VEGETATION PRESCRIPTIONS FOR THE COUNTY RIGHTS-OF-WAY

The Thurston County Department of Roads and Transportation Services has developed vegetation maintenance standards for the County rights-of-way. These standards vary depending on location in the right-of-way and whether there is a line of sight problem. Below are the current standards that were adopted in the RaTS Integrated Vegetation Management Program:

Zone 1 (Shoulders)  Maintain a height of 6" by mowing
Zone 2 (Ditch)     Mow no less than 6"
Zone 3 (Backslope) No line of sight problem - no maintenance required
Zone 3 (Backslope) Line of sight problem - low growing brush species mow no less than 12 inches
Zone 3 (Backslope) Line of sight problem - grasses mow no less than 6 inches

The RaTS Integrated Vegetation (IVM) Management Program was adopted by Resolution #10479 by the Thurston County Board of County Commissioners in November, 1993. Since adoption, the only additions to the vegetation program have been the adoption of Noxious Weed IPM Prescriptions (_).

The purpose of this set of IPM _s is to provide the field staff with additional control techniques to meet the challenges faced in managing the vegetation on such an extensive network of County roads. These IPM _s are not intended to replace the use of mechanical control, the primary method of controlling vegetation, they are intended to bring additional tools to provide a fully integrated vegetation program.

These IPM _s are grouped by vegetative type with examples of undesirable species. The lists are not meant to include every undesirable species. The IPM _ would apply if additional species become a problem and fit the general description with similar control strategy.
LOW GROWING BRUSH SPECIES IPM PRESCRIPTION

It is the intent of the Department to control low growing brush species using integrated pest management techniques. IPM uses regular monitoring to decide if or when to do treatments. The approach emphasizes physical, mechanical, and biological tactics to keep undesirable brush species low enough to prevent intolerable damage and annoyance.

The goal of this IPM is to reduce the growth of undesirable low growing brush species by using a combination of mechanical controls and herbicides while promoting other more desirable plants to grow in their place.

Examples of desirable low growing brush species include salal, snowberry, and Oregon grape. Examples of undesirable low growing brush species include blackberries and scotch broom. The control strategies will vary depending on location in the right-of-way and whether a problem exists.

Monitoring

There will be annual road surveys by field staff and the vegetation specialist. They will record areas where undesirable low growing brush species are causing problems. The vegetation specialist will develop a plan on how to control these plants using the following treatment strategies.

Evaluation

After implementing the treatment, the vegetation specialist will revisit the site several times to evaluate the success of the strategy. The information provided by the follow-up inspections will be recorded and used in the future to fine-tune the control efforts.

Treatment Thresholds

Treatment thresholds will vary depending on location within the right-of-way and whether the vegetation is causing a problem. If no problem exists, then no control may be the best option. Below is a list of thresholds:

Zone 1 All low growing brush species would be considered undesirable in Zone 1 due to their height and their damage to the pavement. The threshold for treatment is if this vegetative type is present.

Zone 2 All low growing brush species would be considered undesirable in Zone 2 due to the impact these plants would have on reducing storage capacity of the ditch and the ability to move the water during storm events. The
threshold for treatment is if this vegetation type is present.

Zone 3 **Line of sight problem** - The height of the desirable species would need to be reduced so it doesn’t block the view of motorists. Undesirable species would need to be treated to reduce line of sight problems and reduce problems to adjoining property owners. Some of these species cause fences to collapse and are difficult to control in pastures, landscapes, and other agricultural uses.

Zone 3 **No line of sight problem** - No treatment would be necessary on desirable species. Undesirable species may need to be treated if adjoining property owners complain that they are causing problems to fences, pastures, landscapes, or other agricultural uses.

**Treatment strategies**

Zone 1 The goal of managing the vegetation in Zone 1 is to provide a stable low growing plant community, preferably of grasses. Mowing close to the ground will discourage the growth of most species of low growing brush species. If the species does not become controlled due to the limited frequency of mowing, then a foliar application of an approved herbicide would be needed. Following the treatment, hyroseeding with grass species would replace the treated vegetation and provide vegetative competition, thereby eliminating the need for future herbicide applications.

