

Bd. of Health
2.

AGENDA COVER MEMO

DATE: November 2, 2005
TO: Lane County Board of Health
DEPT.: Public Works
PRESENTED BY: Sonny P.A. Chickering, County Engineer
AGENDA ITEM TITLE: Discussion / Lane County Integrated Roadside Vegetation Management Program Annual Report for 2005.

I. MOTION

NA

II. ISSUE OR PROBLEM

Lane Code 15.530 requires an annual report each fall to the Board of Health on roadside vegetation management efforts and compliance with the last resort herbicide use policy.

III. DISCUSSION

A. Background

Lane Code 15.530 defines specific information to be included in the annual report. The report was presented to the Lane County Health Advisory Committee on October 11th, and the Vegetation Management Advisory Committee on October 12th. The report has been made available in hardcopy at the Public Works Offices, 3040 N. Delta Hwy., Eugene, and has been posted on the Lane County website at <http://www.lanecounty.org/RoadMaint/LastResort.htm>.

B. Analysis

- *Presentation of Annual Report*

Based on comments received about the document since its release, staff recommends deletion of all references to "adoption" of a Permitted Product List, Control Prescriptions, and the Annual Report by the Board of Health at the time of this presentation. Lane Code does not require the Board of Health to "adopt" the annual report, and staff would prefer to return to the Board at a later date for adoption of a Permitted Product List, and perhaps Vegetation Control Prescriptions. A revised annual report could be prepared and distributed as described in Part III, A above within the next week or two.

- *Role of Cost and Action Thresholds in Vegetation Control Prescriptions*

The Roadside Vegetation Management Prescriptions in Appendix A of the annual report were intended to provide guidance to staff, and transparency of decision-

making for the public. Comments received since release of the document, however, indicate the prescriptions as currently drafted do not provide sufficient detail for some audiences, and may not provide adequate weight to factors beyond vegetation control efficacy. Specifically, should cost of implementing each control method be factored into the prescriptions, and should action thresholds beyond just the size of infestation be a factor in selecting the appropriate control method for individual sites?

- *Future Consideration of a Permitted Products List and the Control Prescriptions*

The Engineering Division has been operating under a self-imposed moratorium on the use of herbicides along County road rights-of-way until approval of a Permitted Product List by the Board of Health. Although a proposed Permitted Product List appears in Table 1 of the report, staff is not requesting Board approval at this time. Instead, we suggest the new IVM Coordinator begin an analysis of the control prescriptions as described above, and a review of the products listed as possible Permitted Products. Staff could return with a revised version of one or both work products in January or February of 2006, prior to commencing spring vegetation control activities.

C. Alternatives / Options

1. What level of influence should cost and action threshold be given when a vegetation control method is selected?
2. Does the Board support staff's suggestion to further refine the control prescriptions and proposed Permitted Product List?
3. Is a January or February report back date acceptable to the Board?

D. Recommendations

1. A revised annual report should be prepared and distributed as described in Part III, A above.
2. Cost and action threshold should be factors considered when selecting a vegetation control method for a particular site.
3. Staff should further refine the control prescriptions and Permitted Product list and report back in January or February of 2006.

E. Timing

Presentation of a Fall 2005 Annual Report to the Board of Health is required for compliance with LC 15.500.

IV. IMPLEMENTATION / FOLLOW-UP

All tasks assigned as a result of this agenda item will be completed by our new Integrated Vegetation Management Coordinator, Orin Schumacher, who began work on October 24, 2005.

V. ATTACHMENTS

Attachment 1 - LC 15.500, Roadside Vegetation Management and Last Resort Herbicide Use Policy.

Attachment 2 - Lane County Integrated Roadside Vegetation Management Program Annual Report for 2005.

(5) Requests by property owner, or authorized agent, for assignment of an address in situations other than above will be reviewed by the Department to insure compliance with land use guidelines before processing. *(Revised by Ordinance No. 13-84, Effective 11.9.84)*

15.320 Correction of Address.

Address corrections may be initiated at the request of the property owner, or authorized agent, or the Department when it is demonstrated that incorrect addresses jeopardize the safety of the dwelling(s) affected. *(Revised by Ordinance No. 13-84, Effective 11.9.84)*

15.325 Exceptions.

The County may choose not to assign addresses in certain areas adjacent to any municipality where the municipality has extended its numbering system beyond its incorporated limits. *(Revised by Ordinance No. 13-84, Effective 11.9.84)*

15.330 Responsibility.

The Department shall be charged with the responsibility of notifying affected agencies of assigned addresses. *(Revised by Ordinance No. 13-84, Effective 11.9.84)*

15.335 Fees.

All applications and requests for address assignment shall be accompanied by the fee amount established by separate order of the Board. *(Revised by Ordinance No. 13-84, Effective 11.9.84)*

ROADSIDE VEGETATION MANAGEMENT AND LAST RESORT HERBICIDE USE POLICY

15.500 Purpose

(1) The County promotes environmentally sensitive roadside vegetation management that protects the health and safety of the public and County's employees.

