

AGENDA COVER MEMO

Bd of Health

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DATE: April 26, 2006

TO: Lane County Board of Commissioners sitting as the Board of Health

DEPT.: Public Works

PRESENTED BY: Orin Schumacher, Vegetation Management Coordinator

AGENDA ITEM TITLE: IN THE MATTER OF ADOPTING, BY RESOLUTION A PERMITTED PRODUCTS LIST FOR USE OF HERBICIDES BY THE DEPARTMENT OF PUBLIC WORKS FOR ROADSIDE VEGETATION MANAGEMENT, IN ACCORDANCE WITH THE LAST RESORT POLICY, ORDINANCE 12-03, LANE CODE 15.510 SEC 3(A).

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I. MOTION

Move Adoption of Board Order

II. ISSUE OR PROBLEM

Lane Code 15.510 Sec. 3(A) requires that the Board of Health adopt by resolution a Permitted Products list for use of herbicides by the Department of Public Works for roadside vegetation management in compliance with the Last Resort Policy, Ordinance 12-03.

III. DISCUSSION

A. Background

Lane Code 15.500 thru 15.530 and the Last Resort Policy, Ordinance 12-03, define specific requirements and regulations pertaining to the use of herbicides for vegetation management activities along roadsides. Prior to utilizing herbicides for roadside management, the Board of Health must adopt by resolution a Permitted Products list.

The Permitted Products list was presented to the Vegetation Management Advisory Committee on January 11<sup>th</sup> and to the Health Advisory Committee on February 14<sup>th</sup>. Additional discussion of the proposed list occurred on March 8<sup>th</sup> with the Vegetation Management Advisory Committee (VMAC) and on March 14<sup>th</sup>, with the Public Health Advisory Committee (PHAC). Numerous interested parties were contacted by phone and e-mail on January 17<sup>th</sup> in an effort to solicit comment and review, and the Permitted Products List was

posted on the Lane County website on January 17<sup>th</sup>, and can still be viewed at <http://www.lanecounty.org/RoadMaint/PermtProd.htm> . A summary of all comments and correspondence received as a result of this outreach effort are included herein as attachment #1.

## B. Analysis

The Lane County, Department of Public Works has been operating under a self-imposed moratorium on the use of herbicides along County road rights-of-way until adoption of a Permitted Products List by the Board of Health. Five herbicides are proposed by the Department of Public Works for roadside vegetation management, and the Permitted Products list includes a two-page summary of each product and all of the qualifications necessary to satisfy the requirements of Lane Code 15.510, Sec 4(a) thru (e) and Sec 5(a) thru (e)

Lane Code 15.510, sec 4(a) thru (e) requires that Permitted herbicide products must meet specific requirements, including characteristics and properties of each products such as, active ingredients, known inerts, and other additives. The requirements are listed on the first page for each of the five listed herbicides, along with their listed qualifications and considerations listed in Lane Code 15.510 Sec 5(a) thru (e).

To provide guidance to staff and transparency of the decision making process for the public, Attachment 2 of this memo contains Roadside Vegetation Management Prescriptions and Action Thresholds. The prescriptions and action thresholds provide a sequential list of treatment options for distinct vegetation management features, or conflicts, as well as for specific noxious weed species. Although the sequential arrangement of treatment options will significantly restrict herbicide use, the prescriptions do allow for the use of herbicides included in the Permitted Products List under certain circumstances, and for specific noxious weed species.

## C. Alternatives/Options

After consideration of the merits of the proposal, the Board may elect to:

1. Adopt by resolution the Permitted Products List for use of herbicides by the Department of Public Works for roadside vegetation management.
2. Deny the Permitted Products List proposed by Lane County, Department of Public Works for roadside vegetation management, and direct staff otherwise.
3. Delay action on adoption of the Permitted Products List for roadside management, pending additional information from staff, or input from the public.

D. Recommendation

Option 1. Adopt by resolution the Permitted Products List for use of herbicides by the Department of Public Works for roadside vegetation management.

E. Timing

Adopting the Permitted Products List during the spring of 2006 will aid in the effectiveness of our vegetation management activities, reduce the spread of noxious weeds, and allow expansion of our staff training program, begin cost analysis, and noxious weed and vegetation control efforts.

IV. IMPLEMENTATION/FOLLOW-UP

Once approved, the Permitted Products List, "Rights-of-Way" Management Prescription Plan, and other features of Roadside Vegetation Management and Last Resort Policy will be implemented, monitored and tracked by the Vegetation Management Coordinator.

V. ATTACHMENTS

Attachment #1: Comments and correspondence received as a result of public outreach effort.

Attachment #2: "Right-of-Way" Management Prescription Plan & Action Thresholds 2006.

IN THE BOARD OF COMMISSIONERS OF LANE COUNTY  
STATE OF OREGON SITTING AS THE BOARD OF HEALTH

**RESOLUTION AND ORDER** )  
**NO.** ) IN THE MATTER OF ADOPTING, BY RESOLUTION A PERMITTED  
) PRODUCTS LIST FOR USE OF HERBICIDES BY THE DEPARTMENT  
) OF PUBLIC WORKS FOR ROADSIDE VEGETATION MANAGEMENT,  
) IN ACCORDANCE WITH THE LAST RESORT POLICY, ORDINANCE  
) 12-03, LANE CODE 15.510 SEC 3(A).  
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**WHEREAS**, Lane Code 15.510, Sec 3(a) requires that the Board of Health adopt by Resolution a Permitted Products List for the use of herbicides by the Department of Public Works for roadside vegetation management; and

**WHEREAS**, The attached Permitted Products List was presented to the Vegetation Management Advisory Committee on January 11<sup>th</sup>, 2006, and the Health Advisory Committee on February 14<sup>th</sup>, 2006 and subsequently discussed by the VMAC on March 8th, 2006 and the PHAC on March 14<sup>th</sup>, and the PHAC sub-committee on March 28, 2006; and

**WHEREAS**, The attached Permitted Products List has been made available through the Lane County website <http://www.lanecounty.org/RoadMaint/PermtProd.htm> and by phone, and e-mail contacts with numerous interested parties; and

**WHEREAS**, Five products are proposed for the Permitted Products List, and includes summaries of the five products proposed with regard to each of the criteria detailed in Lane Code 15.510 Sec. 4(a) thru (e) and Sec 5(a) thru (e) attached herein; and

**WHEREAS**, A separate report entitled "Rights-of-Way" Management Prescription Plan and Action Thresholds 2006, provides a sequential list of treatment options for distinct vegetation management features and conflicts, as well as for specific noxious weed species; and

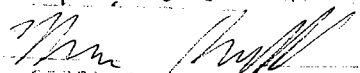
**WHEREAS**, The sequential arrangement of treatment options in the proposed "Right-of-Way" Management Prescription Plan and Action Thresholds 2006 will significantly restrict herbicide use, but still allow use of herbicides on the Proposed Permitted Products List under certain circumstances; **NOW THEREFORE BE IT HEREBY**

**RESOLVED & ORDERED**, that the attached Permitted Products List is approved, in accordance with the Last Resort Policy, Ordinance 12-03, and Lane Code 15.510 Sec 3(A).

