Chapter 222-38 WAC
FOREST CHEMICALS

WAC

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Note: Rules marked with an asterisk (*)pertain to water quality protection and have been adopted or amended by the Forest Practices Board with agreement from the Department of Ecology per WAC 222-12-010.

WAC 222-38-010 Policy--Forest chemicals.

*(1) Chemicals perform important functions in forest management. The purpose of these regulations is to regulate the handling, storage and application of chemicals in such a way that the public health, lands, fish, wildlife, aquatic habitat, wetland and riparian management zone vegetation will not be significantly damaged, and water quality will not be endangered by contamination. This section in no way modifies the state department of agriculture regulations governing chemicals.

*(2) These rules are intended to implement best management practices designed to eliminate the direct entry of pesticides to water. Best management also includes minimizing the entry of forest chemicals into channel migration zones, wetland management zones, sensitive sites, or the core or inner zones of riparian management zones and buffers on Type Np Waters. Significant damage for purposes of this section includes any damage that would inhibit or preclude the existing vegetation from protecting public resources.

(NOTE: Other laws and rules and/or permit requirements may apply. See chapter 222-50 WAC.)

WAC 222-38-020 Handling, storage, and application of pesticides.

*(1) **No pesticide leakage, contamination, pollution.**
Transportation, handling, storage, loading, application, and disposal of pesticides shall be consistent with applicable label requirements and other state and federal requirements.

*(2) **Mixing and loading areas.**
(a) Mix pesticides and clean tanks and equipment only where any accidental spills would not enter surface water, channel migration zone or wetlands.
(b) Storage and loading areas should be located where accidental spillage of pesticides will not enter surface water or wetlands. If any pesticide is spilled, immediate appropriate procedures should be taken to contain it.
(c) Use devices or procedures to prevent "back siphoning" such as providing an air gap or reservoir between the water source and the mixing tank.

*(3) **Riparian management and wetland management zones.** Pesticide treatments within the RMZ core or inner zones, Type Np RMZs, sensitive sites or wetland management zones shall be by hand unless the department has approved a site specific plan with another method of treatment.

*(4) **Aerial application of pesticides.**

(a) To keep pesticides out of the water and wetlands, a buffer will be maintained during operations on all Type S and F Waters and Type Np and Ns surface waters and Type A and B Wetlands, as set forth in (a)(i) of this subsection. To protect riparian vegetation, pesticides must not be applied to the core and inner zone, channel migration zone of any Type S or F Waters, to Type Np RMZ's, to sensitive site buffers, or to Type A or B Wetland management zones. In addition, operators must maintain an offset from the outer edge of the inner zone and wetland management zones as set forth in (a)(i) and (ii) of this subsection. (See the board manual, section 12 for a detailed example.) Where the buffer and offset widths overlap, the distance of offset must be whichever distance is greater from Type S or F Waters or Type A or B Wetlands for the applicable conditions. Aerial applications of pesticides in and around Type Np or Ns Waters with surface water and Type B Wetlands must be buffered according to (a)(iii) of this subsection. (Note: These application requirements do not apply to B.t. (Bacillus thuringiensis). When applying B.t., the operator must meet all label requirements.)

(i) Buffers on Type S and F Waters.

		DETERMINING WIND FACTOR (See the board manual section 12 for detailed examples.)			
		Favorable		Calm or Unfavorable	
NOZZLE TYPE	APPLICATION HEIGHT	BUFFER ON WATER	OFFSET FROM INNER ZONE	BUFFER ON WATER	OFFSET FROM INNER ZONE
Regular Nozzle*	Low (16 ft.)	Width of the inner zone	As needed for safety	100 ft., or the inner zone, whichever is greater	50 ft.
	Medium (17-50 ft.)	Width of the inner zone	As needed for safety	250 ft.	N/A
	High (51-65 ft.)	Width of the inner zone	As needed for safety	325 ft.	N/A
Raindrop Nozzle (or other nozzles that result in the same size spray droplets)**	Low (16 ft.)	Width of the inner zone	As needed for safety	Width of inner zone	20 ft.
	Medium (17-50 ft.)	Width of the inner zone	As needed for safety	Width of inner zone	20 ft.
	High (51-65 ft.)	Width of the inner zone	As needed for safety	125 ft. or the inner zone, whichever is greater	20 ft.