(2) The County shall use non-herbicidal control methods, including prevention, as its preferred tools for roadside vegetation management. Permitted herbicides shall be used only as a last resort when other options have been proven ineffective.

(3) The listing of Willamette River Steelhead and Chinook Salmon under the Endangered Species Act has heightened awareness of the impact that common practices have on the environment. Recent studies documenting the presence of herbicides in area streams and effects of herbicides on salmon point to the need for public agencies to serve as models of environmental stewardship in landscape management.

15.505 Definitions.

As used in this chapter, the following terms have the following meanings:

Herbicide means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any plant from growing where unwanted.

15.510 Roadside Vegetation Management Plan.

Non-herbicidal control methods including prevention, mechanical, manual, biological and other alternatives shall be the County's preferred tools and most actively pursued methods of vegetation management on county roadsides.

(1) Prevention Techniques. Vegetation prevention techniques encourage the desired plants, animals, and other organisms and discourage unwanted ones. Prevention techniques and least-toxic pest controls include:

(a) Good planting techniques, mulching, composting, irrigating, fertilizing, and use of native and pest-resistant plant species to avoid conditions where undesirable plant species, disease, and pests can develop into problem conditions.

(b) Mechanical pest control techniques like hand pulling weeds, string trimming, flaming weeding (where practical and allowed), mowing, aeration and thatching, vacuum removal, and thermal.

(c) Increasing vegetation tolerance thresholds.

(2) Mechanical, Manual, Biological, and Other Alternative Vegetation Control Methods. To evaluate and address existing vegetation problems or problems that may develop on county roadsides in spite of prevention techniques, the Department of Public Works shall follow the approach outlined below:

(a) Monitor roadside vegetation growth to determine if and when control is needed.

(b) Establish threshold levels of vegetation below which control is not required.

(c) To the extent practicable, use physical, mechanical, biological, and other alternative methods to keep vegetation amount and height low enough to prevent intolerable damage.

(3) Use of Herbicide Products.

(a) The Board of Health shall adopt by resolution a Permitted Products list for use of herbicides by the Department of Public Works for roadside management. The Board of Health shall solicit review and comment from the Vegetation Management Advisory Committee and the Public Health Administrator who will work with the Public Health Advisory Committee.

(b) When and if an herbicide is deemed necessary by the Department of Public Works, it will first attempt to use herbicides on the Permitted Products list.

(c) The Board of Health may periodically review the Permitted Products list and after receiving public comment, add products to that list that meet the criteria in this chapter or delete products if new information becomes available indicating that the products do not meet those criteria.

(d) The Board of Health may authorize the use of other (non-listed) herbicides on county roadsides when the director of Public Works has determined that the proposed use is a last resort after less toxic herbicides on the permitted list have been tried without satisfactory result. Prior to the authorization, the director of Public Works shall review in writing the following criteria with the Board of Health, unless the Board of Health excuses compliance with some or all of these requirements based upon a finding of emergency. The Board of Health shall solicit review and comment from the Public Health Administrator who will work with the Public Health Advisory Committee.

i. The nature of the problem, the reason to use the non-listed herbicide.

ii. Information received after consulting with toxicologists in agencies such as the Oregon Health Division, the Department of Environmental Quality, and the University Extension Services to determine the least toxic and least persistent herbicide currently available to address the problem, and to ascertain the currently designated level of toxicity and level of persistence of the proposed herbicide.

iii. Description of the specific non-listed herbicide, persistence in the environment (length of soil half-life), currently designated toxicity levels, and all known potential risks with regard to public health and safety, and/or to the environment.

iv. Proposed date, target species, method of application, notification and posting provisions, and specific steps that will be taken, to minimize risks to human health and the environment.

v. An evaluation of all feasible alternatives including non-herbicidal control methods and no action alternatives.

vi. Any legal requirements that are applicable.

The Board of Health shall approve or deny the use of non-listed herbicides when the use of less toxic chemicals has proven to be ineffective in particular applications, either on a one-time basis, or for a limited time to be specified by the Board of Health.

After the effective date of this chapter:

vii. No herbicides shall be applied to county roadsides within at least 100 feet of a lake, stream, or wetland.

viii. Within 200 feet of known or identified school bus stops or stations.

ix. Other areas determined to present risk to children or the environment as determined by the director of Public Works.

The County's Department of Public Works staff shall continue to conduct and review research regarding alternative vegetation control methods to evaluate their effectiveness and potential for use in county roadside vegetation management operations.

(e) Within one year after the effective date of this chapter, and for each consecutive year, Lane County will aspire to reduce its herbicide use along county roadsides by at least 5%. Herbicide use reduction will be measured by the percent of roadside miles treated with herbicides as compared to the previous three year average.