**DATED** this \_\_\_\_\_ day of \_\_\_\_\_ 2006.

\_\_\_\_\_  
Bill Dwyer, Chair  
Lane County Board of Commissioners sitting as  
the Board of Health

APPROVED ASST. CLERK

DATE 4-17-06  
  
OFFICE OF THE CLERK

**Lane County, Department of Public Works.  
Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Product Name</b>	<b>AQUAMASTER</b>	<b>Active Ingredients</b>	<b>GLYPHOSATE 53.8%</b>
<b>Known Inerts</b>	<b>Water 46.2%</b>	<b>Other Additives</b>	<b>Can be mixed or combined</b>

4(a)i : Substances classified as known , likely , or probable carcinogen by the US EPA	<b>EPA Classification: E "Evidence of non-carcinogenicity for humans"</b>
4(a)ii : Substances classified as a known, likely, or probable carcinogen by IARC	<b>Class 4: "Probably Not Carcinogenic to Humans"</b>
4(a)iii : Substances listed by the state of California (Prop 65 list) or the National Toxicology program as know, likely, or probable human carcinogens.	<b>No Cal Prop 65: known, likely or probable human carcinogens.</b>
4(b) : Product contains no reproductive toxicants (CA Prop 65 list).	<b>No Cal Prop 65 listed reproductive toxicants.</b>
4(c) : Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.	<b>Contains no ingredients listed as possible Endocrine Disruptors.</b>
4(d) : Product is not acutely toxic to humans: product is not labeled as DANGER or POISON (Toxicity Class I or II ).	<b>Toxicity Class IV: EPA signal word "Caution"</b>
4(e) : Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or listed as nuerotoxic by the Toxics Release Inventory ).	<b>No listed nervous system toxicants or Cholinesterase inhibitors</b>
5(a) : Active ingredient has soil half-life of 30 days or less ( <i>exception for minerals</i> )	<b>Soil Half-life: Approx. 40 days</b>
5(b) : Active ingredient has extremely low or very low mobility in soils	<b>Extremely low</b>
5(c) : Product is not found in US EPA of pesticide programs Registration Eligibility Decisions ( RED's, IRED's, and TRED's ) to exceed a level of concern for fish, Aquatic insects, aquatic and semi-aquatic plants, or wildlife.	<b>Product is not found in EPA decision for RED's, IRED's or TRED's</b>
5(d) : Active ingredients have not been detected in salmon waters at a level harmful to aquatic life	<b>No. Readily soluble in water, low bioaccumulation factor</b>
5(e) : Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.	<b>EPA Classification: "Practically Non-Toxic"</b>

Aquamaster is a post-emergent, systemic herbicide with no residual soil activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. EPA acute Toxicity rating of "E" or "Evidence of Non-carcinogenicity for Humans" the most favorable rating granted. There are no restrictions on the use of water from treated areas for irrigation, recreation, or domestic purposes when used according to label directions.

1. <b>Weed / Non-Preferred vegetation:</b> Noxious weeds, invasive species, persistent vegetation, non-herbicide resistant species.	A	B	C	O
2. <b>Public Safety:</b> Road visibility, guardrails, road signs, public health, road condition, road shoulder.	A	B		O
3. <b>Woody Plant Material:</b> Foliar, cut stump, encroachment, hazard, mechanical resilience.	A	B	C	O
4. <b>Road Structure:</b> Drainage, road stability, erosion, integrity.	A	B	C	O
5. <b>CIP:</b> maintenance, pre-emergent, restoration.	A	B		O

**Planned Use Area Colored / Shaded**

**Zone Description:** Zone A: Road edge to toe slope, ditch; Zone B: Drainage ditch; Zone C: Back slope to ROW edge; Zone O: Other areas

**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorp. sec. (5) a-e**

<b>Annual, Perennial Species</b>	<b>Annual, Perennial Species</b>	<b>Woody Brush and Trees</b>
<i>Bluegrass, Annual</i>	<i>Beachgrass, European</i>	<i>Alder</i>
<i>Buttercup</i>	<i>Bentgrass</i>	<i>Ash</i>
<i>Crabgrass</i>	<i>Bermudagrass</i>	<i>Birch</i>
<i>Falsedandelion</i>	<i>Bindweed, Field</i>	<i>Blackberry</i>
<i>Knotweed</i>	<i>Bluegrass, Kentucky</i>	<i>Broom; French, Scotch, Spanish</i>
<i>Morningglory</i>	<i>Brackenfern</i>	<i>Elderberry</i>
<i>Mustard (Complex)</i>	<i>Canarygrass, Reed</i>	<i>Elm</i>
<i>Puncturevine</i>	<i>Fescue, Tall</i>	<i>Gorse</i>
<i>Purslane, common</i>	<i>Knapweed</i>	<i>Hawthorn</i>
<i>Ragweed, common</i>	<i>Loosestrife, purple</i>	<i>Locust, Black</i>
<i>Russian Thistle</i>	<i>Poison Hemlock</i>	<i>Poison Oak</i>
<i>Ryegrass</i>	<i>Ryegrass, Perennial</i>	<i>Rose, Multiflora</i>
<i>Sowthistle, Annual</i>	<i>Thistle, Canada</i>	<i>Salmonberry</i>
<i>Speedwell, Purslane</i>	<i>Velvetgrass</i>	<i>Thimbleberry</i>
<i>Spurge, Annual</i>	<i>Wheatgrass, Western</i>	<i>Vine Maple</i>
<i>Starthistle, Yellow</i>		<i>Willow</i>

**Manufacturer Information & Contact Information**

Manufacturer	Monsanto	EPA Reg. No.	524-343
Product Information Contact	1-800-332-3111	Emergency Contact	1-314-694-4000
	N/A		N/A
	N/A		N/A
	N/A		N/A

**Lane County, Department of Public Works.**  
**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Product Name</b>	<b>HABITAT</b>	<b>Active Ingredients</b>	Isopropylamine Salt of Imazapyr 28.7%
<b>Known Inerts</b>	Total Inerts 71.3%	<b>Other Additives</b>	Can be mixed or combined