Zone 2 The goal of managing the vegetation in Zone 2 is to provide a stable low growing plant community, preferably grasses. Even though cutting close to the ground will control most low growing brush species, mowing near the bottom of a ditch is nearly impossible. Foliar treatment with an approved herbicide followed by hyroseeding with desirable grass species is recommended.

Zone 3 **Line of sight problem** - Treatment of desirable species would include mowing to a height of not less than 12 inches. If these species are mowed too short, the plants will have difficulty recovering and would provide an opportunity for undesirable weeds to grow. If the circumstance requires the vegetation to be less than 12 inches tall to obtain visibility, then mowing close to the ground is recommended following by hyroseeding with grasses. For undesirable species, an approved herbicide application may be used followed by hyroseeding of desired vegetation. For the control of scotch broom, mowing may provide adequate control if mowed during the drought period (July - September).

Zone 3 **No line of sight problem** - No treatment of desirable species would be required in zone 3 if there is no line of sight problem. No treatment of
undesirable species would be required unless it causes problems to adjoining property owners. If the vegetation is causing damage to private property owners, then foliar treatment with an approved herbicide followed by hydroseeding would be required. The hydroseed mix could include desirable species of grasses or low growing brush depending on the site and situation.

WOODY SPROUTERS IPM PRESCRIPTION

It is the intent of the Department to control woody sprouting vegetation using integrated pest management techniques. IPM uses regular monitoring to decide if or when to do treatments. The approach emphasizes physical, mechanical, and biological tactics to keep undesirable vegetation from causing intolerable damage and annoyance.

The goal of this IPM is to reduce the growth of undesirable woody stump sprouting vegetation by using a combination of mechanical controls and herbicides while promoting other more desirable plants to grow in their place.

Examples of woody stump sprouting vegetation include alder, vine-maple, and big leaf maple. The one characteristic this group of plants shares is that they sprout from the stump when cut. The control strategies will vary depending on location in the right-of-way and whether a problem exists as defined under treatment thresholds.

Monitoring

There will be annual road surveys by field staff and the vegetation specialist. They will record areas where woody stump sprouting species are causing problems. The vegetation specialist will develop a plan on how to control these plants using the following treatment strategies.

Evaluation

After implementing the treatment, the vegetation specialist will revisit the site several times to evaluate the success of the strategy. The information provided by the inspections will be recorded and used in the future to fine-tune the control efforts.

Treatment Thresholds

Treatment thresholds will vary depending on location within the right-of-way and whether the vegetation is causing a problem. If no problem exists then no control may be the best option. Below is a list of thresholds:

Zone 1

The goal of managing the vegetation in Zone 1 is to provide a stable low growing plant community preferably grasses. All woody stump sprouting type of vegetation would be considered undesirable in Zone 1 due to their height and damage to the pavement. The sharp stumps pose a hazard to motorist, pedestrians, and bicyclists and continue to grow after cutting.
The threshold for treatment is if woody stump sprouting vegetation is present.

**Zone 2**

The goal of managing the vegetation in Zone 2 is to provide a stable low growing plant community, preferably grasses. All woody stump sprouting type of vegetation would be considered undesirable in Zone 2 due to their height and the impact they would have on reducing storage capacity of the ditch and the ability to move water during storm events. After the plants are cut, the stumps continue to sprout providing no control. The threshold for treatment is if this vegetation type is present.

**Zone 3**

**Line of sight problem** - All woody stump sprouting type of vegetation would be considered undesirable in Zone 3 with a line of sight problem due to the height of the plants and the difficulty for control. Therefore, the threshold for treatment is if this type of vegetation is present and causes line-of-sight problems.

**Zone 3**

**No line of sight problem** - No treatment would be necessary unless the vegetation is causing problems to adjoining property owners. Complaints about this type of vegetation in Zone 3 by adjoining property owners would need to be assessed on a case by case basis.

**Treatment Strategies**

**Zone 1**

Approved herbicides would be used in this area since mowing will only increase the problem. A foliar application of an approved herbicide would be needed since the vegetation should be small and low growing.

**Zone 2**

Approved herbicides would be used in this area since mowing will only increase the problem. A foliar application of an approved herbicide would be used if the vegetation is small and low growing. If the vegetation is too large for foliar application then hack and squirt, cut stump treatment, or tree injection herbicide applications may be the most appropriate. The vegetation is too large for foliar application when there is an increase in drift and off-target impacts. Cutting alders with 2 inch or larger stems, close to the ground during the spring immediately after leaf-out, will effectively control sprouting.

