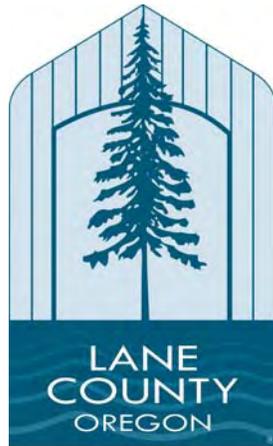


**Lane County
Stormwater Management Plan
(SWMP)**



**Prepared as Part of Application for Lane County
NPDES Phase II Permit**

February, 2004

Lane County Stormwater Management Plan

Introduction:

The Stormwater Management Plan (**SWMP**) described in this document is proposed for the permit cycle of the Lane County NPDES Phase II permit. Original Application for this permit was submitted in March of 2003. This Stormwater Management Plan will be in affect as of March , 2004 and for the remainder of the permit cycle through March, 2008.

The goal of Lane County's Stormwater Management Plan is to use a basin wide approach to meet the requirements of the Phase II permit. Therefore, Lane County will be attempting to partner with the adjoining Cities of Eugene and Springfield around the Urbanized Area required by this Phase II regulation. Lane County will utilize the "Rely on Another Entity" option available under the Phase II permit, to help standardize some of the various agency regulations for meeting the requirements of the NPDES permits in both Phase I and Phase II communities. Attached to this SWMP (**Attachments I and II**) are the proposed Intergovernmental Agreements (**IGA's**) that show this relationship between Lane County and the City of Eugene and Springfield, respectively.

As approved by DEQ, in a letter dated March 24, 2003 (**Exhibit A**), the area subjective to Lane County's SWMP is virtually limited to the Urbanized Area inside the Urban Growth Boundary surrounding the Eugene/Springfield Metropolitan area. This area is shown on the accompanying map (**Exhibit B**). This SWMP will consist of three basic Chapters with each Chapter split into two parts, to meet the six minimum measures required under Phase II. The Chapters are as follows:

- Chapter I: *Municipal Operations/Public Education and Involvement*
- Chapter II: *Illicit Discharge Detection and Elimination*
- Chapter III: *Construction Stormwater / Post-Construction Stormwater Runoff*

In addressing each Chapter, there will be a West of Interstate 5 (**W**) and an East of Interstate 5 (**E**) breakdown of how Lane County will meet the Six minimum measures.

CHAPTER I:

MUNICIPAL OPERATIONS/PUBLIC EDUCATION AND INVOLVEMENT

Background: This Chapter describes Best Management Practices (BMP's), and programs that cover three of the six minimum measures. These measures are 1) Public Education, 2) Public Participation and Involvement, and 3) Pollution Prevention and Good Housekeeping – municipal operations.

The breakdown of each program and BMP are separated West (W) and East (E) of Interstate 5 as they relate to coordination between the City of Eugene and Springfield.

Rationale: Lane County has chosen two BMP's each in which to partner with the Cities of Eugene and Springfield. The BMP's were chosen based on the ability of Lane County and the respective City's, to cooperate in a productive manner in which to deal with Stormwater Education on a basin wide approach. Lane County has two additional BMP's, Storm Drain Marking and Household Hazardous Waste programs, which are already in place and are valid educational tools to help accommodate the Public Education minimum measure.

Responsible Party: Public Works Maintenance Planning Section

Public Education: For the (W) portion, Lane County will attempt to partner with the City of Eugene in relying on their BMP's, **ED1 – Introduction to Stormwater**, and **ED4 – Volunteer Activities and Natural Resource Protection**.

ED1 - Lane County will partner with the City of Eugene with this information and education program for public, school children, City personnel, and others about natural resources and stormwater pollution problems from both point and nonpoint sources and show the impacts of their actions on water quality. This will be achieved by developing ongoing articles and public education programs through advertising campaigns targeted at various groups. **See ED1 of City of Eugene SWMP.**

ED4 - Lane County will partner with the City of Eugene to promote public involvement in “keep watershed clean” campaigns and “adopt-a-creek” programs for specific waterways. **See ED4 of City of Eugene SWMP.**

For the (E) portion, Lane County will attempt to partner with the City of Springfield in relying on their BMP's, **PE2 – Outreach Efforts with Regional Partners**, and **PE4 – Stormwater Educational Brochures Portfolio**.

PE2 – Lane County will partner with the City of Springfield with this regional partnership educational outreach program. The goal of this program will be to

enhance open exchange of proven ideas and enhance efficiency and cost effectiveness of public outreach efforts. **See PE2 of City of Springfield SWMP.**

PE4 - Lane County will partner with the City of Springfield to help in creating and updating of a portfolio of brochures to be used in educating the public and providing options or alternative behaviors that do not adversely affect the environment. **See PE4 of City of Springfield SWMP.**

Storm Drain Marking Program - For both (W) and (E) portions, Lane County will utilize it's ongoing **Storm Drain Marking Program**, to help educate the general public on the awareness of where runoff water actually goes. Currently Lane County uses two different types of markers. For inlets that drain eventually into waterways, a "Drains To River" marker is used. For inlets that drain to drywells, a "Drains To Groundwater" marker is used. Each Marker has an appropriate symbol of a river or water faucet to symbolize the types of inlets.

Household Hazardous Waste Program (HHW) – For both (W) and (E) portions, Lane County, in cooperation with various agencies and watershed councils, will host collection events aimed at allowing residents to safely dispose of household hazardous waste free of charge. The events will take place at different times of the year and at various collection locations. This program is run through our Waste Management Division. This program has been in place for some years and includes training of hazardous waste handlers throughout Lane County.

Measurable goals: Measurable goals, in the form of education, will be for the most part a non-quantifiable measure. It will be Lane County's efforts to reach the public that will be tracked. Lane County will keep track along with the Cities of Eugene and Springfield, of the number of materials distributed and the audiences targeted. It will be the goal to distribute educational materials at least twice per calendar year.

A quantifiable number of participants and tons of waste will be kept in the HHW program. Since this program currently exists, annual goals will be to continue the program and expand as practical. As this program continues to grow, the record keeping will evolve with the growth.

Public Participation and Involvement: For the (W) portion, Lane County will use the Roads Advisory Committee for review and input of Lane County's plan. An ongoing, informal outreach will take place through educational efforts that may allow for future changes in the plan.

For the (E) portion, Lane County will be involved with the City of Springfield's Open House meetings. Community members will be able to voice their concerns and provide input into the partnering aspects of the plan. Lane County attended and participated in two separate Open House meetings on January 16, 2004 and January 29, 2004.

In both portions, Lane County will notify residence of upcoming changes in County codes and the County's efforts to partner with the surrounding cities to help unify NPDES permit requirements.

Future Public Involvement can be obtained through our educational efforts and any future amendments will filter through our Roads Advisory Committee and addressed through a public hearing format.

Rationale: Lane County's Roads Advisory Committee is made up of volunteer, private citizens that have input on various implementation plans throughout Lane County's Public Works Department. The City of Springfield's Open House forum was a well-timed match for informing citizens of our intentions to partner with other agencies in a way to reduce duplication of services.

Responsible Party: Public Works Maintenance Planning Section

Measurable Goals: The area of coverage responsible by Lane County could be reduced annually due to annexation by both City of Eugene and Springfield. Therefore, tracking of input and measurable goals may be tied to the cities of Eugene and Springfield. Prior to year one public input will be evaluated. In year one other public participation will be used to evaluate existing plans and recorded in the annual report.

Municipal operations: For both the (W) and (E) portions Lane County will implement an operation and maintenance program with a goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system. Lane County will adopt the Oregon Department of Transportations Best Management Practices (BMP) manual for routine road maintenance. Lane County has unofficially been using the ODOT manual for the last few years as a guide in reducing pollutants. The BMP manual will be amended to fit Lane County's internal structure but will for the most part mirror the ODOT manual. Lane County will also adopt two BMP's, associated with maintaining gravel roads and dust abatement of gravel roads, that will become part of the Lane County BMP manual. This manual is in *Appendix A* of this plan.

Rationale: Oregon Department of Transportations Best Management Practices (BMP) manual, is a well researched document that has been unofficially in use at Lane County for some time. The future adoption of this manual will accommodate Lane County with other clean water programs.

Responsible Party: Public Works Maintenance Planning Section

Measurable Goals: Lane County will attempt to adopt the BMP manual in the first year. Training of existing employees should be completed by the second year. On going training of new employees or changes to our operations will take place annually.

CHAPTER II: **ILLICIT DISCHARGE DETECTION AND ELIMINATION**

Background: This Chapter describes the Illicit Discharge Detection and Elimination program and the code requirements implemented to decrease discharges that are not composed entirely of stormwater.

Unlike the minimum measures in Chapter I, this measure will be treated uniformly for both of the **(W)** and **(E)** portions of Lane County.

Rationale: Lane County elected to emulate the City of Eugene’s existing Illicit Discharge Code, again as a way to help unify and standardize our efforts to a basin wide approach.

Responsible Party: Public Works Maintenance Planning Section

Illicit Discharge: The County will adopt regulations regarding Illicit Discharge similar to the City of Eugene’s BMP, **MON 1 - Strengthening Enforcement for Illicit Connections and Illegal Dumping**. The County will implement the enforcement and administration of detecting and eliminating illicit discharge under **BMP 497 - Illicit Discharge and Elimination**

BMP 497 - The detection of Illicit Discharge will, for the most part, be handled by the maintenance operations and their field crews. Field crews will be trained in the requirements of the Illicit Discharge minimum measure and will typically be the first response for detection through routine maintenance activities or public complaint. Lane County’s bi-weekly foreman’s meetings will be used to train, discuss and develop strategies for specific instances.

If illegal dumping occurs within the MS4 location, County maintenance employees will remove the debris or contract out to hazardous waste handlers if the debris is not easily recognizable to be non hazardous. If the responsible party can be identified, they will be billed for the clean up and/or removal cost.

If an illicit connection is detected or founded based on public complaint, County crews will remain on site until correction of the problem is initiated. The responsible party will be required to correct the problem or be billed for expenses incurred by the County to correct the problem. *Appendix B* is Lane County’s proposed code amendment that prohibits Illicit Discharge.

Mapping - Lane County will partner with the City of Eugene, in regards to their River Road/Santa Clara Basin Plan study, and partner with the City of Springfield in, regards to their Stormwater Facility Masterplan. These plans, along with Lane County's ongoing mapping efforts, will provide a storm sewer system map to be used in facilitating any illicit discharge detection.

Measurable Goals: Lane County will attempt to adopt an Illicit Discharge code in the first year of the plan (*Appendix B*). The mapping of the basin, and areas required, should be completed by the end of the first year as well. The training of staff and upgrading of various information management systems will be on going and develop over the permit life.

**CHAPTER III: CONSTRUCTION STORMWATER / POST-CONSTRUCTION
STORMWATER RUNOFF**

Background: This chapter covers the two remaining minimum measures, Construction Site Stormwater Runoff, and Post-Construction Stormwater Runoff.

These two measures require programs to be developed when construction activities disturb one acre or more of land or when land disturbance is less than one acre but part of a larger common plan of development.

In regards to compliance of these two measures, Lane County has existing agreements with both the City's of Eugene and Springfield, that delegate authority for regulating construction activities within the Eugene-Springfield urban growth Boundary (**Attachment III and IV**). Therefore, any construction activity of this magnitude requires permits from the respective City and would fall under that City's building land use codes.

