DIVISION 620
CHEMICALS AND OTHER PETROLEUM PRODUCTS

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PURPOSE  
OAR 629-620-0000

(1) OAR 629-620-0000 through 629-620-0800 shall be known as the chemical and other petroleum product rules. In addition to the application of chemicals, operators should be aware that certain requirements of these rules also apply to the use of other petroleum products, such as fuel and lubricants, on any forest operation.

(2) Operators are encouraged to voluntarily use integrated pest and vegetation management processes. The use of pesticides is one of a variety of integrated pest management strategies that forest landowners may implement to minimize the impact of forest pests in an environmentally and economically sound manner to meet site specific objectives. When properly used, pesticides and other chemicals can be effective tools in the growing and harvesting of forest tree species.

(3) The purpose of the forest practice chemical and other petroleum product rules is to establish requirements that will ensure:
   (a) Chemicals and other petroleum products used on forestland do not occur in the soil, air, or waters of the state in quantities that would be injurious to water quality or to the overall maintenance of terrestrial wildlife or aquatic life; and
   (b) The vegetative components of riparian management areas and sensitive resource sites receive protection on herbicide operations consistent with the purposes of the reforestation rules, the requirements of the sensitive resource site rules, and the vegetation retention goals of the water protection rules.

(4) All distances listed in the chemical and other petroleum product rules shall be measured horizontally.

(5) Operations involving the use of chemicals and other petroleum products on forestland are also subject to the pesticide control laws administered by the Department of Agriculture, hazardous waste laws administered by the Department of Environmental Quality, hazard communication rules administered by the Occupational Safety and Health Division, the water use laws administered by the Water Resources Department. Maximum contaminant levels in drinking water for certain pesticides are established by the Health Division.

APPLICATION:

This rule is not used for enforcement action. It provides the framework for the rest of the chemical and other petroleum product rules.
ADMINISTRATION:

The term "chemicals" is defined in 629-600-0100. That definition includes the terms "pesticides" and "fertilizers." These terms are not defined in the forest practice rules. Instead, the definition of "chemicals" refers to the Oregon Department of Agriculture's (ODA) statutory definition of "pesticides" in ORS 634.006(8) and of "fertilizers" in ORS 633.311. Since Oregon Department of Forestry (ODF) and ODA coordinate closely on forest pesticide and fertilizer issues, both agencies should use the same definition. The forest practices rules defer to ODA definitions since they apply to all land uses in the state. The lengthy text of ORS 634.006(8) is not provided here, but it can be found at the Oregon State Legislature’s webpage. Knowledge of this ODA definition is useful for understanding the forest practice rule guidance. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Oregon Forest Practices Act jurisdiction:

- The Oregon FPA does not have jurisdiction if the primary purpose of the herbicide application is to manage rangeland (or conduct some other agricultural purpose), even if there might be some ancillary benefit to the endeavor of establishing, managing, and harvesting forest trees. Making this determination can be difficult. One question to ask is whether the activity is one that would be conducted if the trees were not present. Talk with the landowner and others who might be familiar with rangeland practices.

- The FPA has jurisdiction if the primary purpose is to establish or manage forest trees.

ORS 633.311 states,

"‘Fertilizer’ means any substance, or any combination or mixture of substances, designed for use principally as a source of plant food, in inducing increased crop yields or plant growth, or producing any physical or chemical change in the soil and shall contain five percent or more of available nitrogen, phosphorus pentoxide (phosphoric acid) or potassium oxide (potash), singly, collectively or in combination, except hays, straws, peat, and leaf mold, and unfortified animal manures."

The definition of chemicals does not include materials that are used for dust abatement on forest roads. Magnesium chloride or other materials may be used for this purpose. Use of dust abatement products is covered in the road maintenance rules under OAR 629-625-0600(5).

Antidotes or other materials applied after a herbicide application to modify herbicide activity meet the definition of “chemicals” in OAR 629-600-0100. Application of such materials in a forestry context is considered an “operation”, and so is subject to all relevant requirements and FPA standards.

Operators must file notifications of operations with ODF before starting the applications. All other forest practice rules relating to chemical applications apply to repellent applications.

The FPA defines “chemicals”, means and includes all classes of pesticides, such as herbicides, insecticides, rodenticides, fungicides, plant defoliants, plant desiccants, and plant regulators,
ORS 634.006 (8). The Oregon Pesticide Control Law defines “pesticide”, means any substance, or mixture of substances intended to be used for defoliating plants or for preventing, destroying, repelling or mitigating all insects, plant fungi, weeds, rodents, predatory animals or any other form of plant or animal life which is, or which the department may declare to be a pest, which may infest or be detrimental to vegetation, humans, animals, or be present in any environment thereof, ORS 634.006 (8).

Written plan requirements:

a. Statutory written plans are required for operations within the specified distances of protected resources described in OAR 629-605-170, if notification is required under OAR 629-605-0140. Because notification is required for repellent applications, statutory written plans are required if the application will be within the specified distances of the protected resources.

b. Non-statutory written plans are required for animal repellent applications near certain resource sites, OAR 629-605-0170(10). However, in most cases the department expects the potential for adverse alteration of protected resources to be low for repellent applications. With that in mind, Stewardship Forester (SF) may waive the non-statutory written plans for animal repellents in most cases, unless a specific resource concern has been identified.

Tree seeding and planting activities at a forestland site are considered operations subject to the forest practice rules, but under OAR 629-605-0140(2)(c), notification is not required for use of seeds or seedlings that have been pretreated only with repellents. Note: A notification is required if the pretreatment material includes rodenticides.

Treatment of seeds or seedlings with repellents or other chemicals at a nursery or other handling or preparation site constitutes a ODA jurisdiction of chemical applied at that site, not at the forestland planting or seeding site. ODA determined that pesticide application occurs only when the seeds or seedlings are treated, not when the treated material is placed at the field site. Notification is always required for any chemical application to seeds or seedlings after seeding or planting on a forestland site. Notification requirements and other forest practice rules apply to animal repellents used on forestland, which are predominantly used by some of the smaller landowners.

Section (1) Other petroleum products
The use of "other" petroleum products, meaning petroleum products not used in chemical applications (such as fuel, lubricants, and hydraulic fluid), is also subject to the forest practice rules. Two rules, OAR 629-620-0100 and 629-620-0300, address practices that must be followed when other petroleum products are used on forest operations.

Section (2) Integrated pest management
“Integrated pest management” (IPM) is defined in ORS 527.310 (5). IPM is a decision-making process that examines all alternatives for pest control (including vegetation management) and uses a method that is environmentally and economically sound and meets site-specific management objectives. ORS 527.315 lays out a 12-step IPM process that must be followed by the department to control pests on state forestlands. The department is also required to encourage the use of the process when providing technical advice to private and local
government landowners. The division 620 chemical rules were adopted by the Board prior to adoption of division 623. Voluntarily use of integrated pest and vegetation management processes did not recognize the impact to downslope public safety risk from land management activities done on high landslide hazard locations. Land management activities include but are not limited to the practice of killing trees by hack-n-squirt chemical applications or manually griddling and stimulating tree growth by fertilization applications. Note: Operators are encouraged to consider how chemical applications impact downslope public safety risk.

Stewardship Foresters must not require landowners to use any one method of pest control.

Instead, describe the end result needed and, if necessary, provide landowners or operators with a list of possible methods which can achieve that goal. Refer them to other technical experts who can more fully explain the advantages and disadvantages of these different methods. A 1993 OSU publication on alternatives to the use of herbicides for vegetation management is a useful reference.

Section (3) Purpose of rules
When reviewing written plans and plans for alternate practices, the SF should consider this purpose statement. The term “injurious” in (3)(a) is a subjective term. It is important to note that the purpose of the rules is not to maintain chemical-free zones outside of operation area boundaries. During rule development, it was acknowledged that small amounts of applied chemicals may potentially enter non-target areas during forest operations, even if best management practices are followed. However, there is adequate research and monitoring of human health, fisheries, and aquatic invertebrates to indicate that, if the rules are complied with, any effects on protected resources will be very minor, very localized, and very short in duration.

Subsection (3)(b) Herbicide operation compliance with other FPA rules
In addition to compliance with the chemical and other petroleum product rules, herbicide operations must also result in retention of all vegetation required by the water protection rules, reforestation rules, and the sensitive resource site rules. This subsection supplies a principle that applies to many of the questions about chemical application.

There are three sources of regulations on chemical application. The three sources are additive, and the most restrictive limitations among those three must be applied wherever protected resources are present. The three sources of regulations are: 1) the EPA-approved product label, 2) the forest practice rules on chemicals and other petroleum products, and 3) any other forest practice rules or statutes requiring vegetation retention for various purposes.

Section (4) Distances measured horizontally
The distances listed in the chemical and other petroleum product rules must be measured horizontally rather than along the slope.

Section (5) Interagency coordination
Other state agencies that have roles in regulating certain aspects of forest chemical operations. This list is provided for information only. Landowners and operators who have questions about the requirements of other state agencies should be encouraged to contact those agencies directly.
Coordination between ODF and ODA in regulating pesticide use on forestland is formalized in a Memorandum of Agreement. OAR 629-620-0400(1) and the related guidance specifically address compliance with chemical product labels and ODA involvement in label interpretation and enforcement.

**RELATED RULES AND STATUTES:**

- OAR 629-600-0100 “Chemicals”
- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-620-0100 Preventing, controlling, and reporting leaks and spills of chemicals and other petroleum products
- OAR 629-620-0300 Locations of mixing, transfer, and staging areas for chemicals and other petroleum products
- OAR 629-620-0400(1) Protection of the waters of the state and other resources when applying chemicals
- ORS 527.310 and 315 Integrated pest management statutes
- ORS 633.311 Definition of "fertilizers"; ORS 634.006(8) Definition of "pesticides"

**REFERENCES:**

PREVENTING, CONTROLLING, AND REPORTING LEAKS AND SPILLS OF CHEMICALS AND OTHER PETROLEUM PRODUCTS  
OAR 629-620-0100  

(1) The operator shall maintain equipment used for transportation, on-site storage, or application of chemicals in a leak proof condition. If there is evidence of chemical leakage, the operator shall suspend the further use of such equipment until the deficiency has been corrected.

APPLICATION:

This rule section is used for enforcement action. It applies to chemicals only and does not apply to other petroleum products.

COMPLIANCE:

The operator complies with section (1) of this rule if equipment used for transporting, storing or applying chemicals is maintained in a leak proof condition.

 Unsatisfactory Condition: An unsatisfactory condition exists when equipment used for transportation, on-site storage or application of chemicals shows evidence of leakage.

 Damage: Damage occurs when the unsatisfactory condition results in chemicals entering waters of the state.

 Written Statement of Unsatisfactory Condition: A written statement of unsatisfactory condition should be issued if corrective action can be taken before leaked chemical products enter the waters of the state. If the leaked materials enter waters of the state, a violation has occurred, and a written statement is not appropriate.

ADMINISTRATION:

The intent of this rule section is to prevent leaks that could result in chemicals entering the waters of the state. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Section (1) can be used in verbal or written recommendations or in written statements advising operators of actions needed to prevent damage from leaking equipment used in chemical applications.