(4) Permitted Product List Criteria. Permitted herbicide products must meet all of the following criteria (all active ingredients, known inert, and other additives, should be identified so that they can be screened using this criteria):

(a) Product contains none of the following substances (all references in LC 15.510 to lists maintained by other jurisdictions refer to the lists in effect on August 12, 2003):

i. Substances classified as a known, likely, or probable carcinogen by the US EPA;

ii. Substances classified as a known, likely, or probable carcinogen by the International Agency for Research on cancer (IARC); and

iii. Substances listed by the state of California (Prop 65 list) or the National Toxicology Program as known, likely, or probable human carcinogens.

(b) Product contains no reproductive toxicants (CA Prop 65 list).

(c) Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.

(d) Product is not acutely toxic to humans; product is not labeled as DANGER or POISON (Toxicity Class I or II).

(e) Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or are listed as neurotoxic by the Toxics Release Inventory).

(5) In addition, consideration shall be given to the following:

(a) Active ingredient has soil half-life of 30 days or less (exception for minerals).

(b) Active ingredient has extremely low or very low mobility in soils.

(c) Product is not found in US EPA Office of Pesticide Programs Registration Eligibility Decisions (REDs, IREDs, and TREDs) to exceed a level of concern for fish, aquatic insects, aquatic and semi-aquatic plants, or wildlife; and

(d) Active ingredients have not been detected in salmon waters at a level harmful to aquatic life.

(e) Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.

15.515 Training, Education, and Implementation.

(1) The Department of Public Works staff involved in roadside vegetation management shall attend at least once a year available trainings in prevention and other vegetation management techniques outlined in this chapter if appropriate to their area of work.

(2) The County shall designate a staff member to be responsible for the implementation of this chapter.

15.520 Public Notification.

Within 120 days of the effective date of this chapter, the Department of Public Works shall comply with the following notification procedures for all roadside herbicide applications:

(1) Yellow notification signs shall be posted at least seven days prior to any herbicide application. Orange notification signs shall be posted and remain in place for at least seven days after herbicide application. Signs shall be posted along the treatment site. Signs shall be posted at half mile intervals.

(2) Notification signs shall begin with a header containing the signal word from herbicide label alongside the words, "Application." For example, "WARNING: HERBICIDE APPLICATION." Signs shall be approximately 18 by 24 inches, and shall include the following information: the product name, active ingredient(s), known inerts, and other chemicals mixed with the product, the proposed date of application (yellow signage), the actual date of application (orange signage), the phone number of the department of Public Works contact person for the application, and the phone number or website where the herbicide label and material safety data sheets can be obtained.

(3) During the herbicide application process, additional temporary roadwork signs shall be placed around the work site. The signs will be at least two feet square and say "HERBICIDE APPLICATION AHEAD." The spray truck will also say "HERBICIDE" on the front and back in at least six inch high letters.

(4) Public notification of herbicide use along roadsides maintained by Lane County shall be listed on Lane County's website.

(5) The County will maintain an up-to-date phone recording of all pending and completed herbicide applications along county maintained roadsides. The public will be able to access information on the phone line at least seven days prior to the proposed applications and for at least seven days post application.

(6) Notice shall be sent to local hospital emergency departments of pending herbicide applications. It will include location, product name, active ingredient(s), additional known inert ingredients and other chemicals mixed with the product.

15.525 Record Keeping.

The County shall maintain publicly accessible information with records of herbicides used on county roadsides for a minimum of six years. In addition to complying with all record keeping requirements imposed by state and federal law, the information recorded shall include the date and location of the application; the product name, active ingredients, additional known inert ingredient(s), other chemicals mixed with the product, and actual costs of application. These records shall also include an EPA registration number; the target vegetation type, quantity and concentration of each herbicide product

applied, the weather conditions including rain predictions, temperature, wind speed and direction, and the applicator's name and operator license number. At the time of application any known problems with handling and storage, equipment cleaning, disposal, toxic waste, and off target drift, spills runoff or migration will also be included on the record.

15.530 Annual Report (Reporting).

On a yearly basis in the Fall at a public meeting of the Board of Health and following a presentation to the Vegetation Management Advisory Committee, the Department of Public Works shall present a report which includes: the quantity and concentration of each herbicide product applied during the previous year, a list of any non-listed herbicides proposed for use in the coming year, and under what circumstances herbicide uses might occur, and the actual cost of application for the previous year; control methods that have replaced herbicide use in the previous year; control methods that have been proven ineffective; what non-herbicide control methods the Department of Public Works intends to use in the plan year; information on how much the Department reduced herbicide use for the previous year and a reduction goal for the plan year. The report shall be available to the public and shall be posted on the County website.

LEVYING, COLLECTING AND ENFORCING SPECIAL ASSESSMENTS

15.600 Authority.

The following provisions relating to the application of a special assessment policy for public improvements are hereby adopted pursuant to the authority granted to Lane County by the Lane County Home Rule Charter. Except as expressly modified in this subchapter, the provisions of ORS Chapter 371 are applicable in Lane County. *(Revised by Ordinance No. 11-73, Effective 9.28.73)*

15.605 Purpose.

The requirements set forth herein are for the purpose of defining policies, conditions and procedures whereby specially benefited property owners shall be assessed for the costs of road improvements. Remonstrance procedures included in Section 9 of the Lane County Home Rule Charter are not repeated herein, but apply in full. The procedures set forth in this subchapter shall constitute a determination by the Board of County Commissioners, absent the express determination inconsistent with these procedures, of the extent to which the cost of road improvements in Lane County is to be defrayed by special assessments on property to be specially benefited. *(Revised by Ordinance No. 11-73, Effective 9.28.73)*

15.610 Definitions.

(For LC 15.600 to 15.645).