Lane County is attempting to adopt City of Eugene Erosion Control regulations that would apply to the Eugene Urban Growth Boundary and be enforced by the City. This regulation exceeds the minimum 1-acre NPDES requirement and in some cases requires permits for construction projects disturbing 500 square feet of land.

Lane County will also attempt to adopt similar code requirements for the City of Springfield as we arrive at an IGA with them.

APPENDICES

A: Lane County Routine Road Maintenance BMP Manual

B: Illicit Discharge Code 5.747

APPENDIX A

Lane County Routine Road Maintenance BMP Manual

Lane County Public Works

R_{outine}

R_{oad}

M_{aintenance}

***Water Quality and Habitat Guide
Best Management Practices***

March 2004

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ACRONYMS

BMP	Best Management Practices
CMA	Calcium Magnesium Acetate
DEQ	Department of Environmental Quality
DSL	Department of State Lands
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
IPM	Integrated Pest Management (Integrated Vegetation Management)
MMS	Maintenance Management System
NMFS	National Marine Fisheries Service
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
USACOE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
LCPW	Lane County Public Works

DEFINITION OF TERMS

Channel: A channel is different from a ditch in that a channel is a facility that collects drainage water, can be parallel or perpendicular to the highway facility, and may or may not be a natural stream.

Clear zone: A roadside area, cleared of obstructions, designed to allow for vehicular recovery. Design area is determined by traffic speed, actual daily traffic, horizontal curvature, and embankment slope. (2002 AASHTO Roadside Design Guide)

Danger Tree: Trees or snags, on or near the highway that are found to be weakened, unsound, undermined, leaning, or exposed so they may fall across the highway. When permission to remove the trees cannot be obtained, it is necessary to trim and do whatever else is reasonable to alleviate the hazard. (Lane County Public Works (LCPW) Integrated Vegetation Program, Standards and Guidelines, Page 3)

Ditch: A facility, typically parallel to the road, that carries stormwater runoff draining from the LCPW facility and adjacent properties. It is not a channelized stream, or fish bearing stream.

Emergency: As defined under OAR 125-310-030 and ORS 401.025(4).

OAR 125-310030 "...the emergency consists of circumstances creating a substantial risk of loss, damage, interruption of services or threat to public health or safety that could not have been reasonably foreseen..."

ORS 401.025 (4) "Emergency" includes any man-made or natural event or circumstances causing or threatening loss of life, injury to person or property, human suffering or financial loss, including, but not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills, or releases of oil or hazardous material as defined in ORS 466.605, contamination, actual or imminent loss or restriction of transportation facilities, civil disturbance, riot, sabotage and war."

The distinction must be made as to when the emergency is over and clean up begins. It is during the clean up and permanent repairs that consideration must be given to: disposal of material in approved manner, in approved location; and providing fish passage.

An emergency ends when threats of loss of life, injury, suffering or financial loss is mitigated and pre-emergency service is restored.

Integrated Pest (Vegetation) Plan: LCPW is required under ORS 634.122 to implement an Integrated Pest Management Program. Integrated Pest Management programs identify the most appropriate method for controlling a pest. For LCPW, the pest being controlled is unwanted vegetation; consequently, LCPW is calling it an Integrated Vegetation Management (IVM) plan.

Local Disposal Plan: District, or area, wide management strategy or plan for disposing of material generated during emergency and routine maintenance activities.

Maintenance Management System (MMS): A specialized budget and accounting system for managers. The MMS is used for work planning, scheduling, performance evaluation, and budgeting and expenditure control of maintenance activities.

Riparian Management Area (RMA): A classification of management areas for streams and rivers based on their relative size.

SIZE	RIPARIAN MANAGEMENT WIDTHS	EXAMPLES
Large	100 feet	McKenzie River, Siuslaw River, Willamette River
Medium	70 feet	Mohawk River, Deadwood Creek, Brice Creek
Small	50 feet	Most streams (first-second order tributaries)

Routine Maintenance: Recurring activities (scheduled or predictable) that are needed to maintain the functional integrity of the existing transportation facility.

Significant Resource Area/Significant Aquatic Resource: Areas that are currently protected, or potentially protected for species. This term applies to areas designated as 'core area' (ODFW); "essential indigenous anadromous salmonid habitat" (DSL); "Type F" streams (ODF); as well as areas to be included in any designated critical habitat for listed species (NMFS, USFWS). This designation also incorporates LCPW transportation corridor proximity: an area will only be designated as a Significant Aquatic Resource if LCPW maintenance activities have a potential of impacting it.

INTRODUCTION AND PURPOSE

Lane County Public Works Road Maintenance Department has formally adopted the Oregon Department of Transportation Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices dated July 1999. The guide will govern the manner in which Lane County maintenance crews will proceed on a wide variety of routine maintenance activities, including surface and shoulder work, ditch, bridge, culvert maintenance, snow and ice removal, emergency maintenance, mowing, brush control and other vegetation management for all of Lane County.

The Oregon Department of Transportation Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices does not cover two road maintenance activities that LCPW maintenance crews perform. (1) Dust Abatement, (2) Gravel Road Maintenance. We have complemented the ODOT Guide with Best Management Practices (BMP) that cover Dust Abatement and Gravel Road Maintenance. The BMP's that were added are designed to eliminate the adverse impacts of road maintenance activities on salmonid habitat while preserving our ability to maintain the functional integrity of the existing transportation facility.

This manual covers five key areas:

- Descriptions of maintenance activities with minimization/avoidance actions
- Description of the LCPW training program for routine maintenance and environmental considerations
- Description of the process for review, documentation and monitoring implementation and effectiveness of the actions
- Relevant references or examples
- Definitions of terms

In this Guide, words and phrases such as 'where feasible', 'where appropriate' and 'where practicable' are used in conjunction with some minimization or avoidance activities. These phrases, which allow some exercise of professional judgement, are not to be used for convenience or ease of operation. Rather, they are included because LCPW must prioritize its activities in accordance within constraints such as weather, equipment, safety considerations to both the motoring public and LCPW staff, physical/topographical restrictions and state, federal and local laws. Compliance with this Guide means that LCPW staff will use the discretion provided by these phrases where one or more of those constraints make implementation of the full measure impossible.

For example, the Guide states that LCPW will "where feasible, schedule sweeping during damp weather, to minimize dust production". LCPW crews strive to follow that. However, debris on the road may require that LCPW sweep the roads regardless of road moisture, to ensure a safe surface. LCPW would then perform the activity as necessary using other applicable minimization/avoidance practices.

Similarly, the Guide indicates "where possible, LCPW maintenance will perform ditch work in optimum weather to minimize environmental impacts". LCPW will strive to do so. However, where safety of the road requires ditch maintenance regardless of weather and time of year, LCPW will proceed with the maintenance, implementing other applicable minimization/avoidance practices, including erosion control, as required by the Guide.

The purpose of this manual is to:

- To establish a set of BMPs to minimize the impacts of LCPW activities on salmon runs.
- To train LCPW personnel on these BMPs.
- To prioritize and repair migration barriers that have substantially impacted fish populations or fish passage.
- To insure that LCPW complies with the 4(d) rules published by NMFS, prohibiting a “take” of listed species by securing a programmatic limitation under Limit 10: Routine Road Maintenance.

Geographic Area

The area of Lane County, Oregon is approximately 4,620 square miles. It borders the Pacific Ocean to the west and the Cascade Mountains to the east. Lane County maintains 1264 miles of paved roads, 168 miles of gravel road, and 413 bridges.

The Listed Species

The following Evolutionary Significant Units (ESUs) are listed as threatened under the Endangered Species Act (ESA) in Lane County:

- Upper Willamette Spring Chinook Salmon
- Oregon Coast Coho Salmon

Salmon Runs in Lane County, Critical Habitat

Upper Willamette Spring Chinook, Oregon Coast Coho, and other anadromous salmonids migrate between the Pacific Ocean and inland freshwater streams. In Lane County, designated critical habitat for both Chinook salmon and Coastal Coho occur throughout the County.

Fish Passage

ODFW recently conducted a survey of road culverts in most areas of Western Oregon. Lists of all road culverts that restrict fish passage were generated for the Coastal Basin and Upper Willamette River Basin in Lane County. ODFW classifies culverts as high, medium, or low priority for replacement based on the number and status of species present, population size and condition, and the estimated quantity and quality of habitat blocked. The Coastal Basin inventory and assessment rated 26 county culverts classified as high priority, 13 culverts as medium priority and 19 culverts as low priority. The Upper Willamette River Basin inventory and assessment rated 20 culverts as high priority, 77 as medium priority, 45 as low priority and 93 culverts were not rated.

Recovery

The factors that are within human control that LCPW has addressed in order to provide the greatest likelihood of salmonids recovery:

- **Habitat Modification:** Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations. Maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems.

This plan focuses on implementing, Habitat Modification, in Lane County. The section, “ Best Management Practices,” identifies all LCPW activities that may adversely impact salmonid habitat. Guidelines are provided for each action to minimize such impacts and insure that they comply with the NMFS 4(d) regulations and do not constitute a “take.”

TRAINING

It is the responsibility of maintenance personnel to understand and correctly implement BMP for a variety of maintenance activities as they conduct their daily tasks. Lane County has an extensive outreach/training program for its maintenance personnel on environmental issues. The corner stone of our ESA training for maintenance personnel will be a training course that is comprised of an ESA and BMP overview. This training course will be provided to all LCPW maintenance personnel. Elements of the maintenance training and outreach program include:

- New employee orientation
- Annual field visits
- Erosion and sediment control training
- Excavation Safety
- NPDES requirements
- Fish passage training
- Bi-Weekly Maintenance Supervisor Meetings
- Maintenance Short School training (In-House)
- American Public Works Association (Short Schools)
- Equipment Operator Skills Demonstration & Technical Training

Bi-Weekly Maintenance Supervisors Meetings - These meetings will be utilized to discuss ESA-related policy and operational issues with maintenance supervisors.

Examples include:

Update on newly listed species
Identify and document thresholds for making changes in maintenance actions
Update and/or new BMPs along with equipment that becomes available
Product use and evaluation
Recognizing when permits are required
Develop planning for BMPs

Maintenance Short School Training (In House Training) - Is held once a year for two days for all maintenance staff. The curriculum will be updated to meet today's needs.

Examples include:

Environmental Permit & Commitment Compliance
ESA
Water Quality Issues
Contamination Issues
Best Management Practices
Erosion Control Devices & Methods

American Public Works Association Short Schools - Training classes at the conference are "awareness level" in nature and serve to keep state and local road maintenance personnel updated on related ESA issues.

Examples include:

Road Waste Management
Liquid Chemical Deicers
Clean Water Practices
Inside Dirt on Erosion Control

Equipment Operators Skills Demonstration & Technical Training - Training classes at the conferences are based on the results of solicited concerns. This annual training event covers a wide variety of topics including ESA related training courses.

Examples include:

ODOT's Best Management Practices Handbook
Environmental Concerns of Road Maintenance
Gravel Road Maintenance
Deicer & Anti-icer Applications & Alternatives
Culvert Retrofit & New Products

Training continues to be an integral component of Lane County Public Works Road Maintenance Department. We are in the process of developing a formal Maintenance Short School for our maintenance personnel. The program will be used for training needs where it is apparent adequate training courses are not available. Courses will be developed for maintenance personnel so they can obtain the information necessary to properly carry out their work tasks.

