

U.S. Department of the Interior
Bureau of Land Management (BLM)
Determination of NEPA Adequacy (DNA)

Office: Salem District - Horning Seed Orchard

Tracking Number: DOI-BLM-ORWA-S000-2016-0002-DNA

Case file/Project Number: NA

Proposed Action Title/Type: Monitoring Procedures for Pesticide Applications - Modify Drift Card and Soil Aeration Procedures Described in the Horning Seed Orchard Integrated Pest Management Record of Decision.

Location/Legal Description: Horning Seed Orchard, T. 4S, R. 3W, Sections 13 and 23, Willamette Meridian.

Applicant (if any): NA

A. Description of the Proposed Action and any applicable mitigation measures

The proposed action is to modify the use of drift cards and soil aeration described in the Horning Seed Orchard Integrated Pest Management Record of Decision (IPMROD). These actions are currently used to monitor pesticide applications in the Horning Seed Orchard blocks.

Drift Cards: The current protection measure in the Horning IPM ROD, (p. 27) states that spray “Drift cards would be placed on all sides of areas to be treated when liquid pesticides are used, and applications would cease if there is any indication that chemical is moving out of the target area.” The IPMROD requires an excessive placement of drift cards for the protection of sensitive resources such as water quality. This following revised protection measure is consistent with the monitoring requirements of the most recent consultations with the National Marine Fisheries Service (NMFS). See DNA section D, Question 1.

The BLM proposes that the protection measure in the Horning IPM ROD be changed to placing drift cards in the following locations:

- Along stream channels, in accordance with applicable consultations, and
- Along sensitive buffers in areas to be treated when liquid pesticides are applied by aerial, air blast or high pressure hydraulic sprayer.
- Along unit boundaries within 300 feet of a stream

Soil aeration: The second protection measure in the Horning IPM ROD (p. 25) states that “Soil aeration equipment would be used in orchard blocks prior to aerial or airblast application to promote rainfall infiltration into the soil surface and decrease risk of runoff, as weather conditions permit.” This measure is not consistent with a similar measure in the Tyrrell Seed Orchard IPM ROD which states that aeration would take place around the perimeter of the orchard units prior to aerial or airblast applications. See DNA section D, question 1.

The BLM proposes that the protection measure in the Horning IPM ROD be changed to complete *soil aeration* with equipment around the perimeter of orchard units prior to aerial or airblast pesticide application. Applications would cease if there is any indication that chemical is moving out of the target area.

B. Land Use Plan (LUP) Conformance

LUP Name* *Salem District Record of Decision and Resource Management Plan (1995 RMP)*

Date Approved: March 1995

As amended by the *Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines*, dated January 2001 (SM/ROD) with subsequent Annual Species Reviews. These actions comply with the SM/ROD as described above and utilize the December 2003 species list. This list incorporates species changes and removals made as a result of the 2001, 2002, and 2003 Annual Species Reviews (ASR) with the exception of the red tree vole. For the red tree vole, the Ninth Circuit Court of Appeals in *KSWC et al. v. Boody et al.*, 468 F.3d 549 (9th Cir. 2006) vacated the category change and removal of the red tree vole in the mesic zone, and returned the red tree vole to its status as existed in the 2001 ROD Standards and Guidelines, which makes the species Category C throughout its range.

The proposed action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objectives, terms, and conditions): Apply herbicides, insecticides, other toxicants, and other chemicals only in a manner that avoids impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

- Annual Horning Seed Orchard Water Quality Monitoring Reports; 2006 -2015.
- Environmental Impact Statement and Record of Decision, Vegetation Treatments Using Herbicides on BLM Lands in Oregon, October 2010.
- Environmental Assessment, Finding of No Significant Impact, and Decision Record (1/14/08) for the Horning Integrated Pest Management (IPM) clarifying the Walter H. Horning Seed Orchard Record of Decision.
- Final Environmental Impact Statement [for] Integrated Pest Management, Walter H. Horning Seed Orchard, Colton (Clackamas County), OR, June 2005; and the Record of Decision, Integrated Pest Management, Walter H. Horning Seed Orchard Colton (Clackamas County), OR, December 2005.
- Risk Assessment of Pesticides and Fertilizers proposed for Use at Walter H. Horning Seed Orchard, Oregon State Office BLM, March 18, 2002.
- Biological Assessment for the Integrated Pest Management Environmental Impact Statement for Walter H. Horning Seed Orchard, Oregon State Office BLM, February 6, 2004.

