weeds for the State of Washington, Idaho, and Oregon (EDRR) shall be managed to the greatest extent practical. All Class B weeds for the State of Washington, Idaho, and Oregon (Control List) shall be managed to the greatest extent practical. At a minimum, these plants shall be controlled within all irrigated areas. Species which may not

	<p>be designated on the state lists but which can become pests in certain situations based on on-site management will become subject to control. Both Tree-of-heaven (<i>Ailanthus altissima</i>) and Russian olive (<i>Elaeagnus angustifolia</i>), when found isolated or less than 3 inches in diameter at breast height (DBH), shall be contained. Any weed population found as a monoculture stand, greater than 2,500 sq. ft. will be brought to the attention of the District Pesticide Coordinator as soon as possible.</p> <p>The Corps is using the following definitions:</p> <p>Invasive Species: An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. A species that is non- native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.</p> <p>Noxious: Any plant that is a target of control efforts under the proposed action. (The term implies no specific taxonomic, biological, or ecological meaning.) A plant listed on the State or Federal list of plants, which causes harm to habitat, livestock, or humans. Generally, these plants are not native to the United States but some may simply not be native to the program action area or a larger region. Control may not be initiated on all listed noxious weeds; Corps of Engineers biologists will look at the location of growth, numbers of plants, and possible useful characteristics of the plants before making a decision.</p> <p>Nuisance: Any plant that causes offence, annoyance, trouble or injury and that is growing in an area where it is not desired or where it makes management for certain purposes more difficult. These reasons may be for aesthetic, scenic, cultural, or safety reasons.</p>
10.	<p>Comment: Pages 1 - 2, 6th paragraph:</p> <p>WSDOT Aviation agrees that pesticide treatments are driven by <i>safety and maintenance needs</i>. This should be the case for any type of vegetation management whether the plant is noxious, nuisance, invasive, or native (providing it is not an ESA listed species).</p> <p>Response: Noted</p>
11.	<p>Comment: Page 12 Alternative 5 - Integrated Pest Management Alternative #3:</p> <p>WSDOT Aviation Division assumes that as a lessee of Lower Granite, Little Goose and Lower Monumental airports, we would conduct a Biological Evaluation (BE) for our preferred method of maintenance activities. Through anticipated concurrence from the Federal Services, WSDOT would be allowed to use pesticides and methods application covered in the BE. This is assuming the methods covered in the BE are 'not likely to adversely affect' listed species and their habitat.</p> <p>Response: The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions on Corps land and received concurrence from each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the</p>

	future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.
12.	<p><u>Comment:</u> Page 13, Best Management Practices:</p> <p>Although WSDOT Aviation agrees that the conservation measures provided as a part of the consultation are important, we question making all of them your standard operating procedures for the proposed Pest Management Program. BMPs should be site specific and based on the activity being performed, the type of pesticide being used, and the site specific conditions where the activity will be done. The specific BMPs would be covered in the pest management plan that the Corps requires.</p>
	<p><u>Response:</u> The BMPs identified in the IPMP were developed to meet Corps compliance needs and requirements and would apply to the entire District. Their intent is to be both useful and applicable, i.e. minimize potential adverse environmental impacts and easily implementable.</p> <p>Consultation under section 7(a)(2) of the ESA with both NMFS and USFWS was completed with the listed BMPs being an integral part of the proposed action. Altering those BMPs would likely require additional consultation with each agency.</p>
13.	<p><u>Comment:</u> Page 16, Nuisance and Noxious Plants (Weeds):</p> <p>As noted above, WSDOT Aviation requests approval from the Corps that WSDOT Aviation is allowed to follow the site specific maintenance activities BMPs and proposed pesticides listed in the pending BE for the three airports Granite, Goose and Monumental. The language found in the box under Alternative 5- IPM Alternative appears to support this request. <i>"Any new ingredients could only be employed if further environmental analyses and consultations were to occur."</i></p>
	<p><u>Response:</u> The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions on Corps land and received concurrence from each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.</p>
14.	<p><u>Comment:</u> Page 23, Terrestrial Habitats:</p> <p>Under this section the Corps lists in part "four general management categories in the District: wildlife habitat lands, park lands, project operations lands, and forested lands at Dworshak Project." WSDOT Aviation recognizes that each of these categories was addressed individually throughout the EA. We believe operations lands should have fewer, or at least modified BMPs, and the 14 chemicals covered in this EA are not always the best choice. They can present limitations for management efforts in these areas. For instance the use of a residual herbicide, if approved by EPA, along with adherence to the label and state pesticide requirements, when there are no listed species in the vicinity, should be allowed.</p>
	<p><u>Response:</u> The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions (i.e. BMPs) on Corps land and received concurrence from</p>