*Coarse spray droplets = approximately 9% of spray-droplet volume ≤ 150 u

**Ultra coarse spray droplets = approximately 1% of spray-droplet volume ≤ 150 u

(ii) Buffers on Type A and B Wetlands.

		DETERMINING WIND FACTOR (See the board manual section 12 for detailed examples.)			
		Favorable		Calm or Unfavorable	
NOZZLE TYPE	APPLICATION HEIGHT	BUFFER ON WETLAND	OFFSET FROM WMZ	BUFFER ON WETLAND	OFFSET FROM WMZ
Regular Nozzle*	Low (16 ft.)	Width of the WMZ	As needed for safety	150 ft.	N/A
	Medium (17-50 ft.)	Width of the WMZ	As needed for safety	250 ft.	N/A
	High (51-65 ft.)	Width of the WMZ	As needed for safety	325 ft.	N/A
Raindrop Nozzle (or other nozzles that result in the same size spray droplets)**	Low (16 ft.)	Width of the WMZ	As needed for safety	Width of WMZ	20 ft.
	Medium (17-50 ft.)	Width of the WMZ	As needed for safety	Width of WMZ	20 ft.
	High (51-65 ft.)	Width of the WMZ	As needed for safety	125 ft. or the width of the WMZ, whichever is greater	20 ft.

*Coarse spray droplets = approximately 9% of spray-droplet volume ≤ 150 u
**Ultra coarse spray droplets = approximately 1% of spray-droplet volume ≤ 150 u

(iii) Buffers on Type Np or Ns Waters with surface water present and Type B Wetlands less than 5 acres.

	DETERMINING WIND FACTOR (See the board manual section 12 for detailed examples.)	
	Favorable	Calm or Unfavorable
Nozzle Type	Buffer	Buffer
Regular Nozzle	50 ft.	100 ft.
Raindrop Nozzle (or other nozzles that result in the same size spray droplets) *	50 ft.	70 ft.

*Coarse spray droplets = approximately 9% of spray-droplet volume ≤ 150 u
**Ultra coarse spray droplets = approximately 1% of spray-droplet volume ≤ 150 u

(b) The initial swath of aerial pesticides must be applied parallel to the applicable buffer strip identified in (a) of this subsection unless a deviation is approved in advance by the department. Drift control agents shall be required adjacent to buffer strips. Operators applying aerial pesticides must avoid applications that might result in drift causing direct entry of pesticides into riparian management core and inner zones, channel migration zones, sensitive sites, Type A and B Wetlands, wetland management zones, and all typed waters, except segments of Type Np and Ns Waters with no surface water present.

(c) Operators applying aerial pesticides must use a bucket or spray device capable of immediate shutoff.

(d) Operators applying aerial pesticides must shut off spray equipment during turns and over open water.

(e) Operators applying aerial pesticides near residences or agricultural land must either:

(i) Leave at least a 200 foot no application buffer strip around residences and 100 foot no application buffer strip adjacent to lands used for agriculture; or

(ii) Apply the pesticides using the widest buffer for the applicable wind conditions as determined by the applicable tables in (a) of this subsection. These provisions do not apply where the residences or agricultural land that could be affected by drift from the aerial application of the pesticide is owned by the forest landowner or where the aerial application is acceptable to the resident or landowner.

(f) The landowner shall identify for the operator the units to be sprayed and the untreated areas within the units with appropriately marked aerial photos or detailed planimetric maps. Before application of the pesticide an over-flight of the area shall be made by the pilot with the marked photos or maps. Stream and wetland buffers required under (a) of this subsection must be clearly visible from the air. The department may require additional field delineation of buffers where the operation is dependent on the use of ground cover features to determine unit area locations and where such ground cover is not readily distinguished from the no spray buffer areas.

(g) Aerial chemical application areas shall be posted by the landowner by signing at significant points of regular access at least 5 days prior to treatment. Posting shall remain at least 15 days after the spraying is complete. The department may require an extended posting period in areas where human use or consumption of plant materials is probable. Posting at formal, signed trailheads that are adjacent to aerially treated units is required. The signs will contain the name of the product used, date of treatment, a contact telephone number, and any applicable restrictions.

*(5) **Ground application of pesticides with power equipment.** Ground application of pesticides with power equipment is prohibited within the core and inner zone, channel migration zone of Type S and F Waters, unless necessary to meet requirements for noxious weed control. In addition, operators shall maintain a 25 foot no application buffer strip around Type A or B Wetlands and on all sides of all other surface waters. Provided, however, That dry stream segments (i.e., channels with no surface water at the time of application) do not require a buffer.

