

INDUSTRIAL STORMWATER GUIDANCE

NPDES 1200-Z AND 1200-COLS
GENERAL PERMITS

December 2007



State of Oregon
Department of
Environmental
Quality



TABLE OF CONTENTS

1.0 APPLYING FOR INDUSTRIAL STORMWATER PERMITS	3
2.0 DEVELOPING AND IMPLEMENTING A STORMWATER POLLUTION CONTROL PLAN	5
3.0 STORMWATER POLLUTION CONTROL PLAN COVER PAGE AND SITE DESCRIPTION REQUIREMENTS	10
4.0 STORMWATER POLLUTION CONTROL PLAN SITE CONTROLS AND RECORD KEEPING REQUIREMENTS	16
APPENDICES	20
Appendix I: Factsheet on New Permit Requirements (1200-Z and 1200-COLS)	
Appendix II: Application Form for New Facilities	
Appendix III: SWPCP Checklist	
Appendix IV: Example Site Maps and Web Sites for Geographic Maps for Various Locations in Oregon	
Appendix V: Representative Outfalls: Multiple Discharge Outfalls with Substantial Similar Effluents	
Appendix VI: Discharge Monitoring Reports (1200-Z and 1200-COLS)	
Appendix VII: Example of Geometric Mean Calculation	
Appendix VIII: Benchmark Exceedances due to Natural/Background Conditions	
Appendix IX: Action Plan Form	
Appendix X: Termination Form	
Appendix XI: DEQ Offices and Agents	
Appendix XII: Glossary and Definitions	

1.0 Applying for Industrial Stormwater Permits

What is the purpose of this guidance document?

The purpose of this guidance document is to assist permit registrants in implementing the requirements in Oregon Department of Environmental Quality (DEQ) Industrial Stormwater General Permits Nos. 1200-COLS and 1200-Z. This guidance document is organized in the following manner:

- Section 1.0 provides information on how to apply for these permits.
- Sections 2.0 through 4.0 provide information on how to develop Stormwater Pollution Control Plans (SWPCP).
- The appendices provide information that will assist in developing the SWPCP and implementing the permit requirements.

New Permit Requirements

In August 2006, the Environmental Quality Commission adopted revisions to these industrial stormwater permits. Here is a summary of the new permit requirements:

- All permit applications and SWPCPs will be subject to a 14 day public notice and comment period.
- SWPCP revisions will be in the form of an Action Plan, which is an addendum to the SWPCP.
- Stormwater discharge may not cause a violation of instream water quality standards.
- Stormwater monitoring increased from two to four times per year.
- Sampling waiver is limited to one permit term.
- If at the end of the 4th year of the permit registrant's coverage under the permit the geometric mean of the last 4 samples taken exceeds benchmark(s), DEQ will revoke coverage under the general permit and require an individual permit.

Please see the factsheet in Appendix I that compares the new permit conditions to the old permit conditions. Copies of the new permits can be found on DEQ's website at:

<http://www.deq.state.or.us/wq/stormwater/industrial.htm>.

Permit Effective Dates

The new requirements for 1200-COLS permit became effective on September 1, 2007.

The new requirements for the 1200-Z permit became effective on July 1, 2007. Facilities that are renewing their coverage under this permit should continue to operate under the terms of the existing permit that expired on June 30, 2007, until they receive written notification that their renewal application has been granted or denied. The new permit conditions will become effective once facilities have received this notification.

Who Needs to Apply for the Permit

Industrial facilities that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters. Please refer to Table 1 of 1200-Z Permit and Tables 1 and 2 of 1200-COLS Permit for a list of industrial facilities who must obtain coverage under the permits. Please note that facilities may apply for an exemption from the permit if there is no exposure of industrial activities or materials to stormwater (see pg. 6 of the permits). These facilities must submit a signed No Exposure Certification for approval.

Application Steps

Please submit the permit application form, the SWPCP and checklist, Land Use Compatibility Statement (LUCS) and fees to DEQ or its Agent. Please see Appendix II for the application form and Appendix III for the SWPCP checklist.

DEQ has entered into agreements with several local jurisdictions known as "Agents" to process the permit applications and administer the permits on DEQ's behalf. If your project is located in one of these areas, please submit your application materials to the Agent, including two copies of the SWPCP. Please see Appendix XI for contact information and addresses for our Agents and DEQ regional offices.

New facilities must submit application materials at least 60 calendar days before beginning operations. Existing facilities must submit application materials to DEQ or its Agent upon learning of the need to obtain coverage under the permit. Existing facilities that intend to change industrial processes must re-apply for the permit and submit a new application and updated SWPCP to DEQ or its Agent at least 60 calendar days before the planned change.

The form, LUCS and fee information may also be found at DEQ's website located at: <http://www.deq.state.or.us/wq/wqpermit/stminfo.htm>.

2.0 Developing and Implementing a Stormwater Pollution Control Plan

Schedule A
Reference

What is a Stormwater Pollution Control Plan (SWPCP)?

The SWPCP is a stormwater management plan that contains detailed information regarding the specific industrial site, the potential impacts that the site may pose to water quality and best management practices (BMPs) that will be implemented on site to address stormwater pollution.

The SWPCP requirements are located in Schedule A of the permits and a reference to these specific requirements is provided on the right hand side of the page.

What information should be included in the SWPCP?

The information requested in the SWPCP is grouped into two basic areas:

- A description of the permitted site and the ongoing industrial activities, and
- A discussion of the site controls that will be implemented on the site to prevent stormwater pollution.

It is important when preparing your SWPCP that you provide detailed information about the following:

- Industrial activities and industrial processes,
- Products manufactured and services provided on the site,
- Description of the significant materials such as raw and finished materials, hazardous substances, fuels and waste oils, and
- Identification of the potential pollutants that may be present in stormwater runoff due to these industrial activities on the site such as sediments, oil and grease, and metals, including copper, lead or zinc.