 Written statements and repair orders must prohibit the use and movement of leaking equipment, but cannot require the repair of the leaky equipment. Equipment repair is the operator's choice. At a minimum, written statements and repair orders should direct the operator to immediately contain and clean-up the leakage from the equipment. Written statements should direct the
operator to take timely action to prevent further leaking and to contain, neutralize, and/or remove any spilled chemical before it enters any waters of the state.

The Department of Environmental Quality (DEQ) has principal and final authority for clean-up of chemical spills in Oregon. However, when there are chemical spills on forestland, ODF personnel are responsible for administering the FPA and taking certain actions related to control and cleanup. Repair orders and written statements should direct control and cleanup of spills, consistent with Directive 6-3-0-002 “Hazardous Materials Incident Reporting and Control.” All ODF personnel who may encounter chemical spills must be familiar with this directive. Specifically, the directive states:

“Trained department employees may only take direct action to control incidental releases or spills. Such action shall only occur if the spilled substance is identified and it is determined that it can be safely absorbed, neutralized, or otherwise controlled in a safe manner with available personnel and equipment.” (Directive 6-3-0-002, Policy 2, page 3.)

When chemical spills are not simply "incidental releases," ODF personnel must not participate directly in control or containment action. Personnel must cooperate fully with agencies responsible for coordinating and directing remedial actions in an emergency response. ODF personnel are not authorized or trained to initiate control action in "emergency response" hazardous materials situations. Improper actions may endanger personnel on the site or result in increased damage to resources or public health.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

- ODF Directive 6-3-0-002 - “Hazardous Materials Incident Reporting and Control”
PREVENTING, CONTROLLING, AND REPORTING LEAKS AND SPILLS OF CHEMICALS AND OTHER PETROLEUM PRODUCTS
OAR 629-620-0100

(2) Operators shall take adequate precautions to prevent leaks or spills of other petroleum products, such as fuel, motor oil, and hydraulic fluid, from entering the waters of the state.

APPLICATION:

This rule section is used for enforcement action. It applies to other petroleum products only and does not apply to chemicals.

COMPLIANCE:

Operators comply with this rule when operations are conducted in a manner that prevents other petroleum products, such as fuel, motor oil, and hydraulic fluid, from entering the waters of the state. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Unsatisfactory Condition: An unsatisfactory condition exists when an operator has not taken reasonable precautions to prevent leaks or spills of other petroleum products and a leak or spill leads to or is likely to lead to entry of the products into waters of the state.

Damage: Damage exists when an unsatisfactory condition results in other petroleum products entering waters of the state.

Written Statement of Unsatisfactory Condition: A written statement of unsatisfactory condition should be issued if corrective action can be taken before other petroleum products enter the waters of the state. If the leaked materials enter waters of the state, a violation has occurred, and a written statement is not appropriate.

ADMINISTRATION:

Section (2) requires operators to take reasonable precautions to control the normal risks of petroleum product leaks or spills directly or indirectly reaching the waters of the state. The simple event of having an accidental leak or spill is not a violation in itself. Operators should be held responsible only for precautions to prevent normally expected risks of petroleum products entering waters. Judgment will be needed to determine what is normal in the operating situation.

Examples: Chocking fuel truck wheels on a steep parking place would be normal, as is brake and transmission maintenance on fuel trucks. Taking the fuel truck home every night lest it be vandalized would be abnormal in most cases.
Section (2) can be used in verbal or written recommendations or written statements advising operators of risky placement or handling of other petroleum products.

Sources of "other petroleum products" are generally so much a part of everyday operations that operators may overlook the potential hazards. Common sources include vehicle fuel tanks, aircraft fuel tanks, fuel supply trucks, waste oil storage containers, supplies of servicing lubricants, diesel for pesticide mixtures, and the like.

Note that this rule section holds the operator responsible for prevention actions, while cleanup and reporting are separate requirements under sections (3) and (4).

ODF will judge the adequacy of prevention actions and leave oversight of leak and spill cleanup and reporting actions to the DEQ. The related rule, OAR 629-630-0400(3), requires removal from forest land of all petroleum waste materials resulting from a forest operation. This is the rule that should be used to enforce cleanup of oil, filters, and oil or grease containers carelessly left on operation sites.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-605-0130 Compliance with the rules and regulations of the DEQ
- OAR 629-630-0400(3) Treatment of waste materials

REFERENCES:

- DEQ Webpage regional contact information
- DEQ overview fact sheet
- Letter from DEQ Spill Prevention & Management Program, August 9, 1994
- ODF Directive 6-3-0-002 - “Hazardous Materials Incident Reporting and Control”
PREVENTING, CONTROLLING, AND REPORTING LEAKS AND SPILLS OF CHEMICALS AND OTHER PETROLEUM PRODUCTS
OAR 629-620-0100

(3) Operators shall take immediate and appropriate action to stop and contain leaks or spills of chemicals and other petroleum products.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

An operator complies with this rule if immediate control or neutralizing action is taken when chemicals or other petroleum products are spilled.

Unsatisfactory Condition: An unsatisfactory condition exists when a leak or spill of chemicals or other petroleum products occurs on an operation and the operator does not take immediate and appropriate action to stop and contain the leak or spill.

Damage: Damage occurs when an unsatisfactory condition results in chemicals or other petroleum products entering waters of the state.

Written Statement of Unsatisfactory Condition: A written statement of unsatisfactory condition should be issued if corrective action can be taken before leaked chemical or other petroleum products enter the waters of the state. If the leaked materials enter waters of the state, a violation has occurred, and a written statement is not appropriate.

ADMINISTRATION:

Stopping and Containing Spills

This rule section requires operators to stop and/or contain any spills that might occur so that the spilled chemicals or other petroleum products do not reach waters of the state. This section does not require operators to clean up spilled material; that is required under state regulations administered by DEQ (see the discussion under the Spill Cleanup heading below). Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

"Immediate" action is when the operator starts to contain or neutralize a spill when first becoming aware of it. "Appropriate" action is achieved by using accepted methods for containment and control of leaks and spills.

ODF will take initial responsibility for directing control action where a spill or leak of oil or hazardous materials takes place as a result of noncompliance with forest practice rules. However, close coordination with other agencies, emergency responders, landowners, operators, and others is needed. Notably, ODF’s authority over leaks or spills related to forest operations overlaps with
DEQ's general authority over all leaks and spills of oil or hazardous materials. In some instances, e.g., reportable, larger, or more complex or dangerous spills, DEQ may assert its overall authority and take a leading role in directing control efforts. See ODF Directive 6-3-0-002, Hazardous Materials Incident Reporting and Control for more information on how to balance ODF and DEQ spill response authorities. Even if ODF does take the lead in directing control actions, DEQ is a valuable resource in helping to determine “appropriate” control actions.

ODF and DEQ worked together to summarize DEQ's rule requirements and these points should be shared with other agencies and interested parties as needed in the event of a leak or spill. ODF personnel should consider taking the following actions as deemed suitable to the situation:

1. Give priority to ensuring that responsible parties communicate to DEQ those leaks and spills that are of reportable quantities. Implement Forest Practices Directive 6-3-0-002, "Hazardous Materials Incident Reporting and Control," in response to spills. See the “Spill Cleanup” section below for details on reportable quantities.

2. Advise parties (particularly forest operators) responsible for non-reportable leaks and spills of their obligation to comply with DEQ rules. Enforcement of reporting and cleanup rules remains DEQ's responsibility. The linkage is in rule OAR 629-605-0130. Refer inquiring responsible parties to DEQ for methods acceptable to meet DEQ cleanup performance standards.

3. Advise responsible parties of their liability and enforce control action on chemical and petroleum leaks and spills likely to enter waters of the state.

4. Unless forest operations are involved, refer complaints to DEQ's field office. A link to a webpage with DEQ office locations and phone numbers is supplied among the references.

Safety
In accordance with the Hazardous Materials Incident Reporting and Control Directive, department employees will act only at the first responder awareness level, meaning they will take direct control actions only for minor spills of known materials that are safe to be near under the given circumstances. See the directive, ODF Directive 6-3-0-002, for more information regarding the first responder awareness level.

Spill Cleanup
ODF personnel should be aware of these DEQ rules and inform operators that they have some responsibilities to DEQ. In summary, this is the way DEQ applies their rules:

1. DEQ rules hold persons responsible for causing or allowing petroleum leaks or spills strictly liable for cleanup. The responsible party may not be the operator. Whoever caused or allowed the leak or spill is the party responsible to DEQ. Such leaks or spills can range from small chronic vehicular leakage, to spillage during machinery use or maintenance, to spills from tank trucks or wrecked vehicle/aircraft fuel tanks.
2. DEQ has authority to require cleanup whether or not they are present to direct the cleanup of any spill, however small or large. DEQ prioritizes its oversight of cleanup efforts by directing attention primarily to spills exceeding reportable quantities.

Reportable quantities are:
- **Waters of the state:** Petroleum products, any quantity spilled into or threatening to enter WOS is reportable. Pesticides, depends on the situation, what was spilled, the quantity, and the effect of the spill (like a fish kill).
- **Ground:** Petroleum, more than 42 gallons, OAR 340-142-0050(1)(c). Most forestry pesticides, more than 200 pounds (25 gallons for liquids), either in concentrated product from a container or from a tank mix, OAR 340-142-0050(1)(g).

Reportable quantities must be reported immediately to the Oregon Emergency Response System at 1-800-452-0311.

Pesticides listed in the federal regulation 40 CFR Part 302 may have different reportable quantities. If there is any question, the responsible party should consider the spill reportable. DEQ can help sort out the actual requirements. Responsible parties are liable for cleanup of lesser spills in accordance with DEQ rule performance standards, but cleanup for such incidents is unlikely to be reviewed by DEQ unless there is a specific request and DEQ has the time.

3. DEQ rule performance standards for cleanup are to achieve the "lowest practicable level" of remaining petroleum, using the "best available methods." Consideration is to be given to such factors as depth to groundwater, soil characteristics, rainfall, and proximity to surface water and people, etc. For non-reportable leaks or spills, the responsible party is left to judge whether their cleanup is adequate, subject to DEQ review if DEQ should become involved (see 2. above).

4. The fate of petroleum leaks or spills is a consideration for the responsible party and DEQ in determining "best available" cleanup efforts. The possible fates of petroleum are the following:
   a. Movement into surface waters or groundwater directly or with rainfall (an outcome to be rigorously avoided);
   b. Evaporation to become a hydrocarbon air contaminant (since petroleum requires high temperatures and maximum exposure to the air, this is unlikely to happen to petroleum soaked into the ground); or
   c. Consumption by microbial action in the soil (the best outcome for petroleum remaining in the soil).