- NMFS Endangered Species Act – Section 7 Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation, Biological Opinion and Conference Opinion on the effects of the proposed implementation of a five-year Integrated Pest Management (IPM) at Horning Seed Orchard in Clackamas County, OR. December 21, 2004 (NOAA Fisheries No. 2004/205).
- Clarification Letter – Amendment to Endangered Species Act - Section 7 Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation, Biological Opinion and Conference Opinion on the effects of the proposed implementation of a five-year integrated pest management program (IPM) at the Horning Seed Orchard in Clackamas County, OR. August 15, 2005.
- NMFS Endangered Species Act - Section 7 Consultation, Adoption of the Conference Opinion for Integrated Pest management program (IPM) at the Horning Seed Orchard for Lower Columbia River coho salmon as a Biological Opinion, December 2, 2005.
- NMFS Endangered Species Act –Amendment to the December 1, 2009 Endangered Species Act Section 7 Informal Consultation and Magnuson-Stevens conservation and Management Act Essential Fish Habitat Consultation for the Aerial Application of Esfenvalerate as part of the Integrated Pest Management at Horning Seed Orchard, Milk Creek (1709000903) in the Molalla River Basin, and in the Lower Clackamas River (1709001122), Clackamas County, OR. December 23, 2009 (NMFS No. 2009/06298).
- NMFS Endangered Species Act – Reinitiation of Endangered Species Act Biological Opinion and Magnuson-Stevens Act Essential Fish Habitat Conservation Recommendations for the Integrated Pest Management at Horning Seed Orchard, Lower Clackamas (1709001122) and Milk Creek (1709000903) Watersheds, Clackamas County, OR. September 22, 2010 (NMFS No. 2010/04369).

D. NEPA Adequacy Criteria

1. **Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?**

Yes, the proposed action modifies two of the protection measures within the selected action (alternative B) analyzed in the Horning IPM EIS and ROD, December, 2005.

One of the protection measures states that spray “Drift cards would be placed on all sides of areas to be treated when liquid pesticides are used, and applications would cease if there is any indication that chemical is moving out of the target area.” The IPM ROD (p. 27) requires an excessive placement of drift cards for the protection of sensitive resources such as water quality.

The revised protection measure is consistent with the monitoring requirements of the most recent consultations with the National Marine Fisheries Service (NMFS). The NMFS’s opinions of December 23, 2009 (NMFS 2009) and September 22, 2010 (NMFS 2010) approved modified monitoring requirements for drift in units adjacent to streams.

The proposed action includes placing drift cards along unit boundaries within 300 feet of a stream, in compliance the above Biological Opinions.

The second protection measure in the IPM ROD (p. 25) states that “Soil aeration equipment would be used in orchard blocks prior to aerial or airblast application to promote rainfall infiltration into the soil surface and decrease risk of runoff, as weather conditions permit.” This measure is not consistent with standard practices such as a similar measure in the Tyrrell Seed Orchard IPM ROD, which states that aeration would be done around the perimeter of the orchard units prior to aerial or airblast applications.

The purpose for aeration is to decrease the risk of chemical runoff; however, observations at the orchard have found that surface runoff rarely occurs at Horning and that when it does occur it occurs only during storm events with heavy precipitation and saturated soil conditions.