This guidance document outlines and suggests ways to prepare the SWPCP and to present the required information. Also, please use the SWPCP checklist in Appendix III to assist you in developing your plan and ensuring it contains all the required elements of Schedule A of the permit. *The checklist must be filled out and submitted with your application materials.*

Who should prepare and implement the SWPCP?

The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility. A person qualified in stormwater management may be the plant manager, environmental manager, facility engineer, or any other person with knowledge of the site and of stormwater management practices.

1.b and c

The facility's Pollution Prevention Team staff may be identified by name or title. The Pollution Prevention Team is usually responsible for assisting the facility/plant manager in

developing, implementing, maintaining, and making changes to the SWPCP.

Who should sign the SWPCP?

The SWPCP must be signed in accordance with 40 CFR (Code of Federal Regulations) §122.22. Changes to the plan must also be signed in this manner. By signing the SWPCP, the authorized representative is attesting that the information contained in the plan is true and accurate. The application and SWPCP is to be signed and certified as follows regardless of the number of employees:

1.d

(A) Signature:

(1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(B) Certification: Any person signing these documents must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

When does the SWPCP need to be implemented?

The SWPCP must be implemented in accordance with Schedule A.3 and Schedule C in the permits. If new BMPs are being proposed for the site, include in the SWPCP a schedule for implementing them.

1.e

Existing facilities have 90 days from date of receiving coverage under the new permits to implement the SWPCP. Newly built facilities must begin implementation of the SWPCP prior to starting operations and have 90 days from date of receiving coverage under the new permits to fully implement the SWPCP. If you are installing site controls that require capital improvements, you have 2 years from date of receiving coverage under the new permits to complete that work. Please provide a schedule for completing these capital improvements in the SWPCP.

The following capital expenditures qualify as capital improvements:

- Treatment best management practices including but not limited to settling basins, oil/water separation equipment, catch basins, grassy swales, and detention or retention basins.
- Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
- Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
- Roofs and appropriate covers for manufacturing areas.

Where does the SWPCP need to be kept?

The SWPCP must be kept current and updated as necessary to reflect any changes in facility operation. A copy of the SWPCP must be kept at the facility and made available upon request to DEQ or other government agencies responsible for stormwater management in your area.

1. f and g

What if the SWPCP needs to be revised?

As conditions change at the site, you will revise practices and procedures such as site design, monitoring locations or BMPs outlined in your SWPCP. These revisions to your SWPCP must be documented in an Action Plan.

2 and 9

Some examples of when an Action Plan is required are:

- If you discover a new hazardous substance on the property or a land disturbance causes a re-routing of stormwater through a different outfall.
- DEQ or its Agent require you to revise your SWPCP

because it does not meet the requirements in Schedule A of the permits.

- Exceed stormwater discharge benchmarks (see discussion below).

Please follow *one* of the options below for submitting the Action Plan:

- Use the Action Plan form in Appendix IX to describes the changes to your SWPCP and send it by mail or email to DEQ or its Agent.
- Submit the revised pages of the SWPCP (those sections of the SWPCP that have changed to reflect new conditions and the responses required to address these new conditions). The revised pages or sections may be printed and inserted into the SWPCP.
- Describe the changes to your SWPCP in writing and submit them by mail or email to DEQ or its Agent. Follow a similar format that is outlined in the Action Plan form in Appendix IX and address all applicable information.

Submit the Action Plan to the Department or its Agent within 30 days of making revisions to the SWPCP or receiving stormwater samples that indicate a benchmark exceedance. If the Department or its Agent do not comment on the Action Plan within 10 days, the changes outlined in the Action Plan are deemed approved. Please note that if it is necessary to implement changes to practices or procedures outlined in the Action Plan immediately, you do not need wait until you receive approval from DEQ or its Agent. Once the Action Plan is approved, it becomes part of the SWPCP.

What if Benchmarks are Exceeded? Do I submit an Action Plan?

You are required to review sampling results and monthly visual monitoring information to determine if you are meeting the stormwater discharge benchmarks in the permits. If you exceed a benchmark, you must submit an Action Plan to the Department or its Agent for approval.

9

After obtaining the monitoring information, review your SWPCP to determine if BMPs are working properly and identify if new BMPs need to be implemented or if there are alternative ways to implement existing BMPs to improve the quality of stormwater discharges. In an Action Plan describe the results of the SWPCP review, identify any corrective actions that you will take and a schedule for implementing any new BMPs or an alternative ways to implement existing BMPs.

If you believe that the benchmark exceedance is due to background or natural conditions not related to industrial activities on the site, you will need to provide a sampling plan or methodology for supporting that determination in the Action Plan. Please see Guidance on Natural or Background Conditions in Appendix VIII to assist you with this evaluation.

Submit the Action Plan within 30 days of receiving the sampling results to the Department or Agent. Please use one of the options described above for submitting the Action Plan. If the Department or its Agent do not comment on the Action Plan within 10 days, the changes outlined in the Action Plan are deemed approved. You have 60 days to implement the corrective actions you have identified in the Action Plan. If you need additional time to implement these actions please contact DEQ or its Agent to request an extension.

If DEQ or its Agent affirm that the benchmark(s) exceedance is due to background or natural conditions, you are not required to submit an Action Plan in the future if you exceed the same benchmark(s).

3.0 Stormwater Pollution Control Plan Cover Page and Site Description Requirements

Schedule A
Reference
3.a

What should be included in the cover page of the SWPCP?

Please list the following information on the title page is:

- The site name or common name. Please provide the legal name as listed with the Oregon Department of Commerce Corporation Division. To find the legal name, please use the Secretary of State’s Business Registry database for corporations, located at: http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login. Please note that the corporation needs to be listed as an active corporation on the database, and cannot be an assumed business name (ABN). If the company legal name is an individual, that person does not need to be listed on the database but must be able to provide legal documentation of their ability to operate a business in the state of Oregon under this name.
- The name of the site operator or owner.
- If you are currently operating under a permit, please provide the DEQ file number listed on the permit issued to you.
- Contact person’s name and telephone number and email address if available.
- Physical address of the facility, including county, and mailing address, if different that physical address.
- Date of the SWPCP and subsequent revision dates to ensure that DEQ or its Agent has the more recent copy.