Direct Cost. All costs, including design costs and engineering costs, associated with installation of improvements specified.

Local Road or Street. A road or street which is used primarily for access to abutting properties.

Major Collector. A road or street which is used primarily as a connector from neighborhood areas to commercial or industrial districts; should carry traffic to one or more arterials.

Minor Arterial. A route which provides for intra-community traffic and serves as a direct connection from communities to principal arterials.

Annual Report

Lane County Integrated Roadside Vegetation Management Program (2005)

Prepared for:

Lane County Board of Health

Prepared by:

**Department of Public Works
Engineering Division**

3040 N. Delta Highway
Eugene, OR 97408-1696

Contact: Sonny Chickering, County Engineer

October 3, 2005

Errata Sheet

Annual Report – Lane County Integrated Roadside Vegetation Management Program (2005) October 3, 2005

Part I, Herbicide Use (Page 1) - Delete the last two sentences of the paragraph, and substitute the following:

The moratorium will remain in place until adoption of a Permitted Product List by the Board of Health.

Part I, Herbicide Use, Table 1 (Page 1) - Delete the Column Heading “Permitted Product List”, and substitute the heading “Product”.

Part II, Proposed Non-Listed Herbicide Use, (Page 1) - In the first sentence, delete the phrase “other than those on the Permitted Product List (Table 1)”.

Part III, Proposed Herbicide Uses (Page 2) - Delete the entire section and substitute the following:

No herbicides are proposed for use from September 1, 2005 thru August 31, 2006, until adoption of a Permitted Product List by the Board of Health.

Part IV, Cost of Herbicide Application, (Page 2) - Delete the last paragraph and substitute the following:

No herbicides are proposed for use from September 1, 2005 thru August 31, 2006, until adoption of a Permitted Product List by the Board of Health.

Part VII, Planned Non-Herbicide Control Methods, (Page 4) - Delete the first sentence and substitute the following:

Public Works is considering use of numerous non-herbicide vegetation control methods from September 1, 2005 thru August 31, 2006.

Part VIII, Herbicide Use Reduction, (Page 5) - In the first sentence below Table 3, change the word “required” to “aspired”, “9.9%” to “14.1%”, and “(284)” to “(405)”.

Part VIII, Herbicide Use Reduction, Table 4 (Page 5) - In the first sentence, delete the phrase “Permitted Product List”.

Also - Delete the Column Heading “Permitted Product”, and substitute the heading “Product”.

Also - In the first sentence below Table 4, change the word “required” to “aspired”.

TABLE OF CONTENTS

I. HERBICIDE USE	1
II. PROPOSED NON-LISTED HERBICIDE USE	1
III. PROPOSED HERBICIDE USES	2
IV. COST OF HERBICIDE APPLICATION	2
V. SUCCESSFUL NON-HERBICIDE CONTROL METHODS	3
VI. UNSUCCESSFUL NON-HERBICIDE CONTROL METHODS	3
VII. PLANNED NON-HERBICIDE CONTROL METHODS	4
VIII. HERBICIDE USE REDUCTION	4
IX. REPORT AVAILABILITY.....	6

LIST OF TABLES

<u>Table 1.</u> Concentrations and amounts of herbicide product applied from September 1, 2004 to August 31, 2005.....	1
<u>Table 2.</u> Annual herbicide costs Sept. 2000 thru August 2003, including personnel, equipment and material costs.....	2
<u>Table 3.</u> Annual roadside miles treated with herbicides from Sept. 2000 thru August 2003.....	5
<u>Table 4.</u> Annual quantities of Permitted Product List herbicides applied by fluid or solid weight prior to mixing with surfactants or other inert additives from Sept. 2000 thru August 2003.....	5

LIST OF APPENDICES

APPENDIX A. Roadside Vegetation Management Prescriptions	7
APPENDIX B. Herbicides on the Permitted Product List	12

Annual Report

Lane County Integrated Roadside Vegetation Management Program (2005)

The Lane County Department of Public Works (Public Works) has prepared this Annual Report to comply with the requirements of LC 15.530 – Annual Report (Reporting).

I. HERBICIDE USE

Table 1 shows the quantity and concentration of each herbicide product applied during the time period September 1, 2004 to August 31, 2005. The County Engineer imposed a moratorium on the use of herbicides within County road rights-of-way following adoption of the "Roadside Vegetation Management and Last Resort Herbicide Use Policy" (Policy) by the Board of County Commissioners in August 2003. The moratorium remained in place until adoption of this Annual Report by the Board of Health in the fall of 2005. The listed herbicides are those the Board has placed on the Permitted Product List (Appendix B) for the upcoming reporting period of September 2005 through August 2006.

