



**COWLITZ COUNTY
DEPARTMENT OF PUBLIC WORKS**

**RIGHT-OF-WAY
VEGETATION MANAGEMENT
POLICY**

February 2010

The purpose of this document is to provide the public with an overview of how the Road Operations Division of the Cowlitz County Department of Public Works manages vegetation within and adjacent to the County road right-of-way. Please contact the Department at (360) 577-3030 if you have any questions or comments.

PROGRAM MISSION

The Department of Public Works manages vegetation that is within the County road right-of-way to keep the traveling public safe, to protect the economic investment in public roadways, and to preserve the natural beauty of the environment.

RIGHT-OF-WAY MANAGEMENT ZONES

Cowlitz County divides the right-of-way into three distinctive zones for the purposes of vegetation management. Each zone reflects specific vegetation management requirements. These zones are defined below and in Figure 1 on page 3.

Zone 1 (Vegetation Free Zone)

Zone 1 begins at the edge of pavement and extends outward a minimum of one foot with three feet being the target vegetation free width. If a suitable shoulder exists, the vegetation free zone will be extended to six feet. Zone 1 is kept **VEGETATION FREE** for the following reasons:

To Facilitate Safety By...

- ***Increasing Sight Distance*** - Grasses, weeds, blackberry vines, and other vegetation that are allowed to grow adjacent to the edge of pavement may limit a drivers ability to see around curves. Limited sight distance restricts the driver's view of oncoming vehicles, pedestrians, bicyclists, wildlife, or other objects in, or adjacent to, the road. By limiting the growth of roadside vegetation, driver's will be able to see further thus improving the reaction time they have to avoid other drivers, pedestrians, and objects.
- ***Minimizing Soft Shoulders and Pot Holes*** - Vegetation that is allowed to grow adjacent to the edge of pavement creates a barrier to proper drainage. In addition to creating a barrier, the vegetation will act as a sponge. Ponding water also saturates the roadway shoulder area adjacent to the edge of pavement. Saturated shoulders become soft, develop pot holes, and degrade the pavement. Pot holes and damaged pavements create dangerous situations for drivers.
- ***Minimizing Hydroplaning and Icy Roads*** - Vegetation build-up at the edge of the pavement can create a barrier to proper drainage that can cause ponding of water. These ponds can cause hydroplaning or can freeze during the winter creating an icing hazard.

- Minimizing Pavement Striping from Being Covered - Vegetation that is allowed to grow to several feet in height immediately adjacent to the edge of pavement will often collapse onto the roadway during the autumn dormancy covering the edge of pavement or fog line and creating a potentially unsafe situation.

To Protect the Economic Investment in the Roads By...

- Minimizing Soft Shoulders and Pot Holes - Vegetation that is allowed to grow adjacent to the edge of pavement will ultimately undermine the integrity of the pavement as a result of the infiltration of roots into the pavement and the softening of the shoulder as a result of water that is ponded from a vegetation barrier. When the shoulder becomes soft as a result of saturated soils, pot holes and ruts develop that must be repaired at great public expense.

Zone 2 (Operational Zone)

Zone 2 begins at the edge of Zone 1 and extends outward an additional 3 to 12 feet to include all regulatory, warning, and guide signs (generally 3 to 12 feet). Our objective is to maintain the Zone 2 vegetation at a height of no less than three inches. Rather than keep this area vegetation free, the vegetation is maintained as an erosion control mat, to keep the dust down, and to provide a visually pleasing right-of-way. While kept at no less than three inches, the vegetation is also restricted to a desired maximum height of 30-inches which provides an unrestricted driver's view of signs, on-coming vehicles, pedestrians, animals, and other objects that may be in or adjacent to the roadway.

Zone 2 also restricts the over-story or tree canopy height of existing trees within the right-of-way and trees encroaching from adjacent properties (see Figure 1). A minimum vertical clearance for tree limbs is 25 feet from the surface of the pavement. Right-of-ways vertically cleared of tree limbs promote sunlight and air circulation that allow road surfaces to dry more quickly and helps snow and ice to melt quicker.

Zone 3 (Transition Zone)

Zone 3 begins at the edge of the Zone 2 and extends to the outer limit of the County's right-of-way. This zone is used as a buffer between Zone 2 and private properties. Vegetation management in this zone creates a transition between the operating portion of the right-of-way and the land use of adjacent properties. Within this zone ground vegetation and the tree canopy are maintained, if necessary, to enhance driver visibility, sight lines to signs, or to enhance road surface conditions e.g. tree limbing to encourage dry pavements. Special attention is given to noxious weeds and dead or diseased vegetation and trees.