What should be included in the site description section?

In this section provide the following:

- Description of the materials produced and the general operations at the site.
- Site layout drawing, including a description of the stormwater drainage system

What should be included in the general description of the industrial activities performed on the site?

Please prepare an introductory paragraph that includes a brief history of the operations at the industrial facility, the current activities, and any future plans for expansion. For example, the following questions should be answered. What does the facility manufacture or what services are provided? What types of raw materials or products does the facility receive? What are some of the processes used to manufacture the products and to ship them?

Next provide a description of significant materials exposed to stormwater runoff. Significant materials include, but are not limited to, the following: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental

Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as mill slag and sludge that have the potential to be released with stormwater discharges.

Finally, you must list the significant materials that are treated, stored, or discarded on the site. The name of the material given should reflect either the common name (e.g., gasoline, diesel), or the industrial name along with the usage of the material on the site. In addition, the quantity of the material stored on the site should be given in units appropriate for the particular material (cubic yards, cubic feet, gallons, etc.) as well as the potential impact to stormwater runoff. If the facility is involved in clean-up activities for past contamination of the site, include this information in this section of the plan.

It is helpful to provide in this section a description of building construction materials, i.e., corrugated galvanized siding, concrete tilt-up, etc., the roofing materials, i.e., composition, built-up, galvanized corrugated sheet metal, etc., and the paving material, i.e., gravel, asphalt, concrete, etc. This information can be used in future communications to identify potential sources of pollution that may be in stormwater runoff

Also, it is helpful to provide a general discussion of topography and the landscape of the site, which will assist DEQ or the Agent when they review the site map.

What should the general location map look like?

The purpose of the general location map is to show the permitted site's boundaries and its proximity to major highways and streets, bodies of water, and prominent landmarks or features. This information is required on the general location map for both the industrial site and the area surrounding it. For example, copies of city or county tax maps are acceptable general location maps, if accompanied by a street map showing the location of the facility. The property boundary must be highlighted and must show the required features both on the site and around it for about an one-mile radius (the distance surrounding the site will vary as needed to show these features). A street map pin-pointing the location of the facility on a roadway network is also helpful. Please see Appendix IV for examples of general location maps.

3.b.ii

What should the site-specific map look like?

The site-specific map is required to show detailed information about the ongoing activities and stormwater drainage both on and off the industrial site. This map illustrates the complete drainage for the overall site, and includes the location of the permitted facility, property boundaries, buildings, operations or process areas, drainage patterns, stormwater control structures, (i.e. catch basins including type, oil/water

3.b.iii

separators, etc.) and surface waterbodies. All of these elements need to be clearly identified on the site-specific map.

Please make the maps large enough so that the information provided on them can be easily read by DEQ or its Agents. Several site maps or drawings may be used to provide all the required information rather than providing too much information on one site drawing or map that will make reading and deciphering the drawing too difficult.

To prepare the site specific map, a suitable base map showing the topography or the physical features of the land is needed. The physical features include the elevations and slope of the land and surface waterbodies. With this information, the flow of stormwater runoff both on and off the site can be identified since the runoff will flow from higher to lower elevations.

There are maps available that can serve as the basis for the site-specific map. The “as-built” site or grading map included in the construction plans for the facility, if available, can serve as the base map if the elevations and grading of the site have not changed appreciably since the facility was constructed.

It is also helpful to provide an aerial map of your site that shows the topography and lay-out of your site.

Please see the Appendix IV for examples of site specific maps and references of useful websites for creating geographic maps for various locations throughout the state.

Specific Components of the Site Map

The site map should include all the elements of described below including the stormwater drainage patterns; paved areas; and location of wells, seepage pits, wetlands and other surface waterbodies. 3.b.iii

Drainage patterns

The drainage patterns of the surface water flow on the site are described here (i.e. does rain water/stormwater-flow over land as sheet flow, or flow in a series of drainage ditches). 3.b.iii (1)

Drainage and discharge structures

Discharge structures or outfalls for each drainage basin or sub-basin are described here. Such structures refer to definite points where stormwater runoff is collected and leaves the site (i.e. all the piping, outfalls, etc. on site). Examples of discharge structures or outfalls include pipes, ditches, channels, tunnels, or conduits. For clarity, the outfalls should be numbered on the map. 3.b.iii (2)

In addition to appearing on the map, a description of the outfalls should appear in the document text.

The following table is an example:

Outfall ID	Drainage Basin	Outfall Description
SW # 1	1	NE corner of property
SW #2	2	SE corner of property

Outline of drainage area for each outfall	<p>Once the elevations and slope of the land are established for the permitted site, the next step is to add important drainage information to the site-specific map. Drainage basins should be drawn with a bold line onto the map to indicate stormwater flow patterns both on and off the permitted site. Drainage basins are specific areas within the watershed in which stormwater runoff flows to a common discharge or outfall point based upon the slope of the land. If the drainage basins cover large areas of land, drainage sub-basins may need to be drawn on the site-specific map to show the area where runoff collects on the site in greater detail. An approximation of the surface area covered by the drainage basin or sub-basins should be included on the map. Color coded maps are good for illustrating separate drainage areas. There should be a separate drainage basin for each outfall.</p>	3.b.iii (3)
Paved areas and buildings	<p>Buildings, structures, and pavement that direct stormwater runoff to an outfall should be described here. These areas are considered to be impervious surfaces that will not allow the runoff to infiltrate or be absorbed by the ground surface. An approximation of the surface area covered by the impervious portions of the site should be noted on the map.</p> <p>A description of the external building construction materials would also be useful information. This information on building construction materials will assist DEQ in determining the type of pollutant runoff resulting from rainfall on these materials and the best method for containing or treating this runoff.</p>	3.b.iii (4)
Significant materials	<p>Please identify the locations of areas used for outdoor manufacturing, treatment, storage or disposal of significant materials. Please ensure that the significant materials you have identified above in the section called “general description of industrial activities” are referenced here.</p>	3.b.iii (5)
Structural control measures	<p>Stormwater runoff can be controlled physically by installing certain control measures. Identify on the drawings the location of ponds or swales, diversion ditches that are used as outlet control, or isolation check valves which can close off catch basins as examples of inlet controls.</p>	3.b.iii (6)