Table 1. Concentrations and amounts of herbicide product applied from September 1, 2004 to August 31, 2005.

<u>Permitted Product List</u>	<u>Concentration</u>	<u>Amount</u>
GARLON 3A (Non-Residual)	NA	0
ROUNDUP PRO (Non-Residual)	NA	0
OUST (Residual)	NA	0

II. PROPOSED NON-LISTED HERBICIDE USE

No herbicides, other than those on the Permitted Product List (Table 1), are proposed for use from September 1, 2005 thru August 31, 2006. During this period, use of herbicide products not on the Permitted Product List could only occur by specific authorization of the Board of Health in accordance with LC 15.510(3)(d).

III. PROPOSED HERBICIDE USES

Herbicide use will only occur if warranted and as a last resort in accordance with the attached Roadside Vegetation Management Prescriptions (Appendix A). The control prescriptions provide a sequential list of treatment options for three roadside vegetation zones, as well as for specific noxious weed species. Staff anticipates very little herbicide application during the next 12-month reporting period, however, the control prescriptions do allow use of herbicides as a last resort for the following purposes:

- Basal stump treatment (woody vegetation, specific noxious weeds)
- Directed 24" application immediately adjacent to the pavement edge (grasses)
- General application (grasses)
- Broadcast foliar treatment (broadleaf and woody vegetation, specific noxious weeds)
- Stem Injection of invasive knotweeds

Adoption of this report by the Board of Health will constitute approval of the attached control prescriptions (Appendix A) for the reporting period of September 1, 2005 to August 31, 2006.

IV. COST OF HERBICIDE APPLICATION

Because the County Engineer imposed a moratorium on the use of herbicides in August 2003, no costs were incurred between September 1, 2004 and August 31, 2005. For historical perspective, the cost of herbicide applications from September 1, 2000 to August 31, 2003 is shown in Table 2 below:

Table 2. Annual herbicide costs Sept. 2000 thru August 2003, including personnel, equipment and material costs.

<u>Year</u>	<u>Cost</u>
2000 – 2001	\$53,751.62
2001 – 2002	\$32,377.26
2002 – 2003	<u>\$43,559.69</u>
Average per 12 month period	\$43,229.52

Use of herbicides and the associated costs are expected to be very low from September 1, 2005 to August 31, 2006 in accordance with the sequential treatment prioritizations in the attached roadside vegetation control prescriptions. Possible costs include test or pilot projects initiated by the new IVM Coordinator using products from the Permitted Product List.

V. SUCCESSFUL NON-HERBICIDE CONTROL METHODS

Non-herbicide roadside vegetation management accomplishments during the period from September 1, 2004 to August 31, 2005 included:

- 6,609 roadside miles of mechanical brush mowing, top trimming, safety strip mowing and full width mowing
- 7.2 acres of seeding and mulching
- Completion of 13 sight distance safety projects
- 79 acres of field mowing
- 1,325 labor hours of manual brushing

Public Works staff participated in, and/or observed several alternative treatment methods during the past year including the City of Coburg hot foam (Waipuna) demonstration; removal of an isolated giant hogweed plant on Bailey Hill Road and the use of plastic covers and mulches as a deterrent to further spreading of Japanese Knotweed on Clear Lake Road. The next 12-month period of training, research and education may include a joint Japanese Knotweed project in the Deadwood area with the Siuslaw Watershed Council, attending the Weed Tour sponsored by the Lane County Extension Service and attending meetings of the Upper Willamette Cooperative Weed Management Area and the Northwest Weed Management Partnership.

The Vegetation Management Advisory Committee (VMAC) was very active during September 1, 2004 to August 31, 2005 in further educating members about noxious weeds and vegetation issues. Dr. Carol Mallory-Smith, Oregon State University presented information on GMD's (Genetically Modified Organism's) in November 2004. Jodi Lemmer, Coordinator for the East Lane Lost Creek Knotweed Project shared information about controlling Knotweed in the Pacific Northwest in December 2004. Bruce Newhouse, Volunteer with numerous plant and weed related societies and organizations presented valuable information on invasive plants in February 2005. The Road Tour in August 2005 included stops highlighting mowing, top trimming and a native seed nursery. The committee also discussed "Weed Treaters, New Technologies Root Out Non-Native Plant Species", an article provided by Commissioner Stewart from the April 2005 edition of American City and County Magazine.