DOCUMENTATION/REPORTING

The Lane County Public Works Maintenance Department will develop and submit an annual report to the NMFS that will depict ESA related complaints. The annual report will contain:

- Investigations of ESA-related complaints (i.e. adverse impacts to water quality of aquatic habitat) received from/by Lane County staff, other agencies or members of the public on impacts to the environment by maintenance activities.
- Investigations of complaints received from/by ODOT staff, other agencies, or members of the public on impacts to the environment by maintenance activities. The document will include basis of complaint, results of the investigation, and resolution of issue, or recommendations.
- Modifications or, improvements to, any minimization/avoidance actions including summaries of challenges or successes in applications.
- Investigations of illicit discharges to LCPW rights-of-way or drainage pipes.
- Overall summary of contacts and coordination with ODFW, NMFS, and USFWS on specific issues.
- Reporting: The documentation will include basis of complaint, list of names and phone numbers of individuals who lodged the complaint, results of investigation, and resolution of issue, or recommendation.

MONITORING

The LCPW compliance-monitoring program is intended to meet environmental protection requirements in regards to highway maintenance activities in all areas of Lane County. Compliance monitoring activities will demonstrate the environmental protection commitments made as part of the 4(d) rule exemption are in fact being met.

Training: The tools for effective compliance monitoring are initially developed when maintenance personnel are trained on ESA and other related environmental protection matters. Information regarding compliance monitoring, checklists, roles and responsibilities will be incorporated in our Maintenance Academy.

Planning: Road maintenance personnel (i.e. managers, supervisors, lead workers) will identify upcoming projects which have the potential for adversely impacting water quality and/or aquatic habitat. Permits, environmental BMPs, in-water work periods, and other environmental issues will be discussed at our quarterly Maintenance Project Meetings.

Deficiencies: In the event that deficiencies are found in how environmental protection BMPs are utilized, corrective actions, appropriate to the applicable circumstances, will be implemented. Corrective actions include additional training, providing improved information to maintenance personnel and mitigation if needed. If deficiencies are related to the absence of adequate equipment and/or materials, procurement of needed items will be sought through normal departmental means.

LCPW will document the complaints received from/by LCPW staff, other agencies or members of the public on impacts to the environment by maintenance activities. The documentation will include basis of complaint, results of the investigation, and resolution of issue, or recommendations.

In addition, LCPW will continue to network with other agencies, and municipalities on effective monitoring of non-point source pollution. With the 2003 requirements of NPDES Phase II, Lane County will be partnering with both the City of Eugene and Springfield in regards to various elements of the six minimum measures. The goal of this partnering is to implement a basin wide approach for minimizing impacts to salmonid habitat.

PROCESS FOR REVIEW

LCPW will utilize the Maintenance Supervisor Meetings and field visits to identify and announce any modifications/changes to the minimization/avoidance actions identified in this document. New technologies and design standards will also be presented at the supervisor meetings.

Every five years LCPW will evaluate the need to rewrite the Guide. The decision will be made on the number of substantive changes needed and new technologies to be incorporated.

LCPW MAINTENANCE MANAGEMENT SYSTEM (MMS)
Descriptions and Minimization and Avoidance Best Management Practices

Gravel Road Blading (MMS 416)

Overview: LCPW maintains 168.57 miles of gravel road, of which 19.21 miles are within 100 feet of the Riparian Management Area (RMA).

Purpose: BMP in this section are designed to eliminate the adverse impacts of road maintenance on salmonids habitat without compromising safety. Proper, timely, and selective surface maintenance, which includes water disposal, prevents and minimizes erosion problems, thereby lengthening the life of the road surface which in turn lessens frequency and cost of maintenance. This will also decrease the amount of sediment carried into surface waters.

Description: Restoring the roadway cross slope, drainage and grade by blading, reshaping and smoothing of existing gravel surface materials. Rehabilitating non-paved surfaces by adding gravel and then blading it to restore/establish a smooth stable surface with proper drainage.

Minimization/Avoidance: Grading will be conducted in a manner, which minimizes disturbance to vegetation beyond widths needed for safety purposes.

- Lane County Maintenance Supervisor will determine if weather conditions are appropriate (i.e. heavy rainfall) that could result in adverse impacts to water quality or aquatic habitat.
- Cut and pull surfacing near the shoulder so as not to create a secondary ditch between travel way and ditch, in sensitive areas.
- Use temporary and industry standard erosion and sediment control devices such as check dams, silt fences, bio-bags and other acceptable techniques, when the potential exists to have sediment or other materials enter waters of the State.

Dust Abatement (MMS 421, 422)

Overview: LCPW applies a dust palliative to 30.36 miles of gravel road annually, of which 3.84 miles are within 100 feet of the RMA.

Dust from unpaved roads is not only a nuisance but creates a safety hazard by reducing the driver's visibility. Dust also affects the health of road users and increases wear-and-tear on vehicles. Dust is always considered an intruder at residences that are located near gravel roads.

Fine particles, including dust, act to help hold the surface of unpaved roads together. With a loss of fine particles from the roadway, there is an increase in roadway surface raveling and maintenance costs.

Based on the characteristics listed below, LCPW will mitigate the environmental impacts by following the BMPs for dust abatement.

Purpose: Dust suppressants work by either agglomerating the fine particles, adhering/binding the surface particles together, or increasing the density of the road surface material. They reduce the ability of the surface particles to be lifted and suspended by either vehicle tires or wind.

Description: Dust abatement involves application of a dust palliative to non-paved road surfaces to temporarily stabilize surface soils, leading to a reduction of dust during the dry season. Palliatives are applied in liquid form and could include calcium magnesium acetate, magnesium chloride, emulsified asphalts, or lignosulfonates.

Product Identification: Lane County's proposal is to use Calcium/Ammonium Lignosulfonate. The liquid palliative is diluted to a 50:50 solution with water prior to application.

Toxicity Data: This material is not toxic when administered orally to rats under the Federal Hazardous Substance Act (FHSA) criteria. This material is not an irritant when applied to the skin of rabbits under the FHSA criteria. Four-hour exposure of 198 mg/m³ of dust has resulted in neither mortality nor observable sign of toxicity. It is not listed as a carcinogen by ARC, NTP, OSHA, or ACGIH.

Spill, Leakage, and Disposal Procedures: Wash area with water. Spills or releases of this material do not currently trigger the emergency release reporting requirements under the federal Superfund Amendments and Reauthorization Act of 1986 (SARA).

Environmental Impacts: The primary environmental concern with dust palliatives is how they impact the groundwater quality, freshwater aquatic environment, and plant community. The impact of dust palliatives on groundwater quality is based on how the suppressant migrates to the local groundwater table.

Mitigation and Avoidance:

- During preparation for application of dust palliatives, gravel berms will be constructed at the low shoulders of the roadway to inhibit liquid palliatives from entering waters of the State.
- Dust palliatives will not be applied during rain.
- Methods and materials shall be applied in a matter that is not detrimental to either water or vegetation.
- Carrying adequate supplies for spill containment. (Diapers, Rice Ash, Shovel, etc.)
- Using environmentally sensitive cleaning agents.
- Disposing of excess materials at appropriate sites.

Surface Work (MMS 409, 411, 412, 415)

Description: Surface and inlay repair includes all repairs of road bases, surface, and shoulder irregularities, including asphalt and concrete surfaces. Asphalt plant production includes production of asphalt for patching materials, staging, moving, stockpiling and setup of asphalt plants.

Minimization and Avoidance

Best Management Practices for surface and shoulder activity types will include:

- Eliminating diesel as a releasing or cleaning agent.
- Using environmentally sensitive cleaning and releasing agents.
- Using heat sources to heat and clean tack nozzles during operations.
- Carrying adequate erosion control supplies (diapers, kitty litter, shovels, etc.) to keep materials out of water bodies.
- Disposing of excess material at appropriate sites, depending upon material being disposed.

Best Management Practices for Asphalt Plant Production will include:

- LCPW will ensure that Contractors and LCPW staff who fuel and operate asphalt plants have an adequate spill plan and materials for spill containment.
- LCPW will establish mixing plants outside of riparian corridors, site location to be approved by the Environmental Permits Supervisor, and/or resource agencies.
- If possible LCPW will use commercial asphalt plants for asphalt supply, where economically feasible.
- LCPW will provide areas for truck chute cleanout with proper containment of wet concrete.
- LCPW will protect inlets and catchments from fresh concrete during inclement weather.
- Where possible, LCPW will perform surface work in dry weather, to minimize any runoff of potentially hazardous material.

Shoulder Blading/Rebuilding (MMS 418, 419, 426, 429)

Description: This action includes shoulder blading and rebuilding to correct rutting and buildup of materials, to remove weeds, for safety, and to maintain proper drainage. This activity is similar to ditching, and has similar best management practices. However, it should be considered a different activity than ditching.

Minimization and Avoidance:

- LCPW maintenance will install check dams to protect sensitive resources, when appropriate.
- Specific sites will be evaluated for alternatives to blading, such as berming, curbing or paving shoulder.
- Where practicable, LCPW will evaluate the width of the blading activity and if appropriate, modify the width to minimize disturbance of vegetation.
- Where possible, LCPW maintenance will blade in dry weather, but while moisture is still present in soil and aggregate (to minimize dust).
- LCPW maintenance will incorporate this activity into local IVM plans to consider and minimize impacts of this activity on streams.
- Where appropriate, LCPW will permanently stabilize disturbed soils using BMPs (seeding, plants, etc.).

Sweeping/Flushing (MMS 420)

Description: This activity includes sweeping and flushing of roadways, curbs and bridge decks to remove dirt and debris, and scupper (weep holes or direct drains on bridges) cleaning. Materials are recovered (and disposed of) under Activity Code 420. Scupper cleaning involves sweeping of material away from clogged scuppers. Clogged scuppers are normally freed using a steel rod.

Minimization and Avoidance

Best Management Practices will include:

- Use of water (as needed) to reduce dust during sweeping.
- Storage/disposal of removed materials at an appropriate site in an appropriate manner as part of the local material disposal plan. Removed material may be temporarily stored in stable locations to prevent the material from entering wetlands or waterways.
- LCPW maintenance will recycle sweeping materials where appropriate.

- Where feasible, LCPW maintenance will schedule sweeping during damp weather, to minimize dust production.
- Where feasible, coordinate crews to follow sweeping/flushing with bridge drainage cleaning.
- LCPW maintenance will remove sweepings produced within 25 feet of identified sensitive spawning areas as identified in coordination with resource agencies, if the design of the facility allows.
- Where appropriate and practical, place sediment barriers in site-specific locations along stream routes or direct drainage routes, to route sweeping material away from watercourse.

Ditch Shaping and Cleaning (MMS 434, 435)

Definition: Ditch: A facility, typically parallel to the road, that carries stormwater runoff draining from the LCPW facility and adjacent properties. It is not a channelized stream or fish bearing stream.

Description: This action includes use of equipment for cleaning and reshaping of ditches including loading, hauling, and disposing of excess materials. This activity is performed in all weather. Material is removed to an appropriate location for disposal or storage. Vegetation located in the ditch is removed during cleaning.

Minimization and Avoidance:

- LCPW maintenance will dispose of removed material above the bank line and not in any waterway or wetland.
- LCPW maintenance will use erosion control devices such as check dams, silt fences, and other acceptable techniques, when the potential exists to have sediment or other materials enter a water of the State.
- LCPW maintenance will use best management practices identified in the local Integrated Vegetation Management plan.
- LCPW maintenance will reseed drainage ditches and steep slopes as appropriate. (Ditches functioning as rock fall areas (as determined by the Lane County Road Maintenance Manager), as opposed to drainage facilities will not be reseeded).
- When possible, LCPW maintenance will perform ditch work in optimum weather to minimize environmental impacts, and consult with ODFW and/or the Environmental Engineering Specialist if silt devices are inadequate to filter water prior to draining to watercourses.
- Evaluate and modify, where feasible and appropriate, existing ditch slopes to trap sediments, and support development of vegetation.