		Schedule A Reference 3.b.iii (7)
Material loading and access	Describe any loading areas, including garages and roadway access points, drum storage bins, or drum loading areas.	
Hazardous waste storage/ disposal	Describe any significant hazardous loading or storage areas outlined earlier in the general description section of the plan.	3.b.iii (8)
Wells	Sometimes stormwater infiltrates into the ground through wells, including waste injection wells, seepage pits, drywells, etc. Please identify where and how this occurs on a map.	3.b.iii (9)
Surface waters	Surface water bodies such as springs, wetlands or lakes on site or adjacent to the site that could be affected by a spill into the storm drain system should be identified.	3.b.iii (10)
How to estimate the proportion of impervious area	<p>Once the site map is complete, determine the amount of impervious and pervious area for each drainage basin identified on the site map in terms of the percentage of the total basin area or the total square footage of the impervious area in the basin. This calculation should be done for each area that drains to a different outfall. The following formula can be used to determine the percentage:</p> $\% \text{ Impervious Area} = \frac{\text{Impervious Area}}{(\text{Impervious Area} + \text{Pervious Area})} \times 100$ <p>Remember to consider roof area as an impervious area.</p> <p>Provide this information in the site description section of the SWPCP.</p>	3.b.iv.
Potential pollutants in stormwater runoff	<p>Once the site map is complete, evaluate the industrial activities occurring in each drainage basin listed in the map and identify in the SWPCP the potential pollutants that may be present in stormwater runoff from these areas. Identify and list any potential pollutants on the site that could reach and contaminate stormwater discharge. This includes all solid and liquid materials that have the potential to spill and impact stormwater and thus flow off-site. Oils, greases, fuels, or hazardous wastes that are stored on-site, even if they are stored in a covered area, could be considered potential pollutants.</p> <p>Examples of potential pollutants that should be identified in the plan are:</p> <ul style="list-style-type: none"> • Sediment that can leave the site during a rain event. • Metals such as copper, lead and zinc, and oil and grease may be in stormwater runoff from manufacturing facilities due to high volumes of truck traffic. 	3.b.v

**Receiving
body of
water**

You are required to describe the discharge process for stormwater leaving the permitted site. If the stormwater discharges to a pipe or ditch system, then the name of the street adjacent to the drainage ditch or municipal storm sewer should be given. In addition, the name of the receiving body of water that ultimately receives the discharge must be included.

**Stormwater
monitoring
discharge
points or
outfalls**

You must identify, list, and describe in the SWPCP all discharge point(s) or outfalls on the site where stormwater monitoring will take place (Sampling Points). For clarity, please number the outfalls on the site map and provide a general description of their location.

3.b.vii

If the site contains multiple outfalls but monitoring occurs at only a few representative outfalls, you must provide justification for reducing the number of sampling points. For example, a single monitoring point can be used if all of the outfalls on the site have substantially similar effluents (i.e. provide drainage for similar activities) and the same BMPs are used on all the outfalls. It is expected that the discharges from these outfalls will be similar in composition. The data or analysis supporting that the outfalls are representative must be included in the SWPCP. Also, it is also important to outline on the site map the drainage areas for each outfall and the topography of the site so that DEQ or its Agents can verify the drainage areas and the direction of stormwater runoff.

Please see Appendix V for guidance on Representative Samples.

4.0 Stormwater Pollution Control Plan Site Controls and Record Keeping Requirements

		Schedule A Reference
Site controls	<p>In the SWPCP, please identify the following site controls:</p> <ul style="list-style-type: none"> • Stormwater best management practices (BMPs) • Spill prevention and response procedures • Preventive maintenance • Employee education program 	3.c
Stormwater BMPs	<p>Please prepare a written description of all BMPs that are appropriate for your site. You are required to implement and maintain the BMPs identified in your SWPCP and develop new controls as necessary. The purpose of these BMPs is to minimize contact between potential pollutants identified in your plan and stormwater runoff. Guidance on what practices should be employed to improve the quality of stormwater may be found in the DEQ's Management Practices for Stormwater Discharges Associated with Industrial Activities, revised January 2001.</p> <p>If there are BMPs identified in your SWPCP that have not been implemented yet, please provide an implementation schedule in the plan. This schedule must be accordance with Schedule C of the permits as discussed in Introduction Section of this Guidance document.</p> <p><i>The SWPCP must have the minimum components specified below along with a description of each component.</i></p>	3.c.i
Containment	<p>All hazardous substances must be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then hazardous materials must be stored in areas that do not drain to the storm sewer system. An explanation of how retained water within the containment berm is disposed should also be included.</p> <p>If you have question as to whether a material is hazardous, please refer the table of hazardous substances and corresponding reportable quantities found in 40 CFR 302 Designation, Reportable Quantities and Notification.</p>	3.c.i (1)
Oil and Grease	<p>Oil/water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of stormwater discharges.</p>	3.c.i (2)

