

Kitsap County Public Works

Vegetation Management Program



Program Mission Statement

Kitsap County Public Works manages vegetation in road rights-of-way to protect road surfaces, keep roads safe, and to preserve the natural beauty of the environment.

Goals

The goals of our Integrated Vegetation Management Plan help keep our efforts focused. They are listed below.

1. Practice environmentally sound methods.

We use the latest techniques and training to prevent contamination of surface or ground water while applying herbicides or fertilizers. We use biofiltration which helps improve surface water quality, while promoting healthy vegetation on rights-of-way to help prevent soil erosion.

2. Use native vegetation.

We believe native vegetation alongside roads contribute to the aesthetic appeal of our communities. We prefer native plants in landscaping or beautification projects.

3. Maintain vegetation for safety.

Vegetation affects many things on roads. We maintain vegetation to preserve sight distance. We identify dangerous trees and remove them from rights-of-way. We manage vegetation and roads to provide sunlight and air circulation to road surfaces which increases pavement life, and allows snow and ice to melt faster. Vegetation that traps water on the roadway or encroaches on driving lanes or shoulders is removed to prevent ponding.

4. Coordinate efforts.

We coordinate our efforts with the Washington State Department of Agriculture and the County's Noxious Weed Board. This helps us identify and control noxious weeds growing on County-owned rights-of-way.

5. Allow owners to maintain vegetation.

We offer an owner-maintained right-of-way program.

Roadside Management Zones

Roadsides are divided into zones for vegetation management. Each zone reflects specific vegetation requirements. Roadsides can have different zone designations on the same road. A description of the zones, and the vegetation management requirements are listed below.

Zone 1—Vegetation Free Zone

Zone 1 begins at the outer edge of pavement and extends to where the base material intercepts native soil, or the top edge of fill section, or where the gravel shoulder area and the top of inslope of ditch section meet.

Zone 1 Vegetation Management Requirements

This area is kept vegetation free. This provides gravel shoulders

for traffic and pedestrians. Eliminating vegetation in this zone improves surface drainage, maintains visibility, and reduces pavement breakup caused by plants or standing water. Removing vegetation in these areas also provides fire control breaks.

In some circumstances vegetation is allowed to grow in these areas. Vegetation must be maintained to prevent growth that traps water next to or on the road surface. When vegetation causes ponding problems the shoulder is graded and reshaped and all vegetation is removed.

Zone 2—Operational Zone

Zone 2 begins at the edge of Zone 1, and extends to include all regulatory and advisory signs. It includes the required sight distances for horizontal curves, intersections. It also includes areas required to provide visibility of pedestrians and animals.

Zone 2 Vegetation Management Requirements

This area is maintained to provide minimum vertical clearance for tree limbs, and to provide sunlight and air circulation to the road surface. This allows road surfaces to dry quickly and helps snow and ice melt quicker. Vegetation growth in roadside ditches is encouraged to help protect water quality.

Zone 3—Transition Zone

This zone begins at the edge of Zone 2 and extends to the end of the right-of-way. Vegetation management in this zone creates a transition between the operating portion of the right-of-way and the land use of adjacent properties.

Zone 3 Vegetation Management Requirements

Vegetation in this zone is maintained for erosion control. Special attention is given to undesirable species, noxious weeds, and dead or diseased plants.

Vegetation Management Methods

Integrated vegetation management uses several methods of control, either alone or in combination. We select the method based on specific site needs and the plant community there. We consider these points when choosing vegetation management methods:

- Can we use natural control by replacing unwanted vegetation with desirable species?
- Which method has less environmental impact or is least disruptive to non-targeted vegetation?
- Does the method enhance the environment?
- Which method is most likely to produce a permanent solution?
- Is the method cost-effective?

Types Of Maintenance Methods

There are five basic ways to maintain vegetation. A brief description of each method is listed below.

Mechanical Control

Mechanical equipment includes mowers, chain saws, hand operated cutters, grass trimmers, and other common tools. Most vegetation in Zones 2 & 3 is maintained with tractor-mounted boom rotary-head mowers. Proper mowing height is maintained to prevent thinning low growing shrubs.

Timing is important in mechanical control. When mowed too frequently native grasses are stressed, and plants may die. When mowed too infrequently, an effective level of vegetation management can not be achieved. We delay mowing until after wildflowers bloom whenever possible. We don't mow in areas known to provide active nesting for birds or other small wildlife until nesting activities are finished.

Mechanical control is used to maintain alder and other deciduous trees in mid-summer. Trimming too early leaves plants without enough stored food, and they may not be able to regrow. Small evergreen trees are controlled by cutting stems below the lowest branches. Stems are cut to ground level.

We use minimal mechanical control for vegetation near streams and lakes. Shade from vegetation is vital for good fish habitat. If mechanical control is necessary near water, we try to replant desirable vegetation whenever possible. When vegetation is removed by maintenance or repair work that area is normally reseeded or new vegetation is planted.

Cultural Control

Desirable plants are maintained so they crowd out or prevent establishment of undesirable plants. Cultural control include trimming desired vegetation to promote vigorous growth. It also includes reseeding, fertilizing and transplanting desirable vegetation. Undesired seed germination is prevented by using mulches and other ground covers.

Biological Control

Insects and other animals help reduce and control targeted vegetation. One example is using the Cinnabar moth to control the tansy ragwort. In most cases the insect or other animal is indigenous to the area of control.

Chemical Control

Chemical control uses herbicides, fertilizers, and other soil amendments to manage vegetation. Blackberry plants are killed by applying a selective herbicide. After the plants are removed fertilizer is used to promote healthy growth of desired plants and grasses.