- Recycle excavated material when feasible.

This activity may require a Section 404 of the Clean Water Act and/or Division of State Lands (DSL) fill removal permit. (See “Flow Chart” Appendix E)

Culvert and Inlet Cleaning (MMS 430, 436), (Culvert/Inlet Repair (MMS 432), Miscellaneous Hand/Minor Repair (No LCPW MMS) includes cleaning of detention ponds, swales, pump stations, and wash rack sumps

Description: This action includes clearing of dirt and debris from culvert inlet/outlets to restore function, and repair of damaged passing devices (culverts, siphons, and box culverts, catch basins, drop inlets). Culvert cleaning is done by equipment including backhoe, vactor/jet router (a machine with a high-pressure hose and/or a powerful vacuum), and shovels. Vegetation may be removed during cleaning. Culvert cleaning is done in all weather.

Culvert/inlet cleaning includes removal of beaver dam material that clogs culverts to prevent flooding and culvert failure.

Minimization and Avoidance:

- LCPW maintenance will install erosion/sediment control during culvert/trash rack cleaning, where erosion control devices can feasibly be installed. LCPW maintenance will dispose of materials above the bank line and not in any waterway or wetland.
- When and where possible, LCPW maintenance will perform work at low flow, and may divert flow to minimize turbidity.

Culvert and Inlet Repair

- Any work, which must be performed in flowing water, will be completed during ODFW in-water work period for that system, or as negotiated with ODFW.
- LCPW maintenance will closely coordinate with ODFW on the removal of material from culvert when work is performed in ODFW identified stream reaches supporting sensitive fish species, or significant, limiting habitat elements.
- Cleaning schedule/methods and repair of culvert/trash racks will be communicated to ODFW (by letter) at least two weeks prior to cleaning, in ODFW identified sensitive areas, such as spawning grounds. Any in-water work will be coordinated with ODFW to ensure no fish stranding occurs, to minimize sediment impacts (except during emergency situations) and to clarify in-water work periods in transitional stream reaches.
- Culvert replacement or extension will frequently require permits outside the scope of this guide, potentially including a U.S. Army Corps of Engineer (USACOE) 404 permit, DSL permit and other permits. Any culvert replacement or extension may be required to meet provisions for fish passage as required by ORS 498.268 and ORS 509.605. Culvert replacement for culverts identified as requiring fish passage will only occur in

accordance with guidelines outlined in the ODFW Guidelines: Criteria for Stream and Road Crossings (1999), and in coordination with Environmental Permits Supervisor, ODOT Biologist, ODFW or other resource agency.

Tidegate Maintenance

- LCPW will coordinate with the appropriate resource agencies (USFS, ODFW, USACOE) when LCPW maintained tidegates fail or need replacement or removal.
- If possible, LCPW maintenance will inspect and clean structures prior to the rainy season.

Fish ladder maintenance will follow the above minimization measures described for culvert repair and cleaning, including coordination with ODFW, use of erosion/sediment control where feasible, and disposal of material above the bank and not in any waterways or wetlands, or in mutually agreed upon locations. Fish ladder maintenance may occur one to two times per year and entails work generally from the banks of the drainage with a backhoe. Additional handwork and weir repair may also be occasionally required. Vegetation may be removed during cleaning.

Erosion Repair (MMS 429, 480, 489, 494)

Description: This action involves repairing water damage to roadways and fillslopes, including import and shaping of material to restore slope and grade lines. In-water work covered by this action could include, but is not limited to, replacement of riprap or rock which have been removed due to bank erosion, gabion baskets, etc.

Minimization and Avoidance:

- Any installation of material that exceeds the material removed by bank erosion (below bankfull stage) will constitute a significant action. Increases in the material profile will require additional coordination with regulating agencies, and are not covered in this document. (See Appendix D)
- Replacement of riprap will follow ODFW in-water work periods, in non-emergency situations. Situations which require expedited LCPW maintenance action, but which are not technically defined as 'emergencies' (under the ESA or by the DSL) will be addressed with ODFW, and potentially the NMFS/USFWS individually.
- Erosion repair work will consider use of bioengineering solutions where practicable. Practicable use areas include areas not shaded by bridge elements, outside of the two-year flood plain where success is probable and safety of the structural elements are assured. (See Appendix D).
- In large riverine systems (e.g. the McKenzie River) where in-water replacement of riprap is required, LCPW maintenance will attempt to create barbs to increase backwater areas, where appropriate, practical, and feasible.

- Any erosion repair activities (responses and cleanup of erosion problems, not the erosive action itself) which causes significant changes in the topography or vegetation within the riparian management area will be coordinated with ODFW and/or regulating agencies.

Best Management Practices will include:

- Disposal of removed material at appropriate sites (stable locations outside RMA, or if within the RMA, so the material won't be washed into wetlands or waterways).
- Use of erosion control methods in a timely manner, including seeding and mulching specific areas with non-invasive species, installing silt fences and installing other devices as appropriate.
- LCPW maintenance will take precautionary measures on erodible areas (chicken wire, chain link, rock matting) where eroding areas are identified, and where precautionary measures can be successfully and safely applied.
- LCPW maintenance will coordinate with ODFW and wetland permitting agencies (USACOE and DSL) when placing riprap that is in addition to existing conditions and within the two-year floodplain of waters of the State. This activity may require a section 404 of the Clean Water Act and/or DSL fill removal permit. If a DSL permit is needed, the work is outside the scope of the guide (See Appendix D).

Channel Maintenance (MMS 462)

Definition: Channel: A channel is different from a ditch in that a channel is a facility that collects drainage water, can be parallel or perpendicular to the highway facility, and may or may not be a natural stream.

Description: This action includes cleaning and repairing existing channels, including placing riprap to restore and grade.

Minimization and Avoidance:

- Installation of new sections of riprap in existing draining system (i.e. in systems acting as streams) will be considered a significant action, and will not be considered in this document.
- During replacement of significant sections of riprap within drainage channels acting as streams, LCPW will attempt to employ bioengineering solutions where appropriate (stable and not cost-prohibitive).

- Any excess material will be removed from channels after maintenance actions are completed. No materials, which could contribute sediment to downstream habitats, will be deposited below the bank or in waterways or wetlands.
- Within the two-year floodplain of systems supporting sensitive fishes, LCPW maintenance will perform work during the ODFW in-water work window, or as negotiated with ODFW.
- Cleaning schedule/methods and repairs of channels will be communicated to ODFW (by letter) at least two weeks prior to cleaning, in ODFW identified sensitive areas, such as spawning grounds. Any in-water work will be coordinated with ODFW to ensure no fish stranding occurs, to minimize sediment impacts (except during emergency situations) and to clarify in-water work periods in transitional stream reaches.
- LCPW maintenance will use clean rock sources for channel maintenance.
- LCPW maintenance will coordinate with ODFW and wetland permitting agencies (USACOE and DSL) when placing riprap that is in addition to existing conditions and within the two year floodplain of waters of the State. This activity may require a section 404 of the Clean Water Act and/or DSL fill removal permit. (See Appendix D)

Fish Restoration (No LCPW MMS Number)

Description: This is any LCPW work that involves planting vegetation along a stream corridor (e.g. slope stabilization, replanting of removed vegetation). Any LCPW work that incorporates bioengineering into existing riprap or any LCPW work that modifies an existing drainage ditch for better water-quality control (no major construction is involved).

Minimization/Avoidance:

See Ditch Shaping and Cleaning (MMS 434, 435, 438)
See Erosion Repair (MMS 429, 489)

Fish Betterment (No LCPW MMS Number)

Description: This work includes installation in culverts of baffles or weirs for fish passage, construction of berms, or detention facilities, installation of deck curbs, new culverts or jump pools for fish passage.

Minimization/Avoidance:

See Culvert and Inlet Cleaning, Culvert/Inlet Repair, Miscellaneous Hand/Minor Repair (#129)

Bridge Maintenance (MMS 460, 461, 469) Other Structure Maintenance (No LCPW MMS #)

Description: This is a large category of LCPW maintenance actions. There are two major categories: drift removal and maintenance of bridges and large (over six feet diameter) culverts.

Drift removal involves either using boats to maneuver the drift, hydraulic tongs to reach over the side of structure and dislodge the material, or pulling the drift from the side of the bridge (bank) and cutting it into pieces.

Maintenance and replacement of structures includes washing, painting, scraping and patching of curbs, rails, decks and joints on wood, concrete and steel bridge components. Pesticides are applied to bridges occasionally.

Minimization and Avoidance:

- All work within the flowing channel of any aquatic system will be performed during the appropriate in-water work window for that system, or as negotiated with ODFW (except when there is imminent danger to life, limb, or structure).

Drift Removal

- LCPW maintenance will cut (only when necessary) and turn drift to allow it to flow through and under the structure, where doing so would not endanger any other crossing structures downstream.
- LCPW maintenance will repair and restore riparian areas temporarily impacted by machinery during drift removal. Long-term access for drift removal will be coordinated with ODFW.
- The Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) (as regulated by the Department of Environmental Quality (DEQ)) regulate hazardous materials entering waters of the State. DEQ has stated that adequate measures, to the 'maximum extent practicable' will be taken in maintenance activities to ensure that paint and other hazardous material does not enter waters of the State. These avoidance measures, if followed, will be sufficient to avoid impacts to sensitive salmonids. LCPW maintenance will coordinate guano removal and any other specific concerns with DEQ.

Bridge Cleaning/Maintenance

- The Clean Water Act and the NPDES (as regulated by the DEQ) regulate hazardous materials entering waters of the State. DEQ has stated that adequate measures, to the 'maximum extent practicable' will be taken in maintenance activities to ensure that paint and other hazardous material does not enter waters of the State. These avoidance measures, if followed, will be sufficient to avoid impacts to sensitive salmonids. LCPW maintenance will coordinate guano removal and any other specific concerns with DEQ.
- While performing maintenance on bridge structures (above water), reasonable attempts, to the maximum extent practicable, will be made to keep material from falling from the structure into the water. Any material which does fall into the water will be removed (if possible) in the least destructive way possible, or left in place if this would be less destructive to fisheries habitat (See Appendix C).

- LCPW maintenance will temporarily block deck drains over streams and scuppers over streams when pressure washing, sandblasting, or scraping structures, to route water off deck and into vegetated areas where practicable.
- LCPW maintenance will remove debris from bridge decks in a manner that minimizes material entering waterbodies. Preferred methods may include removal of large debris from bridge decks with a sweeper or a shovel. Other material may be scraped by hand before being collected and removed (prior to pressure washing). Material will be disposed of as identified in the local Material Disposal Plan.
- LCPW is developing a policy to eliminate drainage systems that drain directly to streams where physically possible (See Bridge Office Practices Manual and Appendix F).

Bridge Repair (MMS 460, 461)

Description: This includes repair of bridges and large culverts (over six feet diameter). In-water bridge repair can include repair or replacement of riprap, drainage features, and catch basins and replacement of structural members.

