Montana

Guide to the Streamside Management Zone Law and Rules

2006
Montana is a state blessed with an abundance of natural resources. Its forest lands supply the state with beauty and act as a collector, filter, and distributor of clean water on which plants, animals, and humans depend.

A streamside management zone, or “SMZ,” is a buffer strip that provides necessary water quality protection, critical fish and wildlife habitat, and actively regulates high flood flows.

Improper timber harvesting in the SMZ can cause erosion and water quality problems and degrade its integrity.

With this in mind, the 1991 Montana Legislature passed the Streamside Management Zone Law. This law also mandated the development of administrative rules, which became effective March 15, 1993.*

Symbols used in this booklet

< means less than
\leq means less than or equal to
> means greater than
\geq means greater than or equal to

* This booklet addresses only the Montana SMZ law and rules. Other federal, state, or local laws may apply to your operation.
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Plum Creek Timber Company, LP
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2006 Revision by
Dan Rogers, Forest Stewardship Specialist,
Montana Department of Natural Resources and Conservation

Originally compiled and edited by
Norman Fortunate, then Forest Practices Specialist,
Montana Department of Natural Resources and Conservation

Illustrated by
Kirk Johnson Design, Missoula

Special thanks to
Gordon Sanders, Montana Wood Products Association

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For more information, contact
Montana Department of Natural Resources and Conservation
2705 Spurgin Road
Missoula, Montana 59804-3199
(406) 542-4300

... or your local Montana Department of Natural Resources and Conservation field office.
Introduction

Implementation of the Streamside Management Zone (SMZ) law and rules protects and maintains the functions of a SMZ. The six functions of a SMZ, as identified in the SMZ law (77-5-301[1] MCA), are:

1. Acts as an effective sediment filter to maintain water quality
2. Provides shade to regulate stream temperature
3. Supports diverse and productive aquatic and terrestrial riparian habitats
4. Protects the stream channel and banks
5. Provides large, woody debris that is eventually recruited into a stream to maintain riffles, pools, and other elements of channel structure
6. Promotes floodplain stability

The law prohibits seven forest practices in SMZs.

1. Broadcast burning
2. The operation of wheeled or tracked vehicles except on established roads
3. The forest practice of clearcutting
4. The construction of roads except when necessary to cross a stream or wetland
5. The handling, storage, application, or disposal of hazardous or toxic materials in a manner that pollutes streams, lakes, or wetlands, or that may cause damage or injury to humans, land, animals, or plants
6. The side-casting of road material into a stream, lake, wetland, or watercourse
7. The deposit of slash in streams, lakes, or other water bodies

NOTE: The SMZ law does not apply to cutting wood for personal use or to other land management activities that do not qualify as timber sales.
Definitions

For the full text of SMZ rules and definitions, see pages 25-35. Unless surrounded by quotes, these definitions are paraphrased.

**Bench:** An area where a steep slope greater than 35% levels off to a gentle slope of 15% or less for a width of 30 feet or more.

**Deck:** A place where a group of logs are gathered for further processing or transport.

**Diameter at breast height (DBH):** The length of a cord through the center of a tree trunk measured at a point 4 1/2 feet off the ground on the uphill side of the tree.

**Established road:** An existing road that a highway vehicle can safely operate on without doing any work except:

- clearing vegetation
- removing any access barriers
- replacing any stream crossing or drainage structures that were removed to restrict access
- grading the road surface

**Hazardous or toxic materials:** Substances that by their nature are dangerous to handle or dispose of; a potential environmental contaminant, including petroleum products, pesticides, herbicides, chemicals, and biological wastes.

**Lake:** “... a body of water where the surface water is retained by either natural or artificial means, where the natural flow of water is substantially impeded, and which supports fish.”

**Landing:** Cleared area in the forest where trees or logs are yarded or skidded for processing or loading onto trucks for transport.

**Other bodies of water (OBW):** Irrigation and drainage systems, including canals, that discharge directly into a stream, lake, or other surface water. Ponds and reservoirs >1/10 of an acre that do not support fish also fall into this category. “Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.” OBW are treated as Class 3 Streams.

**Ordinary high water mark (OHWM):** The location on a stream bank, lakeshore, or OBW where the water level normally reaches during peak flow.

**Salvage:** The harvest of trees that have been killed, damaged, or are in imminent danger of being killed or damaged by injurious agents other than competition between trees.

**Streamside management zone (SMZ):** A zone of variable width along each side of the stream, lake, or other body of water.

**SMZ slope:** A distance measured from OHWM to a point 50 feet away and perpendicular to the stream.

**Stream:** “A natural watercourse of perceptible extent that has a generally sandy or rocky bottom or definite banks and that confines and conducts continuously or intermittently flowing water.” DNRC interprets “perceptible extent” to mean that at least 50% (50 feet or more) of a 100-foot segment meets the definition of a stream. It does not have to be continuous.

**Timber sale:** “A series of forest practices designed to access, harvest, or regenerate trees on a defined land area for commercial purposes.”

**Toe of fill:** The downhill edge of the road fill.

**Wetlands:** Areas that remain wet long enough to support a prevalence of plants that need saturated soil conditions. Wetlands include marshes, swamps, bogs, and similar areas.
Stream Classification

The SMZ law and rules apply to commercial timber harvests on drainages that meet the definition of a stream, lake, or OBW.

Streams are classified in segments.

Variable conditions can cause a stream to be made up of any combination of stream segment classes.

Class 1 stream segments

There are two ways to determine a Class 1 stream:

1. The stream supports fish, or
2. The stream normally flows during six months of the year or more and contributes surface flow to another stream, lake, or OBW. **NOTE:** A Class 1 stream under this definition may be dry up to six months of the year.

Class 2 stream segments

By definition, they are streams that do not qualify as Class 1 or as Class 3.

Two examples of Class 2 streams are:

1. Stream segments that **do not** support fish, and normally **do not** have surface flow six months of the year or more, but **do** contribute surface flow to another stream, lake, or OBW.
2. Stream segments that **do not** support fish, and normally **do** have surface flow six months of the year or more, but **do not** contribute surface flow to another stream, lake, or OBW.