5. Used petroleum leaked or spilled on a site can never be considered a road surfacing treatment as a means of evading cleanup responsibility. Surfacing roads with used petroleum is not permitted under 1993 state and federal law because of the contaminants created during petroleum's use.
RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-605-0130 Compliance with the rules and regulations of the DEQ
- OAR 629-630-0400 (3) Treatment of waste materials
- OAR 340-142-0050 Reportable Quantities

REFERENCES:

- 40 CFR Part 302, table 302.4 List of Hazardous Substances and Reportable Quantities
- DEQ Webpage, DEQ overview fact sheet
- Letter from DEQ Spill Prevention & Management Program, August 9, 1994
- ODF Directive 6-3-0-002 - “Hazardous Materials Incident Reporting and Control”
(4) The operator shall immediately report to the State Forester any chemical spills and other petroleum product spills resulting from the operation that enter, or may enter, the waters of the state. Such notification will not exempt the operator from any requirements of other local, state, and federal agencies to report chemical or other petroleum product spills.

APPLICATION:
This rule section is used for enforcement action.

COMPLIANCE:
An operator complies with this rule when chemical spills and other petroleum product spills resulting from the operation that enter, or may enter, the waters of the state are immediately reported to the State Forester. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Unsatisfactory Condition: An unsatisfactory condition exists when chemical spills and other petroleum product spills resulting from the operation that enter, or may enter, the waters of the state are not immediately reported to the State Forester.

Damage: Resource damage is not a prerequisite for taking enforcement action. There is a violation if an operator fails to report spills of chemicals or other petroleum products to the State Forester at the first reasonable opportunity after the spill.

Written Statement of Unsatisfactory Condition: Under specific conditions listed in OAR 629-670-0125, a written statement of unsatisfactory condition may be issued instead of a citation for certain administrative violations. Use a written statement only if the spilled materials have not yet entered waters of the state, and if there is still an opportunity for the operator to report full information on the spill at the first reasonable opportunity after the spill.

ADMINISTRATION:
Operators are required to inform the department of any spill or leak of a chemical or other petroleum product that enters, or threatens to enter, the waters of the state.

The “first reasonable opportunity” to report the accident will vary for each accident. A report should be immediate if the operator has an industry radio or an in-range mobile telephone. If not, then an allowance must be made for travel to a means of communication. The report may be delayed if the operator and their personnel are required to take emergency containment or lifesaving measures.
When notified of a chemical accident, the SF or the person receiving the notice should refer to the "Hazardous Materials Incident Reporting and Control Directive." Notify Private Forests Division staff as soon as possible. Notify the Oregon Emergency Response System (OERS) at 1-800-452-0311 if Salem staff cannot be immediately contacted.

Reporting spills to the ODF does not exempt operators from the reporting requirements of other state or federal agencies. Operators should be made aware that they also have an obligation under DEQ rules to report spills or releases of "reportable quantities" of oil or hazardous materials, as required by OAR 340-142-0001 through 340-142-0130.

Operators should be encouraged to contact the OERS directly when spills occur. Reporting to OERS will satisfy the requirements of this rule section because OERS will notify the ODF and other state agencies that may need to be informed and involved in a coordinated response strategy. Spill reporting to DEQ is best done through OERS, as that process is most likely to quickly reach the DEQ duty officer. The OERS phone numbers are 1-800-452-0311 or 1-503-378-6377 (local call in the Salem area).

**RELATED RULES AND STATUTES:**

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 340-142-0001 through 340-142-0130- Oil and Hazardous Material Emergency Response Requirements

**REFERENCES:**

- ODF Directive 6-3-0-002 - “Hazardous Materials Incident Reporting and Control”
PROTECTION OF WATER QUALITY DURING MIXING OF CHEMICALS
OAR 629-620-0200

(1) Whenever water is taken from any stream or water impoundment for use in the mixing of chemicals, the operator shall prevent chemicals from entering the waters of the state by taking at least the following precautions:

(a) Providing an air gap or reservoir between the water source and the mixing tank; and

(b) Using pumps, suction hoses, feed hoses, and check valves that are used only for water.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

Operators comply with this rule when the specified precautions are taken to prevent chemicals from entering waters of the state whenever water is taken from any stream or water impoundment for use in the mixing of chemicals. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Unsatisfactory Condition: An unsatisfactory condition exists when an operator takes water from a stream or water impoundment for the use in the mixing of chemicals and does not apply the practices specified in this section.

Damage: Damage occurs when the unsatisfactory condition results in chemicals entering waters of the state.

Written Statement of Unsatisfactory Condition: A written statement should be issued when the operator can take timely and appropriate action to gain compliance with this section rule before chemical entry into water occurs.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

**PROTECTION OF WATER QUALITY DURING MIXING OF CHEMICALS**

**OAR 629-620-0200**

(2) *(For information only)* When water is to be withdrawn from the waters of the state for use in mixing pesticides or for slash burning, ORS 537.141 requires operators to notify the Water Resources Department and the Department of Fish and Wildlife. Notification to the State Forester does not satisfy this requirement.

**APPLICATION:**

ODF will not use this rule section for enforcement action. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

**ADMINISTRATION:**

Operator responsibilities
Operators must inform both the Water Resources Department (WRD) and Oregon Department of Fish and Wildlife (ODFW) when water will be withdrawn from the waters of the state for use in mixing pesticides or for slash burning. Operators can send the local offices of WRD and ODFW copies of the ODF notification, with an explanatory note about their planned actions attached. Operators must identify the type of water use and the source on the ODF notification form as described in the instructions. If after fifteen days, WRD or ODFW have not informed the operator of water use restrictions, the operator may use the water and comply with the water law.

Other agencies’ responsibilities
WRD or ODFW must inform the operator within fifteen days of water use restrictions, otherwise the operator may use the water and be in full compliance with water law. For use of water for mixing pesticides or slash burning, WRD does not have an annual fee, nor is there an annual limit on the time period of the use.

ODF’s responsibility
ODF is not involved in notifying WRD or ODFW. However, ODF, when requested by the operator, must provide the addresses of local WRD and ODFW offices. Waiver of the 15-day waiting period by ODF does not apply to WRD’s requirements. ODF does not have an agreement with WRD to not waive the 15-day waiting period, like ODF has with OPRD for notifications within ¼ mile of Oregon scenic waters.

**RELATED RULES AND STATUTES:**

- ORS 537.141 Uses of water not requiring water right application, permit or certificate
- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

**REFERENCES:**

**LOCTIONS OF MIXING, TRANSFER, AND STAGING AREAS FOR CHEMICALS AND OTHER PETROLEUM PRODUCTS**

OAR 629-620-0300

(1) Operators shall conduct the following activities only in locations where spillage of chemicals or other petroleum products will not enter the waters of the state:
   
   (a) Mixing chemicals;
   
   (b) Transferring chemicals or other petroleum products between equipment or containers including, but not limited to, fueling of aircraft or heavy equipment;
   
   (c) Cleaning tanks or equipment used during chemical applications;
   
   (d) Landing and staging aircraft.

(2) Notwithstanding section (1), operators shall not locate chemical mixing and staging areas for aerial chemical applications within 100 feet of Type F, Type SSBT or Type D streams.

**APPLICATION:**

This rule is used for enforcement action.

**COMPLIANCE**

Operators comply with section (1) of this rule by conducting the listed activities only in locations where spills of chemicals or other petroleum products will not reach waters of the state. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Operators comply with section (2) by locating chemical mixing or staging areas at least 100 feet (horizontal distance) from Type F, Type SSBT, or Type D streams.

Unsatisfactory Condition: There is an unsatisfactory condition under section (1) if an operator conducts any of the activities listed in the section in locations where spills of chemicals or other petroleum products are likely to reach waters of the state. There is an unsatisfactory condition under section (2) if an operator locates a mixing or staging area for aerial chemical applications within 100 feet of the high water level of a Type F, Type SSBT or Type D stream.

Damage: Damage exists under section (1) or section (2) if the unsatisfactory condition leads to chemicals or other petroleum products entering waters of the state.

Written Statement of Unsatisfactory Condition: For both sections (1) and (2), a written statement should be issued if the operator can take timely and appropriate action to prevent damage. Timely and appropriate action is when the operator immediately stops use of the location and moves the operation to a more appropriate location. In addition, if a leak or spill has occurred but has not entered waters of the state refer to OAR 629-620-0100 guidance.
ADMINISTRATION:

Rule subsections (1)(b) and (1)(d) apply to both chemicals and other petroleum products. Rule subsections (1)(a) and (1)(c) and section (2) apply only to chemicals. Section (2) sets a minimum distance requirement from streams for mixing or staging areas for aerial chemical applications, regardless of the potential risk of spilled chemicals reaching the waters of the state. In some situations, the requirements of Section (1) may result in the need for even greater distances between mixing or staging areas and Type F, Type SSBT and D streams.

Also refer to the guidance for OAR 629-620-0100. A spill situation may result in violations of portions of both rules. The DEQ will typically be involved as the lead agency in spill responses and will determine directly with the operator what is "appropriate" action in controlling and neutralizing a spill.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-620-0100 Preventing, controlling, and reporting leaks and spills of chemicals and other petroleum products
- OAR 629-630-0400(3) Treatment of waste materials

REFERENCES:

- ODF Directive 6-3-0-002 - “Hazardous Materials Incident Reporting and Control”
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(1) When applying chemicals aerially or from the ground, operators shall protect waters of the state and other forest resources by following the requirements of the chemical product label and by meeting the additional protection measures listed in this rule.

APPLICATION:

The primary purpose of this section is to introduce the remaining sections of this rule. This section may be used for enforcement action for failure to comply with chemical product label requirements. However, in most instances of potential label violations, the ODA Pesticide Division will take the lead in investigation and enforcement action, with ODF in a supporting role.

COMPLIANCE:

To comply with this section, chemical applications must be made in a manner consistent with the practices required by the product label.

The inclusion of the “conifer plantation” in a pesticide product label allow use of that product in forest management, as long as the forest stand in question is actively managed and the predominant species is conifer. However, some labels with the “conifer plantation” allowance may also have a section prohibiting use on “forests”; in that instance, it would not be legal to use the product in forest management. If there is any uncertainty about a specific product consult with ODA and/or refer the pesticide user to that agency.

 Unsatisfactory Condition: An unsatisfactory condition exists when an operator fails to comply with all applicable requirements on a chemical product label.

 Damage: Damage is not a prerequisite for a violation. In most instances, an unsatisfactory condition is a violation. However, close consultation with the ODA, the lead agency in this instance, is needed before enforcement action is initiated.

 Written Statement of Unsatisfactory Condition: A written statement may be issued for minor violations of chemical product label requirements if water quality and other forest resources have been harmed. Close consultation with the ODA, the lead agency in this instance, is needed before enforcement action is initiated.

ADMINISTRATION:

This rule section introduces the seven following sections which require specific practices to protect the waters of the state and other resources during forest chemical applications. The
section also requires operators to comply with the label requirements of any forest chemical products used on an operation. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

The ODA's Pesticide Division has the primary responsibility for enforcement of chemical label requirements. When an SF becomes aware that a chemical application may have been made in a manner inconsistent with the product label wording, this information must be shared with Pesticide Division investigators. Salem Private Forests Division staff can assist the SF in relaying this information. Following consultation with ODA, SFs. may be required to issue a citation and prepare a case brief, but civil penalties for label violations will generally be issued through ODA's process, not through the Private Forests Division.