4(a)i : Substances classified as known , likely , or probable carcinogen by the US EPA	EPA Classification: "Not Likely to be Carcinogenic to Humans"
4(a)ii : Substances classified as a known, likely, or probable carcinogen by IARC	Class 4: "Probably Not Carcinogenic to Humans"
4(a)iii : Substances listed by the state of California (Prop 65 list) or the National Toxicology program as know, likely, or probable human carcinogens.	No Cal Prop 65: known, likely or probable human carcinogens.
4(b) : Product contains no reproductive toxicants (CA Prop 65 list).	No Cal Prop 65 listed reproductive toxicants.
4(c) : Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.	Contains no ingredients listed as possible Endocrine Disruptors.
4(d) : Product is not acutely toxic to humans: product is not labeled as DANGER or POISON (Toxicity Class I or II ).	Toxicity Class IV: EPA Signal word "Caution"
4(e) : Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or listed as nuerotoxic by the Toxics Release Inventory ).	No listed nervous system toxicants or Cholinesterase inhibitors
5(a) : Active ingredient has soil half-life of 30 days or less ( <i>exception for minerals</i> )	Soil Half-Life: 60-120 days. Average 90 days
5(b) : Active ingredient has extremely low or very low mobility in soils	Low soil mobility, Microbial degradation in soils
5(c) : Product is not found in US EPA of pesticide programs Registration Eligibility Decisions ( RED's, IRED's, and TRED's ) to exceed a level of concern for fish, Aquatic insects, aquatic and semi-aquatic plants, or wildlife.	Product is not found in EPA decision for RED's, IRED's or TRED's
5(d) : Active ingredients have not been detected in salmon waters at a level harmful to aquatic life	Aquatic labeled herbicide. No Salmon Information detected.
5(e) : Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.	EPA Classification: "Practically Non-Toxic"

Habitat herbicide will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species with some residual control of undesirable species that germinate above the waterline. Habitat herbicide also controls floating and emergent vegetation. Habitat may be applied to aquatic sites to control weeds and invasive species. Habitat herbicide is considered a true "low-Volume herbicide"

1. <b>Weed / Non-Preferred vegetation:</b> Noxious weeds, invasive species, persistent vegetation, non-herbicide resistant species.	O
2. <b>Public Safety:</b> Road visibility, guardrails, road signs, public health, road condition, road shoulder.	O
3. <b>Woody Plant Material:</b> Foliar, cut stump, encroachment, hazard, mechanical resilience.	O
4. <b>Road Structure:</b> Drainage, road stability, erosion, integrity.	C O
5. <b>CIP:</b> maintenance, pre-emergent, restoration.	O

Zone Description: **planned use area is shaded/ colored**

**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Annual, Perennial Species</b>	<b>Grass, Sedge, Rush Species</b>	<b>Woody Brush and Trees</b>
<i>Poison Hemlock</i>	<i>Reed Canary Grass</i>	<i>Willow</i>
<i>Purple Loosestrife</i>	<i>Crabgrass</i>	<i>Ash</i>
<i>Burdock</i>	<i>Annual Bluegrass</i>	<i>Bigleaf Maple</i>
<i>Bindweeds</i>	<i>Brome spp.</i>	<i>Black Locust</i>
<i>Common Chickweed</i>	<i>Fescue</i>	<i>Cherry</i>
<i>Fleabane</i>	<i>Foxtail</i>	<i>Dogwood</i>
<i>Miners lettuce</i>	<i>Kentucky Bluegrass</i>	<i>Hawthorn</i>
<i>Oxeye daisy</i>	<i>Orchardgrass</i>	<i>Honeylocust</i>
<i>Puncturevine</i>	<i>Morningglory</i>	<i>Oak</i>
<i>Russian Thistle</i>		<i>Poplar</i>
<i>Bull Thistle</i>		<i>Red Alder</i>
<i>Knotweeds</i>		<i>Poison Oak / IVY</i>
<i>Spurge, annual</i>		<i>Multiflora Rose</i>
<i>Yellow /starthisite</i>		
<i>Milkweed</i>		
<i>Nightshade</i>		

**Manufacturer Information & Contact Information**

Manufacturer	BASF Corporation	EPA Reg. No.	241-426
Product Information Contact	<a href="http://www.vmanswers.com">www.vmanswers.com</a>	Emergency Contact	1-800-832-HELP
	N/A		N/A
	N/A		N/A
	N/A		N/A



**Lane County, Department of Public Works.  
Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Product Name</b>	<b>GARLON 3A</b>	<b>Active Ingredients</b>	<b>TRICLOPYR 44.4%</b>
<b>Known Inerts</b>	Ethanol, Triethylamine, EDTA 55.6%	<b>Other Additives</b>	Can be mixed or combined

4(a)i : Substances classified as known , likely , or probable carcinogen by the US EPA	<b>EPA Classification: "Not Likely to be Carcinogenic to Humans"</b>
4(a)ii : Substances classified as a known, likely, or probable carcinogen by IARC	<b>Class 4: "Probably Not Carcinogenic to Humans".</b>
4(a)iii : Substances listed by the state of California (Prop 65 list) or the National Toxicology program as know, likely, or probable human carcinogens.	<b>No Cal Prop 65: known, likely or probable human carcinogens.</b>
4(b) : Product contains no reproductive toxicants (CA Prop 65 list).	<b>No Cal Prop 65 listed reproductive toxicants.</b>
4(c) : Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.	<b>Contains no ingredients listed as possible Endocrine Disruptors.</b>
4(d) : Product is not acutely toxic to humans: product is not labeled as DANGER or POISON (Toxicity Class I or II ).	<b>Toxicity Class IV: EPA signal word "Caution"</b>
4(e) : Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or listed as nuerotoxic by the Toxics Release Inventory ).	<b>No listed nervous system toxicants or Cholinesterase inhibitors</b>

5(a) : Active ingredient has soil half-life of 30 days or less ( <i>exception for minerals</i> )	<b>Soil Half-Life: 30-120 days, Average 75 days.</b>
5(b) : Active ingredient has extremely low or very low mobility in soils	<b>Moderate mobility</b>
5(c) : Product is not found in US EPA of pesticide programs Registration Eligibility Decisions ( RED's, IRED's, and TRED's ) to exceed a level of concern for fish, Aquatic insects, aquatic and semi-aquatic plants, or wildlife.	<b>Product is not found in EPA decision for RED's, IRED's or TRED's</b>
5(d) : Active ingredients have not been detected in salmon waters at a level harmful to aquatic life	<b>Solubility in water: miscible. No Salmon information detected</b>
5(e) : Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.	<b>Herbicide is slightly toxic to aquatic organisms on acute basis</b>

**Product Comments & Information**  
 Garlon 3A herbicide is recommended for the control of woody plants, broadleaf weeds and vines. Use rates vary from 2 qt. an acre to 8 qt. an acre depending on plant densities. Garlon 3A can be used for both direct and foliar applications, depending on site conditions and management objectives.