Runoff studies at the orchard indicate that precipitation in the range of 1.0 inch per hour (approximately 100 year event) is necessary to initiate overland flow. These conditions typically occur several months after pesticides have been applied. As a result of these observations, District specialists have determined that soil aeration around the unit perimeter is an appropriate protection measure given the very low likelihood that surface runoff would occur soon after treatment.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Yes, the proposed action is consistent with actions analyzed in the IPM EIS. The Draft and Final EISs assessed five alternatives: (A) Maximum Production IPM, (B) IPM with Environmental Protection Emphasis, (C) Ground-Based IPM, (D) Non-Pesticide Pest Management, and (E) No Action: Continue Current Management Approach. The proposed actions are included in the range of alternatives included in the EIS. The range of alternatives remains appropriate; there are no new circumstances or public issues that would invalidate the range of alternatives in the EIS. Modification of the proposed monitoring will not change analysis of alternatives in the EIS.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

No new information or circumstances have arisen since the Horning Final EIS that would invalidate the analysis or conclusions disclosed in the EIS.

The BLM prepared a Biological Assessment to document the Endangered Species Act and Magnuson-Stevens Fisheries Conservation and Management Act consultation process for Alternative B, the selected alternative.

The NMFS issued a biological opinion concluding that the proposed action is not likely to jeopardize the continued existence of Lower Columbia River or Upper Willamette River steelhead, Chinook or coho salmon; but may adversely affect essential fish habitat for Chinook and coho salmon.

The opinion specified reasonable and prudent measures, with associated terms and conditions, to further protect these species, which are included in the proposed actions. The NMFS's non-jeopardy opinion was reaffirmed in their December 23, 2009 concurrence letter and September 22, 2010 biological opinion.

The NMFS's opinions of December 23, 2009 and September 22, 2010 approved modified monitoring requirements for drift in units adjacent to streams. The new monitoring plans identified drift card placement for units adjacent to streams and the modified language in this proposed action is to implement drift monitoring consistent with these consultations.

The change in soil aeration techniques is to make the process consistent with a similar measure in the Tyrrell Seed Orchard IPM ROD which states that aeration would be done around the perimeter of the orchard units prior to aerial or airblast applications.

4. **Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?**

Yes, there is no change in the direct or indirect impacts for the ongoing spray project. The FEIS predicted no significant impacts to air quality, groundwater, non-target vegetation, geology and soils, land use, noise, cultural resources, or socioeconomics and environmental justice from any of the alternatives. Potential impacts associated with the proposed action in Alternative B of the FEIS are effects to (1) public health, water quality, or aquatic species if there was an accidental spill to surface water; (2) worker health from injury during use of cultural methods or prescribed fire, or from an accidental pesticide spill onto the skin; (3) water quality if runoff or drift of pesticides or fertilizers occurred, although modeling predicted levels below those that would affect human health or non-target species; or (4) non-target insects due to localized lethal effects of insecticides.

The monitoring of drift is done primarily for the protection of water quality and adjacent land owner concerns. The drift card proposal will continue to monitor drift from units near streams. Potential drift from treated units towards other adjacent orchard units has not been identified as a concern.

The purpose for aeration is to decrease the risk of chemical runoff; however, observations at the orchard have found that surface runoff rarely occurs at Horning and that when it does, it occurs only during storm events with heavy precipitation and saturated soil conditions. Runoff studies at the orchard indicate that precipitation in the range of 1.0 inch per hour (approximately 100 year event) is necessary to initiate overland flow. These conditions typically occur several months after pesticides have been applied. As a result of these observations, District specialists have determined that soil aeration around the unit perimeter is an appropriate protection measure given the very low likelihood that surface runoff would occur soon after treatment.

Cumulative effects were considered in the Risk Assessment (2002) and in the IPM EIS, which included effects from pesticide and fertilizer application on adjacent lands and in the watershed, as well as the risk to the public and workers involved with pesticide application. There have been no changes in conditions, information, issues or controversies in that time period.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Public scoping for the EIS remains adequate for the proposed action. The Horning Seed Orchard IPM EIS public involvement process included two scoping periods, an open house, publication of the Draft EIS with public meetings and an extended public comment period, and publication of the Final EIS. A 15-day protest period after publication of the Decision Record in both The Oregonian and the Statesman Journal in December of 2005 received no protests allowing BLM to proceed with implementation.

Formal consultation with the NMFS in 2005 resulted in the issuance of a Biological Opinion and concluded that the selected alternative is not likely to jeopardize the continued existence of steelhead, Chinook and coho salmon, but may adversely affect the essential fish habitat for Chinook and coho salmon. The opinion specified reasonable and prudent measures, with associated terms and conditions, to further protect these species and essential fish habitat for salmon. These terms and conditions were incorporated into the selected alternative B analyzed on the Final EIS and the Decision.