*(6) **Hand application of pesticides.** Pesticides being applied by hand must only be applied to specific targets, such as vegetation, trees, stumps, and burrows, or as bait or in traps. No pesticides may be applied by hand within the core zone, channel migration zone of Type S and F Waters unless necessary to meet requirements for noxious weed control.

*(7) **Limitations on application.** Pesticides shall be applied only in accordance with all limitations:

(a) Printed on the United States Environmental Protection Agency container registration label, and/or

(b) Established by regulation of the state department of agriculture.

(c) Established by state and local health departments (in municipal watersheds).
(d) Established by the Federal Occupational Safety and Health Administration, or the state department of labor and industries, as they relate to safety and health of operating personnel and the public.
(e) The department or the department of agriculture may suspend further use of any equipment responsible for chemical leakage until the deficiency has been corrected to the satisfaction of the department suspending its usage.

*(8) **Container disposal.** Pesticide containers shall be either:
(a) Removed from the forest and disposed of in the manner consistent with label directions; or
(b) Removed and cleaned for reuse in a manner consistent with any applicable regulations of the state department of agriculture or the state or local health departments.

*(9) **Daily records - aerial application of pesticides.** On all aerial applications of pesticides, the operator shall maintain for 7 years daily records of spray operations as required by the state department of agriculture WAC 16-228-1320.

*(10) **Reporting of spills.** All potentially damaging chemical spills shall be immediately reported to the department of ecology. Emergency telephone numbers for reporting spills shall be available at the department's regional offices.

WAC 222-38-030 Handling, storage, and application of fertilizers. .

*(1) **Storage and loading areas.** Storage and loading areas should be located where accidental spillage of fertilizers will not enter surface water or wetlands. If any fertilizer is spilled, immediate appropriate procedures shall be taken to contain it.

*(2) **Riparian management zone and wetland management zone.** Fertilizer treatments within a riparian management zone or wetland management zone shall be by hand unless the department has approved a site specific plan with another method of treatment.

*(3) **Aerial application of fertilizer.**
(a) Proposed fertilization units shall be planned to avoid and to minimize the direct or indirect introduction of fertilizer into waters and wetlands.
(b) Leave a 25 foot buffer from the edge of the channel migration zone on all Type S and F Waters, except as noted in (f) of this subsection.
(c) When the helicopter flight path during fertilizer application is parallel to a water course or the WMZ edge, the centerline of the initial swath should be adjusted to prevent direct application within the buffers or WMZs.
(d) Leave at least a 200 foot buffer strip around residences and a 100 foot buffer strip adjacent to lands used for agriculture unless such residence or farmland is owned by the forest landowner or the aerial application is acceptable to the resident or landowner.
(e) The landowner shall identify for the operator the units to be fertilized and the untreated areas within the units with appropriately marked aerial photos or detailed planimetric maps. Before application of the fertilizer, an over-flight of the area shall be made by the pilot with the marked photos or maps.
(f) Where the department has been provided information by the department of ecology indicating that water quality in downstream waters is likely to be impaired by entry of fertilizer into waters, such waters shall be protected by site specific conditioning.

*(4) **Ground and hand application of fertilizers.** Prevent fertilizer from entering Type A and B Wetlands and all typed waters, except segments of Type Np and Ns Waters with no surface water present.

*(5) **Reporting of fertilizer spills.** All fertilizer spills involving streams, lakes, wetlands, or other waters of the state shall be immediately reported to the department of ecology. Emergency telephone numbers for reporting spills shall be available at the department's regional offices.

WAC 222-38-040 Handling, storage, and application of other forest chemicals.

*(1) **Waters and wetlands.** Do not allow direct entry of other forest chemicals into any water or Type A or B Wetlands, except segments of Type Np and Ns Waters with no surface water present.

*(2) **Storage, mixing, and loading areas.**

(a) Mix other forest chemicals and clean tanks and equipment only where any accidental spills would not enter surface water or wetlands.

(b) Storage and loading areas should be located where accidental spillage of other forest chemicals will not enter surface water or wetlands. If any chemical is spilled, immediate appropriate procedures should be taken to contain it.

(c) Use devices or procedures to prevent "back siphoning" such as providing an air gap or reservoir between the water source and the mixing tank.

(d) Water protection requirements in subsection (1) of this section may be waived when emergency use of fire retardants is necessary to control wildfire.