<b>Intended Use of Herbicides</b>	<b>Zone A</b>	<b>Zone B</b>	<b>Zone C</b>	<b>Zone O</b>
1. <b>Weed / Non-Preferred vegetation:</b> Noxious weeds, invasive species, persistent vegetation, non-herbicide resistant species.		<b>B</b>		<b>O</b>
2. <b>Public Safety:</b> Road visibility, guardrails, road signs, public health, road condition, road shoulder.		<b>B</b>		<b>O</b>
3. <b>Woody Plant Material:</b> Foliar, cut stump, encroachment, hazard, mechanical resilience.				
4. <b>Road Structure:</b> Drainage, road stability, erosion, integrity.		<b>B</b>	<b>C</b>	<b>O</b>
5. <b>CIP:</b> maintenance, pre-emergent, restoration.		<b>B</b>		<b>O</b>

**Zone Descriptions:**  
 Zone A: Road edge to foreslope of ditch; Zone B: Drainage ditch; Zone C: Backslope to ROW edge; Zone O: Other areas  
*planned use area is shaded/ colored*

**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Annual, Perennial Species</b>	<b>Grass, Sedge, Rush Species</b>	<b>Woody Brush and Trees</b>
<i>Bindweeds</i>		<i>Alder</i>
<i>Burdock</i>		<i>Ash</i>
<i>Canada Thistle</i>		<i>Birch</i>
<i>Chicory</i>		<i>Blackberry</i>
<i>Dandelion</i>		<i>Cherry</i>
<i>Plantain</i>		<i>Chinquapin</i>
<i>Purple Loosestrife</i>		<i>Choke Cherry</i>
<i>Tansy Ragwort</i>		<i>Cottonwood</i>
<i>Vetch</i>		<i>Hawthorn</i>
		<i>Douglas Fir</i>
		<i>Elderberry</i>
		<i>Locust</i>
		<i>Kudzu</i>
		<i>Maples</i>
		<i>Poison Oak</i>
		<i>Scotch Broom</i>

**Manufacturer Information & Contact Information**

Manufacturer	DOW Agrosiences	EPA Reg. No.	62719-37
Product Information Contact	1-800-258-1470	Emergency Contact	1-800-992-5994
000060-00-4		Ethyenediamine (Tetracetic acid) 2.3%	
000064-17-5		Ethanol	
000121-44-8		Triethylamine 3%	

**Lane County, Department of Public Works.  
Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Product Name</b>	<b>MILESTONE</b>	<b>Active Ingredients</b>	AMINOPYRALID 40.6%
<b>Known Inerts</b>	Total Inerts 59.4%	<b>Other Additives</b>	Can be mixed or combined
4(a)i : Substances classified as known , likely , or probable carcinogen by the US EPA			<b>EPA Classification: "Not Likely to be Carcinogenic to Humans"</b>
4(a)ii : Substances classified as a known, likely, or probable carcinogen by IARC			<b>Class 4: "Probably Not Carcinogenic to Humans"</b>
4(a)iii : Substances listed by the state of California (Prop 65 list) or the National Toxicology program as know, likely, or probable human carcinogens.			<b>No Cal Prop 65: known, likely or probable human carcinogens.</b>
4(b) : Product contains no reproductive toxicants (CA Prop 65 list).			<b>No Cal Prop 65 listed reproductive toxicants.</b>
4(c) : Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.			<b>Contains no ingredients listed as possible Endocrine Disruptors.</b>
4(d) : Product is not acutely toxic to humans: product is not labeled as DANGER or POISON (Toxicity Class I or II ).			<b>Toxicity Class IV: EPA signal word "Caution"</b>
4(e) : Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or listed as nuerotoxic by the Toxics Release Inventory ).			<b>No listed nervous system toxicants or Cholinesterase inhibitors</b>
5(a) : Active ingredient has soil half-life of 30 days or less ( <i>exception for minerals</i> )			<b>Soil Half-Life: Approx 34.5 Days.</b>
5(b) : Active ingredient has extremely low or very low mobility in soils			<b>Some potential (Koc 10.8 L/Kg)</b>
5(c) : Product is not found in US EPA of pesticide programs Registration Eligibility Decisions ( RED's, IRED's, and TRED's ) to exceed a level of concern for fish, Aquatic insects, aquatic and semi-aquatic plants, or wildlife.			<b>Product is not found in EPA decision for RED's, IRED's or TRED's</b>
5(d) : Active ingredients have not been detected in salmon waters at a level harmful to aquatic life			<b>No information detected</b>
5(e) : Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.			<b>EPA Classification: "Practically non-toxic"</b>

Milestone herbicide is a new liquid formulation herbicide designed and developed specifically to control noxious and invasive broadleaf species and other problem weeds. Milestone contains 2 pounds of active ingredient per gallon. Labeled weeds can be controlled at rates from 4 to 7 fluid ounces per acre. Milestone controls many weeds at rates substantially lower than currently registered herbicides.

<b>1. Weed / Non-Preferred vegetation:</b> Noxious weeds, invasive species, persistent vegetation, non-herbicide resistant species.								
<b>2. Public Safety:</b> Road visibility, guardrails, road signs, public health, road condition, road shoulder.								O
<b>3. Woody Plant Material:</b> Foliar, cut stump, encroachment, hazard, mechanical resilience.								O
<b>4. Road Structure:</b> Drainage, road stability, erosion, integrity.								O
<b>5. CIP:</b> maintenance, pre-emergent, restoration.								O

*planned use area is shaded/ colored*

Zone A: Road to be replaced or replaced zone B: drainage ditch Zone C: back slope of road Zone D: Other areas

**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorp. sec. (5) a-e**

<b>Annual, Perennial Species</b>	<b>Grass, Sedge, Rush Species</b>	<b>Woody Brush and Trees</b>
<i>Common, Burdock</i>		
<i>Chicory</i>		
<i>Daisy, Oxeye</i>		
<i>Dock, Curly</i>		
<i>Fireweed</i>		
<i>Hawkweed, Orange</i>		
<i>Knapweed, Diffuse</i>		
<i>Knapweed, Russian</i>		
<i>Knapweed, Spotted</i>		
<i>Knapweed, Meadow</i>		
<i>Ragwort, Tansy</i>		
<i>Starthistle, Yellow</i>		
<i>Thistle, Bull</i>		
<i>Thistle, Canada</i>		
<i>Thistle, Musk</i>		
<i>Bindweed, Nightshade</i>		

**Manufacturer Information & Contact Information**

Manufacturer	Dow Agrosciences	EPA Reg. No.	62719-519
Product Information Contact	<a href="http://www.dowagro.com">www.dowagro.com</a>	Emergency Contact	1-800-992-5994
	N/A		N/A
	N/A		N/A
	N/A		N/A

**Lane County, Department of Public Works.  
Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorpor. sec. (5) a-e**

<b>Product Name</b>	<b>OUST EXTRA</b>	<b>Active Ingredients</b>	Sulfometuron Methyl 56.25% / Metsulfuron Methyl 15%
<b>Known Inerts</b>	Total Inerts 28.75%	<b>Other Additives</b>	Can be mixed or combined