Chemical drift across a property line:

ODA acknowledges chemical drift across a property line to be an application outside the target area and a practice inconsistent with the product label.

ODA enforces compliance with product labels when it discovers applications of chemicals were made in a "faulty, careless, or negligent manner."

SF should promptly report chemical drift or chemical application across a property line to ODA for investigation, and assist ODA in such investigations.

Information on forest chemicals, including product labels, is maintained at the department website shown under REFERENCES. Most current information is found on chemical product websites. SF should become familiar with the environmental and human health protection requirements on the current product labels for the most commonly applied chemicals in their area. Some of these requirements have significant implications for forest operations.

Example: Some sulfometuron methyl products contain language similar to the following for helicopter applications: “maintain adequate buffer distance between any homestead, agricultural land, or other desirable plantings to avoid adverse impacts to desirable vegetation.” ODA interprets these terms as meaning any yard, pasture, garden, field, and perhaps even range land. Aerial applications of these products, especially near a property line, should be given special attention to ensure label compliance. In addition, some 2,4-D labels require specific no-application buffers for downwind residential areas. Many other forest pesticide labels suggest or require that precautions be taken to avoid drift onto sensitive sites such as residential areas or susceptible vegetation.

Example: The labels for some glyphosate products allow direct application to water under certain conditions. Despite the label wording, such a practice is not allowed where it is otherwise prohibited by the forest practice rules. Applications must be conducted in compliance with the buffer requirements of the chemical rules and the vegetation retention requirements of the water protection rules.
RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

- ODF website “Pesticide Use in Oregon’s Forests,” at Memorandum of Agreement: ODA and the Oregon Board of Forestry dated July 6, 1995
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(2) When applying herbicides near or within riparian management areas or waters of the state, operators shall maintain vegetation required to be protected by the water protection rules.

APPLICATION:

This section may be used for enforcement action. However, in most instances, if a chemical application negatively impacts vegetation required to be retained under the Water Protection Rules, take enforcement action under those rules.

COMPLIANCE:

An operator complies with this rule when, after application of herbicides, the retained vegetation in riparian management areas is at levels that meet or exceed the standards set in the water protection rules.

Unsatisfactory Condition: An unsatisfactory condition exists when a herbicide application affects vegetation required to be retained near or within riparian management areas or waters of the state to the extent that the intended functions of the vegetation are no longer provided.

Damage: An unsatisfactory condition under this section automatically leads to damage. However, enforcement action should be taken under the applicable water protection rule rather than this rule section.

ADMINISTRATION:

This requirement to avoid damaging vegetation otherwise required to be retained applies even if the herbicide is labeled for aquatic use (e.g., some glyphosate products). The requirement also applies to herbicide applications for road maintenance and roadside vegetation control.

Vegetation within the stream buffer at road crossings is needed to protect water quality from sedimentation, warming, and chemical pollution.

The Water Protection Rules require maintenance of vegetation, including understory vegetation, for Type F, Type SSBT streams, Type D streams, large and medium Type N streams, small Type N streams that meet the criteria in OAR 629-642-0400(6), significant wetlands, large lakes, and lakes that have fish or that are at least ½ acre in size. When conducting chemical operations along “other wetlands,” springs or seeps, operators must protect vegetation from disturbances, which would cause adverse effects on water quality.

The no-direct application buffers described in the remaining sections of this rule provide additional protection for vegetation near waters of the state. In most instances, if a herbicide
application leads to the violation of the Water Protection Rules, violations of either section (3) or section (4) of this rule will have occurred as well.

The rule section text states, "When applying herbicides . . . within . . . waters of the state . . . ." This wording is intentional since operations may involve applications to wetlands that are not "significant" and do not contain water at the time of the application, but which are still technically "waters of the state." Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

The no-direct application zones are measured starting at the high water level as defined in OAR 629-600-0100(36), regardless of whether or how much water is present in a channel.

**RELATED RULES AND STATUTES:**

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-625-0600 Road maintenance
- OAR 629-642-0000 to 629-655-0000 Water Protection Rules: Vegetation retention along streams; Riparian management areas and protection measures for significant wetlands; Riparian management areas and protection measures for lakes
- OAR 629-650-0000 RMAs and Protection Measures for Lakes
- OAR 629-655-0000 Protection Measures for “Other Wetlands,” Seeps and Springs

**REFERENCES:**

PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(3) Weather conditions such as temperature, relative humidity, wind speed, wind direction, atmospheric temperature inversions, and precipitation may strongly affect the deposition and drift of chemicals during aerial and pressurized, ground-based chemical applications. Operators shall apply chemicals only under weather conditions which will protect non-target forest resources and comply with the product label and the other sections of this rule.

APPLICATION:
This section is used for enforcement action.

COMPLIANCE:
Operators comply with this section by applying chemical only when weather conditions are such that nontarget forest resources will be protected, and the application will comply with product labels and other sections of this rule. The operator is responsible for following the product label.

Unsatisfactory Condition: An unsatisfactory condition exists when an operator applies chemicals under weather conditions such that:
• Non-target resources such as water quality or vegetation required to be retained are not protected; or
• The application does not comply with the labels of any chemical products applied; or
• The application violates other sections of this rule.

Damage: An unsatisfactory condition under this section automatically leads to damage. However, in most instances, applications under improper weather conditions will result in noncompliance with label requirements under section (1), or result in noncompliance with the buffer requirements of sections (4), (5), (6), or (7) of this rule. In such cases, enforcement action should be taken under those rule sections rather than this section.

If all other sections of this rule are complied with, but it is determined that the application occurred under weather conditions that resulted in damage to protected resources, enforcement action should be taken under this rule section.

As with any enforcement action, review with the Forest Practices Field Coordinator.

ADMINISTRATION:
Weather Conditions; Label Requirements and Resource Protection:
The labels for many herbicide products registered for forest use in Oregon contain some direction to avoid application during windless or inversion conditions, or during gusty...
conditions. Some labels may restrict application based on other specific weather conditions. Section (3) of this rule, along with other regulations, puts the full responsibility on the chemical applicator to apply chemicals only when weather conditions are such that the application will comply with pesticide product label requirements and that non-target forest resources will be protected.

**Applicators are responsible for taking all precautions that are necessary to comply with pesticide product labels and to avoid damaging drift onto forest resources or off-site sensitive areas such as residential areas or agricultural fields.**

Applicators must consider weather conditions in connection with the pesticide product(s) in use, tank mixes, application equipment, application techniques, local topography, and nearby sensitive resources. Because there are so many variables in these conditions, ODF should not recommend specific allowable temperature, relative humidity, or wind velocity figures for chemical applications. References are available to guide applicators, but even these tend to avoid specific numbers (see REFERENCES below).

Note that the ODA will take the lead in investigation and enforcement action related to potential label violations, with ODF in a supporting role. See the guidance for OAR 629-620-0400(1) for more information.

SFs are asked to watch for, and report to Private Forests Division staff, any adverse effects detected outside of application areas where weather conditions may have been a factor.

Applicators must measure and record weather data during the application, as required by OAR 629-620-0600.

**Temperature and Relative Humidity:**
Chemical application in high temperatures and low humidities can lead to off target movement of chemicals in two ways:

- Evaporation of applied droplets and subsequent air movement of dried chemical particles; and/or
- Volatilization of chemical active ingredients in aerial or deposited droplets and subsequent air movement of the active ingredient vapor. For herbicides, the potential for volatilization is primarily a concern for products in ester formulations.

Most labels for forestry pesticide products note that the potential for off-target movement increases when ambient temperatures are high and relative humidities are low. Typically, pesticide product labels do not give specific temperature or humidity figures. Some publications recommend avoiding pesticide applications when ambient temperatures exceed 70 or 75 degrees Fahrenheit.

**Wind Speed and Direction:**
Aerial applications and pressurized, broadcast, ground-based applications of chemicals should generally be applied when wind velocities are relatively low, but not under totally calm conditions. Pesticide product labels often suggest or require that applications take place only under specific wind velocities and conditions. Whenever possible, applications should be
conducted when winds are blowing away from sensitive, non-target sites. When aerially applying insecticides with very small droplet sizes, drift off-target is more likely. In these situations, a low-velocity wind blowing away from sensitive non-target sites is preferable to totally calm conditions.

Chemical applications should not take place when air turbulence (e.g., thermal updrafts) is so great that it seriously affects the normal spray pattern. Evidence of turbulence includes the presence of convective clouds and "dust devils" in open areas. Applications should also not take place under inversion conditions. Signs of inversions are very calm wind conditions and a visible “lid” or ceiling on haze or smoke in the area. Under inversion conditions, fine spray droplets can hold together in a concentrated cloud, with the potential for damage from off-site deposition. Many pesticide product labels advise against application when inversion conditions are present.

**Precipitation:**
Chemical applications should not take place in foggy conditions; during or immediately prior to snow, hail, or rain storms; or when snow or ice covers target vegetation. "Storms" means high intensity precipitation events that have the potential to move the chemical off-target through run-off during the application. Applications under any situation where the soil is already saturated should also be considered inappropriate. Unless stated otherwise in the pesticide product label, low intensity rain events, such as drizzle, mist, or light showers, are not weather conditions which would prohibit chemical applications (although such conditions may reduce the effectiveness of the applied chemical).

**RELATED RULES AND STATUTES:**
- OAR 629-620-0600 Daily records of chemical applications

**REFERENCES:**
- ODA. Undated. Take Care While Using Broadleaf Herbicides (2-page flyer). ODA. Salem, Oregon.
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(4) Except where the product label or sections (2), (6), or (7) apply more stringent requirements, when applying chemicals by aircraft, operators shall not directly apply chemicals within 60 feet of:

(a) Significant wetlands,
(b) The aquatic areas of Type F, Type SSBT and Type D streams,
(c) The aquatic areas of large lakes,
(d) The aquatic areas of other lakes with fish use, or
(e) Other areas of standing open water larger than one-quarter acre at the time of the application.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

Operators comply with this section when chemicals (other than fertilizers, fungicides, and nonbiological insecticides) are not directly applied aerially within 60 horizontal feet of any of the specific types of waters of the state listed.

Unsatisfactory Condition: An unsatisfactory condition exists when chemicals are directly applied aerially within 60 horizontal feet of the specific types of waters of the state listed in this section.

Damage: Observed natural resource damage is not a prerequisite for a violation of this section. An unsatisfactory condition under this section is automatically a violation. There is no opportunity to correct the unsatisfactory condition to avoid a violation.

ADMINISTRATION:

Note that sections (2), (6), and (7) contain additional restrictions based on protection of retained vegetation for the use of fertilizers, fungicides, or nonbiological insecticides.

"Other areas of standing open water" are bodies of still or nearly still waters of the state, regardless of their classification. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Examples: Ponded water (e.g., beaver ponds, ponded pump chances, or other slow or ponded water) in Type N streams, other lakes without fish, or other wetlands, as long as the ponded or slow water covers more than one-quarter acre at the time of application.
"Direct application" means chemical is applied at at least the same concentration as applied to the target area. To visually assess if direct application of herbicides has occurred, compare vegetation within the target unit and within the buffer strip. If the chemical effects are the same or similar between the two areas, then direct application and damage has occurred in the buffer.