**Zone 3**

**Line of sight problem** - An approved herbicide should be used in this area since mowing will only increase the problem. The vegetation found in this situation will most likely be too large for foliar application, therefore, hack and squirt, cut stump treatment, or tree injection herbicide applications would be the most appropriate.
Zone 3  **No line of sight problem**  - In most cases no treatment would be needed. If the vegetation is causing a complaint from adjoining property owners, each case would need to be judged separately. If it is determined that the vegetation needs to be removed then hack and squirt, cut stump treatment, or tree injection herbicide application would be the most appropriate.

**CONTROL OF VEGETATION AROUND GUIDERAILS IPM**

It is the intent of the department to control vegetation around guiderails using integrated pest management techniques. IPM uses regular monitoring to decide if or when to do treatments.

**The goal of this IPM is to reduce or eliminate the growth of undesirable vegetation growing under guiderails.**

The purpose of controlling vegetation under guiderails is to make them visible to motorists. If guiderails are covered with vegetation, motorists may accidentally hit them when they need to pull off the road. Guiderails also are a warning to motorists that danger exists and to drive carefully. Controlling vegetation under guiderails mechanically requires workers to use weed eaters. This poses a substantial risk to County employees when they are required to work near traffic and a hard surface such as a guiderail. Also, the County doesn't have enough money in the budget to cover the costs of cutting the vegetation under all the guiderails in the County.

**Monitoring**

There will be annual road surveys by field staff and/or the vegetation specialist. They will record guiderails that have vegetation under or in front of them that will grow high enough to cover the railing. The vegetation specialist will develop a plan on how to control these plants using the following treatment strategies.

**Evaluation**

After implementing the treatment, the vegetation specialist will revisit the site several times to evaluate the success of the strategy. The information provided by the inspections will be recorded and used in the future to fine-tune the control efforts.

**Treatment Thresholds**

Treatment will only occur at sites where vegetation will grow above the bottom of the guiderail. If no vegetation or short vegetation is growing under or in front of the guiderail, then no treatment will be taken.

**Treatment Strategies**
Treatment will include the application of an approved herbicide. The reason for the herbicide application rather than manual/mechanical control is worker safety, motorist safety, and budget limitation. The risk to the County workers is far greater than the risk of using a County approved herbicide. The County only approves herbicides that have been reviewed by an Environmental Health Specialist and found to meet the criteria established in the Thurston County Pest and Vegetation Management Policy.

VEGETATION CONTROL AROUND TELEPHONE PEDESTALS

It is the intent of the Department to control vegetation around telephone pedestals using integrated pest management techniques. IPM uses regular monitoring to decide if or when to do treatments. The approach emphasizes physical, mechanical, and biological tactics to keep undesirable brush and woody vegetation from covering the telephone pedestals.

The goal of this IPM is to reduce the growth of undesirable low growing brush and woody stump sprouters vegetation from covering up the telephone pedestals by using a combination of mechanical controls and herbicides while promoting other more desirable plants to grow in their place.

The problem associated with brush and woody vegetation growing over telephone pedestals is the mower operators are unable to see them and they accidentally get destroyed. Telephone pedestals are installed by the telephone company in zone 3 of the right-of-way.

Monitoring

There will be annual road surveys by field staff and/or the vegetation specialist. They will record telephone pedestals that have vegetation that will cover them. The vegetation specialist will develop a plan on how to control these plants using the following treatment strategies.

Evaluation

After implementing the treatment the vegetation specialist will revisit the site several times to evaluate the success of the strategy. The information provided by the inspections will be recorded and used in the future to fine-tune the control efforts.

Treatment Thresholds

The vegetation around telephone pedestals will generally be mowed. Additional treatment may be needed in certain circumstances. The treatment threshold is based on whether the telephone pedestal will be covered to such an extent that they will not be seen by the mower operator and be damaged.
Treatment Strategy

Brush and woody vegetation growing around telephone pedestals that meet the threshold will be treated with an approved herbicide. A foliar application for low growing vegetation and either hack and squirt, cut stump, or tree ejection would be used for taller growing plants. If the vegetation is a woody non-sprouter species, then cutting at the base would provide the needed control.