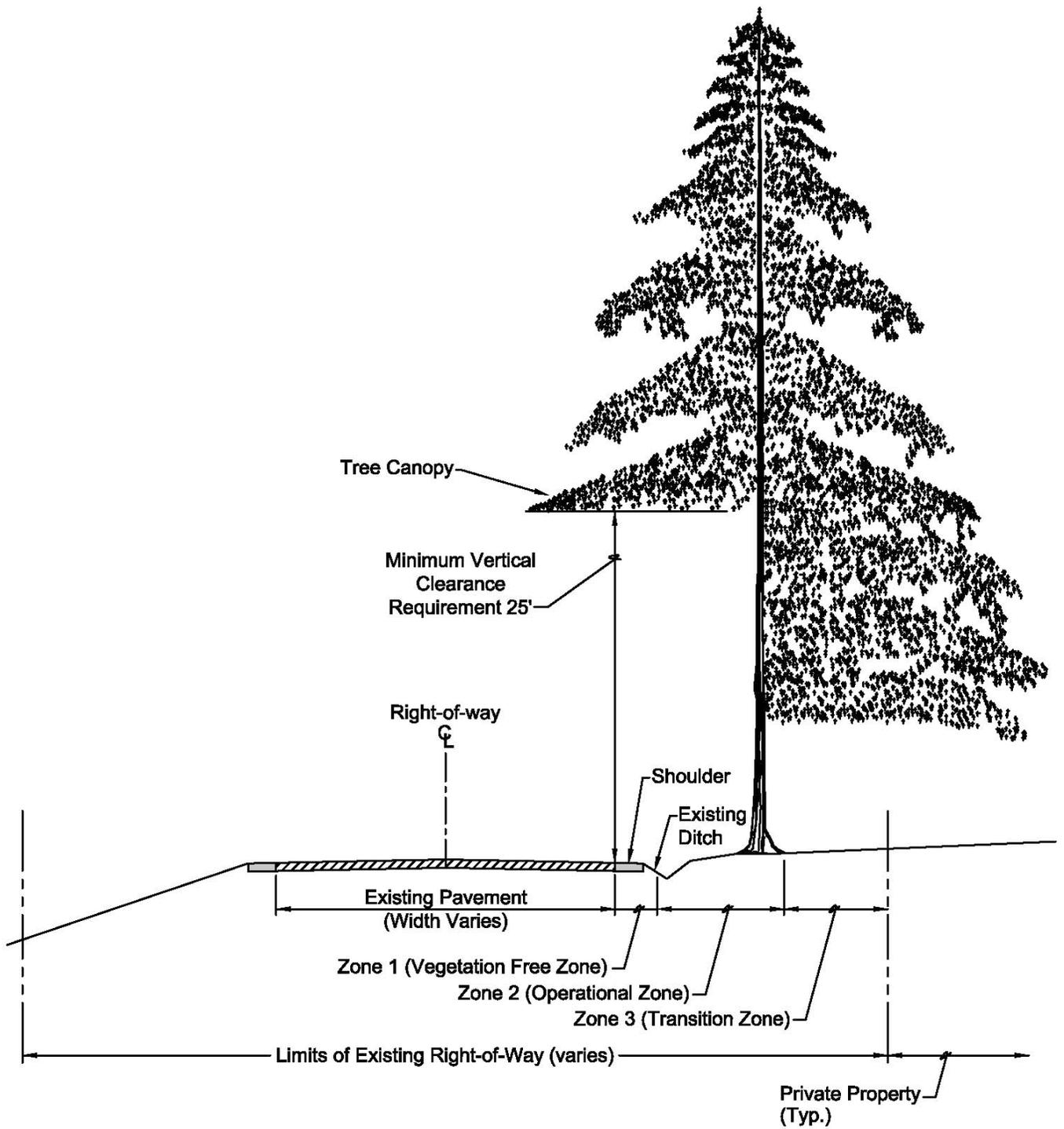


Figure 1

METHODS OF VEGETATION MANAGEMENT

Cowlitz County employs an Integrated Vegetation Management Program for control and management of vegetation within the public right-of-way. The two primary methods used by the County for vegetation control include Mechanical Control and Chemical Control with the two less often used methods for vegetation control consisting of Cultural Control and Biological Control. These four vegetation control methods are briefly explained below.

Mechanical Methods of Vegetation Control

Cowlitz County utilizes a number of mechanical methods to manage vegetation in the right-of-way including tractor mounted mowers, man-lifts, chainsaws, hand operated cutters, grass trimmers, chippers, and other common tools. The most common method for controlling vegetation in Zones 2 and 3 is with tractor mounted rotary boom mowers.