The goal for this rule section is to buffer the listed waters to avoid direct entry of the chemicals into these waters and to protect the vegetative components of riparian areas.

**The purpose is not to maintain a chemical-free zone.**

If a chemical has been **directly applied** within the 60-foot distance, there is no opportunity to eliminate the consequences of not complying with the rule.

Direct aerial application of an herbicide between 10 and 60 feet from a water body listed in section (4) of this rule is considered a rule violation, while a direct ground application to the same area is not. A wider aerial application buffer is necessary because of its higher potential for off-target drift into adjacent waters. In contrast, some ground application methods with extremely low potential for drift, such as pellets or hack and squirt, can be applied closer to water without damage to protected vegetation or water quality.

The 60-foot buffer should be viewed as minimum distances from water for direct applications. Weather conditions and application methods may require even wider buffers to ensure compliance with the label, the water protection rules, and the chemical rules.

The water protection rules require vegetation retention within RMAs up to 100 feet (up to 200 feet for estuaries) from the aquatic area. Therefore, even though this rule section requires a 60-foot buffer, a wider buffer may be needed to comply with section (2) of this rule. Weather conditions at the time of application (especially winds blowing toward the water) may dictate an even wider application distance between the aircraft and the water to comply with both this section and section (2).

**Type N streams:**

Except where there are areas of standing open water greater than one-quarter acre, enforcement action cannot be taken under this rule section for failure to maintain a no-direct application buffer along Type N streams. However, chemical applications near or over these streams must be conducted in compliance with the restrictions described on the chemical label and must maintain the vegetative components required by the water protection rules (see OAR 629-620-0400 (1) and (2)). Most pesticide product labels prohibit direct application to, or introduction of chemicals into, streams, lakes, ponds, or open water. In addition, the water protection rules require retention of undisturbed vegetation along many Type N streams (see OAR 629-642-0400(6)).

Some herbicides are labeled for aquatic use and may be used over water during forest operations under limitations specified by the label, the chemical rules, and the water protection rules. Such applications may only occur outside the direct application buffers prescribed by the chemical
rules and only in a manner that retains the vegetation required by the water protection rules. Permissive label language does not void these rule requirements.

**RELATED RULES AND STATUTES:**

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

**REFERENCES:**

- Vegetation retention requirements listed in OAR 629-642, 645, and 650, and 655
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(5) Except where the product label or sections (2) or (6) apply more stringent requirements, when applying chemicals from the ground, operators shall not directly apply chemicals within 10 feet of:

(a) Significant wetlands,
(b) The aquatic areas of Type F, Type SSBT and Type D streams,
(c) The aquatic areas of large lakes,
(d) The aquatic areas of other lakes with fish use, or
(e) Other areas of standing open water larger than one-quarter acre at the time of the application.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

Operators comply with this section if chemicals (other than fertilizers) are not directly applied from the ground within 10 horizontal feet of any of the specific types of waters of the state listed.

Unsatisfactory Condition: An unsatisfactory condition exists when chemicals are directly applied by ground within 10 horizontal feet of the specific types of waters of the state listed in this section.

Damage: Observed natural resource damage is not a prerequisite for a violation of this section. An unsatisfactory condition under this section is automatically a violation. There is no opportunity to correct the unsatisfactory condition to avoid a violation.

ADMINISTRATION:

Note that sections (2) and (6) contain additional restrictions based on protection of retained vegetation or the use of fertilizers.

“Other areas of standing open water” are bodies of still or nearly still waters of the state, regardless of their classification. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Examples: Ponded water (e.g., beaver ponds, ponded pump chances, or other slow or ponded water) in Type N streams, other lakes without fish, or other wetlands, as long as the ponded or slow water covers more than one-quarter acre at the time of application. Although ground
application is allowed up to 10 feet from the aquatic area, applicators must still protect vegetation along these waters as required by the Water Protection Rules.

“Direct application” means chemical is applied at at least the same concentration as applied to the target area. To visually assess if direct application of herbicide has occurred, compare vegetation within the target unit and within the buffer strip. If the chemical effects are the same or similar between the two areas, then direct application and damage has occurred in the buffer. ODA’s investigation may include collecting and testing vegetation samples to determine if “direct application” has occurred, too.

The goal for this rule section is to buffer the listed waters to avoid direct entry of the chemicals into these waters and to protect the vegetative components of riparian areas.

**The purpose is not to maintain a chemical-free zone.**

If a chemical has been **directly applied** within the 10-foot distance, there is no opportunity to eliminate the consequences of not complying with the rule.

The water protection rules require vegetation retention within RMAs up to 100 feet (up to 200 feet for estuaries) from the aquatic area. Therefore, even though this rule section requires a 10-foot buffer, a wider buffer may be needed to comply with section (2) of this rule. Weather conditions at the time of application (especially winds blowing towards the water) may dictate an even wider application distance between the applicator and the water to comply with both this section and section (2).

Direct aerial application of a herbicide between 10 and 60 feet from a water body listed in section (5) of this rule is considered a rule violation, while a direct ground application to the same area is not. In contrast, some ground application methods with extremely low potential for drift, such as pellets or hack and squirt, can be applied closer to water without damage to protected vegetation or water quality. In any case, ground-based applications of chemicals are not allowed within 10 feet of the waters of the state protected under OAR 629-620-0400.

The 10-foot buffer should be viewed as the minimum distance from water for direct applications. Weather conditions and application methods may require even wider buffers to ensure compliance with the label, the water protection rules, and the chemical rules.

**Example:** A broadcast ground application adjacent to a stream would probably require more than the required 10-foot buffer to prevent drift into the stream in violation of the label, or the water protection rules, or the chemical rules.

**Type N streams:**

Except where there are areas of standing open water greater than one-quarter acre, enforcement action cannot be taken under this rule section for failure to maintain a no-direct application buffer along Type N streams. However, chemical applications near or over these streams must be conducted in compliance with the restrictions described on the chemical label and must maintain the vegetative components required by the water protection rules (see OAR 629-620-
0400 (1) and (2)). Most pesticide product labels prohibit direct application to, or introduction of chemicals into, streams, lakes, ponds, or open water. In addition, the water protection rules require retention of undisturbed vegetation along many Type N streams (see OAR 629-642-0400(6)).

Some operations may propose the use of a herbicide that has a label allowing direct application to water, for roadside applications to control vegetation in ditches and to control visibility-limiting vegetation. Aquatic use herbicides may be applied from the ground over ditches, whether dry or wet, provided the vegetation retention requirements of the water protection rules are met and provided that direct application does not occur within 10 feet of the waters listed in this rule section. Near such waters, mechanical vegetation control methods may be used as an alternative to herbicides, provided that those methods also comply with the water protection rules. (Road maintenance guidance for OAR 629-625-0600 discusses such mechanical vegetation control methods near streams.)

Any herbicide labeled for aquatic use that reaches the waters listed in this rule section (such as through ditch water transport), but otherwise was applied in accordance with the chemical rules and the water protection rules, is tolerable because of the chemical's label. Note that labels allowing aquatic application also restrict other aspects of application such as the proximity to domestic water intakes.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-625-0600 Road maintenance

REFERENCES:

- Vegetation retention requirements listed in OAR 629-642, 645, and 650, and 655
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(6) Operators shall not directly apply fertilizers within 100 feet of Type D streams and the domestic use portions of Type F or Type SSBT streams. For other waters of the state, no untreated strips are required to be left by operators when applying fertilizers, except that operators shall not directly apply fertilizers to:

(a) The aquatic areas of other Type F or Type SSBT streams or to large and medium Type N streams,

(b) Significant wetlands,

(c) The aquatic areas of large lakes,

(d) The aquatic areas of other lakes with fish use, or

(e) Other areas of standing open water larger than one-quarter acre at the time of the application.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

An operator complies with this section when fertilizer is not directly applied within 100 horizontal feet of any Type D stream or the domestic use portion of a Type F or Type SSBT stream, and if fertilizer is not directly applied to the other specific waters of the state listed.

Unsatisfactory Condition: An unsatisfactory condition exists if:

- An operator directly applies a fertilizer within 100 horizontal feet of a Type D stream or the domestic use portion of a Type F or Type SSBT stream; or
- An operator directly applies a fertilizer within any of the other waters listed in subsections (5)(a) through (5)(e) of this rule.

Damage: Observed natural resource damage is not a prerequisite for a violation of this section. An unsatisfactory condition under this section is automatically a violation. There is no opportunity to correct the unsatisfactory condition to avoid a violation.

ADMINISTRATION:

The goal for this rule section is to avoid direct entry of fertilizer into the listed waters and to provide an even higher level of protection to domestic-use waters by requiring a buffer. The introduction of nutrients into domestic-use streams can make water treatment for human consumption more difficult and expensive. This buffer width was based upon research literature introduced during the development of the water protection rules (see Bisson et al. 1992 under REFERENCES). The research literature showed evidence that maintaining a wide buffer is key to preventing fertilizer from reaching waters. This conclusion is linked to the application method
and the granular form of most fertilizers. Any plans for alternate practices proposing narrower buffers must adequately address how water quality protection will be assured.

"Other areas of standing open water" are bodies of still or nearly still waters of the state, regardless of their classification. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

Examples: Ponded water (e.g., beaver ponds, ponded pump chances, or other slow or ponded water) in Type N streams, other lakes without fish, or other wetlands, as long as the ponded or slow water covers more than one-quarter acre at the time of application.

To visually assess if compliance has occurred, it may be possible to compare the "prill" deposition in the ground within the target unit and within the buffer strip. If the quantity of prills present is the same or similar between the two areas, then direct application has occurred and the rule section has been violated.

Listed aquatic areas that do not contain water at the time of application still require protection because prills entering the aquatic area will remain in place and enter into solution when water returns.

ODF’s GIS water classification layers show stream segments that are classified as Type D or as domestic use portions of Type F or Type SSBT streams. Where domestic use classifications still need to be made on stream segments, use the criteria in OAR 629-635-0200 (6) and (7)(a). As they are identified, these upper limits should be noted on the GIS water classification layers.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”
- OAR 629-635-0200 Water classification

REFERENCES:

### PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
#### OAR 629-620-0400

#### (7) (a) Except as allowed under subsections (d) and (e), operators shall not directly apply fungicides or non-biological insecticides by aircraft, within 300 feet of:
- **(A)** Significant wetlands,
- **(B)** The aquatic areas of Type F, Type SSBT and Type D streams,
- **(C)** The aquatic areas of large lakes,
- **(D)** The aquatic areas of other lakes with fish use, or
- **(E)** Other areas of standing open water larger than one-quarter acre at the time of the application.

#### (b) Operators shall not directly apply fungicides or non-biological insecticides by aircraft within 60 feet of the aquatic areas of Type N streams containing flowing water at the time of application.