		Schedule A Reference
Waste chemicals and material disposal	Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to stormwater. All waste contained in bins or dumpsters where there is a potential for infiltration of stormwater through the waste must be covered. Acceptable covers include, but are not limited to, storing of bins or dumpsters under roofed areas and use of permanent secure lids.	3.c.i (3)
Erosion and sediment control	Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales must be employed to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, you must contact the local municipality to determine if there are other applicable requirements.	3.c.i (4)
Debris control	Screens, booms, sealing ponds, or other methods must be employed to eliminate or minimize debris in stormwater discharges.	3.c.i (5)
Stormwater diversion	Stormwater must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated stormwater to potential pollutants.	3.c.i (6)
Covering activities	Fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of stormwater to potential pollutants. Acceptable covers are permanent structures such as roofs or buildings and permanent lids. Secondary containment is often required for materials stored outside of secure buildings.	3.c.i (7)
Housekeeping	Areas that may contribute pollutants to stormwater must be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of stormwater to pollutants.	3.c.i (8)
Spill Prevention and Response Procedure (SPRP)	You are required to develop Spill Prevention and Response Procedures (SPRP) for the permitted facility. The SPRP should identify areas where potential spills of significant materials may contact and potentially contaminate stormwater discharges. Outfalls where the contaminated stormwater would leave the site must be identified. This information should be readily obtainable from reading the site-specific map.	3.c.ii
	The SPRP should establish the operating methods to prevent the spill of materials used in industrial activities.	

The SPRP should also include spill clean-up procedures, including notification procedures to the appropriate state and local government agencies. Oregon Administrative Rules, Chapter 340, Division 108, Oil and Hazardous Material Spills and Releases, details reportable quantities and notification procedures required by state and federal law.

A list of the required clean-up equipment needed for the spill must be included in the SPRP. The equipment must be on the site or readily available for use by trained personnel. The location of these materials must be identified in the SPRP or on the site map. It may also be useful to identify in the SPRP where material that is cleaned up is stored and disposed of.

You must designate a responsible person to implement the SPRP. Employees must be knowledgeable of the spill response plan. It is useful to include in the SPRP information on employee training on spill prevention and clean-up and how often it occurs. Also, it is useful to identify in the SPRP the employees that will be involved if a spill occurs. For example:

- Who does the person discovering the spill or leak report the information to?
- How is this person to be contacted?
- Who performs the containment/clean up?
- Who contacts them? On site team?

You are also required to maintain records of any spill or leaks of significant materials that impacted or had the potential to impact stormwater or surface waters, including the clean-up measures. It may be useful to include in the SPRP where the incident reports are kept and who the incident was report to, i.e., company people, agencies, etc.

Much of this information may be found in spill prevention plans required by other regulations such as the Spill Prevention Control and Countermeasure (SPCC) plan required by 40 CFR § 112 or the Contingency Plan required by Subpart D of 40 CFR §264 or 265. You may substitute spill prevention plans developed under other regulations provided that stormwater management concerns are addressed. If the stormwater management concerns are not addressed in the SPCC, you must describe in the SPRP how stormwater will be managed on site.

**Preventative
maintenance**

A Preventative Maintenance Program is required to insure the effective operation of materials management facilities, control facilities, and treatment facilities. At a minimum the preventative maintenance program must be documented in the SWPCP and include the following:

3.c.iii

- Monthly inspections of areas where potential spills of significant materials or industrial activities could impact stormwater runoff.
- Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.
- Cleaning, maintenance, and/or repair of all materials handling and storage areas and all stormwater control measures, structures, catch basins, and treatment facilities as needed upon discovery.

Employee education

You must develop and implement an Employee Education Program. The purpose of this program is to inform personnel of the SWPCP, the spill response procedures, materials management practices, and good housekeeping measures that will prevent pollution of stormwater runoff. The program can be implemented in various ways through presentations at safety meetings, by posting good housekeeping signs, and by providing training meetings for employees on use of the SWPCP and its components.

3.c.iv

A schedule for employee education shall be included in the SWPCP. Such education and training must occur within 30 calendar days of hiring a new employee, who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP. This education and training must also occur annually thereafter. Documentation of employee training must be kept and made available on site for review upon request.

Record keeping and internal reporting procedures

You must record and maintain the following information:

3.d

- Inspection, maintenance, repair and education activities as required by the SWPCP.
- Spills or leaks of significant materials that have impacted or have had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

This information does not need to be submitted with the SWPCP or annually. However, this information must be provided to the DEQ, its Agents or other government agencies responsible for stormwater management in your area upon request.

APPENDICES

Appendix I: Factsheet on New Permit Requirements (1200-Z and 1200-COLS)

Appendix II: Application Form for New Facilities

Appendix III: SWPCP Checklist

Appendix IV: Example Site Maps and Web Sites for Geographic Maps for Various Locations in Oregon

Appendix V: Representative Outfalls: Multiple Discharge Outfalls with Substantial Similar Effluents

Appendix VI: Discharge Monitoring Reports (1200-Z and 1200-COLS)

Appendix VII: Example of Geometric Mean Calculation

Appendix VIII: Benchmark Exceedances due to Natural/Background Conditions

Appendix IX: Action Plan Form

Appendix X: Termination Form

Appendix XI: DEQ Offices and Agents

Appendix XII: Glossary and Definitions

APPENDIX I

New 1200-Z Permit Requirements

Category	Old 1200-Z	New 1200-Z
Benchmark Exceedances	Review and update the Storm Water Pollution Control Plan (SWPCP).	Within 30 days of receiving the results of a benchmark exceedance, submit Action Plan that contains (1) results of review, (2) a corrective action, (3) and an implementation schedule.
Sampling	Sampling 2 times per year.	Sampling 4 times per year
	Collected samples must be at least 60 days apart.	Collected samples must be at least 14 days apart.
Time or flow-weighted composite samples	No allowance for time or flow-weighted composite sampling for grab samples.	Time or flow-weighted composite samples can be used, except for pH, oil & grease, and e.coli as an alternative to grab samples.
Monitoring Period	One sample collected between October 1 st and December 31 st and one sample collected between January 1 st and April 30 th .	Two samples collected between July 1 st and December 31 st and two samples collected between January 1 st and June 30 th .
Employee Training	Develop an employee education program. Inform employees on the elements of the SWPCP, including spill response and good housekeeping.	Hold training within 30 days of hiring new employee who will conduct duties related to implementing the SWPCP or working in areas where stormwater is exposed to industrial activities. Conduct education program annually.
Monthly Inspections	Monthly inspections of areas where potential spills of significant materials or industrial activities occur. May occur during any weather.	Same.
	Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.	Same.
Visual Monitoring	Monthly visual monitoring for (1) oil and grease, and (2) floating solids at all outfall(s) or discharge point(s) where stormwater monitoring will occur. Must occur while discharging stormwater, i.e. when it is raining.	Same.
Documentation	Records of inspection, maintenance and repair, education activities, and any spills.	Same.
Monitoring Waiver	Monitoring waiver can be obtained for individual parameters after four consecutive samples collected are at or below the benchmark	Limited to one permit term. Re-sample designated sampling points to establish the waiver.