VI. UNSUCCESSFUL NON-HERBICIDE CONTROL METHODS

The following non-herbicide vegetation control methods were found to be ineffective during the September 1, 2004 thru August 31, 2005 reporting period:

- a) Hot foam (Waipuna) was applied on the Northwest Expressway between River Road and Park Avenue. The treatment was not successful. It was determined the plants were too large and it was too late in the growing year to achieve the desired results. In future tests, we will apply the hot foam at an earlier time in the year and before the plants become too large.
- b) Covered Japanese Knotweed on River Road near Wilkes Drive. The treatment included the use of plastic sheeting covered with mulch. The infested area was located between the sidewalk and the street curb. It was not successful because the plants were able to come up next to the curb and sidewalk. In future tests, we will make sure the area covered is larger than the infested area to keep the plants from seeking ways to escape the fabric.
- c) Mowed Japanese Knotweed on Clear Lake Road near Greenhill Road. The infested area has been mowed at least 4 times without success. The plants are still growing well. We may try to mow the infestation more often or try different means of control.

VII. PLANNED NON-HERBICIDE CONTROL METHODS

The attached Roadside Vegetation Management Prescriptions (Appendix A) permit numerous non-herbicide vegetation control methods. These include cultural (replace unfavorable plant species with favorable); mechanical mowing; technical – radiant heat and hot foam; mechanical – pulling shoulders/ditching and other technical methods as identified and available. The new Integrated Vegetation Management (IVM) Coordinator will report for work on October 24, 2005. The IVM Coordinator will explore additional opportunities for test or pilot studies of non-herbicide control methods during the next 12-month reporting period.

VIII. HERBICIDE USE REDUCTION

Lane Code 15.510(3)(e) states:

Within one year after the effective date of this chapter, and for each consecutive year, Lane County will aspire to reduce its herbicide use along county roadsides by at least 5%. Herbicide use reduction will be measured by the percent of roadside miles treated with herbicides as compared to the previous three-year average.

Because the County Engineer imposed a moratorium on the use of herbicides in August 2003, no herbicides have been applied since that time. As a result, the three-year average baseline for the next reporting period will be September 1, 2000 thru August 31, 2003 as these were the last full years of herbicide use.

Table 3. Annual roadside miles treated with herbicides from Sept. 2000 thru August 2003.

<u>Year</u>	<u>Roadside Miles Treated</u>	<u>Total Roadside Miles</u>	<u>% Roadside Miles Treated</u>
2000 – 2001	597	2,870	20.8 %
2001 – 2002	300	2,870	10.4 %
2002 – 2003	385	2,870	13.4 %
Ave. per year	427	2,870	14.9 %

The required 5% reduction during the September 1, 2005 thru August 31, 2006 reporting period will result in herbicides being applied to no more than 9.9 % of County roadside miles (284).

Public Works staff believes tracking herbicide use reduction by the amount of product(s) used as compared to the previous three-year average would more accurately reflect the amount of herbicides being applied to County roadsides. For any given roadside mile, the type, amount and concentration of herbicide could be very different depending on the application type and method used. By tracking the amount of product by fluid or solid weight prior to mixing with surfactants or other inert additives, a more accurate accounting and comparison from year to year can be made.

Table 4. Annual quantities of Permitted Product List herbicides applied by fluid or solid weight prior to mixing with surfactants or other inert additives from Sept. 2000 thru August 2003.

<u>Permitted Product</u>	<u>00 – 01</u>	<u>01 – 02</u>	<u>02 – 03</u>	<u>3 Year Average</u>
Garlon 3A (Non-Residual)	180.3 gal*	113.6 gal	209.5 gal	167.8 gal
Roundup Pro (Non-Res.)	30.0 gal**	15.0 gal	11.8 gal	18.9 gal
Oust (Residual)	8.3 lbs	2.3 lbs	1.0 lbs	3.9 lbs

* Includes 74.3 gallons of Garlon 4E (Non-Residual). No longer used by Division after 00-01.