#### (c) For the purpose of this rule, "biological insecticide" means any insecticide containing only naturally occurring active ingredients including, but not limited to, viruses, bacteria, semiochemicals (pheromones), or fungi.

### APPLICATION:
This rule section is used for enforcement action.

### COMPLIANCE:
An operator complies with this rule when fungicides and non-biological insecticides are not directly applied aerially within 300 horizontal feet of any of the specific types of waters of the state listed under subsection (a) or within 60 horizontal feet of any Type N streams containing flowing water at the time of application. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

**Unsatisfactory Condition:** There is an unsatisfactory condition when any of the following occur:
- Fungicides or non-biological insecticides are directly applied within 300 horizontal feet of any waters listed in subsection (a) this rule or within 60 horizontal feet of waters described in subsection (b) of this rule; and
- There is no approved plan for alternate practice under subsection (7)(d) of this rule that would allow the practice.

**Damage:** Observed natural resource damage is not a prerequisite for a violation of this section. An unsatisfactory condition under this section is automatically a violation. There is no opportunity to correct the unsatisfactory condition to avoid a violation.
ADMINISTRATION:

"Other areas of standing open water" are bodies of still or nearly still water, regardless of their classification.

Examples: Ponded water (e.g., beaver ponds, ponded pump chances, or other slow or ponded water) in Type N streams, other lakes without fish, or other wetlands, as long as the ponded or slow water covers more than one-quarter acre at the time of application.

The goal for this rule section is to buffer the listed waters to avoid direct entry of the chemicals into the listed waters and to prevent unacceptable levels of water contamination. The purpose is not to maintain a chemical-free zone.

The rule section is violated if a plan for an alternate practice has not been approved under the provisions of OAR 629-620-0400(7)(d) and the SF determines through visual observation, water sample results, or other methods that either type of chemical was applied directly within the specified 300-foot or 60-foot buffers.

Since fungicides and non-biological insecticides are relatively more toxic than other forest chemicals, and because the common aerial application methods for non-biological insecticides make them more likely to drift off target, the rules contain more stringent buffer requirements.

SFs are encouraged to inform Private Forests Division staff as soon as they become aware of any planned fungicide or non-biological insecticide applications. Such applications are a high priority for rule effectiveness monitoring.

A definition for "biological insecticide" is provided in (7)(c). The definitions of "fungicide" and "insecticide" are provided in ORS 634.006(8).

RELATED RULES AND STATUTES:

- ORS 634.006 Definitions - (8) “Pesticides”
- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(7) (d) Plans for alternate practices that modify the requirements of subsections (a) and (b) may be approved by the State Forester. Approvals of such plans shall be based on a written finding by the State Forester determining that:

(A) Such a modification is essential to control a fungus or a population of an insect species to reduce damage to, and to better provide for, the overall maintenance of forest resources protected under the Forest Practices Act;

(B) The operational or weather condition constraints placed on the application by the plan for alternate practice, in addition to the requirements of the forest practice rules and the product label, will reduce the potential for the fungicide or non-biological insecticide to drift outside the operation area or to enter the waters of the state; or

(C) Adequate documentation has been submitted by the operator indicating the toxicity to humans, fish populations, or to aquatic invertebrate populations of the fungicide or non-biological insecticide to be applied is lower than the documented toxicity of the fungicide chlorothalonil or the non-biological insecticide carbaryl, as used in forestry prior to September 4, 1996.

APPLICATION:

This rule section is not used for enforcement action. If a plan for an alternate practice is not submitted by the operator and approved by the State Forester, the standards in subsections (7)(a) through (c) of this rule apply.

ADMINISTRATION:

Paragraphs (7)(d)(A) through (C) list three scenarios where the aerial application buffer requirements of sections (7)(a) or (7)(b) can be reduced. During the development of OAR 629-620-0400(7), the department acknowledged that the technical basis for the required buffer widths was based primarily on a very small number of water samples following aerial carbaryl insecticide applications. Given this limited information, the rule takes a very conservative approach, but allows specific opportunities to modify the buffer requirements. Such modifications require that a plan for an alternate practice be submitted for approval and that, as part of its approval, the department issue a written finding establishing that at least one of the requirements of OAR 629-620-0400(7)(d) has been met.

SFs should contact Private Forests Division staff for assistance in evaluating such plans for an alternate practice and in developing findings for plans that will be approved.
Paragraph (7)(d)(A) of this rule allows reductions in the aerial buffer requirements when a department finding can be made that the damage to protected resources (over time and/or space) from the target pest would be greater using the standard buffer widths than the damage to protected resources that would result if these chemicals were applied closer to the waters.

Paragraph (7)(d)(B) of this rule allows reductions in the aerial buffer requirements when a department finding can be made that the additional self-imposed operational or weather constraints placed on the application by the operator will reduce the potential for off-target chemical drift compared to an application of the same chemical without these constraints.

Examples of such constraints include, but are not limited to:
1. Applications only under favorable wind speed and direction conditions.
2. Application heights above ground averaging 100 feet or less.
3. Nozzle configurations that result in an average volume mean diameter of spray droplets of 400 microns or larger.
4. Use of drift control additives.

Paragraph (7)(d)(C) of this rule allows reductions in the aerial buffer requirements when a department finding can be made that the fungicide or non-biological insecticide is less toxic to humans, fish, or aquatic invertebrates than formulations of either chlorothalonil or carbaryl available for use in 1996. The rule paragraph acknowledges that fungicides and non-biological insecticides may be developed for forestry use in the future that are less toxic than the chemicals most frequently used at the time the rules were adopted. This rule paragraph rewards operators who use less toxic chemicals by potentially allowing treatments closer to the waters of the state. Waters of the state include springs, water developments, and canals, see full definition in OAR 629-600-0100.

In no case should a plan for an alternate practice be approved under the provisions of OAR 629-620-0400 (7)(d)(B) and (C) that would reduce the buffer requirements below the standards set in OAR 629-620-0400(4).

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(7) (e) The requirement of sections (a) and (b) do not apply to pest eradication programs conducted on forestland by the Department of Agriculture.

APPLICATION:

This rule section is not used enforcement action.

ADMINISTRATION:

ODF policy is that pest eradication programs conducted by the ODA under that agency's statutory authority are not considered forest operations and therefore are not subject to the requirements of the Forest Practices Act. Since the most common type of ODA pest eradication project of forestlands will likely be insect control, this rule section highlights that ODA applications of non-biological insecticides are not regulated in the rule section's requirements. Although they are not directly addressed in the rules, other ODA pest eradication programs on forestland involving chemicals, such as herbicide applications for noxious weed control, are also not subject to forest practices regulation.
PROTECTION OF THE WATERS OF THE STATE AND OTHER RESOURCES WHEN APPLYING CHEMICALS
OAR 629-620-0400

(8) The operator shall make all aerial chemical applications parallel to the edge of the water when applying chemicals within 100 feet of:
   (a) Significant wetlands,
   (b) The aquatic areas of Type F, Type SSBT and Type D streams,
   (c) The aquatic areas of large lakes,
   (d) The aquatic areas of other lakes with fish use, or
   (e) Other areas of standing open water larger than one-quarter acre at the time of the application.

APPLICATION:

This rule section is used for enforcement action.

COMPLIANCE:

An operator complies with this rule when aerial applications of chemicals within 100 horizontal feet of the listed waters of the state are made along a flight line parallel to the water edges.

Unsatisfactory Condition: An unsatisfactory condition exists when an operator aerially applies chemicals within 100 horizontal feet of the listed waters in this section in a flight line that is not generally parallel to those waters.

Damage: Observed natural resource damage is not a prerequisite for a violation under this section. An unsatisfactory condition under this section is automatically a violation. There is no opportunity to correct the unsatisfactory condition to avoid a violation.

ADMINISTRATION:

The rule intent is to protect the waters of the state and riparian vegetation by requiring an aerial application pattern that minimizes the potential for direct application, drift, and spills.

Applicators are not required by the rule section to apply these parallel spray swaths before treating the rest of the unit. However, such a practice should be encouraged whenever possible.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 “Riparian areas,” “Water development,” and “Waters of the state”

REFERENCES:

**DISPOSAL OF CHEMICAL CONTAINERS**
OAR 629-620-0500

*Operators shall dispose of chemical containers in accordance with the Department of Environmental Quality’s disposal requirements. Operators may apply flushing solution resulting from cleaning of chemical containers to the operation area.*

**APPLICATION:**

This rule may be used for enforcement action; however, ODF will generally defer to DEQ for enforcement action.

**COMPLIANCE:**

Operators comply with this rule if they dispose of chemical waste and containers in accordance with DEQ rules.

**ADMINISTRATION:**

This rule requires proper disposal of chemical waste to comply with waste disposal regulations of the DEQ (OAR 340-109-0010 and 0020). DEQ regulations allow jet rinsing and returning containers to the chemical manufacturer, as well as triple rinsing. The regulations also require physical breakdown of some containers.

When containers are not properly disposed of, as required by OAR 340-109-0020, SFs should contact the local DEQ office and relay information for that agency’s enforcement action. ODF will not take enforcement action in this circumstance.

When expert consultation is required, contact the DEQ regional office in your specific area (see the second DEQ fact sheet listing in REFERENCES below).

**RELATED RULES AND STATUTES:**

- OAR 340-109-0020 Empty Container Management

**REFERENCES:**

- Oregon DEQ Fact Sheets
- Managing pesticide wastes and empty pesticide containers at
- Free Technical Assistance in dealing with Hazardous Wastes
### DAILY RECORDS OF CHEMICAL APPLICATIONS

**OAR 629-620-0600**

(1) Whenever pesticides are aerially applied or applied using a pressurized, ground-based, broadcast application system on forestland, the operator shall maintain a daily record of application operations which includes:

- **(a)** The legal description of the location of the operation area actually treated with chemicals;
- **(b)** The acreage actually treated with chemicals;
- **(c)** Brand name or EPA registration number of the chemicals used, the carrier used, and the application rate;
- **(d)** Date and time of application;
- **(e)** Air temperature, to be measured within the operation area and recorded at least hourly for aerial applications and at least at the beginning and end of each day's application for ground applications;
- **(f)** Relative humidity, to be measured within the operation area and recorded at least hourly for aerial applications and at least at the beginning and end of each day's application for ground applications;
- **(g)** Wind velocity and direction, to be measured within the operation area and recorded at least hourly for aerial applications and at least at the beginning and end of each day's application for ground applications;
- **(h)** The name of the person making the application, including the contractor's name and pilot's name when applied aerially, or the contractor's name and/or employee's name for ground application;

(2) Whenever pesticides are applied on forestland using methods other than those described in section (1) of this rule, the operator shall maintain a daily record of all information listed in subsections (a), (b), (c), (d), and (h) of section (1).

(3) Whenever fertilizers are applied on forestland, the operator shall maintain a record of all information listed in subsections (a), (b), (d), and (h) of section (1) of this rule and shall also record the application rate and the formulation used.

(4) The records required in sections (1), (2) and (3) of this rule shall be maintained by the operator for three years from the date of application and be made available at the request of the State Forester.

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**APPLICATION:**

This rule is used for enforcement action.