Tractor-mounted mowers are used to cut grass, brush, and woody material smaller than four inches in diameter. These mowers are able to accomplish a significant amount of mowing and right-of-way clearing very efficiently when compared to other methods of mechanical vegetation control. Roads are prioritized for multiple pass mowing and hand clearing in the winter. Roads are also prioritized for single pass mowing in the summer (during the growing season) but the operating hours and extent of mowing are reduced during the summer months due to fire hazards that exist in the afternoons.

Man-lifts are used to cut limbs off of trees that hang into the right-of-way and out over the roadway. The man lift is accompanied by a truck with a brush chipper so that the chipped material can be removed from the work site. The elimination of limbs that overhang the road provides access for our maintenance vehicles and trucks that perform road surface maintenance operations. Clearing overhanging limbs from the right-of-way promotes for more sunlight and air circulation which assists drying of the road surface as was noted above. Tree limbing with a man-lift is generally performed on roads that will be receiving a new asphalt or chip seal surface or after snow and wind storms during debris cleanup.

Hand operated equipment including chainsaws, string trimmers, and hedge trimmers are used in areas that are difficult to reach with larger equipment. These tools are used underneath and around bridges, on islands within the right of way, around guardrail, and in residential areas where we are working in close relationship to pedestrians, parked cars, and houses. Use of this equipment allows us to be more precise when removing vegetation from the right-of-way.

Chemical Control

Herbicides, fertilizers and other soil amendments are employed to manage undesirable and invasive vegetation in the County right-of-way. Chemical control method selection is based on specific site and plant community needs considering, but not limited to, the following:

- a. Can we use natural control by replacing unwanted vegetation with desirable species?
- b. Which method has the least amount of environmental impact and is least disruptive to non-targeted or beneficial vegetation?
- c. Does the method enhance the environment?
- d. Which method is most likely to produce a long term solution?
- e. Is the method being employed cost effective?

Application of Herbicides within County Right-of-Way

Cowlitz County has an herbicide application “spray” program within the right-of-way that addresses Zone 1 and separately Zones 2 and 3.

Zone 1 Shoulder Spray

- Herbicides are applied along all County roads in Zone 1 to eliminate vegetation which minimizes the vegetation barrier build-up that creates ponding of water on the road, deteriorates the edge of pavements, and causes soft shoulders and pot-holes.
- The herbicide includes a residual component that controls the vegetation for up to six months.
- The shoulder spray is generally applied between March and mid-July of each year.

Zone 2 and 3 Broadleaf Spray

- Herbicides are applied to prioritized roads in Zone 2, and Zone 3 if necessary, to eliminate the growth and spreading of select broadleaf vegetation including blackberries, trees, and other vegetation.
- A hand-held spray gun or nozzle is used to spot-spray vegetation. Stems and cut stumps are maintained by spot-spray, wicking, or painting.
- Blackberries are sprayed from early spring through the first freeze in the fall.
- Herbicide is only used on trees and brush less than six feet tall. Trees over six feet tall are hand-cut.
- Controlling broadleaf vegetation with herbicides reduces the need to clear the right-of-way in the future with chainsaws, man-lifts, and other time consuming manual activities.

- Maintaining a Zone 2 clear of broadleaf vegetation promotes a pavement that is exposed to sunlight and air circulation.
- The spraying for broadleaf is generally applied between mid-July and October.

Noxious Weeds

The Zone 2 and 3 broadleaf spray program also includes spray for Noxious Weeds. Noxious weeds are defined as non-native vegetation species that are invasive and destroy native vegetation and are hazardous to people and livestock. Research reveals that the greatest contributor to noxious weed introductions is from personal vehicles, commercial vehicles, and the railway system transferring seeds from one area to another. With wise and prudent application of herbicides, we are attempting to control this environmentally and economically destructive invasive vegetation and reclaim the effected grounds. Noxious weeds within the County road right-of-way are treated by the Department of Public Works. The program for Noxious Weeds on private property is coordinated through the Cowlitz County Noxious Weed Control Board. Contact information for the Noxious Weed Control Board is noted at the end of this document.

All County employees that apply herbicides are trained to use the latest technology and application methods. These employees maintain current Washington State Department of Agriculture Pesticide Applicators licenses with at least a “right-of-ways” endorsement. Supplemental training is required and provided each year to keep their licenses in good standing and to increase their knowledge of herbicide methodology and state requirements.

Pesticide Application Reports (PAR’s) are completed with each herbicidal application. The information recorded includes the location, date, time, weather conditions, method of application, equipment type and number, a complete listing of chemicals deployed along with their EPA registry numbers, their proportions, the vegetation targeted, the identity of the applicator with his/her operators license number, and the date of calibration check (application equipment is routinely monitored for malfunction with periodic calibration checks). In conformance with state statute, these records are maintained and archived for seven years.