- Bridge repair work that requires installation of riprap will consider use of bioengineering solutions, where practicable. “Practicable” use areas will include areas unshaded by bridge elements, above the full bank stage where success is probable and safety of the bridge structure is assured.
- Bridge structural repairs that require in-water work will be independently coordinated with ODFW and/or the Environmental Permits Supervisor and the responsible Engineer to minimize impacts. These contacts will determine whether or not the action will require significant modification of the aquatic system and thus require a Biological Assessment and consultation with NMFS and USFWS. In-water work may include permanent impacts, such as placing riprap, or temporary impacts such as installing falsework or stream access.
- LCPW maintenance will coordinate with ODFW wetland permitting agencies (USACOE and DSL), and other appropriate environmental regulators when placing riprap that is in addition to existing conditions and within the two year floodplain of waters of the State.
- LCPW maintenance will coordinate with ODFW, (where and when necessary) to divert water away from concrete work areas during structural repairs of bridges and culverts.
- When repairing drainage features LCPW, will make every attempt (within the engineering solution) to incorporate fish passage solutions and enhancements, such as adding roughness (by adding cobble) in coordination with the Environmental Permits Specialist and/or ODFW, and Lane County Design.
- LCPW maintenance will perform any in-water work within ODFW in-water work window, or in time frames negotiated with ODFW (See Appendix C).

Best Management Practices for bridge repair will include:

- Placing refuse material above the bank, away from waterways and wetlands.
- Ensuring that the active flowing stream will not come into contact with fresh, plastic concrete.
- Disposing of material in locations and manners identified in the local disposal plan.
- Providing a stable, appropriate concrete truck chute clean-out area and requiring the contractor to use it, to keep material from being deposited in riparian corridors.
- Using cofferdams for structural repairs as appropriate.
- Containing saw chips where feasible.
- Avoiding use of creosote or “Penta” treated wood for permanent structures.

VEGETATION MANAGEMENT

LCPW implemented an Integrated Vegetation Management Program in April 1990. An Integrated Pest Management program identifies the most appropriate method for controlling a pest. For LCPW, the “pest” being controlled is unwanted vegetation, consequently, LCPW prefers the term IVM. IVM methods typically involve:

- Mechanical: using equipment such as mowers, chain saws, brushers, etc.
- Biological: using a natural predator to control the pest (flea beetle or Cinnabar Moth to control tansy ragwort, for example)
- Cultural: incorporating native, or more appropriate, plant material to out-compete the pest
- Chemical: applying appropriate chemicals

LCPW has an IVM plan for vegetation management. The IVM plan typically includes:

- Goals and objectives for IVM
- Maps of roads and management zones
- Methods (in some cases by mile point) to be used to control vegetation
- Reports
- Best Management Practices

LCPW incorporates routine maintenance activities into the IVM program.

Definition of Danger Tree: Tree or snags, on or near the highway that are found to be weakened, unsound, undermined, leaning, or exposed so they may fall across the highway. When permission to remove the trees cannot be obtained, it is necessary to trim and do whatever else is reasonable to alleviate the hazard. (LCPW Integrated Vegetation Program Standards and Guidelines, Page 3).

Mowing (MMS 482, 483, 484), Brush Mowing (MMS 441), Brush Cutting (by hand) (442)

Description: These actions are designed to restore sight distance, reduce ice (due to shading) and to control/prevent slope failure. These actions involve mechanical mowing, trimming, removal of brush and cleanup.

Minimization and Avoidance:

- No alterations to the mowing policy will be necessary to avoid impacts to fish. Local Integrated Vegetation Management Plans identify mowing areas, and are designed to minimize impact to receiving waters while still maintaining grassed areas.
- Cut brush, in riparian areas, will be left in place where doing so does not interfere with sight distance, create safety issues, cause fire hazards, involve noxious weeds or the proper functioning of highway features (e.g. drainage).
- LCPW maintenance actions will limit mowing to no more than eight feet off edge of pavement in significant resource areas, unless needed to maintain proper functioning of highway features (e.g. drainage).
- LCPW maintenance will maintain shade trees along streams and rivers, unless those trees are danger trees (as determined by Vegetation Management Coordinator and/or appropriate resource agency), could potentially impact bridge structures, or could impact line of sight. If trees provide shade or bank stabilization within 50 feet of streams and are determined to be danger trees that must be removed, tree removal will be coordinated with ODFW or other regulatory agency.
- Only brush within 20 feet (on either side) of and under all bridge structures will be removed. All other brush not within LCPW's clear zones will be left in its current condition, unless the brush interferes with sight distance, shades the structure, or the brush is a noxious weed (e.g. scotch broom). Mapping of sensitive resource areas may lead to additional areas not being brushed.
- On culverts six feet or greater, LCPW maintenance will remove ten feet of brush on both sides of the culvert, on the upstream end of the culvert and ten feet on both ends on the downstream side, unless the brush around the culvert is a noxious weed. If other brushing needs are identified, LCPW will coordinate with ODFW.

When removing mature trees (over 12-inch (30cm) diameter at breast height (dwb)) in riparian areas, LCPW will replant two seedling/cuttings for every tree removed. LCPW will coordinate with ODFW on species and location of trees to be replanted within the same watershed. LCPW will ensure that the replanted trees will not pose a future threat to LCPW structures.

Spraying (MMS 443, 446)

Description: This action consists of spraying chemical to control the growth and spread of noxious weeds and brush. LCPW maintenance does not use any restricted-use chemicals to control vegetation. Herbicides used include broad-based foliar-active herbicides and soil residual herbicides.

Minimization and Avoidance:

- LCPW maintenance follows an Integrated Vegetation Management program. The local IVM Plan maps locations of sensitive natural resources and identifies areas where spraying does not occur. The local IVM Plan includes protection of sensitive fish species. The herbicide spray program may include modification of spray times and modifications of spray widths to protect riparian areas. Specific minimization/avoidance measures will be developed on a site-specific basis.

Best Management Practices will include:

- LCPW maintenance will eliminate spray activities on structures located over streams or adjacent to wetlands.
- LCPW maintenance will use chemicals approved for use near aquatic resources, or as directed by regulators.
- LCPW Last Resort Policy for the use of herbicides for vegetation management.
- Herbicides will be used in accordance to EPA labels.
- Within riparian areas, LCPW maintenance will hand spray around structures over water that requires chemical vegetation control.
- Within 25 feet of riparian areas, LCPW will boom spray no further than eight feet from the edge of pavement.
- Within 25 feet of an active, flowing stream, LCPW will stop all boom spraying.
- Where computer-assisted spray trucks are owned, they will be utilized. Computer assisted spray trucks can manipulate the mixture and rate sprayed, and can stop and start spray activities to avoid impacting individual creeks.

Bridge Vegetation (No LCPW MMS Number)

Description: This includes vegetation management around existing bridges. The primary purpose of bridge vegetation management is to maintain sight distance. Bridge vegetation management must also maintain access to the bridge structure for structure maintenance, fire safety, and to maintain the integrity of the structure.

Minimization and Avoidance:

- LCPW maintenance will normally only remove brush to 20 feet on either side and under all maintained bridges for access or repair. (In some instances, road access under or adjacent to the structure will be outside the 20 foot buffer).
- Only brush necessary to perform the activity will be removed.
- When removing mature trees (over 12-inch (30cm) dbh) in riparian areas, LCPW will replant two seedling/cuttings for every tree removed. LCPW will coordinate with ODFW on species and location of seedlings/cuttings to be replanted within the same watershed. LCPW will ensure that the replanted trees will not pose a future threat to LCPW structures.

Other Vegetation Management (MMS 459)

Description: The Vegetation Management Coordinator, and/or resource agency staff (such as State Forestry, US Forest Service) identifies and LCPW maintenance removes danger trees (see definition of terms). LCPW maintenance also removes trees from forested areas which are weighting unstable slide areas, and where the trees or slide have the potential to reach the highway. LCPW maintenance also occasionally removes trees, which threaten to fall, and in the falling or uprooting, remove large portions of bank area.

Minimization and Avoidance:

- Where possible, LCPW maintenance will attempt to maintain buffer strips corresponding to these RMA.

SIZE	RIPARIAN MANAGEMENT WIDTHS	EXAMPLES
Large	100 feet	McKenzie River, Siuslaw River, Willamette River
Medium	70 feet	Mohawk River, Deadwood Creek, Brice Creek
Small	50 feet	Most streams (first-second order tributaries)

- LCPW maintenance will maintain shade trees along streams or rivers unless those trees are “danger trees” as described above. If trees provide shade or bank stabilization, are within 50 feet of streams, and are determined to be danger trees that must be removed, the trees will be removed in consultation with ODFW.

- Prior to removing trees within an RMA to reduce weight on a failing slope, coordination will be performed with the Environmental Engineering Specialist, ODFW, and/or the appropriate regulatory agency. Removal of many trees from streamside areas will require a re-planting and erosion control plan. Significant consideration will be given to retaining trees, which provide stream shading (e.g. within 50 feet of the active channel.)
- Permanent solutions to chronically unstable areas will be pursued through the project development process. Solutions could include artificial hillside drainage or permanent shoring.
- When removing mature trees (over 12-inch (30cm) dbh) in riparian areas, LCPW will replant two seedling/cuttings for every tree removed. LCPW will coordinate with ODFW and/or the Environmental Engineering Specialist on species and location of seedling/cuttings to be replanted within the same watershed. LCPW will ensure that the replanted trees will not pose a future threat to LCPW structures.

Accident Clean Up (No LCPW MMS Number)

Description: This action includes removal of accident debris, and may include response to hazardous spills. Upon knowledge of an incident, LCPW maintenance's prioritized responsibilities consist of: 1) maintenance of public safety 2) ensuring through DEQ, contractors or other responsible parties that the appropriate cleanup is properly performed as identified in local accident response procedures.

Guardrail Replacement (MMS 465, 466, 487)

Description: This activity involves repair and replacement of existing guardrail sections.

Minimization and Avoidance:

- In unstable situations, areas downslope from guardrail replacement will be protected with erosion control measures (silt fences and other appropriate devices) where appropriate to minimize additional sediment loadings into aquatic systems.

Attenuator Maintenance (No LCPW MMS Number)

Description: This activity includes service, repair, replacement, and realignment of damaged attenuators (physical systems that are strategically placed along exit ramps, bridge abutments, etc. to minimize impacts and cushion vehicles). Following impact, attenuators compact, releasing fluid (often ethylene glycol) which can flow directly to drainage systems.

Minimization and Avoidance:

- LCPW maintenance will use non-chemical systems when installing new attenuators.
- When replacing attenuators, LCPW will install those devices found to be the most environmentally sound.

- LCPW maintenance will use absorbent dams or diapers around attenuators during repair or maintenance.
- LCPW maintenance will identify and close inlets (if appropriate and can be done safely) during attenuator maintenance.

Snow and Ice Removal (MMS 476), Sanding (MMS 475) and Chemical Anti-Icing (MMS 478)

Description: Snow/ice removal consists of plowing snow and ice from bridges, roadways, and shoulders. Sanding activities put sand on road and bridge surfaces to provide for safer driving surfaces. Calcium magnesium acetate (CMA), potassium acetate and magnesium chloride are applied as anti-icers, to prevent water from bonding to the pavement. Winter weather will determine rates of application for sand and anti-icers and de-icers. LCPW recycles sanding material into shoulders. LCPW crews estimate that anywhere from 10-50% of the sand applied is re-used or trapped. The majority of the sand is removed from the road by plows, up to 60 feet off the road. LCPW captures sand around bridges, and near streams where possible.

Minimization and Avoidance:

- LCPW maintenance develops winter management and operation plans that identify critical areas, level of service for roads and methods of maintaining levels of service during winter weather.