Class 3 stream segments

They contain no fish, rarely contribute surface flow to other streams or OBW, and normally do not have surface flow six months of the year or more. Class 3 stream segments are typically not connected to other streams.

**NOTE:** If you are uncertain as to the classification of your stream, please call your local DNRC Service Forester for assistance.

**NOTE:** Use the SMZ Field Guide on pages 23-24 to help identify stream segment classes.
SMZ widths are directly dependent on SMZ slope and stream class.

**Class 1 and 2 streams and lakes:**

- On SMZ slopes less than or equal to 35%, the SMZ boundary is 50 feet (slope distance*) from OHWM.
- On SMZ slopes greater than 35%, the SMZ boundary is 100 feet (slope distance) from OHWM.

**Class 3 streams and OBW:**

- The SMZ boundary is 50 feet regardless of the SMZ slope.

* Slope distance means the length of a line between two points, measured on the land surface.
**SMZ Widths, continued**

**SMZ WIDTHS FOR ADJACENT WETLANDS**

Where the normal SMZ boundary (either 50 feet or 100 feet) intercepts a wetland, extend the SMZ boundary to include the wetland. A 50-foot buffer strip around the wetland is not required.

**SMZ Widths for Wetlands**

Class 1, 2, and 3 streams and lakes
SMZ Widths, continued

EXCEPTIONS TO BASIC SMZ WIDTHS

There are two (2) exceptions to the 100-foot SMZs.

1. ROAD EXCEPTION to 100-foot SMZs

- When an established road exists between 50 and 100 feet from OHWM, the SMZ boundary shifts to follow the toe of the fill.
- Otherwise, the SMZ boundary remains at 100 feet from OHWM.

SMZ Widths for Established Roads

Class 1 and 2 streams,
SMZ slopes greater than 35%
2. **BENCH EXCEPTION to 100-foot SMZs**

- If the slope within a 100-foot SMZ decreases to 15% or less for at least a width of 30 feet or more to form a bench, the SMZ boundary returns to the edge of the bench nearest the stream. The edge of the bench must be at least 50 feet from the OHWM.

- If the bench begins within 50 feet of OHWM and 30 feet or more of the bench extends beyond the first 50 feet, then the SMZ boundary is 50 feet.

- The SMZ boundary is **NEVER** closer than 50 feet.

**SMZ Widths for Benches**

Class 1 and 2 streams, SMZ slopes greater than 35%

- **SMZ at toe of bench**
- **Bench is 30' wide or more**
- **100' SMZ**
- **Bench is not 30' wide**
- **100' SMZ**
- **Bench extends at least 30' beyond the 50' mark**
- **50' SMZ**
- **Bench extends at least 30' beyond the 50' mark**

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**SMZ Widths for Benches**

Class 1 and 2 streams, SMZ slopes greater than 35%
SMZ boundaries must be clearly marked on Class 1 and Class 2 stream segments when forest practices that are prohibited within the SMZ will be conducted next to the SMZ.

An example would be tractor skidding that is taking place in a cutting unit with a SMZ. Mark the boundary to prevent equipment from entering the SMZ.

“Clearly marked” means marked with paint, ribbon, or similar means so that an equipment operator can easily see from one mark to the next, even under winter conditions.

This requirement is intended to prevent accidental violations.

DNRC recommends that SMZ boundaries on Class 3 stream segments also be marked.

Some common alternatives to broadcast burning are to:

• Remove the slash
• Lop and scatter the slash
• Chip or grind slash mechanically - adhere to rules for Operation of Equipment within the SMZ.
• Hand pile and burn the slash piles in the SMZ in accordance with the Montana Hazard Reduction Law.

NOTE: Use the SMZ Field Guide on pages 23-24 to help determine the SMZ boundary.

NOTE: This rule does not apply to wildfire or burns where forest products are not being harvested.
Operation of Equipment

Equipment operation is prohibited in the SMZ with three exceptions.

1. Exception for equipment operation in adjacent wetlands*

ONLY UNDER ALL OF THE FOLLOWING CONDITIONS can equipment operate in the SMZ:

- The ground is frozen, or there is adequate snow to prevent soil compaction.
- The equipment does not come within 50 feet of OHWM, or within 100 feet when extended for slope.
- The equipment does not rut or move any soil.
- Stumps are not removed.
- Shrubs and sub-merchantable trees are protected.
- The integrity of the SMZ is conserved.

* This booklet addresses only the Montana SMZ law. Other federal, state, or local laws may apply to your operation.
2. Exception for equipment operation on Class 3 stream segments and OBW

In order to minimize road construction and skid trails, an equipment operator may cross the SMZ and the stream on Class 3 stream segments when:

- Crossings are located approximately 200 feet or more apart, and in dry areas with stable banks and bottoms.
- Excavation is minimized.
- The distance traveled through the SMZ is minimized.
- Crossings occur only during periods when the stream is dry.
- The capacity of the stream channel or OBW is maintained.
3. Exception for equipment operation on established roads

In order to minimize road construction and skid trails on stream segments, equipment may be operated inside the SMZ above established roads on the side away from the stream whenever:

- An established road exists inside the SMZ, and;
- The toe of the fill nearest the stream is 25 feet or more from OHWM.
- Locate designated skid trails approximately 200 feet apart.
- Reclaim skid trails with erosion controls and vegetation.
- Logs are not decked on the side of the road towards the stream.

**NOTE:** Any logs winched or cable-yarded across Class 1 or 2 stream segments must be fully suspended, unless otherwise authorized.
Operation of Equipment, continued

Removal and Handling of Logs within the SMZ

An operator may, as an alternative practice, without site specific approval, operate equipment on an existing road located in the SMZ, to allow the extraction of logs or trees within the SMZ.