Category	Old 1200-Z	New 1200-Z
	<p>ALL outfalls must be sampled unless (1) outfall serves area with no exposure to industrial activity or (2) outfall has similar effluents as other monitored outfalls. Data or analysis must be provided to support this determination..</p>	<p>ALL outfalls must be sampled unless (1) outfall serves an area with no exposure to industrial activity or (2) outfall has similar effluents and <i>same BMPs</i> as other monitored outfalls. Data or analysis must be provided to support this determination.</p>
	<p>No monitoring waiver for visual observations</p>	<p>Same.</p>
Data Submittal	<p>Submit annual reports and laboratory results sheets to the DEQ by July 15th.</p>	<p>Submit Discharge Monitoring Report form (DMR) along with laboratory results sheets to DEQ or Agent by July 31st.</p>
		<p>In the 4th year only, evaluate the last 4 samples collected from each outfall for each benchmark parameter, calculate the geometric mean of sample results, and report geometric mean value in DMR.</p>
Authorization of Non-Stormwater	<p>No authorization for non-stormwater discharges in permit</p>	<p>Authorization for certain discharges such as fire-fighting activities, fire hydrants, potable water, irrigation drainage, landscape watering.</p>

New 1200-COLS Permit Requirements

Category	Old 1200-COLS	New 1200-COLS
Benchmarks	pH = 6.5 – 8.5 SU	pH = 5.5 – 8.5 SU
	Lead (Pb) = 0.006 ppm	Lead (Pb) = 0.06 ppm
Benchmark Exceedances	Review and update the Storm Water Pollution Control Plan (SWPCP).	Action plan responding to benchmark exceedances submitted within 30 days of receiving the results. The Action Plan must contain (1) the results of the review, (2) a corrective action, (3) and an implementation schedule.
Sampling	Sampling 2 times per year.	Sampling 4 times per year
	Collected samples must be at least 60 days apart.	Collected samples must be at least 14 days apart.
Monitoring Period	One sample collected between October 1 st and December 31 st and one sample collected between January 1 st and April 30 th .	Two samples collected between July 1 st and December 31 st and two samples collected between January 1 st and June 30 th .
Employee Training	Education program required.	Education required annually.
Monthly Inspections	Monthly inspections of areas where potential spills of significant materials or industrial activities occur. May occur during any weather.	Same.
	Inspect stormwater control measures, structures, catch basins, and treatment facilities twice per year.	Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.
Visual Monitoring	Monthly visual monitoring for (1) oil and grease, (2) floating solids, and (3) water temperature at all outfall(s) or discharge point(s) or points where stormwater monitoring will occur. Must occur while discharging stormwater, i.e. when it is raining.	Same for items (1) and (2). Item (3), temperature monitoring, no longer required.
Documentation	Records of inspection, maintenance and repair, education activities, and any spills.	Same.
Monitoring Waiver	Monitoring waiver can be applied for individual parameters after four consecutive samples collected are at or below the benchmark	Same. NOTE: All designated sampling points must be sampled to (re-)establish current monitoring waiver
	Monitor all outfalls as stated in SWPCP.	ALL outfalls must be sampled unless (1) outfall serves an area with no exposure to industrial activity or (2) outfall is similar to other monitored outfalls with same BMPs implemented. Data or analysis must be provided to support this supposition.

Category	Old 1200-COLS	New 1200-COLS
	No monitoring waiver for visual observations	Same.
Data Submittal	Sample results submitted to the City of Portland and DEQ by July 15 th .	Sample results submitted to Agent (City of Portland) or DEQ by July 31 st .
	Sampling Laboratory results sheets.	Approved DEQ Discharge Monitoring Report form (DMR) along with laboratory results sheets.
		In the 4 th year only, evaluate the last 4 samples collected from each outfall for each benchmark parameter, calculate the geometric mean of sample results, and report geometric mean value in DMR.

4. Have all the stormwater outfalls associated with industrial activities on your site been evaluated for the presence of non-stormwater discharges not otherwise authorized by this permit or other DEQ permits? Yes (describe results of investigation below) No By signing this application, you certify that this investigation has occurred. Briefly describe the methods used to evaluate for the presence of non-stormwater discharges:

5. Have any leaks or spills or other instances of stormwater contamination occurred at the site within the last three (3) years? No Yes, please describe:

6. Are there other DEQ water quality permits issued for this site? No Yes, please describe the permits and provide the permit No(s):
Are you using any stormwater outfalls on site to discharge process or wastewater? If so, describe:

C. LAND USE COMPATABILITY STATEMENT

Attach the *original* and complete Land Use Compatibility Statement (LUCS) signed by the local land use authority. The application will not be processed unless the local land use authority approves it and it meets statewide planning goals.

D. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

Name of Legally Authorized Representative (Type or Print)

Title

Signature of Legally Authorized Representative

Date

E. APPLICATION SUBMITTAL

The following application materials must be completed and submitted to the DEQ regional office or to a DEQ Agent (see instructions for list of DEQ regional office and Agents):

- Signed Application form.
- Land Use Compatibility Statement with signature of the local land use planning official.
- Stormwater Pollution Control Plan and Checklist.
- \$795 fee (includes \$390 for new permit application and \$405 for first year annual fee) to the appropriate DEQ regional office and make the check payable to DEQ. If you are sending your application to a DEQ Agent, check with the DEQ Agent for the appropriate fees and make check payable to the DEQ Agent.