**COMPLIANCE:**

Operators are required to include on the notification chemical common name or brand name, and for fertilizers, the rate of application, OAR 629-605-150(7). Common and brand names are recorded in FERNS, ODF’s E-Notification system.
Operators are in compliance with this rule when they:
   1. Collect the application information required by the rule.
   2. Maintain this information for three years, and
   3. Make these records of chemical applications available to the department within seven days of a request.

**Unsatisfactory Condition:** An unsatisfactory condition exists when an operator fails to provide chemical application records within seven calendar days after a department request for the records that is made within three years after the date of the application.

**Damage:** Resource damage is not a prerequisite for taking enforcement action. If the operator fails to provide the chemical application records by the deadline in the written statement, a violation exists.

**Written Statement of Unsatisfactory Condition:** A written statement of unsatisfactory condition should allow the operator up to seven more calendar days after the initial request to provide the records.

**ADMINISTRATION:**

**Enforcement Summary:**
The SF should make a written request for records when they are needed for an investigation. Document when, how and to whom the request was made.

In summary, the enforcement process described above is:
   • The SF makes a written request to an operator for the records.
   • If the operator does not comply within seven days of the request, issue a written statement of unsatisfactory condition requiring submittal of the records within an additional seven days.
   • If the operator does not comply with the written statement, there is a violation.

**Purpose of Requesting the Records; Public Records:**
ODF requests the daily application records when they are needed for an ODF investigation related to compliance with the forest practice rules or for investigations being conducted by the ODA, Pesticide Analytical and Response Center, or other cooperating agencies. Based on advice from Oregon Attorney General to the department, ODF is not obligated to request the records simply because a FERNS subscriber or other party wants information related to a chemical application. However, if ODF already has possession of the records for an investigation, the documents are considered public record and are available to any person making a public records request, as described in ODF’s public records directive.

**Fertilizer:**
Fertilizer labels have only the purpose of informing the buyers of what they are getting. There is no federal or state labeling system as there is for herbicides. Labels do not need to describe how fertilizers should be used. All sales of fertilizers must be accompanied with a “guaranteed
analysis,” which can be an invoice. ODA can probably get this information, but typically only does it in an investigation. ODA does not have copies of fertilizer “labels” on file. Common names could generally be what is listed on the “guaranteed analysis.” This could include urea, potash, elemental ingredients, and chemical names.

Example: The “Fenn Blend” is the fertilizer brand name, and does not provide information about content. Although the rule is not clear for fertilizers, it is reasonable to see “Fenn Blend” as the brand name, and to require additional information for each chemical in the fertilizer. ODF needs to know what is being applied to be able to protect resources, to be able to see trends, and to be able to give subscribers or others accurate information.

Other Information:
“Legal description” in the daily application records means section/township/range. The daily application recordkeeping template in the Forest Practices Note #3 prompts for quarter-quarter/section/township/range, though any division beyond the section is not required.

ODF would accept coordinates, e.g. lat/long or UTM coordinates, as the “legal description,” as long as the coordinates are within the actual spray unit and can be tied back to the operation unit in the notification in FERNS. An application map showing section/township/range would suffice as the “legal description,” as long as the map is attached to the daily application record.

Pressurized, ground-based broadcast application systems include all motorized and nonmotorized application methods that use a pressurized spray solution that is applied in a sweeping manner rather than directed at a specific target points.

Examples: Rights-of-way treatments are broadcast applications. Pressurized spot-spraying, e.g. with a backpack sprayer, around individual trees is also considered a “pressurized, ground-based broadcast application.” Hack and squirt applications and maple stump treatments are directed applications.

The department, in cooperation with the ODA, has developed a standard form for the collection of data required under this rule. The form is available in ODF Forest Practice Note Number 3 or as a separate document (see REFERENCES below). SF should make this form available to operators, but operators may use a form of their choosing, as long as the required information is documented and retained.

REFERENCES:

- Forest Practice Note # 3. *Chemicals and other petroleum products*. ODF. Salem, Oregon. The note and the form are available at ODF Directive 0-5-1-301 ODF Public Information and Public Records
CHEMICAL AND OTHER PETROLEUM PRODUCT RULES: EFFECTIVENESS MONITORING AND EVALUATION
OAR 629-620-0700

(1) In cooperation with state agencies, landowners, and other interested parties, the department shall conduct monitoring to evaluate the effectiveness of the chemical and other petroleum product rules. The monitoring shall determine the effectiveness of the rules to meet the goals of the Forest Practices Act and the purposes stated in the rules, as well as their workability and operability.

(2) It is the Board of Forestry's intent that the department and its cooperators place a high priority on assessing the monitoring needs and securing adequate resources to conduct the necessary monitoring. The department shall work with its cooperators and the Legislature to secure the necessary resources, funding and coordination for effective monitoring.

(3) The department shall report to the Board of Forestry annually about current monitoring efforts and, in a timely manner, present findings and recommendations for changes to practices. The Board of Forestry shall consider the findings and recommendations and take appropriate action.

APPLICATION:

This rule is not used for enforcement action.

ADMINISTRATION:

This rule commits ODF to monitoring compliance with, and the effectiveness of, the chemical and other petroleum product rules. SFs are not expected to conduct routine water or vegetation sampling, but they may become involved in monitoring in the following ways:

1. Inspections of high priority operations for compliance with these rules.
2. Prompt response and investigation of citizen and other state agency complaints (see note below).
3. Cooperative investigations with other state agencies on incidents reported to the Pesticide Analytical and Response Center (PARC).
4. Prompt response to and investigation of spills of chemicals and other petroleum products.
5. Cooperation with landowners and community water system managers on joint monitoring efforts.
6. Alerting and cooperating with Private Forests Division staff in Salem in identifying operations that meet pre-determined criteria for rule effectiveness monitoring.
7. Participating in designed monitoring studies on forest chemical applications.
Note: Receipt of a complaint regarding forest chemical operations requires a quick response by field offices. At a minimum, the following information should be provided to complainants at the time of first contact:

1. If the complaint includes claims of harm to humans, their property (including pets or other domestic animals, or the environment, , encourage the complainant to also contact the Pesticide Analytical Response Center (PARC) website or at 503-986-6470/ PARC staff is available 8:00 a.m. to 5:00 p.m. Monday through Friday, with a message system available at other times. PARC is not an emergency service; for emergency needs related to pesticide exposures, complainants should call 911 or the Oregon Poison Center.

2. If the complainant begins to relay specific information on adverse health effects or medical symptoms, interrupt the complainant and inform them that due to public records laws, ODF may not be able to keep any information we receive confidential. If they wish their medical information to be kept confidential, they should contact PARC at the phone number listed above. PARC will refer the case to the Oregon Health Authority (OHA). PARC and OHA are both required to hold personal medical information as confidential.

3. Upon request, the ODF office should provide the complainant with any information we have about the chemicals that may have been used in the operation that resulted in the complaint. ODF is not required to request daily application records simply to fulfill an interested party’s request for chemicals used.

4. Refer the complainant to other technical information on chemicals, such as PARC: Oregon Poison Center (1-800-222-1222), OSU Extension's "EXTOXNET" pesticide profiles website or the National Pesticide Information Center website or 1-800-858-7378.

Landowners and operators are generally not required by the forest practice rules to collect and report monitoring information for their operations. In special circumstances, such as operations involving experimental uses of new chemicals or new application methods, SFs may require sampling or other types of monitoring to be included in plans for alternate practices, when such plans are required. However, sampling should not be imposed as a blanket requirement for all plans for alternate practices involving chemical applications. Prior to requiring sampling, consider the level of potential risk to protected resources, or the likelihood of rule violations.

SFs should also encourage landowners and operators to cooperate with ODF and community water system managers in joint monitoring efforts.

RELATED RULES AND STATUTES:

- OAR 629-620-0800 Notification to community water system

REFERENCES:

- ODF guidance document, “Complaint Investigation and Reporting”
NOTIFICATION OF COMMUNITY WATER SYSTEM MANAGERS WHEN APPLYING CHEMICALS
OAR 629-620-0800

(1) The purpose of this rule is to ensure that community water system managers are appropriately notified of planned chemical operations so that they can coordinate their monitoring activities with planned operations.

(2) This rule applies to community water systems where the surface water drainage area upstream of their intake is 100 square miles or less. The State Forester shall maintain a list of community water systems for which notification is required. A community water system with a drainage area of more than 100 square miles upstream of its intake may request to be added to the list based upon its ability to conduct effective monitoring in the watershed. The list shall be available at department field offices where notifications are submitted.

APPLICATION:

These rule sections are not used for enforcement action.

ADMINISTRATION:

A "community water system" means a public water system which has 15 or more service connections used by year-round residents, or which regularly serves 25 or more year-round residents, as defined by OAR 333-061-0020(25).

Initially only watersheds with drainage areas of 100 square miles (64,000 acres) or less upstream from the intake will be considered under this rule. Larger watersheds may be added on a case-by-case basis.

The most up-to-date community water systems less than or equal to 100 square miles of drainage, can also be viewed in Vantage under Hydrography/Domestic/Community Water Systems ≤ 100 sq. miles. The database in Vantage is based on information from the Community Water Systems, Oregon Health Authority webpage. It identifies those systems that qualify for pre-operation notification, which have less than or equal to 100 square miles of drainage.

RELATED RULES AND STATUTES:


REFERENCES:

- Oregon Health Authority webpage, Community Water Systems
**NOTIFICATION OF COMMUNITY WATER SYSTEM MANAGERS WHEN APPLYING CHEMICALS**  
**OAR 629-620-0800**

(3) When chemicals will be aerially applied within 100 feet or applied from the ground within 50 feet of domestic portions of Type F, Type SSBT or Type D streams, and the water use is by a community water system as designated under section (2) of this rule, the operator shall notify the water system manager of a planned chemical operation at least 15 days before the operation commences.

(4) The operator shall provide the following additional information before commencing the operation if requested by the manager of the affected water system at the time of notification required in section (3) above:
   (a) The application technology that will be used;
   (b) Practices that will be followed to minimize drift toward the stream;
   (c) Any monitoring efforts that will be conducted by the landowner; and
   (d) The planned time schedule for the application.

**APPLICATION:**

These rule sections are used for enforcement action.

**COMPLIANCE:**

To comply with section (3) of this rule, the operator must notify the community water system manager at least 15 days prior to the start of any chemical operation that meets the specifications listed. Note: All distances in Division 620, “Chemical and Other Petroleum Product Rules,” are horizontal distances.

To comply with section (4) of this rule, the operator must provide the additional information listed in the rule section to the water system manager, if requested, prior to the start of the operation.

**Unsatisfactory Condition:** There is an unsatisfactory condition under section (3) if an operator fails to notify the manager of an affected community water system at least 15 days before starting the described chemical application operations. There is an unsatisfactory condition under section (4) if the community water system manager requests the specified information and the operator fails to provide it before the operation begins.

**Damage:** Observed resource damage is not a prerequisite for enforcement action. An unsatisfactory condition automatically results in a violation.