4(a)i : Substances classified as known , likely , or probable carcinogen by the US EPA	<b>EPA Classification: "Not Likely to be Carcinogenic to Humans"</b>
4(a)ii : Substances classified as a known , likely , or probable carcinogen by IARC	<b>Class 4: "Probably Not Carcinogenic to Humans"</b>
4(a)iii : Substances listed by the state of California (Prop 65 list) or the National Toxicology program as know, likely, or probable human carcinogens.	<b>No Cal Prop 65: known, likely or probable human carcinogens.</b>
4(b) : Product contains no reproductive toxicants (CA Prop 65 list).	<b>No Cal Prop 65 listed reproductive toxicants.</b>
4(c) : Product contains no ingredients listed by Illinois EPA as known or probable endocrine disruptors.	<b>Contains no Ingredients listed as possible Endocrine Disruptors.</b>
4(d) : Product is not acutely toxic to humans: product is not labeled as DANGER or POISON (Toxicity Class I or II ).	<b>Toxicity Class IV: EPA Signal word "Caution"</b>
4(e) : Product contains no nervous system toxicants (ingredients that are cholinesterase inhibitors and/or listed as nuerotoxic by the Toxics Release Inventory ).	<b>No listed nervous system toxicants or Cholinesterase inhibitors</b>
5(a) : Active ingredient has soil half-life of 30 days or less ( <i>exception for minerals</i> )	<b>Soil Half-Life: Approx 45 Days.</b>
5(b) : Active ingredient has extremely low or very low mobility in soils	<b>Moderate mobility</b>
5(c) : Product is not found in US EPA of pesticide programs Registration Eligibility Decisions ( RED's, IRED's, and TRED's ) to exceed a level of concern for fish, Aquatic insects, aquatic and semi-aquatic plants, or wildlife.	<b>Product is not found in EPA decision for RED's, IRED's or TRED's</b>
5(d) : Active ingredients have not been detected in salmon waters at a level harmful to aquatic life	<b>Dispersable in Water. No found information on Salmon waters</b>
5(e) : Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.	<b>EPA Classification: "Practically Non-Toxic to non-aquatic species". Toxic to aquatic species.</b>

**Product Comments & Information**

Oust Extra Herbicide controls many annual and perennial grasses and broadleaf weeds, It may also be used to control hardwoods and vines. Herbaceous weeds are controlled by both pre-emergence and post-emergence activity. Oust Extra is recommended to control weeds on un-improved turf and roadsides, where turf is well established as a ground cover. Applications may temporarily suppress grass growth and inhibit seed head production.

<b>Intended Use of Herbicides</b>	<b>Zone</b>	<b>Zone</b>	<b>Zone</b>	<b>Zone</b>
1. <b>Weed / Non-Preferred vegetation:</b> Noxious weeds, invasive species, persistent vegetation, non-herbicide resistant species.		<b>B</b>	<b>C</b>	<b>O</b>
2. <b>Public Safety:</b> Road visibility, guardrails, road signs, public health, road condition, road shoulder.		<b>B</b>	<b>C</b>	<b>O</b>
3. <b>Woody Plant Material:</b> Foliar, cut stump, encroachment, hazard, mechanical resilience.		<b>B</b>		<b>O</b>
4. <b>Road Structure:</b> Drainage, road stability, erosion, integrity.		<b>B</b>	<b>C</b>	<b>O</b>
5. <b>CIP:</b> maintenance, pre-emergent, restoration.		<b>B</b>		<b>O</b>

**Zone Descriptions:** *planned use area is shaded/ colored*

Zone A: Road-edge to foreslope of ditch. Zone B: Drainage ditch. Zone C: Backslope to ROW edge. Zone O: Other areas

**Product Considerations for Permitted Products List, Per 15.510 sec (4) a-e / Incorp. sec. (5) a-e**

<b>Annual, Perennial Species</b>	<b>Annual, Perennial Species</b>	<b>Woody Brush and Trees</b>
<i>Annual Bluegrass</i>	<i>Hairy Vetch</i>	<i>Blackberry</i>
<i>Chicory</i>	<i>Hop Clover</i>	<i>Gorse</i>
<i>Clover</i>	<i>Houndstongue</i>	<i>Honeysuckle</i>
<i>Common Chickweed</i>	<i>Oxeye daisy</i>	<i>Multiflora Rose</i>
<i>Common Groundsel</i>	<i>Poison Hemlock</i>	<i>Snowberry</i>
<i>Common Purslane</i>	<i>Prostrate knotweed</i>	<i>Ash</i>
<i>Common Ragweed</i>	<i>Reed Canarygrass</i>	<i>Cherry</i>
<i>Common Speedwell</i>	<i>Tansy Ragwort</i>	<i>Dogwood</i>
<i>Common Tansy</i>	<i>Teasel</i>	<i>Elms</i>
<i>Common Vetch</i>	<i>Thistle</i>	<i>Hawthorn</i>
<i>Common Yarrow</i>	<i>Wild Mustard</i>	<i>Persimmon</i>
<i>Crabgrass</i>		<i>Red Maple</i>
<i>Dandelion</i>		<i>Vaccinium</i>
<i>Fescue</i>		
<i>Fireweed</i>		
<i>Field Pennycress</i>		

**Manufacturer Information & Contact Information**

Manufacturer	DuPont	EPA Reg. No.	352-622
Product Information Contact	1-800-44-7515	Emergency Contact	1-800-441-3637
74223-64-6		Metsulfuron Methyl 15%	
N/A		N/A	

**Attachment #1: Comments and correspondence as a result of public outreach effort.**

**1. Dave Cramsey, Interested Public;**

Just so you know, I do support the proper use of herbicides. My experience is that herbicides when properly used do not pose risks to the public or environment. All of the quality, peer-reviewed research that I have seen supports this. I would be interested to talk with you regarding the on the ground application of the Last Resort Policy. At what point can the County actually propose the use of herbicides for a noxious weed? for example, Scotch Broom or knotweed.

**2. Tom LoCascio, Interested Public;**

Hello Orin,

I have been meaning to ask if the language written in the Counties proposed Last Resort herbicide policy addresses the concept of using herbicides as a first resort when a new pioneer known highly invasive species is found in a small population growing along a county roadside.

I'm sure you'll agree that many invasive species get introduced or a toe-hold along our transportation corridors or other publicly owned open spaces. Quick removal of these aggressive reproducers (known not to respond to other control methods) by utilizing herbicides could prevent them from escaping elsewhere into our landscape. The cost saving to the environment and the roadside budget would far exceed the relatively small amount of herbicide that would be used to eradicate these founder populations.

**3. Hazel Dowling, Interested Public;**

She has asked us to move her East end NSA sign to make her NSA smaller, in the hopes that if she cuts down all the blackberries on her side of the fence that we could cut and spray them on our side. I explained where we're at with the spraying right now; she wants us to go ahead and move her sign in the hopes that these types of requests, from citizens willing to control problems on their side of the fence, will merit our help and cooperation on the R/W in the future.