	<p>each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.</p>
15.	<p>Comment: Page 30 - Integrated Pest Management (Preferred) Alternative; Terrestrial Habitats; Chemical Methods:</p> <p>WSDOT Aviation is preparing a BE to address herbicides not covered by the Corps EA, and if the BE is approved by the Services, we anticipate that the Corps would allow WSDOT to use BE listed herbicides at the airports. WSDOT's main concern is that none of the herbicides the Corps lists are residual herbicides. Without the residual aspect to keep problem weeds in check, multiple applications would be required. Multiple applications means more herbicide will be applied and more potential environmental impacts could occur (each application has the possibility of drift and/or spill s) and WSDOT has a very limited budget and limited use of our highway maintenance crews, who cannot visit these remote airports regularly.</p> <p>Response: The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions (i.e. BMPs) on Corps land and received concurrence from each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.</p>
16.	<p>Comment: Page 48 - 4.0 Consultation and Coordination Table 4- 1. Distribution List</p> <p>Table should reflect that Paul Wolf is only representing the WSDOT Aviation Division as the State Airports Manager. It is not fully known at this time to what extent other WSDOT divisions or modes are impacted by this EA FONSI.</p> <p>Response: Noted</p>
17.	<p>Comment: Appendix B, Page B-2 Best Management Practices (Conservation Measures) for Pesticide Application</p> <p>WSDOT Aviation will prepare an airport site specific Biological Evaluation, which will reflect consideration for the listed conservation measures numbered 1 through 38, modified as necessary to reflect airport specific needs.</p> <p>Response: The Corps consulted with both NMFS and USFWS regarding the use of specific chemicals and actions (i.e. BMPs) on Corps land and received concurrence from each agency. These chemicals and actions were identified and consulted on to meet Corps needs and compliance requirements. For the present, these specific chemicals and actions are the only ones available to the Corps or other entities with approval for use of Corps land. No additional chemicals and/or actions will be allowed. If there is a demonstrated need in the future for additional chemicals and/or actions, the Corps will seek to expand these categories through further consultation with NMFS and USFWS.</p>

ATTACHMENT B

ENVIRONMENTAL COMMITMENTS

The following environmental commitments (impact minimization measures and best management practices) will be implemented by the Corps:

Allowed Chemicals for Pest Management:

1. Table 1 lists the only active pesticide ingredients allowed for use in the District.

Table 1 Pesticide active ingredients permitted in the District.

Pesticide
2,4-D
Aminopyralid
Beta-cyfluthrin
Chlorpyrifos
Chlorsulfuron
Clopyralid
Dicamba
Glyphosate
Imazapic
Imazapyr
Metsulfuron-methyl
Picloram
Pyrethrins, Piperonyl Butoxide, Butane, and Propane
Sethoxydim
Strychnine alkaloid
Sulfometuron-methyl
Triclopyr
Zinc Phosphide

2. Table 2 lists the only adjuvants allowed for use in the District.

Table 2 Adjuvants allowed for use in the District.

Adjuvants	Purpose
AgriDex	Surfactant
M-90	Surfactant
Grounded	Drift Control
Methylated Seed Oil	Surfactant
Spreader 90	Surfactant
Highlight	Dye

Allowed Methods of Pesticide Application:

1. Table 3 describes chemical herbicide application limitations by method, wind speed¹ and established application buffers² from water.

Table 3 Water buffer distances and wind speeds by method for pesticide applications in the District.