Instructions for completing this form:

**Please answer all questions. An incomplete application will not be processed.
If the information requested is not applicable, please indicate as such.**

A. REFERENCE INFORMATION:

1. Enter the legal name of the applicant. This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, (http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login), unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.
2. Enter the common name of the facility or operation if different than the legal name.
3. Enter the physical location of the facility (not mailing address), including city, state, and zip code.
4. Enter the latitude and longitude of the approximate center of the facility or site in degrees/minutes/seconds to the nearest 15 seconds. Latitude and longitude can be obtained from United States Geological Survey (USGS) quadrangle topographic maps by calling toll-free at 1-888-ASK-USGS (1-888-275-8747) or by using DEQ's location finder web site at <http://www.deq.state.or.us/wq/wqpermit/permits.htm>. When using DEQ's location finder web site, if you do not know your address, go to "locate place" on the left side of the page and click on "latitude and longitude" and then click on "map it." To get the longitude and latitude to appear you may have to zoom in and re-center until you find the area. You may want to turn off DEQ interests to eliminate the yellow dots and you may want to turn on the Aerial Photos to help you locate the site (note that the aerial photos are over ten years old). The latitude and longitude will be indicated on the left side of the page. Instructions for obtaining latitude and longitude from topographic maps may be obtained at <http://www.deq.state.or.us/wq/pubs/guides/latlonginstr.pdf>.
5. Provide the primary Standard Industrial Classification (SIC) Code and Title for the facility. The SIC Code is a four digit number assigned to different businesses. The SIC Title corresponds to the Code and is a short description of activities that occur at a business. Typically, SIC Codes are used by the fire marshal or insurance companies. They are also used when filing taxes or registering as a corporation with the state. If you do not know your SIC Code and Title, try the OSHA Web Site at http://www.osha.gov/pls/imis/sic_manual.html or contact DEQ or Agent office for assistance.
6. Indicate if the applicant is the owner of the facility.
7. Enter the name, telephone number, and mailing address of the Legal Contact. The Legal Contact is the person that receives official correspondence from DEQ, such as renewal notices or notices of noncompliance, and may be contacted if there are questions about this application.
8. Enter the name, telephone number and mailing address of the Facility Contact if different from the Legal Contact. The Facility Contact is the person located at the facility that has specific knowledge of the facility or operation under permit (e.g., the treatment plant operator), and may be contacted if there are specific questions about this application.
9. Enter invoicing information for billing purposes if different from the Legal Contact (e.g., "Invoice To: Business Office - Accounts Payable").

B. STORMWATER DISCHARGE INFORMATION:

1. Briefly describe the activities at the site that have the potential to contaminate stormwater. Such activities include the storage of materials or equipment outside, unloading and loading activities, maintenance activities, etc.
2. Indicate where the stormwater runoff from the site goes to. If the stormwater discharges to a City storm drain system, provide the best estimate of the receiving stream in addition to checking the Municipal Storm Sewer box.
3. Indicate if any tests have been done on the facility's stormwater runoff associated with industrial activities on the site. If no stormwater data exists, you are not required to test stormwater for application purposes. Attach any sampling results that may be available.
4. The federal stormwater regulations (40 CFR 122.26(c)) require that your facility be investigated for the presence of non-stormwater discharges. Non-stormwater discharges are any discharges not associated with rain events such as discharges of wash water, boiler blowdown, non-contact cooling water, process wastewater, etc. Certain non-stormwater discharges are authorized under this permit (please see Schedule A, condition 5 of the permit).

Please describe the method used to evaluate your site for the presence of non-stormwater discharges. Methods may include conducting a visual inspection of activities at the site during periods of dry weather to determine if there is any unusual drainage off the site; inspecting site plans or testing drainage lines to confirm that drains being used for non-stormwater discharges are connected to sanitary sewer (sewage treatment plant); or some combination of the above. By signing the application, you certify that such an investigation has been performed. Indicate if any non-stormwater

discharges were found during the investigation that are not authorized by this permit or any other existing DEQ permit. For example, if flow was noted, describe the source of the non-stormwater discharge. At the time the application is reviewed, a determination will be made as to whether the non-stormwater discharge needs a permit.

5. Indicate if any leaks or spills of materials or wastes have occurred at the facility within the last three years.
6. Indicate if there are any other DEQ permits issued for this site. If so, please describe the permits and provide the permit numbers. Indicate if you are using any of the stormwater outfalls on site to discharge wastewater that is authorized under a different permit.

C. LAND USE COMPATABILITY STATEMENT:

Land Use Compatibility Statement (LUCS) must be signed by local planning official. If there are any conditions placed on the land use approval, the findings must be included. The LUCS form may be obtained from DEQ at: <http://www.deq.state.or.us/pubs/permithandbook/lucs.htm>.

D. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE:

A legally authorized representative must sign the application. The following are authorized to sign the document:

- ◆ **Corporation** — President, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million that is authorized in accordance to corporate procedure to sign such documents
- ◆ **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- ◆ **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- ◆ **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- ◆ **Limited Liability Company** — Member
- ◆ **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