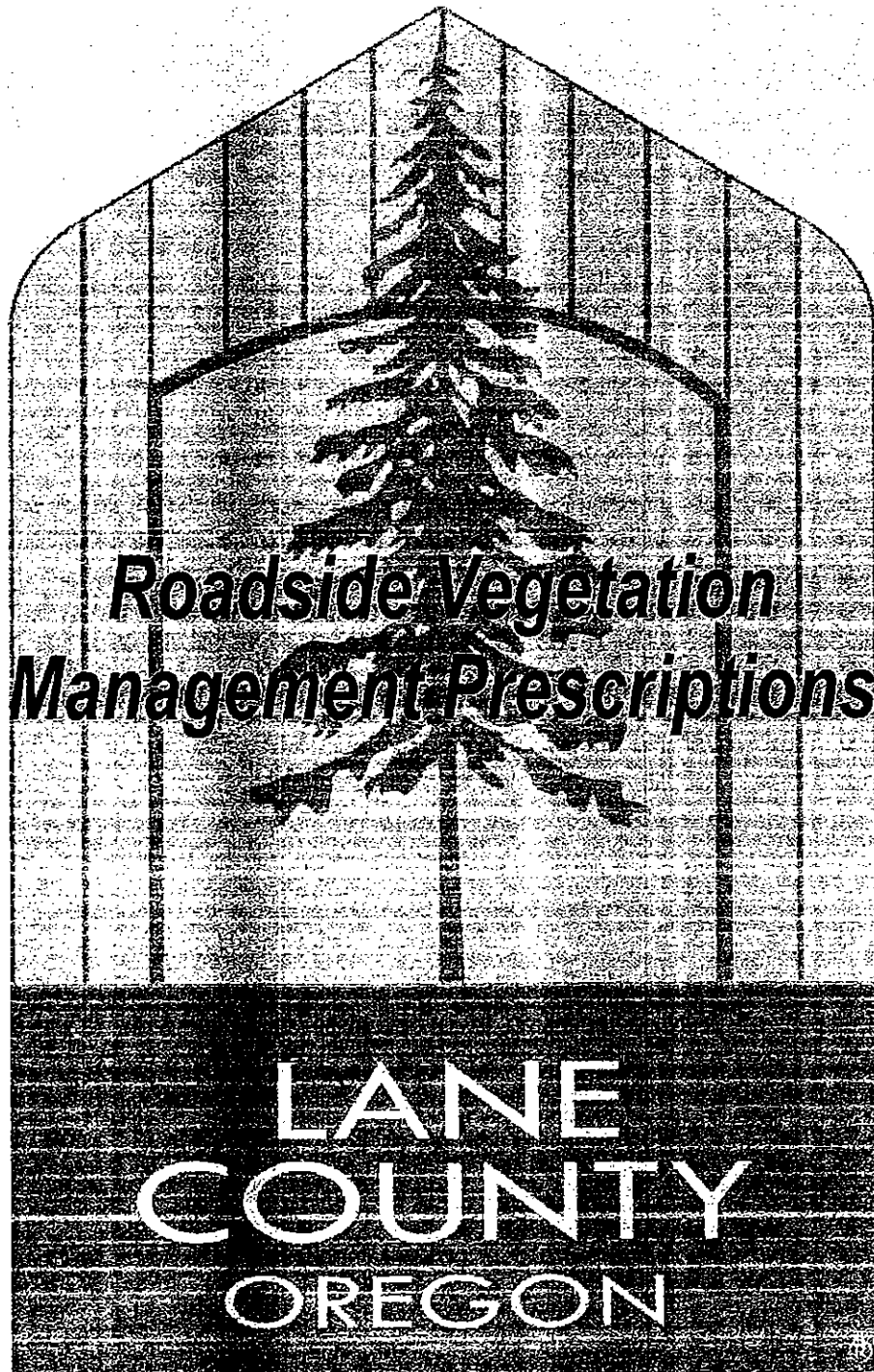
** Includes 7.0 gallons of Rodeo (Non-Residual). No longer used by Division after 00-01.

The required 5% reduction would result in no more than 159.4 gallons of Garlon 3A, 18.0 gallons of Roundup Pro and 3.7 lbs of Oust being applied to County roadsides during the September 1, 2005 thru August 31, 2006 reporting period.

IX. REPORT AVAILABILITY

Copies of this report are available at the Lane County Department of Public Works offices at 3040 N. Delta Highway, Eugene, Oregon, 97408-1696. The report is also available for viewing, download, and printing from the Lane County website:
<http://www.lanecounty.org/RoadMaint/LastResort.htm>

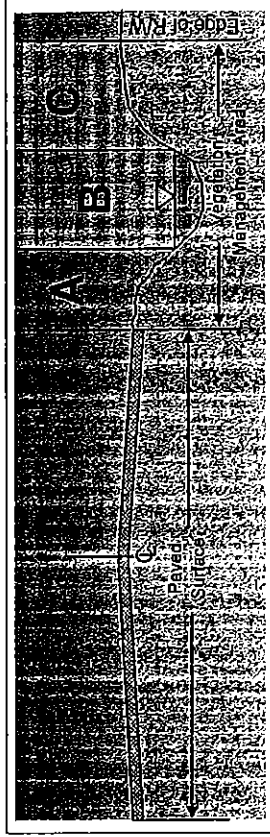
Lane County Public Works



October 3, 2005

Roadside Vegetation Management Prescriptions

Zone A - Shoulder/Foreslope



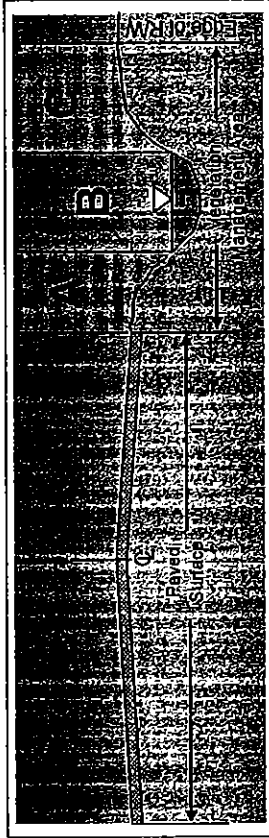
Management Activity proposed order of use	Grasses (Short & Tall)	Broadleaf (Thistles, Blackberries, Sisal, Wild Rose)	Woody (Willows, Alders 3/8" dia. or better)
1 Manual Removal			
2 Mulching/Tarping/Solarization			
3 Biological (mites, spiders, rust)			
4 Cultural (replace unfavorable plant species with favorable)	X*	X*	X*
5 Mechanical - Mowing	X	X	X
6 Technical - Radiant Heat	X		
7 Technical - Waipuna		X	
8 Mechanical - Pulling Shoulders/Ditching	X		
9 Other Technical as identified & available	X	X	X
10 Herbicide - Basal Stump Treatment			
- Application - Garlon 3A (non-residual)			X
11 Herbicide - Directed 24-inch strip off edge of pavement			
- Application - Roundup Pro (non-residual)	X		
12 Herbicide - Directed 24-inch strip off edge of pavement			
- Application - Oust (residual)	X		
13 Herbicide - Broadcast Foliar			
- Application - Garlon 3A (non-residual)		X	X