Under these conditions an operator may:

Store individual logs or small groups of logs (1-3) on the side of a road toward the stream provided:

- no portion of any stored log encroaches on an area within 15 feet of the ordinary high-water mark;
- all such areas are reclaimed by installing erosion control measures and the reestablishment of vegetative cover; and
- there are no adverse impacts to the functions of the SMZ or to water quality.

Landings shall not be constructed in the SMZ unless approved with a DNRC site-specific alternative practice.
Clearcutting is prohibited in the SMZ.

In addition, a minimum number of “leave” or “retention” trees are required for each 100 linear feet of SMZ. Each side of the stream acts as an individual 100 foot segment.

**Tree Retention Requirements**

The number of trees retained is based on:

- Stream segment class, **and**;
- The number of trees in the first 50-foot width of the SMZ, even when extended for slope; **or**
- The total number of trees in the SMZ segment when extended for wetlands.

The selection and distribution of retention trees are guided by the following.

**For lakes and Class 1 and 2 streams**

For SMZs extended for slope or an adjacent wetland, select most retention trees within 50 feet of the stream. The remaining retention trees may be left anywhere in the SMZ segment.

**Favor bank-edge trees.** They protect and shade stream channels and banks.

**Favor trees leaning toward the streams.** They are likely to provide large woody debris to the stream channel.

**Maintain a diversity of tree species and size classes that are representative of the preharvest stand.**

**Protect and retain submerchantable trees and shrubs** to the fullest extent possible.

**Hardwoods and snags may be counted** toward retention tree requirements in approximately the same proportion as in the preharvest stand.
Class 1 Stream
Retention per 100-foot stream segment

Original count: 24
Retain 50%: 12

Original count: 14
Retain minimum: 10

Class 2 Stream
Retention per 100-foot stream segment

Original count: 24
Retain 50%: 12

Original count: 7
Retain minimum: 5

"Leave" trees and snags

Stumps of harvested trees

Class 1 streams and lakes
Retain at least 50% of the trees ≥ 8 inches DBH on each side of stream or 10 trees per 100-foot segment, whichever is greater.

Requirements common to Stream Classes 1 and 2
Leave species and sizes that represent the original stand.

Tree retention is based on the number of trees ≥ 8 inches DBH within the first 50-foot width of the SMZ.

Protect and retain submerchantable trees and shrubs.

Class 2 streams
Retain at least 50% of the trees ≥ 8 inches DBH on each side of stream or 5 trees per 100-foot segment, whichever is greater.
**Class 3 streams and other bodies of water**

Protect and retain submerchantable trees and shrubs.

Snag retention is voluntary.

**Adjacent wetlands**

Retention tree requirements for adjacent wetlands are the same as requirements for the adjacent stream class. Trees in the adjacent wetlands are included as part of the total count, and trees ≥ 8 inches DBH are subject to the 50% minimum requirement throughout the adjacent wetlands.
"Leave" trees and snags (Green is alive; orange is dead or dying.)

Stumps of harvested trees

Salvage

The following applies only to trees meeting the definition of salvage under Rule 5.

- On Class 1 streams, leave the 10-tree minimum per 100-foot segment.

- On Class 2 streams, leave the 5-tree minimum per 100-foot segment.

- If there are not enough standing live trees to meet the minimum number of leave trees, count the dead or down trees also.

- When there is a salvage operation, all trees that have fallen across or in streams must be retained, unless there is a DNRC site-specific alternative practice.

NOTE: Any forest practice that fails to meet the tree retention standards requires approval of a site-specific alternative practice.

For additional information on alternative practices, contact DNRC.
Road Construction

Road construction* in the SMZ is prohibited, except when necessary to cross a stream or wetland.

The SMZ law does not determine when “it is necessary to cross a stream.” However, road building and equipment operation within the SMZ are restricted by the SMZ law and rules.

Fill must not be deposited in the SMZ, except as necessary to construct crossings.

To construct a road across a perennial stream, a private operator needs a 310 permit, which is administered by conservation districts.

Construction of a skid trail across a perennial stream requires a 310 permit and an approved alternative practice from DNRC.

To construct a skid trail across a stream that is not covered under the 310 law, the operation must be conducted as a DNRC-approved alternative practice or a pre-approved alternative practice.

The Eastern Montana Exception


Roads may be constructed inside the SMZ on class 3 stream segments only in the eastern zone wherever:

- The slope of the SMZ immediately adjacent to the stream is 10% or less for a distance of at least 25 feet from the OHWM, and
- There exists in the outer portion of the SMZ a hillside with slopes in excess of 35%.

The road must be constructed on the gentler slopes in such a manner that:
- Cutting and filling are minimized.

* This booklet refers only to the Montana SMZ law and rules. Other federal, state, or local laws may apply.
• The toe of the road fill is located at least 15 feet from the ordinary high water mark.

• The road is located as far away from the ordinary high water mark as is practical.

• Road drainage features are installed as needed to minimize sediment delivery to the stream.

If you have the option, locate roads outside the 50-foot SMZ.
Hazardous or Toxic Materials
Any storage and handling of hazardous materials in the SMZ are prohibited.

SPILLS
Any application or spillage of hazardous materials that has or will enter a stream is a violation. (Spills must be cleaned up and disposed of in accordance with other applicable federal and state laws.*)

STORAGE
To avoid accidental violations, it is strongly recommended that refueling and fuel storage be conducted OUTSIDE the SMZ.

DUST ABATEMENT
Use of waste oil on roads for activities like dust abatement is prohibited within the SMZ because waste oil contains pollutants. Other dust abatement products are approved for use in the SMZ as long as their application is not impacting the SMZ.

HERBICIDES, PESTICIDES, & FERTILIZER
Herbicides, pesticides and fertilizer are considered hazardous or toxic materials and must be applied in strict compliance with all label instructions and other laws.

* Montana Department of Environmental Quality (DEQ) administers statewide "Spill Management and Reporting."
**Depositing Slash**

Depositing slash into streams, lakes, or other bodies of water is prohibited.

Slash deposited between the ordinary high water marks of a stream, lake, or OBW would be considered a violation.

Depositing slash into a stream also violates the Montana Water Quality Act and may violate the Montana Natural Streambed and Land Preservation Act (310 Permit Program).