**4. Ross Penhallegon, VMAC member, OSU Extension Service;**

Orin – I have thoroughly review the materials that have been developed for Right of Way Management, a list of suggested herbicides, and accompanying MSDS sheets.

I am very impressed with the amount of time and effort that has gone into this project and reports.

The materials are very thorough.

The accompanying information, MSDA sheets also provided needed information to review and evaluation.

The MSDS sheets showed that these materials are as safe as can be found, have lower amount of potential harmful materials for both human and non humans. There maybe better products but the current list is very appropriate.

The Right of Way, Management Prescription Plan and Thresholds – very thorough. It might be good to enclose that “in the future as new biological controls are developed, that they be reviewed and implemented as time, money and energy allow.”

I appreciate the alternative A and B methodology, after one method is involved than a second method can be implemented. Especially with the Oregon Dept of Ag- Noxious Weed list A, these need to be kept under as best control as possible. In cases such as knapweed or knotweed, this may not be feasible, but as new weeds emerge, they can be controlled BEFORE they become major issues.

RoW M P Plan – point to consider. A1zone usually needs to be vegetation clean or very low, slow growing materials. My preference is no vegetation.

Zone a2, probably needs to have a low growing, low maintenance vegetation such as like annual blue grass, Companion grass or Elka rye. Since zone a1 is usually gravel, but by zone a2, this is finer materials and can erode. Issues—if there is no vegetation then erosion to the road bed is possible; with low vegetation, no or little erosion but the need for more intense care. Catch 22.

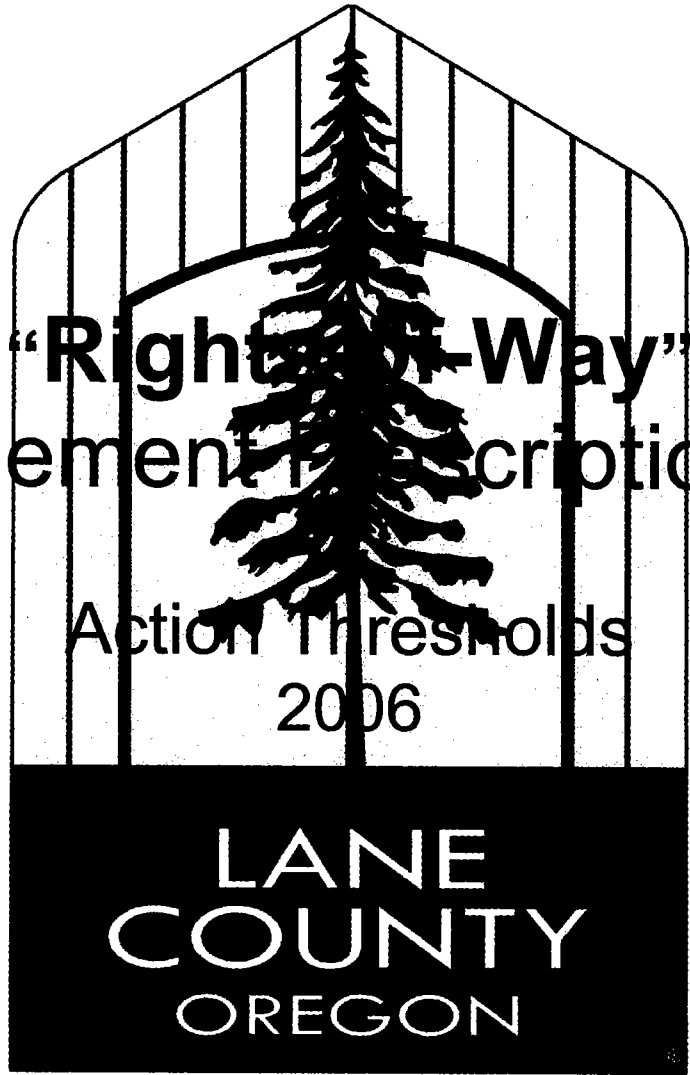
Appendix C is an excellent tool, the ODA noxious weed list and the importance of removal or control. Of course such a list is very fluid depending on the site, yearly weather, introduction off new species, and control methods.

Bull thistle – usually can be controlled very easily with mechanical control.

Excellent work.

Ross





**“Right-of-Way”  
Management Prescription Plan**

Action Thresholds  
2006

**PUBLIC WORKS**

## **“Rights-of-Way” Management Prescription Plan & Associated Action Thresholds**

### **1. Purpose.**

The purpose of management prescriptions and action thresholds is to provide guidelines for County personnel who are involved in vegetation management activities. Development of our management prescriptions and action thresholds provides a framework of management techniques to best confront vegetation issues, and provide an integrated approach in the methods we employ for vegetation management within Lane County “Rights-of-Way.”

### **2. Summary of Plan.**

Our Management Prescription Plan is based on the development of action thresholds and management prescriptions that focus on site-specific vegetation issues. Successful implementation is dependent upon allocation of sufficient funding and resources to accomplish vegetation management activities. This plan facilitates the methodology of preferred alternatives to meet the desired outcomes of the Last Resort Policy guidelines. The management techniques utilized may include manual, mechanical, cultural, and chemical approaches to manage distinct vegetation issues. The process of preferred alternatives will direct the short-term and long-term strategies in vegetation management activities. These strategies will guide a step-by-step process to manage, monitor, and modify techniques based upon the success or failure of an approach. Associated costs and environmental impacts of a technique, along with alternative methods, will be considered when maintaining road structure integrity, public safety, and environmental stewardship to high quality standards.

### **3. Goals.**

The goal of integrated vegetation management is to establish low maintenance vegetation conditions that promote public safety, reduce maintenance costs, sustain road system integrity, and promote environmental stewardship. Through planning, monitoring, and review of our management activities we can use resources in a cost-effective manner that is both effective to the management need, and the need to protect human and environmental health.

### **4. Objectives.**

- Safety for the traveling public and county staff.
- Maintenance of the infrastructure and road system integrity.
- Cost-effective use of public resources.
- Reduce or eliminate long-term environmental impacts.
- Satisfy the needs and concerns of adjacent landowners and the traveling public.

## **5. Action Thresholds.**

Action thresholds are a specific description of conflicts of vegetation and “Right-of-Way” management standards that, if exceeded, trigger a need to intervene. Vegetation in whole, or part, may not be managed unless it exceeds a County-defined tolerance level. A list of current management standards exists in the Lane County Integrated Management (IVM) Program Standards and Guidelines Document, and proposed action thresholds are listed in the Management Prescription Plan incorporated as part of this document.