Best Management Practices include:

- Reducing the number of applications per location.
- Using CMA on bridges and roads where permitted and during freezing fog in lieu of sanding, when optimum conditions exist, where adjacent water bodies support a 110:1 dilution factor or there is a vegetative buffer between the road and water body and where there is no standing, shallow water.
- Placing barriers in site specific locations where appropriate and practical, along streams or direct drainages to route sanding/anti-icing material away from watercourses.
- Reducing plowing speed in sensitive areas.
- Stopping sidecast sweeping within 50 feet of structures over water, where structurally possible.
- Identifying and creating facilities to capture sanding material where appropriate.
- Reducing quantity of sand applied where appropriate.
- Cleaning inlets prior to first rain as feasible.
- Modifying blade angles or blower hoppers in sensitive areas.

- Educating LCPW maintenance staff on water quality and fishery resource issues.
- ODOT maintenance will be limiting the use of magnesium chloride over the next year to certain geographic areas, within two years is expected to eliminate the use completely.

(NOTE: Manufacturers and distributors are working on providing impartial documentation on the environmental impact of magnesium chloride. LCPW reserves the right to use magnesium chloride if environmental clearances by regulators and engineers are obtained.)

Emergency Maintenance (MMS 494)

Description: This action includes fixing damage to roadways, the roadside and structures (bridges) caused by storms, floods, and other activities. These actions may not be technically defined as an emergency under the ESA (Presidential declaration), however, failure to perform these activities may result in immediate threat to life, limb or structures (see Appendix G).

Minimization and Avoidance:

- LCPW will provide quick response and first inspection, and notify appropriate resource staff in a timely manner.
- In coordination with ODFW and/or Region Environmentalist, LCPW maintenance will repair any damage of fishery or water resources caused by LCPW maintenance responses to the emergency.
- LCPW maintenance will avoid additional impacts to wetlands or streams where possible.
- LCPW maintenance will provide, if possible, adequate erosion control or bank stabilization necessary to keep material from entering watercourses.
- LCPW maintenance will identify and plan for slide debris disposal sites as part of local disposal plans. Appropriate sites for long and short-term material disposal will be identified and cleared for any potential wetland or sensitive species impact and mapped.
- Remedial actions for emergencies will include bioengineering and fish friendly designs, where practicable for stability and safety.

Settlements and Slides (MMS 480, 481 & 489)

Description: This action includes repair of settlements and slides by placing fill and removing material. Settlement/slide repairs are done primarily when a road is in danger of collapse, and to forestall an emergency.

Minimization and Avoidance:

- Emergency Maintenance (MMS 494) and Erosion Repair (MMS 429, 489) Minimization/Avoidance actions will be followed. Environmental clearances may be required.

Extraordinary Maintenance (MMS 480, 481, 489)

Description: This activity includes work which is extraordinary, but not specifically identified as a separate activity. Examples include: military operations, forest and other fire response, cleaning benches and moats, ice floes, transient housing control and cleanup, slides and sumps, and broken water line repair and cleanup.

Minimization and Avoidance:

- LCPW maintenance will practice sound housekeeping activities to ensure sediment and other materials do not enter watercourses.
- LCPW will repair any damage to fish habitat caused directly by LCPW actions.

Stockpiling (NO LCPW MMS Number)

Description: Stockpiling materials for LCPW maintenance activities.

Minimization and Avoidance:

- LCPW will develop site plans for areas adjacent to or near riparian areas to identify erosion and sediment control needs, and to ensure stability of the material.
- Sites will be identified as part of the local disposal plan.

APPENDICES:

This manual references but does not attach the following appendices of the Oregon Department of Transportation Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices dated July 1999:

- A:** Guidelines for Maintaining Water Quality in Snow & Ice Operations
- B:** Oregon Dept. of Fish & Wildlife Guidelines & Criteria for Stream-Road Crossings
- C:** Oregon Guidelines for Timing of In-Water Work to Protect Fish & Wildlife Resources
- D:** Figure 1 - DSL Fill/Removal Permit Cross Section
- E:** Guidance for Maintenance Activities in Wetland Ditches
- F:** Guidelines for Bridge Washing
- G:** Guidance for Emergency Highway Repair

APPENDIX B

Lane County Illicit Discharge Code 5.747

5.710 Definitions

Illicit Discharge. Any discharge to a the Stormwater System that is not composed entirely of storm water, or as determined by EPA Storm Water Phase II Final Rule, with the following exceptions:

- Discharges from NPDES permitted industrial sources;
- Fire fighting activities;
- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground water;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensation;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Street wash water.

Illicit Discharge

5.747 **Illicit Discharge.**

For the purpose of this section, the following requirements shall apply within the Eugene/Springfield Urban Growth Boundary (UGB) and outside the cities limits.

(1) No responsible person shall allow an illicit discharge from his or her premises to flow out on or under a public way.

(2) No responsible person shall place or cause to be placed a substance which is harmful to or has a tendency to clog the County stormwater

system or permit such substance in the control of such person to enter the County stormwater system.

(3) No person shall discharge, or cause to be discharged, any substance other than stormwater, except discharges authorized by written approval of the Oregon Department of Environmental Quality (DEQ) or the Director. The Director may deny approval to discharge into the County stormwater system if the discharge poses a threat to health, safety, public welfare, or the environment, or is otherwise prohibited by law. The Director may withdraw approval to discharge if the Director determines that a discharge poses a threat to health, safety, public welfare, or the environment, or is otherwise prohibited by law. Any person lawfully discharging pursuant to a National Pollutant Discharge Elimination System permit as of March 10, 2004 shall be deemed to have received written approval from the Director. Such approval may be withdrawn if the Director determines that the discharge poses a threat to health, safety, public welfare, or the environment, or is otherwise prohibited by law.

(4) Every establishment or place where the substances prohibited in subsection (2) above is or may be produced is hereby required to install such necessary catch basin traps or other devices for the purpose of preventing such substance from entering the County stormwater system. Where the Director reasonably believes that any such substance may be produced, the Director may require any responsible person to furnish to the County, plans prepared by a registered engineer showing the proposed method of elimination. Such device shall be approved only if tests and subsequent engineering data establish that a desirable standard of removal is produced.

(5) No responsible person shall allow stormwater to flow out on or under a public way in a manner that creates a hazard for those lawfully using the public way or that creates a hazard to improvements within the public way.

(6) A failure to comply with this section shall be cause for a responsible person to be subject to enforcement procedures set forth in this chapter. The imposition of a penalty does not relieve a responsible person of the duty to abate the nuisance.

ATTACHMENTS

I. Permit Waiver

II. Map – Required Urbanized Area

III. City of Eugene IGA – NPDES Phase II requirements

IV. City of Springfield IGA – NPDES Phase II requirements

V. City of Eugene - Transfer of Building and Land use responsibilities within UGB

VI. City of Springfield - Transfer of Building and Land use responsibilities within the UGB



MAP required-ua.jpg



**Intergovernmental Agreement
for
NPDES Phase II Services
City of Eugene**

THIS AGREEMENT is entered into by and between **LANE COUNTY**, a political subdivision of the State of Oregon, hereinafter referred to as **COUNTY**, and the **CITY OF EUGENE**, a municipal corporation of the State of Oregon, hereinafter referred to as **CITY**.

RECITALS

WHEREAS, in accordance with Lane Manual 21.124 and by the authority granted in ORS 190.010, the Eugene City Charter and the Lane County Home Rule Charter, units of local government may enter into agreements for the performance of any and all functions and activities that a party to the agreement, its officers or agents, have authority to perform; and

WHEREAS, **COUNTY** is subject to the National Pollutant Discharge Elimination System (NPDES) Phase II permit regulations for Municipal Storm Sewer Systems (MS4); and

WHEREAS, all regulated small MS4 communities are required to establish a stormwater program that addresses the six minimum measures covered under the Phase II permit. **COUNTY** is in the process of creating and implementing a stormwater management program; and

WHEREAS, **CITY** has implemented a comprehensive Stormwater Management Program (SWMP) under Phase I of the NPDES program. **CITY**'s Phase I permit has existing Best Management Practices (BMP's) that cover some aspects of the six Phase II measures required of **COUNTY**; and

WHEREAS, per Board Order No. 03-3-12-4, the Board of Commissioners authorized an intergovernmental agreement with **CITY** where **COUNTY** could adopt portions of the **CITY** SWMP as it pertains to the six minimum Phase II measure requirements and implement them into the **COUNTY** SWMP; and

WHEREAS, upon terms mutually agreeable to both parties, the responsibilities of each are outlined as follows:

AGREEMENTS

COUNTY SHALL:

Adopt CITY regulations, or similar regulations, regarding **Enforcement for Improper Discharges (Eugene BMP M2)** out to the City of Eugene Urban Growth Boundary. COUNTY will notify residents of the adopted regulations and implement and enforce the regulations as they apply to areas outside City limits.

Partner with CITY for consultant work regarding **Develop Comprehensive Basin Plans (Eugene BMP E1)** for the North Eugene/Santa Clara area. COUNTY will provide staff support in completing the Basin Plan.

Adopt CITY regulations regarding **Erosion Prevention and Construction Site Management Program (Eugene BMP E2)** and related City of Eugene Administrative Rules and Fee schedule, out to the City of Eugene Urban Growth Boundary. COUNTY will notify residents of adopted regulations. COUNTY hereby transfers authority to administer the Erosion Prevention Regulations within the urbanizable portion of the Eugene Urban Growth Boundary Area and to set appropriate fees.

Partner with CITY to provide educational brochures to COUNTY residents out to the City of Eugene Urban Growth Boundary, in regards to **Stormwater Education (Eugene BMP A2)**. COUNTY will provide limited input in brochure creations.

Partner with CITY on **Educational Volunteer Activities and Natural Resource Protection (Eugene BMP M1)**. The COUNTY will seek opportunities to partner with CITY on voluntary projects out to the Eugene Urban Growth Boundary.

Provide necessary documentation to CITY required for annual report writing of CITY's Phase I permit.

CITY SHALL:

At the request of COUNTY, assist in administration support of regulations for **Enforcement for Improper Discharges (Eugene BMP M2)**.

At the request of COUNTY, assist COUNTY in sampling and testing in regards to **Systematic Field Investigation For Improper Discharges (Eugene BMP M9)** if necessary.

Partner with COUNTY on finalization and implementation of **Develop Comprehensive Basin Plans (Eugene BMP E1)** for the North Eugene/Santa Clara area.

Administer and enforce COUNTY adopted regulations as they pertain to **Erosion Prevention and Construction Site Management Program (Eugene BMP E2)**, outside CITY's limits but inside the City of Eugene Urban Growth Boundary. CITY shall establish and collect all fees for erosion control regulations, permits, processing, appeals, enforcement, fines and penalties.

Partner with COUNTY in regards to **Stormwater Education (Eugene BMP A2)**. CITY will solicit input from County on brochure mailings.

Provide necessary documentation to COUNTY required for annual report writing of COUNTY's Phase II permit.

BOTH PARTIES AGREE THAT:

1. The term of this Agreement shall commence upon execution and terminate on February 28, 2008. The amount of compensation under this agreement shall be as follows:

1A. COUNTY agrees to pay 42.9% (this value is based on 42.9% of land area in the Basin Plan) of all costs associated with completion of the River Road/Santa Clara Basin Plan upon receipt of monthly billings from the City. Total COUNTY paid compensation for the basin plan shall not exceed \$75,000.

1B. CITY will bill COUNTY, and COUNTY will pay CITY 13.2% of the actual costs for production, administration and distribution of educational brochures, pursuant to **BMP A2** (this percentage is based on the population within the UGB).

1C. CITY will bill COUNTY, and COUNTY will pay CITY, for actual costs related to any other administrative efforts as the parties may agree to, which could include but not limited to: Erosion control enforcement, Illicit discharge assistance, Field screening sampling and testing.