Trees felled in or across streams, lakes, or OBW may be considered a violation of this rule if left behind after forest practices. Removal requirements can be found in Rule 4.

DNRC strongly recommends that trees not be intentionally felled across a stream.

If felling the tree across the stream is your ONLY option, either leave the tree or apply for an Alternative Practice.

**Alternative Practices**

Alternative practices are the “exceptions to the rules.”

The seven forest practices prohibited within the SMZ may be permitted with an alternative practice. Approval for the practice must be obtained from DNRC before the practice begins.

DNRC considers alternative practices on a case-by-case basis. Alternative practices are site-specific and can be approved only if the practice will maintain the integrity of the SMZ.

For more information on “alternative practices,” please consult the rules, or contact a DNRC Service Forester.
How to Approach the SMZ Rules relative to Irrigation Ditches

The SMZ Rules define an “Other Body of Water (OBW)” as “irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir or other surface water.”

If an irrigation ditch does NOT deliver to another water feature, it is NOT regulated by the SMZ rules.*

If the ditch delivers surface flow to another water feature, as many in Montana do, it is treated similar to a Class 3 stream.

This classification plays an integral role in determining SMZ boundaries, crossing locations, and timing/location of activities; some of which are outlined below.

If an irrigation ditch is determined to be an “Other Body of Water,” under SMZ Rule's:

- the SMZ boundaries are extended to include adjacent wetlands.
- Crossing locations follow typical restrictions outlined on Page 10 as a “pre-approved alternative practice.”
- Side-casting of materials into an irrigation ditch is prohibited.
- Dust abatement agents, apart from Waste Oil, are allowed to be used on roads in the SMZ, as long as they are not introduced into the stream.
- Shrubs and submerchantable trees must be protected to the fullest extent possible.

For more information on applying forest management activities around irrigation ditches, contact your local DNRC Service Forester.

NOTE: This irrigation ditch summary relates to Streamside Management Zone Law and Rules. Be sure to check with local ditch/water companies as well as local irrigation districts for other applicable rules and guidelines.
Voluntary Wildlife Guidelines

The 1991 Montana Legislature passed the Streamside Management Zone (SMZ) Law, and also directed the Department of Natural Resources and Conservation (DNRC) to develop voluntary, non-enforceable guidelines for managing wildlife habitat in the SMZs. In 1997 MSU Extension Forestry revised these guidelines into a “hands-on” publication introducing Family Forest Owners, Loggers and Natural Resource Professionals to the “Riparian Forest.”

Many wildlife species make extensive use of riparian forests or SMZs, even though SMZs comprise only a small portion of the overall landscape. Wildlife depend on SMZs for food, cover, travel corridors, and nesting areas. Many species also use SMZs during migration as resting and feeding areas.

The SMZ rules already provide for the maintenance of the forest structure and species diversity needed by most wildlife species.

In an effort to further enhance your Riparian Forest, these voluntary wildlife guidelines are available from your local DNRC Service Forester. For more information, contact the Department of Natural Resources and Conservation.
**SMZ Field Guide**  
Adapted from a field guide developed by Plum Creek Timber, LP 1993

**STREAM** means “a natural water-course of perceptible extent that has a generally sandy or rocky bottom or definite banks and that confines and conducts continuously or intermittently flowing water.”

The SMZ law and rules apply only to drainages that meet the definition of a stream, lake, or OBW.

The following field guide is set up as a key. Each step has two (possibly three) choices, all numbered or lettered the same. At each step pick the choice that fits the best. The key will then suggest a conclusion or direct you to another step.

### The 7 SMZ Prohibitions

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2. Operation of equipment ... p. 9  
3. Clearcutting ... p. 13
4. Road construction, except to cross a stream or wetland ... p. 17
5. Hazardous or toxic materials ... p. 19

### Stream Segment Classes

1a. Stream segment supports fish.  
**Class 1**

1b. Does not support fish.

2a. Has surface flow six months or more.

3a. Contributes surface flow to stream, lake, or other body of water  
**Class 1**

3b. Does not contribute surface flow.  
**Class 2**

2b. Has surface flow less than six months.

4a. Contributes surface flow to stream, lake, or other body of water  
**Class 2**

4b. Rarely contributes surface flow  
**Class 3**

### NOTE: This brief summary is not intended to replace the rules, but to serve as a reference for their broad points. The definitions and specific conditions detailed in the rules are essential for proper SMZ implementation.
SMZ Field Guide, continued

SMZ Width

1a. SMZ-slope is ≤ 35%, **50 feet** and extended for adjacent wetlands

1b. SMZ-slope > 35%

2a. Class 3 stream segment, other body of water **50 feet** and extended for adjacent wetlands

2b. Class 1 or 2 stream segment, lake, or OBW

3a. Bench occurs between 50 and 100 feet **edge of bench**

3b. Road occurs between 50 and 100 feet **toe of road fill**

3c. No road, no bench **100 feet** and extended for adjacent wetlands

Tree Retention in SMZ

1. For Class 1 streams and lakes, at least 50% of trees ≥ 8 inches DBH must be retained on each side of stream or 10 trees per 100 feet, whichever is greater. Protect and retain shrubs and submerchantable trees.

2. For Class 2 streams, at least 50% of trees ≥ 8 inches DBH must be retained on each side of stream or 5 trees per 100 feet, whichever is greater. Protect and retain shrubs and submerchantable trees.

3. For Class 3 streams, lakes, and other bodies of water, shrubs and submerchantable trees must be protected and retained in the entire SMZ to the fullest extent possible.

**Additional tree retention requirements**

If the SMZ is extended for a wetland, then the tree retention requirements of the stream class must be met for the entire SMZ.

If the SMZ is extended for slope, the tree retention requirements are based on the number of trees in the first 50 feet.

If the minimum number of trees ≥ 8 inches DBH are not present, then retain the minimum number of trees with the largest DBH available.

Retain trees representative of the size and species of the preharvest stand.