Herbicide Application Method and Buffer in Feet from OHWM with Allowed Wind Speeds										
Herbicides	Hand/Select	Spot Spraying					Broadcast			Aerial
	0-15' from OHWM	0-15' from OHWM	>15' from OHWM	>50' from OHWM	>100' from OHWM	>300' from OHWM	>50' from OHWM	>100' from OHWM	>300' from OHWM	>300' from OHWM
2,4-D	2-5 mph	2-5 mph	<10 mph	<10 mph	<10 mph	<10 mph	<10 mph	<10 mph	<10 mph	PROHIBITED
Aminopyralid	2-5 mph	PROHIBITED	2-5 mph	2-5 mph	2-5 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Chlorsulfuron	2-5 mph	PROHIBITED	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Clopyralid	2-5 mph	2-5 mph	2-5 mph	<10 mph	<10 mph	<10 mph		<10 mph	<10 mph	PROHIBITED
Dicamba	2-5 mph	PROHIBITED	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Glyphosate	2-5 mph	2-5 mph	2-5 mph	<10 mph	<10 mph	<10 mph		<10 mph	<10 mph	<10 mph
Herbicide Mixtures	2-5 mph	PROHIBITED	2-5 mph	2-5 mph	2-5 mph	<10 mph	PROHIBITED	2-5 mph	2-5 mph	PROHIBITED
Imazapic	2-5 mph	PROHIBITED	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	<10 mph
Imazapyr	2-5 mph	2-5 mph	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Metasulfuron-methyl	2-5 mph	2-5 mph	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Picloram ³	PROHIBITED	PROHIBITED	PROHIBITED	PROHIBITED	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	<10 mph
Sethoxydim	PROHIBITED	PROHIBITED	PROHIBITED	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	<10 mph
Sulfometuron methyl	2-5 mph	PROHIBITED	PROHIBITED	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	PROHIBITED
Triclopyr	2-5 mph	PROHIBITED	2-5 mph	<10 mph	<10 mph	<10 mph	PROHIBITED	<10 mph	<10 mph	<10 mph
Pyrethrins, Piperonyl Butoxide, Butane, and Propane (Skidoo)	PROHIBITED	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph
Chlorpyrifos (Dursban Pro)	PROHIBITED	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph
Beta-cyfluthrin (Tempo SC ultra)	PROHIBITED	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph	2-5 mph
Zinc Phosphide (Mole Bait)	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY
Strychnine alkaloid (strychnine treated oats)	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY	ANY

2. Aerial application of chemicals is prohibited within 300 feet of water. The Corps must provide notification to, and coordinate with, the regulatory agencies prior to a large-scale aerial application.
3. Applications shall utilize nozzles and pressures that produce droplets in the 177 to 428 micron range (medium, coarse, very coarse) to reduce the possibility of drift. Droplet sizes of 429 microns or larger (extremely coarse and ultra-coarse) are acceptable and encouraged, provided that the volume of the spray solution is not so great as to cause runoff and leaching problems.

¹ Buffers indicated are measured from the ordinary high water mark (OHWM).

² Applications shall not occur when the wind direction is in the direction of the adjacent water body during applications made less than 300 feet from water.

4. Marker dyes shall be used to assist in determining proper coverage and targeting of treated species.

Best Management Practices:

The following best management practices are required for pesticide applications in the District in addition to label requirements and other State or Federal law strictures:

1. *General Practices:*
 - a. *Licensing/Certification:* All applicators shall be trained/certified in accordance with Engineering Regulation/Engineering Pamphlet 1130-2-540, Chapter 3.
 - b. All applicators shall comply with all applicable federal, state (OR, ID, and WA) and herbicide manufacturer's directions and requirements for handling herbicides and insecticides, including storage, transportation, application, container disposal, and cleanup of spills.
 - c. Herbicide treatments to foliage of weed species shall be according to the chemical manufacturer's recommendations for best results, or according to this document, whichever is the more stringent standard.
2. *Calibration/Maintenance:*
 - a. All application equipment (e.g. booms, back packs, etc.) shall be properly calibrated according to the chemical manufacturer's suggested application rates printed on the chemical label prior to use. Equipment and settings shall be properly maintained for the duration of the application period.
 - b. Application equipment shall be maintained to ensure proper application rates, to minimize leakage potential, reduce the potential for drift, and ensure applicator safety. Equipment shall be maintained and visually inspected prior to each application and is not limited to hoses, nozzles, backpacks, and booms.
3. *Weather/Terrain:*
 - a. Pesticide applications are limited to air temperatures of 90 degrees Fahrenheit or less, unless the label conditions are more restrictive.
 - b. Pesticide applications are prohibited 24 hours prior to a predicted precipitation event that is of sufficient intensity to cause runoff.
 - c. Applicators shall not spray if snow or ice covers the target foliage.
 - d. Motorized herbicide application equipment shall not be operated on slopes greater than 25 percent (if not on existing roads) in order to minimize risk of soil erosion, spills, or chemical runoff.
4. *Record Keeping:*
 - a. Grantees, contractors, and Corps employees shall perform work planning by submitting their anticipated use on the "District Pest Control Application Record" forms, as provided by the District.
 - b. All pesticide applications shall be recorded and submitted on the "District Pest Control Application Record" forms, as provided by the District.
 - c. The District shall provide annual reporting by submission of records (anticipated use and actual use "District Pest Control Application Record" forms and associated GIS data).
5. *Spill Management:*
 - a. All applicators shall carry a Spill Prevention and Control Plan. The Plan shall provide detailed descriptions on how to prevent a spill or ensure effective and timely