Notification

Cowlitz County will make every reasonable attempt to notify property owners, whom have typically maintained vegetation to the edge of the road, that we will be spraying herbicide in your area within in the future (one or more weeks in advance). If the property owner would like to maintain the vegetation adjacent to their property, in lieu of County provided maintenance, they will be required to contact the Cowlitz County Department of Public Works and obtain an “Owner Maintained Area Permit” as is specified in this document.

Cultural Control

Desirable plants are maintained, encouraged, or planted to prevent the establishment of undesirable plants such as recognized invasive vegetation. Cultural control includes trimming desired vegetation to promote vigorous growth, reseeding, fertilizing and transplanting desirable vegetation (preferably competitive native plant species), and the use of mulches and ground covers to inhibit unwanted seed germination.

Biological Control

Insects and other animals help reduce and control invasive and problematic vegetation, however, due to the significant amount of scientific research that needs to be done before introducing non-native insects or plants into our environment, and with consideration to the enormous risk that biological controls present to our environment and local economy, biological control introductions are left to the Washington State Department of Agriculture. The Cowlitz County Department of Public Works has on several occasions cooperated and partnered with the State and the Cowlitz County Noxious Weed Control Board in the planting of insect biological controls.

PESTICIDE SENSITIVE CITIZENS OF COWLITZ COUNTY

Citizens within Cowlitz County who have been medically diagnosed as “pesticide sensitive individuals” are encouraged to register with the Washington State Department of Agriculture at the following website: <http://agr.wa.gov/PestFert/Pesticides/SensitivityRegistry.html>. The application forms may also be obtained from the Cowlitz County Department of Public Works. Once registered, our applicators are required to notify the registrant no less than two hours prior to a chemical application at, or adjacent to, the registrants address. Notification can be made in writing, in person, or by telephone and will disclose the date and approximate time that the application is to be made.

LANDSCAPING WITHIN ROAD ADJACENT TO THE COUNTY RIGHT-OF-WAY

It is recommended that citizens who are considering the planting of ornamental vegetation, lawns, or other landscaping within, or adjacent to, the County right-of-way, contact the Department of Public Works for consultation before the work is started. The future size of any vegetation, as well as the location and impact on the roadway, especially sight distance, should be addressed at the time of planting. Advance planning will prevent the need to aggressively prune or remove the vegetation in the future.

Citizens wishing to plant grass adjacent to the roadway should be prepared to allow a vegetation free zone of at least one foot between the edge of the pavement and the start of the grass. The exception to this would be where there is a curb in-place. As with any landscape project, a little planning will go a long way in preventing problems in the future.

OWNER MAINTAINED AREA

Cowlitz County permits property owners adjacent to the public right-of-way to maintain vegetation in front of their property for all zones in accordance with the provisions of this policy and by obtaining an Owner Maintained Area Permit (attached) from the Department of Public Works. A one-time fee will be charged for the permit which will cover the costs associated with providing the signs and the administration of this voluntary program. New property owners must obtain a permit to continue in the program even if the previous property owner had a valid permit. There will be additional costs associated with providing replacement signs.

The owner must ensure that vegetation is controlled to provide sight distance to signs, curves, and intersections. Vegetation cannot restrict motorist's ability to see other motorists, pedestrians, animals, or other objects. The owner will also be responsible for controlling noxious weeds and undesired vegetation as is defined in this policy. This includes, but is not limited to, blackberry vines, trees, shrubs, and privacy hedges growing too close to the right-of-way, poison ivy, scotch broom, and other. Native plants and vegetation are the desired choice for plantings. The "owner maintained area" will be considered a "no spray" area by Cowlitz County for the purposes of this policy. The owner must place the provided signs at either end of the "owner maintained area" in the manner specified in the attached Owner Maintained Area Permit Sign Placement Guide (attached).

Property owners who have a permit will be mailed an annual notice reminding them of the requirements and responsibilities of the program. Cowlitz County reserves the right to control vegetation when the owner participates in the program and is not appropriately maintaining the vegetation. Owners may be provided a 7-day advance notice before any vegetation management action is taken by the Department, unless immediate action is needed to protect the road users.

CONTACT INFORMATION

Cowlitz County Department of Public Works

Road Operations Division

1600 – 13th Avenue South

Kelso, WA 98626

Phone: (360) 577-3030

Fax: (360) 636-0845

E-mail: publicworks@co.cowlitz.wa.us

Website: www.co.cowlitz.wa.us/publicworks/

Cowlitz County Noxious Weed Control Board

1946 - 3rd Avenue

Longview, WA 98632

Phone: (360) 577-3117 (Direct line)

Phone: (360) 577-3014 (ext. 9), WSU Extension Office

Cell: (360) 749-7637

Fax: (360) 423-9986

E-mail: valazqueza@co.cowlitz.wa.us

Website: www.co.cowlitz.wa.us/noxiousweeds