Favor leaving bank-edge trees, those leaning toward the stream, and those that will fall into the stream.

Concentrate retained trees within 50 feet of the stream.
SMZ Rules

36.11.301-313

APPLICABILITY - DEFINITIONS - EFFECTIVE DATE

2006 REVISIONS COLORED BLUE

Rule 1: (36.11.311 and 36.11.312) Applicability / Definitions

36.11.311 Applicability

(1) This subchapter applies to forest practices conducted within a timber sale in the streamside management zone. Such practices, as defined in 77-5-302(3), MCA, include the following activities when conducted within a “timber sale” defined in ARM 36.11.312:

(a) the harvesting of trees;
(b) road construction or reconstruction associated with harvesting and accessing trees;
(c) site preparation for regeneration of a timber stand;
(d) reforestation;
(e) management of logging slash. (History: 77-5-307, MCA; IMP, 77-5-302 and 77-5-307, MCA; NEW, 1997 MAR p. 1992, Eff. 11/4/97.)

36.11.312 Definitions

Wherever used in this subchapter, unless a different meaning clearly appears from the context:

(1) “Alternative practices” means forest practices conducted in the SMZ that are different from the practices required by the standards provided in 77-5-303, MCA, and are approved by the department either by adoption of this subchapter or on a site-specific basis upon application of the operator.

(2) “Broadcast burning” means spreading fire through a continuous fuel cover. The fuels consist of slash resulting from forest practices, surface litter, and duff. Fuels are left in place, fairly uniform, and ignited under certain conditions with the intent to meet planned management objectives in the desired area.

(3) “Class 1 stream segment” means a portion of stream that supports fish; or a portion of stream that normally has surface flow during 6 months of the year or more; and that contributes surface flow to another stream, lake, or other body of water.

(4) “Class 2 stream segment” means a portion of stream that is not a class 1 or class 3 stream segment. Two common examples of class 2 stream segments are:

(a) A portion of stream which does not support fish; normally has surface flow during less than 6 months of the year; and contributes surface flow to another stream, lake, or other body of water; or
(b) A portion of stream that does not support fish; normally has surface flow during 6 months of the year or more; and does not contribute surface flow to another stream, lake, or other body of water.

(5) “Class 3 stream segment” means a portion of a stream that does not support fish; normally has surface flow during less than 6 months of the year; and rarely contributes surface flow to another stream, lake or other body of water.
(6) “Clearcutting” means removal of virtually all the trees, large and small, in a stand in one cutting operation. Virtually all woody vegetation is removed from the site preparatory to establishment of new trees.

(7) “Construction” means cutting and filling of earthen material that results in a travelway for wheeled vehicles.

(8) “Department,” as defined at 77-5-302(2), MCA means “the department of natural resources and conservation provided for in 2-15-3301, MCA.”

(9) “Diameter at breast height” (abbreviated “dbh”) means the diameter of a tree measured 4 1/2 feet from the ground level. Ground level is the highest point of the ground touching the stem.


(11) “Established road” means an existing access or haul route for highway vehicles that is passable under one or more of the following circumstances:

(a) without any work;
(b) with clearing of windfall or small woody vegetation;
(c) with surface blading;
(d) with replacement of stream crossing structures and drainage structures that were removed to restrict access; or
(e) with removal of constructed access barriers.

(12) “Hazardous or toxic material” means substances which by their nature are dangerous to handle or dispose of, or are a potential environmental contaminant, and includes petroleum products, pesticides, herbicides, chemicals, and biological wastes.

(13) “Lake” means a body of water where the surface water is retained by either natural or artificial means, where the natural flow of water is substantially impeded, and which supports fish.

(14) “Landing” means a cleared area in the forest to which trees or logs are yarded or skidded for processing or loading onto trucks for transport.

(15) “Major,” as used in the Damage Table in 36.11.313, means that the action disturbs the integrity of the SMZ and significantly diminishes two or more of the SMZ functions listed in 77-5-301 (1)(a-f) MCA.

(16) “Minor,” as used in the Damage Table in 36.1.313, means that the action disturbs the integrity of the SMZ but does not significantly diminish more than one of the SMZ functions listed in 77-5-301 (1)(a-f) MCA.

(17) “Operator,” as defined at 77-5-302(4), MCA, means “a person responsible for conducting forest practices. An operator may be the owner or a person who, through contractual agreement with the owner, is obligated to or entitled to conduct forest practices or carry out a timber sale.”

(18) “Ordinary high water mark” means the stage regularly reached by a body of water at the peak of fluctuation in its water level. The ordinary high water mark is generally observable as a clear, natural line impressed on the bank. It may be indicated by such characteristics as terracing, changes in soil character-
istics, destruction of vegetation, presence or absence of litter or debris, or other similar characteristics.

(19) “Other body of water” means ponds and reservoirs greater than 1/10 acre that do not support fish; and irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir or other surface water. Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.

(20) “Owner,” as defined at 77-5-302(5), MCA, means “an individual, firm, partnership, corporation, or association of any nature that holds an ownership interest in forest land or timber.”

(21) “Prolonged,” as used in the Damage Table in 36.11.313, means that the impacts to the functions of the SMZ or water quality will last longer than one growing season (generally more than 1-2 years).

(22) “Road” means a travel-way suitable for highway vehicles.

(23) “Salvage” means harvesting trees that have been killed or damaged or are in imminent danger of being killed or damaged by injurious agents other than competition between trees.

(24) “Sidecasting” means the act of moving excess earthen material over the side of a road during road maintenance operations.

(25) “Slash” means the woody debris that is dropped to the forest floor during forest practices. Timber slash consists of stems, branches, and twigs left behind after forest practices.

(26) “Slope distance” means the length of a line between two points on the land surface.

(27) “Stream,” as defined at 77-5-302(7), MCA, means “a natural watercourse of perceptible extent that has a generally sandy or rocky bottom or definite banks and that confines and conducts continuously or intermittently flowing water.”