* - For New Construction or Reconstruction Only

** - Only in the absence of water

Roadside Vegetation Management Prescriptions

Zone B - Ditch Bottom



Management Activity Proposed order of use	Grasses (Short & Tall)	Broadleaf (Thistles, Blackberries, Salix, Wild Rose)	Woody (Willows, Alders, 3/8 dia. or greater)
1 Manual Removal			
2 Mulching/Tarping/Solarization			
3 Biological (mites, spiders, rust)			
4 Cultural (replace unfavorable plant species with favorable)	X*	X*	X*
5 Mechanical - Mowing	X	X	X
6 Technical - Radiant Heat			
7 Technical - Waipuna		X	
8 Mechanical - Pulling Shoulders/Ditching	X	X	X
9 Other Technical as identified & available	X	X	X
10 Herbicide - Basal Stump Treatment			
- Application - Garlon 3A (non-residual)			X**
11 Herbicide - General Application			
- Application - Roundup Pro (non-residual)	X**		
12 Herbicide - General Application			
- Application - Oust (residual)			
13 Herbicide - Broadcast Foliar			
- Application - Garlon 3A (non-residual)		X**	X**

* - For New Construction or Reconstruction Only
 ** - Only in the absence of water

Roadside Vegetation Management Prescriptions

Noxious Weeds In Any Zone

Small infestations are those that cover less than 250 square feet. Large infestations are those that cover more than 250 square feet.

Management Activity	Invasive Knowledge				Archaeological Knowledge				Brooms and Gutters				Large Punctures/Vibrations				Explosivity				Hazardous	
	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations	Small Installations	Large Installations						
Small Installations are those that cover less than 250 square feet. Large Installations are those that cover more than 250 square feet.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Cultural (replace unfavorable plant species with favorable)																						

APPENDIX B

Herbicides on the Permitted Product List for the September 1, 2005 thru August 31, 2006 Reporting Period

Permitted Product List Criteria	Garlon 3A (Non-Residual)	Roundup Pro (Non-Residual)	Oust (Residual)
Active Ingredients	Triclopyr Amine	Glyphosate	Sulfometuron- methyl
Common Uses	foliar, noxious weed, brush, cut stump	road shoulder, cut stump, noxious weeds	road shoulder
Soil Half Life	46 day ave., 79–361 in colder climates	47 day ave., 1-174 in field tests	30 – 60 days in sediment, 5-33 days in soil.
Soil Mobility	Mobile	Not mobile in soil, Strongly absorbed to most soils	Mobile
Water Solubility	Unknown	Highly soluble in water	Unknown
Toxicity to Organisms	Bee: Non-toxic	Bee: Practically non-toxic	
	Bird: Slightly toxic	Bird: Slightly toxic	Bird: Practically non-toxic
	Mammal: Slightly toxic	Mammal: Practically non-toxic	Mammal: Practically non-toxic
	Fish: Practically non-toxic	Fish: Practically non-toxic	Fish: Pract. non-toxic
	Invertebrates: Practically non-toxic		
EPA Carcinogenicity	Category D: (Not categoryifiable as human carcinogen). Data suggests does not cause cancer.	Category E: No evidence of carcinogenicity for humans.	Category E: No evidence of carcinogen- icity for humans.

Permitted Product List Criteria	Garlon 3A (Non-Residual)	Roundup Pro (Non-Residual)	Oust (Residual)
EPA Toxicity	Category III	Category III	Category IV
EPA Carcinogen Category	D	E	E
IARC Carcinogen	Not Listed	Not Listed	Not Listed
CA Prop 65 List	Not Listed	Not Listed	Not Listed
National Toxicity Program	Not Listed	Not Listed	Not Listed
Reproductive Toxicants (Prop 65)	Not Listed	Not Listed	Not Listed
Illinois EPA Endocrine Disruptors	Not Listed	Not Listed	Not Listed
Toxic Release Inventory	Not Listed	Not Listed	Not Listed

Source: "Lane County Roadsides – New Perspectives for Vegetation Management", prepared by Jones & Stokes, 317 S.W. Alder Street, Suite 800, Portland, OR 97204. Dated 27 January 2005.