containment of any chemical spill. The Spill Prevention and Control Plan shall include spill control, containment, clean up, and reporting procedures.

- b. A spill kit shall be available within 150 feet from the site of the application.
- c. *Refueling:* Equipment refueling shall not occur within 100 feet of open water unless done within an approved refueling area.
- d. *Spill Cleanup Kit:* Each applicator vehicle carrying herbicides shall be equipped with a spill cleanup kit. The cleanup kit shall be capable of containing and holding at least 125% of the total mixture and concentrate that are present on the work site.
- e. *Spill Reporting:* The applicator shall report all details of herbicide spills, exposure incidents, or accidents and/or worker health complaints, if any occur, to the Corps as soon as practicable. Applicator vehicles equipped with secondary containment must have the approved spill cleanup kit available within a 5-minute response time.
- f. *Mixing:*
 - No herbicide mixing shall be authorized within 100 feet from any body of water or stream channels. Equipment will have either an anti-back siphon valve or an air break on tank fill connections or openings to prevent contamination of on-site water sources.
 - Chemical mixing shall be performed within a structure made of impermeable material such as plastic that is capable of containing at least 125% of the capacity of the spray tank that is being used, or on appropriate absorbent materials of sufficient capacity to absorb the entirety of that volume of the tank being mixed.

6. *Storage/Disposal:*

- a. When not in use all concentrated or mixed solution pesticides shall be placed in locked storage in closed containers with watertight lids. They shall also be placed in secondary containment vessels capable of holding at least 125% of the capacity of the containers placed within them.
- b. ATV storage tanks shall be limited to 30 gallons.
- c. *Disposal:* Disposal of waste materials shall be in accordance with the label and in accordance with all applicable federal, state, and county laws and regulations, as well as label restrictions and instructions.

7. *Non-Target Species:*

- a. Applicators shall use caution to minimize the application of herbicides to non-target species and structures within the application areas.
- b. *Special Status Species:* Any ESA-listed plant that is found shall be inventoried and its location recorded either in GIS or by GPS, or both, and put into the District's inventory for future avoidance and planning purposes. Herbicides shall not be applied with aircraft within 300 feet, broadcast within 100 feet, or spot sprayed within 15 feet of ESA-listed plant locations. Spraying of targeted species is limited to vinegar or a similar substance within 300 feet or closer to known ESA-listed plant locations.

8. *Picloram Accumulation:*

- a. No more than one application of picloram shall be made on an area in any given year to reduce the potential for picloram accumulation in the soil.

- b. No spraying of picloram shall be authorized within 100 feet of any flowing waters or areas with shallow water tables. Avoid application of picloram within dry ephemeral stream channels and dry roadside ditches that drain directly into fish bearing streams.
9. *Aerial Applications:* All aerial applications shall be done on the contour. No turns over "live" waters (e.g., flowing ditches, streams, ponds, springs, etc.) are permitted while loaded and between application runs.
10. *Water Quality/Crossings:*
- a. *Inspection:* Equipment shall be inspected and cleaned prior to any application of herbicides within 150 feet of open water.
 - b. Only herbicides and surfactants labeled for aquatic use shall be employed within 15 feet of "live" waters or areas with shallow water tables.
 - c. Only non-ester forms of 2,4-D shall be used (as a measure to protect water quality).
 - d. Equipment shall be inspected for leaks and cleaned prior to crossing any stream. Any detected leaks shall be repaired before the equipment crosses the stream or near open water when not on an existing road.
 - e. Crossing any open water body with spray equipment (i.e., floating vessels or land vehicles) or chemicals shall be avoided if there is any land access (e.g., road or ATV trail) to the treatment areas. If land access is not available or inaccessible, all concentrated or mixed chemicals shall be transported within floating secondary containment vessels of 125% capacity of the liquid.