(28) “Streamside management zone” or “zone” (abbreviated “SMZ”), as defined at 77-5-302(8), MCA, means “the stream, lake, or other body of water and an adjacent area of varying width where management practices that might affect wildlife habitat or water quality, fish, or other aquatic resources need to be modified. The streamside management zone encompasses a strip at least 50 feet wide on each side of a stream, lake, or other body of water, measured from the ordinary high water mark, and extends beyond the high water mark to include wetlands and areas that provide additional protection in zones with steep slopes or erosive soils.”

(29) “Temporary,” as used in the Damage Table in 36.11.313, means that the impacts to the functions of the SMZ or water quality will be negligible following one full growing season (generally less than 1-2 years).

(30) “Timber sale,” as defined at 77-5-302(9), MCA, means “a series of forest practices designed to access, harvest, or regenerate trees on a defined land area for commercial purposes.”

(31) “Wetlands” means those areas that are inundated or saturated by surface or ground-water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, swamps, bogs, and similar areas. (History: 77-5-307, MCA; IMP, 77-5-302 and 77-5-307, MCA; NEW, 1997 MAR p. 1992, Eff. 11/4/97.)
Rule 2: (36.11.302)  
Width of SMZ / Marking Boundary

(1) The slope of the SMZ is measured perpendicular to the stream or lake from the ordinary high water mark to a point 50 feet slope distance from the ordinary high water mark.

(2) The SMZ width is 50 feet slope distance on each side of streams, lakes, and other bodies of water measured from the ordinary high water mark, in all cases except:

(a) Where wetlands exist adjacent to the stream, lake, or other body of water, the SMZ extends to include the wetlands;

(b) On Class 1 and 2 stream segments and lakes where the slope of the SMZ is greater than 35%, the SMZ width is 100 feet, except:

(i) where an established road exists between 50 and 100 feet from the ordinary high water mark, the SMZ boundary is located at the toe of the road fill; or

(ii) where the slope of the SMZ decreases to 15% or less to form a bench that is 50 to 100 feet from the ordinary high water mark and at least 30 feet wide, the SMZ boundary is located at the edge of the bench nearest the stream.

(3) Where forest practices that are prohibited in the SMZ will be conducted adjacent to the SMZ boundary on a class 1 or class 2 stream segment, the SMZ boundary must be clearly marked prior to conducting such practices.

Rule 3: (36.11.303)  
Broadcast Burning

(1) Broadcast burning in the SMZ is prohibited unless approved by the department under a site-specific alternative practice.

Rule 4: (36.11.304)  
Equipment Operation in the SMZ

(1) Operation of wheeled or tracked equipment in the SMZ except on established roads is prohibited except as provided in this rule.

(2) In order to permit timber harvest on wetlands under conditions that protect the integrity of the SMZ, an operator may, as an alternative practice without site specific approval, operate wheeled or tracked equipment from the outside edge of an SMZ to within 50 feet of the ordinary high water mark wherever:

(a) the SMZ extends beyond 50 feet from the ordinary high water mark to include adjacent wetlands;

(b) there exist winter conditions with adequate snow or frozen ground; and

(c) operation of the wheeled or tracked equipment:

(i) does not cause rutting or displacement of the soil;

(ii) protects and retains shrubs and submerchantable trees to the fullest extent possible;

(iii) does not remove stumps; and
(iv) otherwise conserves the integrity of the SMZ.

(3) In order to minimize road construction and trails necessary for timber harvest on lands adjacent to the SMZ, an operator may, as an alternative practice without site specific approval, cross the SMZ and the stream or other body of water with wheeled or tracked equipment on a class 3 stream segment or other body of water at locations spaced approximately 200 feet apart or more provided that:

(a) crossings are located in areas where the stream or other body of water is dry and the banks and bottoms are stable;

(b) excavation is minimized;

(c) the capacity of the stream channel or other body of water is maintained; and

(d) the distance traveled through the SMZ is minimized.

(4) In order to minimize road construction necessary for timber harvest on lands adjacent to the SMZ, an operator may, as an alternative practice without site specific approval, operate wheeled or tracked equipment inside the SMZ off of established roads on the side of the road away from the stream wherever:

(a) an established road exists inside the SMZ or construction of a road inside the SMZ is authorized under ARM 26.6.606;

(b) the toe of the road fill nearest the stream is at least 25 feet from the ordinary high water mark; and

(c) operations are conducted in such a manner that:

(i) wheeled or tracked equipment stays out of wetlands except under winter conditions as provided in (2) above;

(ii) all skidding of logs takes place on designated skid trails located approximately 200 feet apart or more;

(iii) all skid trails in such areas are reclaimed by installing erosion control measures and reestablishing vegetative cover;

(iv) drainage features are established or reestablished on all roads used under this section;

(v) logs are not decked on the side of the road toward the stream.

(5) An operator may, as an alternative practice, without site specific approval, operate equipment on an existing road located in the SMZ, to allow the extraction of logs or trees from within the SMZ.

Under these conditions an operator may:

(a) store individual logs or small groups of logs on the side of a road toward the stream provided:

(i) no portion of any stored log encroaches on an area within 15 feet of the ordinary high-water mark;

(ii) all such areas are reclaimed by installing erosion control measures and the reestablishment of vegetative cover; and

(iii) there are no adverse impacts to the functions of the SMZ or to water quality.

(6) When logs are being winched or cable yarded across a class 1 or 2 stream segment,
the logs must be fully suspended over the stream or stream bank unless approved by the department pursuant to a site-specific alternative practice and unless otherwise authorized pursuant to the Natural Streambed and Land Preservation Act of 1975, 75 7 101 et seq., MCA.

(7) Landings shall not be constructed in the SMZ unless the department has approved a site-specific alternative practice pursuant to 36.11.310.

(8) The department may approve operation of wheeled or tracked equipment in the SMZ as a site specific alternative practice only under conditions that:

(a) conserve the integrity of the SMZ;
(b) do not cause rutting of the soil; and
(c) protect the residual stand of shrubs and trees.