All actual cost billings will include indirect costs based on the federal Cost Allocation Plan. Both agencies will work to coordinate an invoice format to accommodate these transactions, which will include a billing schedule. Billing format and cost estimates can be subject to change or amended, as the parties may agree.

2. To the extent allowable by the Oregon Constitution and the Oregon Tort Claims Act, each of the parties hereto agrees to indemnify and save the other harmless from any claims, liability or damages fees arising out of or resulting from any error, omission or act of negligence on the part of the indemnifying party, its officers, or employees in the performance of this Agreement.

3. Dispute Resolution. The parties shall exert every effort to cooperatively resolve any disagreements they may have under this Agreement. In the event that the parties alone are unable to resolve any conflict under this Agreement, they agree to present their disagreements to a mutually selected mediator. Each party shall bear its own costs for mediation and the parties shall share equally the cost of the mediator. This procedure shall be followed to its conclusion prior to either party seeking relief from a court, except in the case of an emergency.

If the dispute remains unresolved through mediation, the parties may agree in writing to submit the dispute to arbitration, using such arbitration process as they may choose at the time and which includes the following conditions:

- a.) The location of the arbitration shall be in Eugene, Oregon;
- b) Each party shall bear its own costs (except arbitration filing costs), witness fees, and attorney fees;
- c) Arbitration filing costs and any arbitrator's fees will be divided equally between the parties; and
- d) Judgment upon award rendered by the Arbitrator may be entered in a court in Lane County, Oregon.

4. Waiver. Failure of COUNTY or CITY to enforce any provision of this Agreement shall not constitute a waiver or relinquishment by the COUNTY or CITY of the right to such performance in the future nor of the right to enforce that or any other provision of this Agreement.

5. Severability. If any provision of this Agreement is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular provision held to be invalid.

6. For purposes of day-to-day coordination under this Agreement and mailing of notice in regard to any matter hereunder, COUNTY hereby designates the Road Maintenance Manager of the Department of Public Works, 3040 Delta Highway North, Eugene, OR 97408, as its coordinator. CITY hereby designates _____, as its coordinator.

7. This Agreement may be terminated by either party upon 180 days' written notice to the other for any or no reason. Either prior to, or as part of the written notice, the entity terminating the agreement shall indicate how it desires to deal with responsibilities under the agreement. The parties shall strive to reach a mutual agreement with respect to those responsibilities.

Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous representations, understandings, or agreements, whether oral or written, relating to the subject matter hereof. All prior or contemporaneous representations, understandings or agreements, whether oral or written, that are not expressly set forth within the four corners of this Agreement are hereby deemed waived, superseded and abandoned.

CITY OF EUGENE

LANE COUNTY

By _____
Dennis M. Taylor

By _____
William A. Van Vactor

Title: City Manager

Title: County Administrator

Date _____

Date _____

Address for Notice:

Address for Notice:

Lane County Public Works
3040 Delta Highway North
Eugene, OR 97408

Attachments

Relative City of Eugene BMP's

A2 BMP Fact Sheet Stormwater Education

Responsible Department/Division:
Public Works Administration Division

Responsible Person:
Administration Division
Director

BMP Description:

Continue to expand stormwater education and information program for the public, schoolchildren, City personnel, and others about natural resources and stormwater pollution problems from both non-point and point sources. Show how people's actions can impact Eugene's water quality.

Pollutants Addressed: All

Program Description:

- Continue to improve, update and expand on educational materials such as videos, web sites, brochures, fact sheets, posters, book marks and booklets to increase awareness of pollution impacts to Eugene's water quality.
 - Continue bi-annual newsletter for Citywide distribution with information on methods for improving stormwater quality.
 - Develop public education programs to support activities outlined in the Comprehensive Stormwater Management Program.
 - Develop on-going advertising campaigns as appropriate to support projects, programs, special opportunities, and targeted pollutants.
 - Continue to develop educational materials to support volunteer activities and natural resource protection.
 - Continue promotion of SPLASH curriculum for area schools. Explore options to improve upon and expand educational outreach to teachers and students. In addition to classroom presentations and outdoor field trips, pursue other means to get students and teachers involved in hands-on learning opportunities.
 - Work collaboratively with other city departments and local agencies to pool resources and continue educational outreach to local community.
 - Prepare and staff booths at special events that reach community members such as the Lane County Home Show.
- Note: Educational BMPs outlined in this BMP will be coordinated with other BMPs when possible.

Assessment Methods:

- Track quantity of materials distributed, audiences targeted, number of people participating in events, etc. Utilize records to plan future development and distribution of educational materials.
- Conduct evaluations at workshops, presentations and seminars offered. Utilize results to plan for future activities and events and to improve upon existing presentation formats.
- Conduct community surveys at 2-year intervals. Compare results to previous surveys to measure increases in level of awareness of stormwater pollution and solutions that public may participate in.
- Research stormwater programs at other agencies for education strategies that might be applied to Eugene's program.
- Monitor phone calls, correspondence and e-mail.

E1 BMP Fact Sheet

Develop Comprehensive Basin Plans

Responsible Department/Division:
Public Works Engineering Division

Responsible Person:
Engineering Division Director

BMP Description:

Finalize draft comprehensive (flood control, water quality, natural resources) Basin Plans.

The existing Eugene Area-wide Drainage Master Plan (DMP) is to be replaced by new comprehensive Basin Plans. The new draft comprehensive Basin Plans will be used as a guide for planning, designing and evaluating storm system improvements, including retrofitting the existing system, and will incorporate flood control, water quality and stormwater-related natural resources recommendations. The new Basin Plans will be consistent with the adopted policies of the Comprehensive Stormwater Management Plan (CSWMP), the West Eugene Wetlands Plan (WEWP), and the Metro Public Facilities Plan (PFP). The Basin Plans will be dynamic so as to be responsive to the Endangered Species Act, the soon-to-be-updated Natural Resource Functional Plan (NRFP), and other considerations that arise over the permit period.

The City has developed draft Basin Plans utilizing information about the characteristics of Eugene's stormwater basins including land use type and distribution, impervious surface area data, natural resources survey information, flood control problem identification, and water quality data. The plans also considered the activities that will be conducted throughout the basins as a result of other stormwater BMPs. These plans, once finalized, will replace the City's existing Drainage Master Plan. They will convey a vision for stormwater management in each basin, incorporating water quality, natural resources and flood control problems and opportunities unique to each basin. Components of the plans will include: basin characteristics; other related stormwater BMPs; prioritized list of capital projects including but not limited to detention basins, waterway enhancements, pipe system upgrades; retrofit of existing stormwater facilities; structural water quality facilities; inspection and enforcement regulations or requirements; O & M practices; and monitoring and assessment efforts.

Pollutants Addressed: All

Recommended Implementation Activities:

Specific tasks related to implementation of new Basin Plans that need to be completed include: complete process with Stormwater Department Advisory Committee, a 14-member group providing feedback on City staff recommendations; finalize draft plans; adopt plans or portions thereof as appropriate; educate the design and development community on the use of the plans; develop appropriate assessment methods; and develop a process to regularly update the dynamic information in the basin plans. Other related implementation activities include: adoption of key waterways protection provisions; identification of potential acquisition sites for stormwater capital projects and stormwater maintenance access needs.

Assessment Methods:

- Provide final comprehensive Basin Plans to DEQ.
- Document planning and implementation activities.
- Document related public education and involvement activities.

E2 BMP Fact Sheet

Erosion Prevention and Construction Site Management Program

Responsible Department/Division:

Public Works Engineering Division

Director

Responsible Person:

Engineering Division

BMP Description:

Administer and monitor the Erosion Prevention and Construction Site Management Program. Implement new program elements which include modifications to erosion permit requirements and increased enforcement within the City limits. Continue education and outreach related to new techniques/practices. Screen projects for sensitive area status, conduct plan reviews, issue permits, conduct inspections as appropriate. Evaluate future program enhancements necessary to respond to the Endangered Species Act.

Pollutants Addressed: Sediments, organics, nutrients, oil, grease, and construction related contaminants (e.g., paint, concrete, plaster)

Program Description:

Continue to monitor and enforce erosion prevention and construction site management practices within Eugene. Key program components include:

- Emphasize erosion prevention BMPs on sites adjacent to water features, with slopes of 10% or greater, or with erodible soils.
- Issue permits and inspections for DEQ 1200C permits within the city limits for sites one acre in size or greater, or in designated sensitive areas.
- Conduct outreach and educational activities for principal players (e.g., construction equipment operators, developers, and inspectors)
- Coordinate with BMP M2 (Enforcement for Improper Discharges) and A1 (Best Management Practices for Businesses).
- Develop an erosion design manual which includes information about proper techniques for erosion prevention as well as implementation guidelines.
- Contract with local construction company for summary abatement of erosion violations.
- Continue to develop data base for tracking permits, inspections, complaint violations and educational outreach.
- Implement minimum wet weather erosion prevention BMPs.

Assessment Methods:

- Use data base to track the number of complaints received and violations cited.
- Track methods of educational outreach conducted and frequency of outreach.
- Provide quarterly updates of 1200C permits issued and inspections conducted to DEQ.
- Provide final erosion design manual to local contractors and DEQ.

M1 BMP Fact Sheet

Educational Volunteer Activities and Natural Resource Protection

Responsible Department/Division:

Public Works Maintenance Division

Responsible Person:

Maintenance Division

Director

BMP Description:

Involve volunteers of all ages and walks of life in hands-on, educational projects to protect and enhance water quality and other natural resources such as fish and wildlife habitat. Coordinate ongoing educational efforts to label storm drains using volunteers. Maintain permanent markers in identified higher traffic areas unsuitable for traditional storm drain stenciling. Provide educational material and presentations on issues of watershed health. Collaborate closely with the Natural Resources Operation Coordinator and stormwater program staff to share information and identify potential volunteer opportunities.

Pollutants Addressed: All

Program Description:

- Recruit, coordinate, support, and provide the educational focus for Stream Team volunteers involved in the following ways: group adoption of natural areas associated with the stormwater system (such as Amazon Creek, ponds and wetlands); ad hoc volunteer projects; site monitoring; storm drain stenciling.
- Provide volunteers with the necessary tools and guidance in the following areas: remove debris and invasive vegetation, plant and maintain native vegetation, collect native plant seeds and other educational water related activities; monitor portions of the stormwater system; and stencil storm drains.
- Provide support for door hanger distribution in neighborhoods being stenciled.
- Contribute articles and Stream Team information to volunteer newsletter distributed bi-annually in local newspaper.
- Provide educational materials (such as videos focused on local stormwater and wetland issues) and make presentations to interested groups upon request.

Assessment Methods:

- Solicit feedback on the program and effectiveness of outreach.
- Track the number of storm drains stenciled, and the number of volunteers and hours contributed. Track the number of schools and other youth groups who do stenciling and other projects related to water quality and natural resource improvements.
- Document the number of volunteers who participate each year with Stream Team and the number of hours contributed.
- Track the number of people who attend presentations.

M2 BMP Fact Sheet

Enforcement for Improper Discharges

Responsible Department/Division:

Public Works Maintenance Division

Responsible Person:

Maintenance Division

Director

BMP Description:

The City will attempt to effectively discourage and reduce improper discharges into the stormwater system through continued operation of the existing stormwater discharge compliance enforcement program. The primary goals of this program are to protect the quality of the receiving waters of the City's stormwater system and to ensure that discharges to the City's stormwater system are in compliance with local, state, and federal regulations to the maximum extent practicable. The City will continue to conduct periodic review of enforcement program practices and procedures and make revisions as deemed necessary.