**Written Statement of Unsatisfactory Condition:** There is no opportunity to issue a written statement of unsatisfactory condition under section (3) or (4). Failure to provide the required information in the mandated timeframes deprives the community water system manager of the opportunity to act on the information.
Note: Because this rule deals with communications between two parties external to ODF, it may be difficult to sort out potential enforcement situations. Consultation with Private Forests Division staff is recommended before taking enforcement action under section (3) or (4) of this rule. Repeated, iterative communication between the operator and community water system manager may be necessary to fully satisfy the requirements of section (4). An operator has not violated section (4) simply because the water system manager requests more information or clarification regarding what was submitted.

ADMINISTRATION:

These rule sections are intended to encourage community water systems to participate in water sampling to enhance the overall monitoring of chemical use practices. This goal will be achieved through the requirement for operators to notify community water system managers at least 15 days before planned spray operations begin and to provide additional information on planned operations to water system managers upon request. The notification requirement only applies when chemicals will be aerially applied within 100 feet or applied from the ground within 50 feet of domestic portions of Type F, Type SSBT or Type D streams.

ODF’s GIS water classification layers show stream segments that are classified as Type D or as domestic use portions of Type F streams. Where domestic use classifications still need to be made on stream segments, use the criteria in OAR 629-635-0200(6) and (7)(a). As they are identified, these upper limits should be noted on the GIS water classification layers.

The landowner, operator, and water system manager should be encouraged to jointly develop and implement monitoring efforts appropriate to each operation and consistent, if possible, with ODF monitoring protocols. Contact Private Forests Division Staff about these protocols.

Notification is the obligation of the "operator," which includes both the applicator and the landowner. Notification may be accomplished by telephone, by written notice, or in person, but in any case, the notification should be documented by the operator. When a SF becomes aware of a planned operation that will require community water system manager notification, a written reminder of this requirement should be provided as a courtesy to the operator.

It is up to the water system manager to request the additional information listed under section (4). Operators should keep a record of when the requested information was provided. Information provided by the operator must be in sufficient detail to be useful to the water system manager, and may vary by operation. Information that may be useful includes:

- **The application technology that will be used:** type of aircraft, boom and nozzle configuration, carrier and additives, planned average droplet size.

- **Practices that will be followed to minimize drift toward the stream:** flight pattern, use of half boom systems, additives, weather conditions, ground spraying in sensitive areas.

- **If and how the landowner will monitor resource protection during the operation,** including details on methods, timing, and sample analysis plans.

- **The planned time schedule for the application:** the approximate time window for the planned application, recognizing the exact date and time of application cannot be set.
RELATED RULES AND STATUTES:

REFERENCES:
- Oregon Health Authority webpage, Community Water Systems
**SUMMARY OF THE LAW**

**ORS 527.672 Aerial Herbicide Applications.**

When a forest operation involves applying herbicides by aircraft near an inhabited dwelling or school, the operator is responsible for leaving an unsprayed strip of at least 60 feet adjacent to the dwelling or school. The responsibility of the operator under this section is in addition to any responsibility of the aerial pesticide applicator under ORS chapter 634.

**APPLICATION:**

ORS 527.672 is used for enforcement action. ORS 527.672 was added to the Oregon Forest Practices Act via Section 21 of HB 3549, which was adopted in the 2015 Regular Session. The restrictions on aerial herbicide applications within ORS 527.672 took effect starting January 1, 2016. ODF’s complete 12-page guidance may be found on the ODF public webpage and internal webpage.

**COMPLIANCE:**

Unsatisfactory Condition: An unsatisfactory condition exists when an operator applies one or more herbicides by aerial means on forestland, and fails to leave an unsprayed strip of at least 60 feet adjacent to a school or an inhabited dwelling.

Damage: ORS 527.672 includes neither a purpose statement nor a description of a protected resource, so there is no opportunity to identify damage to a resource.

Violation: An unsatisfactory condition under ORS 527.672 is automatically a violation. Noncompliance with ORS 527.672 is a procedural violation, because ORS 527.672 does not provide a purpose statement or identified protected resource to determine resource damage. Because the presumed intent of ORS 527.672 is protection of human health and safety, ODF’s policy is that, except in rare circumstances, it will issue a citation for a violation of that statute.

Written Statement of Unsatisfactory Condition: OAR 629-670-0125 allows the State Forester discretion to issue a written statement of unsatisfactory condition for procedural violations if the criteria specified in that rule are satisfied. However, because the presumed intent of ORS 527.672 is protection of human health and safety, ODF’s policy is that except in rare circumstances it will not issue a written statement of unsatisfactory condition in lieu of a citation under OAR 629-670-0125.

Plan for Alternate Practices:
Because ORS 527.672 does not allow alternate practices, there is no opportunity for ODF to approve a plan for an alternate practice.

Example: An agreement by the owner of an inhabited dwelling that an aerial herbicide application on that property or an adjacent property could take place closer than 60 feet to the dwelling does not authorize ODF to approve the plan.
ADMINISTRATION:

Summary of Definitions for ORS 527.672 Aerial herbicide applications
Table 1 provides a quick-reference summary of definitions developed by ODF as needed to administer ORS 527.672. Additional administrative explanations on ORS 527.672 are provided in the complete guidance located on the public and internal webpages.

Table 1: Summary of Definitions for Administration of ORS 527.672

| Effective Date of Statute: Starting January 1, 2016 |
| “Unsprayed strip” means a no-direct application zone. |
| 60-foot zone is measured in horizontal distance from an inhabited dwelling (the dwelling structure itself) or a school (the property boundary of the school campus). |
| “Inhabited dwelling” means: |
| ---- any structure meeting the following definition of a ‘dwelling unit’: |
| • A " Dwelling unit" means a structure or the part of a structure that is used as a home, residence or sleeping place by one person who maintains a household or by two or more persons who maintain a common household. The dwelling unit structure itself; excluding outbuildings, yard areas, or other land associated with the structure. |
| “School” means the campus of a school, with school defined as follows: |
| • Public or private Oregon prekindergarten or a federal Head Start |
| • A public or private educational institution with all or part of kindergarten through grade 12 |
| • An educational facility of an education service district |
| • A community college |
| • The Oregon School for the Deaf |
| • A regional residential academy operated by the Oregon Youth Authority |
| • Public universities, e.g., Oregon State University, University of Oregon |
| • Private colleges or universities |

ORS 572.672 applies to aerial forest herbicide applications near schools regardless of formal school hours, the timing of scheduled or unscheduled events, or the presence (or absence) of students, staff, or others.

Statute applies to herbicide applications only, not all pesticides generally.

RELATED RULES AND STATUTES:

• OAR 629-620 Chemical and Other Petroleum Products, rules and guidance

REFERENCES:

• Chemicals [From December 1, 1994 Oregon Administrative Rules; deleted in 1997]
### SUMMARY OF THE LAW

**ORS 527.670, Subsections (6) and (9)**

The law requires the forester to provide copies of notices of chemical applications to persons who hold downstream surface water rights within ten miles of the chemical application, and who request such notices in writing.

The 15-day notice requirement for operations involving aerial application of chemicals cannot be waived.

### APPLICATION:

These subsections of the statute are not used for enforcement action. The subsections qualify what the State Forester may do, but do not require or forbid any action on the part of an operator. If an operator starts an operation without waiting at least 15 days after submitting a notification, take enforcement action under OAR 629-605-0150(1). See the guidance under that rule for more information.

### ADMINISTRATION:

The law states that the State Forester (i.e., field offices) will provide what amounts to a free subscription to people holding legal surface water rights who are within 10 miles downstream from an operation where chemicals are to be applied. Water rights "holders" do not include renters who use the water right held by a landlord or citizens connected to a community water system. The community water system manager is included as a water right holder, however. Water right holders must request the free subscription in writing. Interpret 10 miles as straight lineal air miles, not stream miles. The purpose is to inform the requesting party that a chemical application will be conducted which may affect their resource.

Legal surface water right holders may include irrigators or domestic water users. Water rights are filed with the Oregon WRD and remain with the property, if the property is sold, provided the original water right holder did not legally retain the water right. The free subscription applies **only** to chemical applications.

Chemicals are defined in OAR 629-600-0100 to include all classes of pesticides, petroleum products used as carriers, fertilizers, and adjuvants.

The Notification of Operation and any other appropriate information (i.e., written plans) should be mailed to the subscriber within 6 working days of receipt of the information.

This information is also available to the general public, either through paid subscriptions, FERNS subscriptions, or walk-in requests. These requests can be handled by normal office procedures.
If interested parties submit comments related to specific proposed chemical application operations, SFs should review the comments relative to whether the operations are likely to comply with the applicable forest practice rules.

**15-day waiting period**

ORS 527.670 (9) prohibits the State Forester from waiving the 15-day notification of operation waiting period when the planned operation is an aerial application of chemicals. SFs should advise landowners and operators to plan ahead by submitting notifications of operations at least 15 days prior to beginning aerial chemical application operations.

Waivers shall not be granted when a subscriber has requested copies of notifications and written plans under ORS 527.670 (6) (water users downstream from chemical applications) or ORS 527.670 (8) and OAR 629-674-0100 (Access to Notifications and Written Plans), unless:

1. The SF confirms that subscriber(s) have had copies of the notification and any required written plans for at least 24 hours; or

2. First-Class Mail mailed to Non-electronic Subscribers:
   ODF mails subscriber the “received” E-Notification by First-Class Mail, within 6 full business days of NOAP receipt, excluding Sundays and holidays
   ODF provides 3 days for mailing and 24 hours to review the notification, beginning on the first full business day after ODF mailed it to the subscriber, excluding Sundays and holidays.
   ODF may grant the waiver of 15-day waiting period for the operator to begin work on the first day after 4 full business days have passed from the mailing, excluding Sundays and holidays.

3. The water user within 10 miles of the chemical application, who requests notification or a subscriber states on their subscription application or provides written documentation to ODF that they do not need to be informed before operations begin.

**Request for Waiver of 15-day waiting period**
The operator must contact the SF to request a waiver of the 15-day waiting period.

**Documentation for Granting Waiver**
SF or office staff should indicate if a waiver is granted in the FERNS Formal Comments.

**Partial Waivers**
The SF may waive the 15-day waiting period on portions of the area in an operation not affected by a written plan. The SF may waive the 15-day waiting period when the subscriber has had 24 hours to review the notification.
There are more directions and considerations related to waiving the 15-day waiting period, described in guidance for OAR 629-605-0150(2).
Example: The SF may grant a waiver on the upland part of a harvest unit, but maintain the review period for the area within 100 feet of a significant wetland that is not an estuary. This allows for a pre-operation inspection, time for the operator to submit a written plan, and time to provide the plan to the subscriber. When waivers are granted for portions of an operation area, the conditions of the waiver, including a clear description of where the waiver applies, must be documented in the FERNS Formal Comments.

RELATED RULES AND STATUTES:

- OAR 629-600-0100 Definitions - “Chemicals”
- OAR 629-605-0150(2) Notification to the State Forester - when, where and how
- ORS 527.670 (6) Notify person within 10 miles downstream of water right