(History: Sec. 77 5 307, MCA; IMP, Sec. 77 5 301, 303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)

Rule 5: (36.11.305) Retention of Trees in the SMZ/ Clearcutting

(1) The forest practice of clearcutting is prohibited in the SMZ unless approved by the department under a site-specific alternative practice.

(2) In order to provide large woody debris, stream shading, water filtering effects, and to protect stream channels and banks, merchantable and submerchantable trees must be retained in the first 50 feet of the SMZ beyond the ordinary high water mark and in the entire SMZ where the SMZ is extended for wetlands under ARM 36.11.302(2)(a) on each side of streams, and along lakes and other bodies of water as follows:

(a) On each side of class 1 stream segments and lakes retain 50% of the trees greater than or equal to 8 inches dbh, or 10 trees greater than or equal to 8 inches dbh in each 100 lineal feet of the SMZ, whichever is greater.

(i) If less than 10 trees greater than or equal to 8 inches dbh are present in any 100 lineal foot segment of the SMZ, then a minimum of 10 trees of the largest diameter available must be retained in that segment;
(ii) Trees retained must be representative of the species and size of trees in the pre-harvest stand; and
(iii) Shrubs and submerchantable trees must be protected and retained in the entire SMZ to the fullest extent possible when conducting forest practices in the SMZ.

(b) On each side of class 2 stream segments retain 50% of the trees greater than or equal to 8 inches dbh, or 5 trees greater than or equal to 8 inches dbh in each 100 lineal feet of the SMZ, whichever is greater.

(i) If less than 5 trees greater than or equal to 8 inches dbh are present in any 100 lineal foot segment of the SMZ, then a minimum of 5 trees of the largest diameter available must be retained in that segment;
(ii) Trees retained must be representative of the species and size of trees in the pre-harvest stand; and
(iii) Shrubs and submerchantable trees must be protected and retained in the entire SMZ to the fullest extent possible when conducting forest practices in the SMZ.

(c) On each side of class 3 stream segments and other bodies of water, shrubs and submerchantable trees must be protected and retained in entire SMZ to the fullest extent possible when conducting forest practices in the SMZ.

(3) Hardwood trees and snags meeting diameter standards of (2) above may be counted toward retention tree requirements in the same approximate proportion as their occurrence in the stand prior to commencement of forest practices.

(4) Trees retained pursuant to this rule must be distributed within the SMZ as guided by the following criteria:

(a) Favor bank-edge trees;

(b) Favor trees leaning toward the stream and those that cannot be felled without falling into the stream;

(c) Where the SMZ is greater than 50 feet wide and harvesting will result in the minimum stocking of trees required to be retained under section (2)(a) and (b), concentrated retained trees within 50 feet of the stream.

(d) All trees that have fallen, through natural processes, across or in a Class 1 or 2 stream must be retained, unless removal of such trees is conducted pursuant to 36.11.304(6), is approved as a site specific alternative practice, and is conducted consistent with other applicable federal and state laws and regulations.

(5) Trees retained pursuant to this rule may be salvaged only under the following conditions:

(a) Trees to be harvested meet the definition of salvage found at ARM 36.11.312(23); and

(b) The minimum tree retention requirements of section (2) are met by standing live trees, or by dead or fallen trees where sufficient standing live trees are not available; and

(6) All practices which deviate from the tree distribution criteria provided in (2) and (4) above require approval as site-specific alternative practices. (History: Sec. 77-5-307, MCA;IMP, Sec. 77-5-301, 303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93.; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)

Rule 6: (36.11.306) Road Construction in the SMZ

(1) The construction of roads in the SMZ is prohibited except when necessary to cross a stream or wetland unless approved by the department under a site-specific alternative practice or as provided in this rule. The construction of roads across streams, wetlands or other bodies of water is not regulated by these rules but may be subject to other state and federal laws and regulations.

(2) Road fill material must not be deposited into the SMZ except as needed to construct crossings.

(3) In order to minimize excavation for road construction on erosive soils characteristic of Eastern Montana, an operator may, as an alternative practice without site-specific approval, construct or locate a road inside the SMZ on class 3 stream segments in the eastern zone only wherever:
(a) The slope of the SMZ immediately adjacent to the stream is 10% or less for a distance of at least 25 feet from the ordinary high water mark;

(b) There exists in the outer portion of the SMZ a hillside with slopes in excess of 35%; and

(c) The road is constructed or located on the gentler slopes in such a manner that:

   (i) Cutting and filling of earthen material is minimized;

   (ii) The toe of the road fill is located at least 15 feet from the ordinary high water mark;

   (iii) The road is located as far away from the ordinary high water mark as is practical; and

   (iv) Road drainage features are installed as needed to minimize sediment delivery to streams. (History: Sec. 77-5-307, MCA; IMP, Sec. 77-5-303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93.; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)

Rule 7: (36.11.307) Hazardous or Toxic Materials

(1) The handling, storage, application, or disposal of hazardous or toxic materials in the SMZ in a manner that pollutes streams, lakes, or wetlands or that may cause damage or injury to humans, land, animals, or plants is prohibited.

(2) Any application of herbicides or pesticides must be done in a manner that such materials are not introduced to streams, lakes, wetlands, or other bodies of water through surface runoff or sub-surface flow.

(3) Any application of herbicides or pesticides must be done in a manner which does not destroy vegetation in the SMZ to an extent which impairs the capacity of the SMZ to provide shade or to act as an effective sediment filter.

(4) Any application of herbicides or pesticides in the SMZ must be in accordance with all label directions and in compliance with all applicable laws and regulations regarding the use of such material.