## **6. Economic Considerations.**

Economic considerations factor into choice of treatment. Cost effectiveness may be used as a measure of the success or failure for vegetation management activities in terms of economics and related environmental considerations. Direct costs include equipment expense, labor hours, and materials, while indirect costs incorporate the loss of service quality by lowering standards, environmental degradation, water quality concerns, human health, and aesthetics. Indirect costs will be measured qualitatively, while direct costs will be quantitatively measured.

## **7. Timing.**

Timing is an important factor for all vegetation control and maintenance methods. The timing of vegetation management activities will consider plant life cycles, environmental conditions, seasonality, and weather, as these variables can affect the desired outcome of a proposed management activity.

## **8. Site Specific Treatment Plans.**

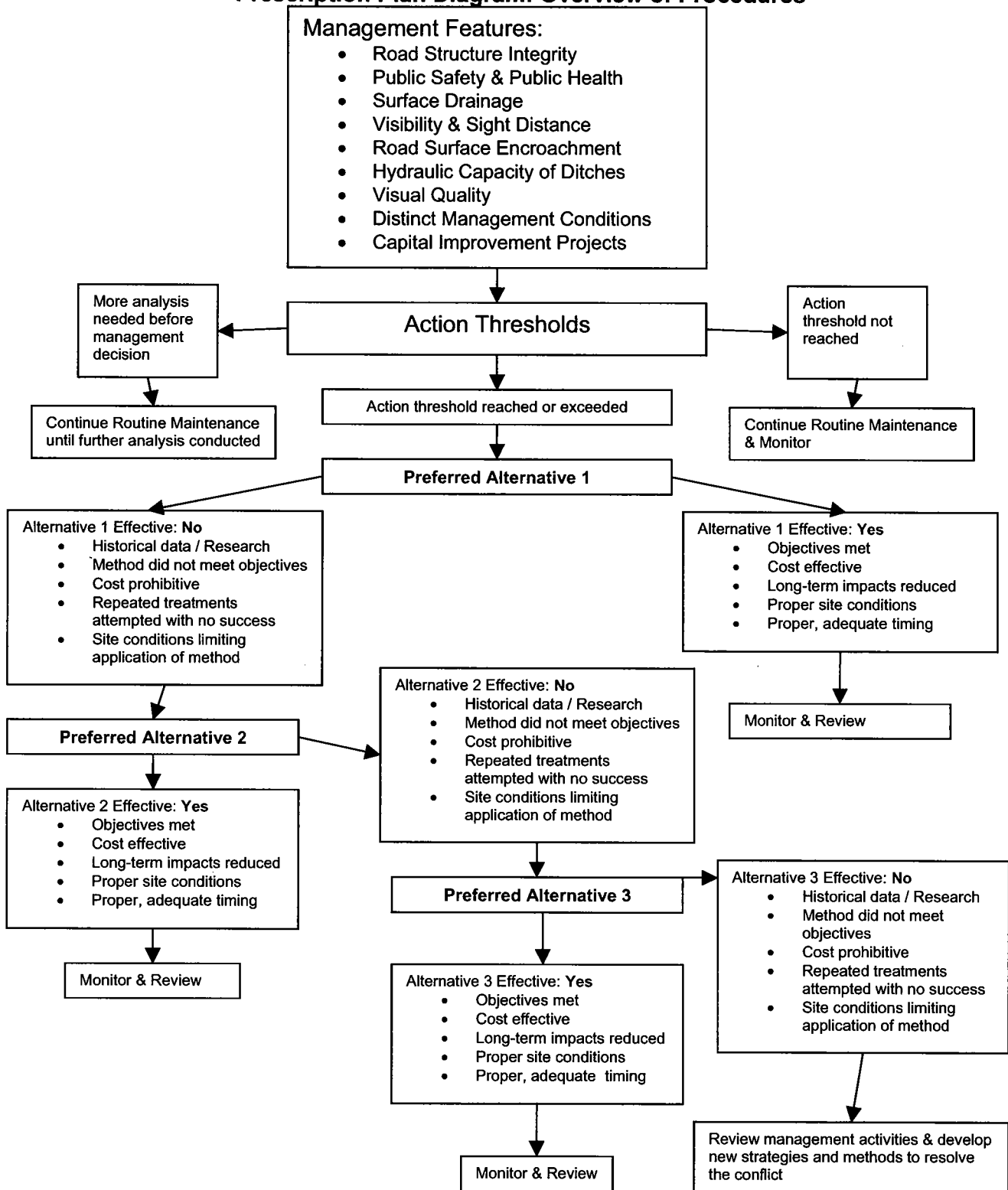
Prescriptions may not be made for whole “Rights-of-Way,” but instead developed for specific sections of any one “Right-of-Way” and the associated constraints. It is important to base treatment choices on inventory and analysis of existing site characteristics and vegetation conditions. Management prescriptions for different areas of vegetation management may include:

- Desired outcome of the Right-of-Way area to be treated.
- Site specific habitat conditions, including: water features, adjacent property issues, plant populations, plant species present, exposure, microclimate, and sensitive habitat areas.
- Short-term and long-term environmental impacts.
- Persistence of vegetation issue.
- Desired level of road maintenance and road classification.
- Administrative and economic factors.

## **9. Management Prescription Plan.**

This is a step-by-step approach that incorporates both Lane County’s Last Resort Policy and the Integrated Vegetation Management Policy. The Prescription Plan is an integrated approach to manage site-specific vegetation issues while maintaining County infrastructure. The Management Prescription Plan, detailed in Table 1, guides the vegetation management process from start to eventual completion, from planning through monitoring, and technique review.

**Table 1**  
**Prescription Plan Diagram: Overview of Procedures**



## **10. Method of Preferred Alternatives.**

The concept of preferred alternatives is a step-by-step process that dictates which management tool(s) will be utilized, and in what order, regarding Integrated Vegetation Management activities. The first alternative will be employed as the initial approach unless it has either been shown to be ineffective through external research and documentation, on the ground efforts, or is found to be cost prohibitive. If the first alternative is shown to not meet desired objectives, then the second alternative is to be utilized. If that, too, is shown to be ineffective, the third and final alternative is employed. If all current alternatives do not meet management objectives, new approaches and ideas will be approached to find a viable solution to the management concern. The criteria for an alternative to be successful include the alternative's ability to fulfill management objectives, comparable costs to other approaches, reduced impacts on the environment and public health, and overall reduction in future maintenance activities.

Through the techniques of Integrated Vegetation Management, one Alternative standing alone may not resolve a management issue, and it may require portions of other listed alternatives be used in order to successfully reach a desired objective. Integrating alternatives provides broader and more adaptive management techniques to be employed in resolving vegetation management concerns. Examples of this process are listed below.

### **Example 1: Woody vegetation obstructing sight distance.**

**Preferred Alternative 1:** Mechanically or manually remove woody vegetation to restore a safe sight distance. Stump grind to prevent further re-growth and repeated maintenance.