The NMFS’s non-jeopardy opinion was reaffirmed in their December 23, 2009 concurrence letter (NMFS No. 2009/06298) and September 22, 2010 biological opinion (NMFS No. 2010/04369). The NMFS’s opinions of December 23, 2009 and September 22, 2010 biological opinion approved modified monitoring requirements for drift in units adjacent to streams. The new monitoring plans identified drift card placement for units adjacent to streams and the modified language in this proposed action is to implement drift monitoring consistent with these consultations.

E. Persons/Agencies /BLM Staff Consulted

Name	Resource	Initials
Brett Blundon	Fisheries	<i>BB</i>
Steve Wegner	Hydrology/Water Quality	<i>SJW</i>
Claire Hibler	Botany	<i>CDH</i>
Roy Price	Wildlife	<i>RDP</i>
Carolyn Sands	Planning	<i>CDS</i>
Jeannette Griese	Orchard	<i>JG</i>
Kirk Appleman	Hydrology / Monitoring	<i>KEA</i>

F. Conclusion

The modified drift card placement measures comply with the NMFS's opinions of December 23, 2009 (NMFS 2009) and September 22, 2010 (NMFS 2010) that approved modified monitoring requirements for drift in units adjacent to streams. The proposed action includes placing drift cards along unit boundaries within 300 feet of a stream, in compliance the above Biological Opinions.

The modification soil aeration measures are consistent with standard practices for Seed orchards in western Oregon, such as described in the Tyrell Seed orchard integrated pest management Record of Decision and associated EIS.

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes the BLM's compliance with the requirements of the NEPA.

 1/28/16

Kim Titus, Salem District Manager Date

United States Department of the Interior
Bureau of Land Management
Salem District

Decision Record

I have made a decision to modify two protection measures from the Record of Decision (ROD) for Integrated Pest Management (IPM) at the Walter H. Horning Seed Orchard, issued in December 2005. The following is a summary of the Decision, that was reviewed in the Determination of NEPA Adequacy (DNA) (DOI-BLM-ORWA-S000-2016-0002-DNA), described in the previous pages of this document.

I have decided to modify the use of drift cards and soil aeration currently used to monitor pesticide applications in the Horning Seed Orchard blocks.

Drift Card Placement: Under this decision, the BLM will place drift cards in the following locations:

- Along stream channels, in accordance with applicable consultations, and
- Along sensitive buffers in areas to be treated when liquid pesticides are applied by aerial, air blast or high pressure hydraulic sprayer.
- Along unit boundaries within 300 feet of a stream

The modified drift card placement measures comply with the NMFS's opinions of December 23, 2009 (NMFS 2009) and September 22, 2010 (NMFS 2010) that approved modified monitoring requirements for drift in units adjacent to streams. The proposed action includes placing drift cards along unit boundaries when the boundary is within 300 feet of a stream, in compliance the above Biological Opinions.

Soil Aeration: Under this decision the BLM will complete *soil aeration* with equipment around the perimeter of orchard units prior to aerial or airblast pesticide application. Applications would cease if there is any indication that chemical is moving out of the target area.

The modification of soil aeration measures are consistent with standard practices for Seed orchards in western Oregon, such as described in the Tyrell Seed orchard integrated pest management Record of Decision and associated EIS.

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes the BLM's compliance with the requirements of the NEPA.

Implementation Date: This project will be implemented after February 29, 2016.



Kim Titus, Salem District Manager



Date

Administrative Review or Appeal Opportunities

This decision may be appealed to the Interior Board of Land Appeals (Board or IBLA) according to 43 CFRPart 4 – Department of Interior Hearings and Appeals Procedures, found on the internet at:

<http://www.gpo.gov/fdsys/pkg/CFR-2002-title43-vol1/xml/CFR-2002-title43-vol1-part4.xml>

Contact Person

For additional information concerning this decision, contact Steve Wegner at (503) 589-6849.