Critical Areas

These areas are established to protect habitat. Maintenance activities in these areas have minimal impact to vegetation. These areas are clearly identified on maps at each road shop. Employees working in vegetation management are made aware of these areas. Best management practices in wildlife habitat buffer areas are used. Employees receive special training for working in wildlife habitat buffer areas.

Herbicides on County Rights of Way

Kitsap County Department of Public Works uses herbicides in our vegetation management program. Herbicides used are approved for use by the U.S. Environmental Protection Agency and Washington State Department of Agriculture. We follow the worker protection standards for every herbicide applied.

Employees who apply herbicides are trained to use the latest technology and application methods. Employees applying herbicides hold an application license and attend on-going training. We keep a complete record of all herbicide applied. We develop effective working relationships with suppliers and manufacturer representatives to ensure proper products are used in each application.

The manufacturer's label is followed and checked for correct application rates and environmental concerns. Copies of product labels and associated MSDS are on-site during any herbicide application.

Application is terminated when wind speeds reach five (5) miles per hour or when moderate rain begins. All application equipment is checked for calibration on a constant basis to maintain accuracy. Daily spray records are kept for every application. The record lists the date, time, weather conditions, area sprayed, product used (including lot and EPA numbers and amount used), dilution and carrier used. It also shows equipment used, operator(s), reason for application, and any comments related to the application.

In 1992, the legislature passed a law which allows pesticide sensitive individuals to submit information to the department, be placed upon a registry, and be contacted by the applicator prior to a pesticide application to a landscape or right-of-way which is adjacent to their principal place of residence.

Applicators are required to notify the sensitive person at least two hours prior to the scheduled application, or in the case of an immediate service call, the applicator shall provide notification at the time of the application.

Notification shall be made in writing, in person or by telephone and shall disclose the date and approximate time of the application. In the event a certified applicator is unable to provide prior notification because

of the absence or inaccessibility of the individual, the applicator shall leave a written notice at the residence of the individual listed on the pesticide-sensitive list at the time of the application.

Application methods by zone are shown below.

Zone 1 Application

- Selective herbicides are used for shoulder spraying. Apply at the lowest level possible that controls vegetation as desired.
- A broadcast spray covering only the shoulder area is used.
- A large nozzle along with a thickening agent is used to control spray drift.
- A 60-foot minimum buffer on either side of the crossing is maintained where a road passes over a stream. The area is not treated when running or ponding water is present.
- Herbicide application is not used in areas where property owners maintain lawns next to driving lane or paved shoulders. Homeowners are required to maintain vegetation so that water drains away from road. If water does not drain shoulders are graded and reshaped as needed. Shoulders are maintained vegetation-free where ditch sections separate the road from lawn areas.

Zone 2 Application

- Selective herbicides are used in Zone 2. 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 until bud break, and in the fall after fruit drops. After spraying the area is mowed and replanted. Fertilizer is used to promote healthy regrowth.
- Flowering plants are not sprayed during their bloom stage. This protects honeybees and provides colorful vegetation. Some herbicide application may be necessary during the bloom stage to control noxious weeds. These applications are done early in the morning when bees are less likely to be present and when winds are more likely to be calm.
- Herbicide should only be used on alders and other trees and brush less than six (6) feet tall. Trees over six feet tall are hand-cut. Standard stump treatments are used to control regrowth.

Zone 3 Application

- Zone 3 generally requires less maintenance and uses the same techniques as Zone 2.

Owner Will Maintain Program

Kitsap County Department of Public Works permits adjacent property owners to maintain vegetation in front of their property in Zones 2 or 3. A

lawn area in Zone 1 can also be owner-maintained in accordance with the provisions shown above. The owner must ensure vegetation is controlled to provide sight distance to signs, curves and intersections. Vegetation can not restrict motorists ability to see pedestrians and animals.

The owner is also responsible for controlling noxious weeds and undesired vegetation. This includes, but is not limited to, Himalayan blackberry, alder trees, willow trees, trees growing close to the roadway needing hard pruning, poison ivy, and scotch broom. Native plants and vegetation is the desired choice for plantings. Desired vegetation includes grasses, salal, huckleberry, vine maple, Oregon grape, native wildflowers, ferns, and other low growing shrubbery. Privacy hedges, including English laurel or Photinia, should be placed far enough back from the road so they don't interfere with sight distances or road maintenance activities. This may require additional set back from property lines.

Kitsap County Public Works reserves the right to control vegetation when the owner participates in the program but does not maintain the vegetation. Owners are provided 15-day advance notice before any vegetation management action is taken, unless immediate action is needed to protect road users. The owner must place a legible sign at each end of the property they maintain. Signs must be visible to road crews and read "Owner Will Maintain."

Noxious Weed Control

Pervasive and noxious weeds destroys native vegetation. We aggressively manage noxious weeds. Priority is given to noxious weed control over other vegetation management activities.

Danger Trees

Trees within the County right-of-way that endanger road users are removed. This includes dead and diseased trees, or trees that lean over a road. If the tree is on private property Kitsap County Public Works consults with the property regarding removal. If imminent danger is present, and the owner can not be contacted, the tree is removed immediately. The Road Shop Supervisor contacts the property owner at the soonest opportunity to explain the situation.

Identifying potential danger trees is part of the job for every Road Division employee. Crews are instructed to look for potential danger trees while performing their assigned tasks and duties. All primary and secondary County-maintained roads are inspected for danger trees bi-annually. All other County-maintained roads are inspected annually. If there is not certainty about the dangerous nature of the tree Kitsap County Public Works consults with an arborist and follows the recommendation provided.