**Preferred Alternative 1: Incorporating portion of Preferred Alternative 2.** Mechanically or manually remove woody vegetation to restore a safe sight distance. Stump grinder cannot access stump; stump paint with herbicide to prevent further re-growth and repeated maintenance.

### **Example 2: Excessive sod and/or vegetation build-up that interferes with routine shoulder maintenance.**

**Preferred Alternative 1:** Scalp road edge or shoulder to remove excess sod and/or vegetation

**Preferred Alternative 1: Incorporating portion of Preferred Alternative 2.** Scalp road edge or shoulder to remove excess sod and/or vegetation. After scalping re-seed disturbed area with preferred species and/or mulch area to prevent unwanted vegetation establishment.

## **11. Monitor and Review.**

Lane County Department of Public Works, on a continuing basis, will monitor and review new technologies and methods involved in vegetation management activities. The review process may adapt the tools and techniques Lane County employs to confront vegetation management concerns including cultural, mechanical, manual, technical, and chemical approaches.

## **12. Management Features & Associated Action Thresholds.**

### **I. Road Structure Integrity.**

#### **a. Description**

Road structure integrity refers to the protection and preservation of base materials, shoulder design, and road surface structure.

#### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Cracks or heaving within road surface or base material, created by rooting or vegetative growth.
- ii. Erosion of road shoulder.
- iii. Excessive stoloniferous or other root development within road shoulder or road surface.
- iv. Alteration of road shoulder design for lateral drainage or structural integrity.
- v. Excessive sod and/or vegetation build-up that interferes with routine shoulder maintenance.

### **II. Public Safety / Health.**

#### **a. Description**

Public safety refers to managing vegetation to the highest level for safety of the traveling public. Public health refers to managing vegetation that has inherent human health risks related to toxicity, chemical levels, and irritants associated with plant materials.

#### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation exists that is known to pose human toxicity or irritant risks.
- ii. Vegetation obstructs traffic signals or control devices producing public safety risk.
- iii. Roadside vegetation has reached heights or densities that produce fire risk.

### **III. Surface Drainage.**

#### **a. Description**

Surface drainage refers to un-obstructed drainage of surface water from the road surface to adjacent drainage features.

#### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Repeated pooling or water stagnation on road surface after rain events, creating safety concerns.
- ii. Ice formation occurring from improper surface drainage.
- iii. Direct or potential decline in road surface materials from improper surface drainage.

#### **IV. Visibility & Sight Distance.**

##### **a. Description**

Visibility and sight distance refer to promoting roadside vegetation conditions that increase visibility of road features and associated safety fixtures for the traveling public.

##### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation reduces proper sight distance for driver and public safety.
- ii. Intersections and inside corners are obscured by vegetation.
- iii. Vegetation has grown to a height or density that obscures a safe sight distance.
- iv. Vision clearance triangle is obscured by vegetation.

#### **V. Road Surface Encroachment.**

##### **a. Description**

Road surface encroachment refers to any vegetation that extends onto, or roots, within the road surface producing either a public safety risk and/or infrastructure risk.

##### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation rooted or growing onto road surface.
- ii. Vegetation extends from road edge into road surface.
- iii. Weather event or excessive plant growth has caused vegetation to lean or fall onto road surface.
- iv. Fog line is obstructed or obscured by encroaching vegetation.

#### **VI. Distinct Management Conditions.**

##### **a. Description**

Distinct management conditions are those areas where typical management activities are regulated, obstructed, or otherwise constrained.

##### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation obscures or degrades proper function of guardrails.
- ii. Vegetation obstructs vision or function of signs, fixtures, or delineator posts.
- iii. Non-preferred vegetation alters the proper function of waterways, special habitat areas, designated open space, and other special management areas.
- iv. Emergency situations that cannot be predicted or planned for in advance.

## **VII. Capital Improvement Projects.**

### **a. Description**

Capital Improvement Projects are those activities that either replace, or create new site characteristics for a transportation or infrastructure need.

### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation obstructs capital improvement proposed plan.
- ii. Exposed soil or substrate requires vegetative enhancement.
- iii. Erosion either exists or has potential to develop if no action is taken.

## **VIII. Hydraulic Capacity of Ditches.**

### **a. Description**

Hydraulic capacity of ditches refers to the movement of water, un-obstructed, through the designed drainage system.

### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation impedes or obstructs proper water flow within the drainage ditch.
- ii. Culverts become plugged or blocked by vegetation.
- iii. Vegetation and sediment build-up reduces ditch function and design.
- iv. Water becomes impounded or trapped by vegetation, reducing integrity of base materials and road surface.

## **IX. Visual Quality.**

### **a. Description**

Visual quality refers to the quality and appearance of roadside vegetation. Healthy, native vegetation encouraged, while diseased, dying, and non-native vegetation discouraged.

### **b. Action Thresholds: *(Situation exists or has high potential to develop)***

- i. Vegetation areas that are diseased and/or in poor health.
- ii. Vegetation that has died or been altered, producing large open areas or exposed soil.
- iii. Non-native vegetation that produces large areas of monoculture growth.
- iv. Pruning or brushing techniques that reduce visual quality of vegetation.



### **13. Preferred Alternatives.**

The concept of preferred alternatives works to establish a starting point for management followed by alternative approaches based on the success or failure of a management tool. The application of preferred alternatives (see Table 2) is guided by both internal and external documentation and research, along with on-the-ground management observations. Success and/or failure of an alternative is based upon numerous factors including, but not limited to, efficacy, cost of method employed, environmental impacts, and site characteristics.

**Table 2**  
**Preferred Alternatives for Distinct Vegetation types, excluding Noxious & Invasive Weeds\***

<b>Management Feature</b>	<b>Grasses</b>			<b>Broadleaf</b>			<b>Woody</b>		
<b>Road Structure Integrity</b>	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Herbicide	Cultural Technical	Mechanical Manual	Herbicide	Cultural Technical
<b>Surface Drainage</b>	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Herbicide	Cultural Technical
<b>Road Surface Encroachment</b>	Mechanical Manual	Herbicide	Cultural Technical	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide
<b>Hydraulic Capacity of Ditches</b>	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide
<b>Visual Quality</b>	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide	Mechanical Manual	Cultural Technical	Herbicide
<b>Capital Improvement Projects</b>	Mechanical Manual	Herbicide	Cultural Technical	Mechanical Manual	Herbicide	Cultural Technical	Mechanical Manual	Cultural Technical	Herbicide

*Alt 1 – Alternative 1*  
*Alt 2 – Alternative 2*  
*Alt 3 – Alternative 3*

\* Noxious & Invasive weeds maintain separate and distinct control prescriptions (Appendix D)

#### **14. List of Appendices.**

Appendix A: Definitions.

Appendix B: Management Zone Profile.

Appendix C: Lane County Noxious and Invasive Weed List.

Appendix D: Noxious and Invasive Weed Control Prescriptions.