(5) Dust abatement agents which do not contain waste oil may be applied on roads in the SMZ provided that such material is not directly introduced into a stream, lake, or other body of water. (History: Sec. 77-5-307, MCA; IMP, Sec. 77-5-303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93.; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)

Rule 8: (36.11.308) Side-casting of Road Material

(1) The side-casting of road material into a stream, lake, wetland, or other body of water during road maintenance operations is prohibited in the SMZ. (History: Sec. 77-5-307, MCA; IMP, Sec. 77-5-303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93.; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)

Rule 9: (36.11.309) Depositing Slash

(1) Depositing slash in streams, lakes, or other bodies of water is prohibited unless approved by the department under a site-specific alternative practice subject to other state and federal laws and regulations. (History: Sec. 77-5-307, MCA; IMP, Sec. 77-5-303, MCA; NEW, 1993 MAR p. 14, Eff. 3/15/93.; TRANS, 1995 MAR p. 1958, Eff. 7/1/95.)
Rule 10: (36.11.310)
Site-specific Alternative Practices

(1) The owner or operator shall comply with the management standards stated in 77-5-303(1), MCA, and this subchapter, unless approval has been obtained from the department for alternative practices designed for site-specific conditions encountered during a timber sale prior to conducting such practices.

(2) The department may approve a proposed alternative practice only if such practice would be otherwise lawful and the department determines with reasonable certainty that the proposed alternative practice would conserve the integrity of the streamside management zone and would not significantly diminish the function of the zone as state in 77-5-301, MCA:

(a) To act as an effective sediment filter to maintain water quality;

(b) To provide shade to regulate stream temperature;

(c) To support diverse and productive aquatic and terrestrial riparian habitats;

(d) To protect stream channel and banks;

(e) To provide large, woody debris that is eventually recruited into a stream to maintain riffles, pools, and other elements of channel structure; and

(f) To promote floodplain stability.

(3) In order to obtain department approval of alternative practices, the owner or operator shall submit to the department an application describing the proposed practices and location. Applications must provide all data specified by the department and must be submitted on forms provided or approved by the department.

(4) Within 10 working days of receipt of the application for approval of alternative practices the department shall determine if the application is approved, approved with modification, disapproved, incomplete, requires additional information or environmental analysis, or requires a field review. The department shall notify the owner and the applicant of its decision in writing.

(5) If the department determines a field review is necessary, the field review must be made at a mutually agreeable time. The owner or his designee must be present at the field review.

(6) Within 10 working days after all necessary field review is complete, the department shall determine whether the application is approved, approved with modification, disapproved, incomplete, or requires additional information or environmental analysis. The department shall notify the owner and the applicant of its decision in writing.

(7) The department may notify the applicant in writing that it declines to conduct further environmental analysis of an application if it determines that the proposed alternative practices are complex, or affect an environmentally sensitive area, or involve a high degree of uncertainty that the proposed alternative practices will have a significant impact on the quality of the human environment. The notice must briefly describe the department’s reasons for declining to conduct further analysis. In this case, the applicant may conduct further environmental analysis and submit documentation to the department. The department shall independently review any further environmental analysis and documentation of the proposed alternative practices provided by the applicant and may adopt such documentation if it is adequate under the Montana Environmental Policy Act (75-1-101 et
Rule 11: (36.11.313)
Penalties

(1) Each violation of Title 77, chapter 5, part 3, MCA, rules adopted thereunder, or of an order issued pursuant to 77-5-305, MCA, is subject to a separate civil penalty not to exceed $1,000, with each day of the violation constituting a separate violation.

(2) Upon determining that a violation may have occurred, the department will, prior to issuing a formal warning or repair-order, make a reasonable attempt to contact, by telephone, letter, electronic mail or other means, the owner and operator.

(a) If the department is not successful in making contact with the owner and/or the operator, it will proceed in the appropriate manner, including but not limited to, the issuance of a formal warning, repair-order and/or assessment of a civil penalty.

(b) If the department determines that a violation does not warrant a civil penalty, as calculated in (5), it may seek voluntary compliance and site rehabilitation through warning, conference, or other appropriate means.

(3) For purposes of assessing penalties, the department shall divide SMZs into 100 lineal-foot segments. Each violation of a forest-practices standard set forth in 77-5-303(1) that occurs in a separate 100 lineal-foot SMZ segment shall constitute a separate violation and shall be subject to a separate civil penalty.

(4) The penalty matrix set forth in this rule establishes the initial penalty value for each violation. The significance of the violation, whether significant harm resulted to health, environment, water quality and quantity,
aquatic and terrestrial riparian habitats, stream channels and banks, may decrease or increase a penalty within the limits listed below. The department shall have the option to select the most appropriate penalty and penalty value for each and every violation of the SMZ law, 77-5-301 through 77-5-307, MCA.

(5) SMZ violations that warrant a civil penalty and site rehabilitation shall be documented on a repair-order form prescribed by the department. For each separate violation, the department shall specify in the repair order the nature of the violation and the damage or unsatisfactory condition resulting from the violation, shall specify the appropriate repair action, and shall, in order to implement the management standards provided in 77-5-303 and to provide specific direction necessary for owners and operators to understand and comply with the management standards, specify the amount of civil penalty per violation, according to the following formula:

Penalty Formula =

\[\text{Penalty Formula} = \left(\frac{100 \times \text{Repair}}{\text{# days of violation}} + \frac{100 \times \text{Damage}}{\text{# days of violation}}\right) \times \text{# days of violation},\]

where the repair and damage variables are determined as follows:

(a) Repair – Determined by whether the repair actions are completed by the deadline specified in the department’s repair order, with one of the following values inserted into the Penalty Formula as the Repair variable:

0 - Responsible party exceeds required repair actions.

2 - Responsible party meets required repair actions.

4 - Responsible party fails to complete repair actions.

(b) Damage – Determined by the extent of watershed damage, duration of impact, and stream class involved, as shown in the following Damage Table, with one of the following values inserted into the Penalty Formula.

<table>
<thead>
<tr>
<th>Degree and Duration of Watershed Damage</th>
<th>Class 3 Stream</th>
<th>Class 2 Stream</th>
<th>Class 1 Stream</th>
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<tr>
<td>Minor and Temporary</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Minor and Prolonged</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Major and Temporary</td>
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</tr>
<tr>
<td>Major and Prolonged</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
For more information, contact:

Or contact:
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
2705 SPURGIN ROAD
MISSOULA, MONTANA 59804-3199
(406) 542-4300