Pollutants Addressed: All

Program Description:

Currently the City of Eugene has extensive municipal code language prohibiting the discharge of any material other than stormwater into the public stormwater system unless permitted by the state. In addition to the code language, the City has an Administrative Order which establishes mechanisms for issuing a civil penalty when a responsible party is in violation of the City code. The City may also issue fines, stop work orders, cease and desist orders, and/or initiate abatement actions when a responsible party is found in violation of the City's stormwater regulations. However, in almost all cases, the City tries to obtain voluntary compliance for the first offense of these regulations.

To help facilitate the public's ability to report improper discharges to City enforcement staff, two central phone numbers have been established and advertised — one is for violations at construction sites, the other is for all other violations. During normal working hours, the City has a number of trained staff that can be called on to investigate and, if necessary, take mitigation action when an improper discharge is reported. After normal hours, a recorded message instructs the caller to notify Police and Fire non-emergency dispatch if they wish to report improper discharges. If the situation warrants immediate attention, the Maintenance Division has an on-call supervisor available to respond 24-hours a day, seven-days a week.

The City will continue to investigate all complaints of improper discharges into the City stormwater system and take appropriate enforcement action as deemed necessary and in accordance with current enforcement policy. Program practices and policies will be continue to be reviewed and adjusted in accordance with changing regulations and/or public expectations.

Assessment Methods:

- For noted violations, the City will take appropriate enforcement actions to correct the problems and discourage repeat violations.
- To assess program effectiveness, total violations and repeat violations will be tracked over time. Program practices will be adjusted as necessary to achieve the desired results.

M9 BMP Fact Sheet
Systematic Field Investigation for Improper Discharges

Responsible Department/Division:

Public Works Maintenance Division

Responsible Person:

Maintenance Division

Director

BMP Description:

Using a watershed basin approach, the City will systematically inspect all commercial/industrial private stormwater systems that connect to the public drainage system. The purpose of this is to map private systems where no records currently exist and to assess the impacts of the private system on the public system. Where evidence is found that significant levels of pollutants are being introduced to the public system, City staff work with property owners to correct the problems causing the discharge of pollutants.

Pollutants Addressed: All

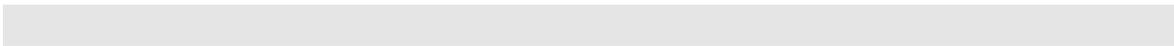
Program Description:

This BMP is a continuation and refinement of the City's current Systematic Field Investigation program. Using watershed delineations, City staff will inspect all commercial and industrial private stormwater systems. To the best of their ability, City staff will document the configuration of private systems where no records currently exist. These records will be entered into the City's Geographic Information System.

During the inspection, City staff will contact a representative of the property and provide the current tenant of the property educational information on stormwater regulations and best management practices. If a significant source of pollutants are found, inspection staff will refer the site to City code enforcement staff for follow-up. Where problems can not be corrected through voluntary cooperation, code enforcement procedures will be employed which may include notices of violation, penalties, fines, abatement action, and/or referral to state agencies.

Assessment Methods:

- Assessment will be based on the number of sites inspected, the number of problems noted by staff, and the level of compliance achieved through voluntary means. Refinements and/or adjustments to the program will be made as needed.





Intergovernmental Agreement for NPDES Phase II Services City of Springfield

THIS AGREEMENT is entered into by and between **LANE COUNTY**, a political subdivision of the State of Oregon, hereinafter referred to as **COUNTY**, and the **CITY OF SPRINGFIELD**, a municipal corporation of the State of Oregon, hereinafter referred to as **CITY**.

RECITALS

WHEREAS, in accordance with Lane Manual 21.124 and by the authority granted in ORS 190.010, the **Springfield** City Charter and the Lane County Home Rule Charter, units of local government may enter into agreements for the performance of any and all functions and activities that a party to the agreement, its officers or agents, have authority to perform; and

WHEREAS, **COUNTY** is subject to the National Pollutant Discharge Elimination System (NPDES) Phase II permit regulations for Municipal Separate Storm Sewer Systems (MS4); and

WHEREAS, all regulated small MS4 communities are required to establish a stormwater program that addresses the six minimum measures covered under the Phase II permit. **COUNTY** is in the process of creating and implementing a stormwater management program; and

WHEREAS, **CITY** has implemented a comprehensive Stormwater Management Program (SWMP) under Phase II of the NPDES program. **CITY's** Phase II permit has existing Best Management Practices (BMP's) that cover some aspects of the six Phase II measures required of **COUNTY**; and

WHEREAS, per Board Order No. 03-3-12-4, the Board of Commissioners authorized an intergovernmental agreement with **CITY** where **COUNTY** could adopt portions of the **CITY** SWMP as it pertains to the six minimum Phase II measure requirements and implement them into the **COUNTY** SWMP; and

WHEREAS, upon terms mutually agreeable to both parties, the responsibilities of each are outlined as follows:

AGREEMENTS

COUNTY SHALL:

Adopt regulations, similar to CITY regulations, regarding **Illicit Discharge Response and Enforcement (Springfield BMP ID2)** out to the City of Springfield Urban Growth Boundary. COUNTY will notify residents of the adopted regulations and implement and enforce the regulations as they apply to areas outside City limits.

Partner with CITY for consultant work regarding **Stormwater Facilities Master Plan (Springfield BMP DS3)** for the North Springfield area. COUNTY will provide staff support in completing the Basin Plan.

Adopt CITY regulations regarding **Erosion and Sediment Control Regulations (Springfield BMP CSW1)** and related City of Springfield Administrative Rules and Fee schedule, out to the City of Springfield Urban Growth Boundary. COUNTY will notify residents of adopted regulations. COUNTY hereby transfers authority to administer the Erosion and Sediment Control Regulations within the urbanizable portion of the Springfield Urban Growth Boundary Area and to set appropriate fees.

Partner with CITY to provide educational brochures to COUNTY residents out to the City of Springfield Urban Growth Boundary, in regards to **Stormwater Educational Brochures Portfolio (Springfield BMP PE4)**. COUNTY will provide limited input in brochure creations.

Partner with CITY on **Outreach Efforts with Regional Partners (Springfield BMP PE2)**. The COUNTY will seek opportunities to partner with CITY for support with selected local and regional organizations for stormwater-related educational outreach programs out to the Springfield Urban Growth Boundary.

Provide necessary documentation to CITY required for annual report writing of CITY's Phase II permit.

CITY SHALL:

At the request of COUNTY, assist in administration support of regulations for **Illicit Discharge Response and Enforcement (Springfield BMP ID2)**

At the request of COUNTY, assist COUNTY in sampling and testing in regards to **Water Quality Monitoring for Illicit Discharge (Springfield BMP ID4)** if necessary.

Partner with COUNTY on finalization and implementation of **Stormwater Facilities Master Plan (Springfield BMP DS3)** for the North Springfield area.

Administer and enforce COUNTY adopted regulations as they pertain to **Erosion and Sediment Control Regulations (Springfield BMP CSW1)**, outside CITY's limits but inside the City of Springfield Urban Growth Boundary. CITY shall establish and collect all fees for erosion control regulations, permits, processing, appeals, enforcement, fines and penalties.

Partner with COUNTY in regards to **Stormwater Educational Brochures Portfolio (Springfield BMP PE4)**. CITY will solicit input from County on educational materials.

Provide necessary documentation to COUNTY required for annual report writing of COUNTY's Phase II permit.

BOTH PARTIES AGREE THAT:

1. The term of this Agreement shall commence upon execution and terminate on February 28, 2008. The amount of compensation under this agreement shall be as follows:

1A. COUNTY agrees to pay 13.5% (this value is based on 13.5% of land area in the Facility Master Plan) of all costs associated with completion of the Stormwater Facility Master Plan upon receipt of monthly billings from the City. Total COUNTY paid compensation for the master plan shall not exceed \$_____.

1B. CITY will bill COUNTY, and COUNTY will pay CITY 10.9% of the actual costs for production, administration and distribution of educational brochures, pursuant to **BMP PE2** (this percentage is based on the population within the UGB).

1C. CITY will bill COUNTY, and COUNTY will pay CITY, for actual costs related to any other administrative efforts as the parties may agree to, which could include but not limited to: Erosion control enforcement, Illicit discharge assistance, Water quality monitoring.

All actual cost billings will include indirect costs based on the federal Cost Allocation Plan. Both agencies will work to coordinate an invoice format to accommodate these transactions, which will include a billing schedule. Billing format and cost estimates can be subject to change or amended, as the parties may agree.

2. To the extent allowable by the Oregon Constitution and the Oregon Tort Claims Act, each of the parties hereto agrees to indemnify and save the other harmless from any claims, liability or damages fees arising out of or resulting from any error, omission or act of negligence on the part of the indemnifying party, its officers, or employees in the performance of this Agreement.

3. Dispute Resolution. The parties shall exert every effort to cooperatively resolve any disagreements they may have under this Agreement. In the event that the parties alone are unable to resolve any conflict under this Agreement, they agree to present their disagreements to a mutually selected mediator. Each party shall bear its own costs for mediation and the parties shall share equally the cost of the mediator. This procedure shall be followed to its conclusion prior to either party seeking relief from a court, except in the case of an emergency.

If the dispute remains unresolved through mediation, the parties may agree in writing to submit the dispute to arbitration, using such arbitration process as they may choose at the time and which includes the following conditions:

- a.) The location of the arbitration shall be in Springfield, Oregon;
- b) Each party shall bear its own costs (except arbitration filing costs), witness fees, and attorney fees;
- c) Arbitration filing costs and any arbitrator's fees will be divided equally between the parties; and
- d) Judgment upon award rendered by the Arbitrator may be entered in a court in Lane County, Oregon.

4. Amendment. This Agreement may be modified in writing by mutual consent of both parties. The parties recognize an obligation on the part of COUNTY to extend the application of this Agreement to lands included in the future within the Springfield Urban Growth Boundary Area and to consider adopting any future changes in regulations made by CITY for application to the Springfield Urban Growth Boundary Area.

5. Waiver. Failure of COUNTY or CITY to enforce any provision of this Agreement shall not constitute a waiver or relinquishment by the COUNTY or CITY of the right to such performance in the future nor of the right to enforce that or any other provision of this Agreement.

6. Severability. If any provision of this Agreement is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular provision held to be invalid.

7. For purposes of day-to-day coordination under this Agreement and mailing of notice in regard to any matter hereunder, COUNTY hereby designates the Road Maintenance Manager of the Department of Public Works, 3040 Delta Highway North, Eugene, OR 97408, as its coordinator. CITY hereby designates _____, as its coordinator.

8. This Agreement may be terminated by either party upon 180 days' written notice to the other for any or no reason. Either prior to, or as part of the written notice, the entity terminating the agreement shall indicate how it desires to deal with responsibilities under the agreement. The parties shall strive to reach a mutual agreement with respect to those responsibilities.

* * * * *

Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous representations, understandings, or agreements, whether oral or written, relating to the subject matter hereof. All prior or contemporaneous representations, understandings or agreements, whether oral or written, that are not expressly set forth within the four corners of this Agreement are hereby deemed waived, superseded and abandoned.

CITY OF Springfield

LANE COUNTY

By _____

By _____

William A. Van Vactor

Title: City Manager

Title: County Administrator

Date _____

Date _____

Address for Notice:

Address for Notice:

Lane County Public Works
3040 Delta Highway North
Eugene, OR 97408

Attachments

Relative City of Springfield BMP's



EugUGB.pdf



SpfdUGB.pdf