E. APPLICATION SUBMITTAL:

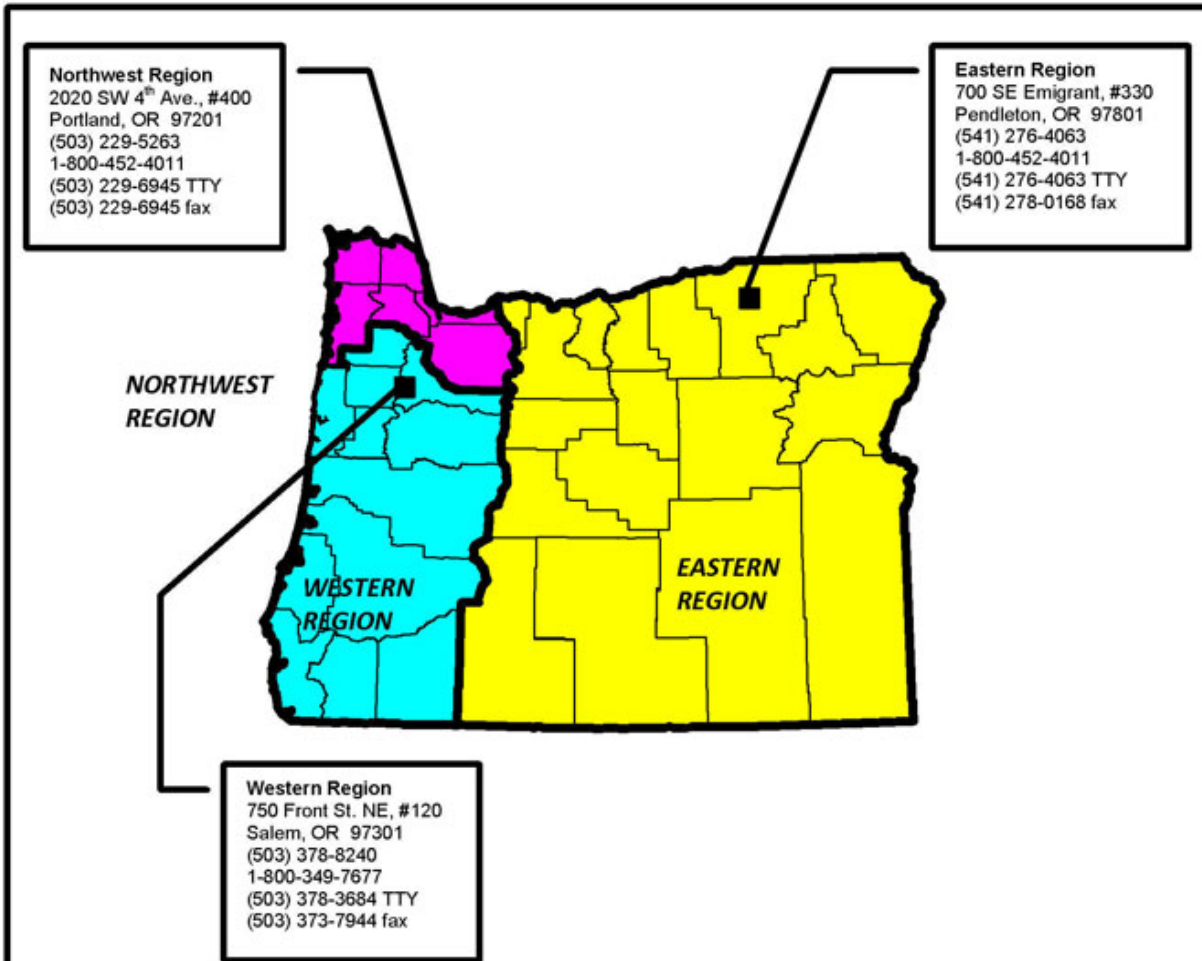
Please send the following completed application materials to the appropriate DEQ regional office or DEQ Agent office: **Application form; Stormwater Pollution Control Plan (SWPCP); SWPCP checklist; Land Use Compatibility Statement (LUCS), and fees.** For more information on preparing a SWPCP, please see DEQ’s guidance document, located at <http://www.deq.state.or.us/wq/stormwater/industrial.htm>. DEQ has entered into agreements with several local jurisdictions known as “Agents” to process the permit applications and administer the permits on DEQ’s behalf. If your project is located in one of these areas, please submit your application materials to the Agent, including two copies of the SWPCP.

DEQ REGIONAL OFFICES (see map on next page):		
DEQ Northwest Region 2020 SW 4 th Ave., Suite 400 Portland, OR 97201-4987 (503) 229-5263 or 1-800-452-4011	DEQ Western Region 750 Front St. NE, Ste. 120 Salem, OR 97301-1039 (503) 378-8240 or 1-800-349-7677	DEQ Eastern Region 700 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 276-4063 or 1-800-452-4011

AGENT OFFICES (for 1200-Z and 1200-COLS permits):		
City of Portland Bureau of Environmental Services Water Pollution Control Laboratory 6543 N. Burlington Ave. Portland, OR 97203-5452 Contact: Michael Pronold (503) 823-7584	Clean Water Services (includes all or part of Beaverton, Cornelius, Forest Grove, Hillsboro, Sherwood, Tigard, and Tualatin) 2550 SW Hillsboro Highway Hillsboro, OR 97123 Contact: Rick Fischl (503) 681-5134	City of Eugene 410 River Avenue Eugene, OR 97404 Contact: Gary Cloyes (541) 682-8616

For the 1200-A permit: All mining operations are required to submit their application materials to the Department of Geology and Mineral Industries (DOGAMI), an Agent of DEQ. Please send your application materials to: Department of Geology and Mineral Industries, Mineral Land Regulation and Reclamation Program, 229 Broadalbin St. SW, Albany, OR 97321, (541) 967-2039. Batch plant operators (no mining activities at the site) should submit their materials to the DEQ regional office.

DEQ Regional Offices



NORTHWEST REGION		WESTERN REGION			
(county)		(county)			
Clackamas	Multnomah	Benton	Douglas	Lane	Marion
Clatsop	Tillamook	Coos	Jackson	Lincoln	Polk
Columbia	Washington	Curry	Josephine	Linn	Yamhill
EASTERN REGION					
(county)					
Baker	Gilliam	Hood River	Lake	Sherman	Wallowa
Crook	Grant	Jefferson	Malheur	Umatilla	Wasco
Deschutes	Harney	Klamath	Morrow	Union	Wheeler

(Page Left Blank)

APPENDIX III

DEQ Industrial Stormwater Permits

Stormwater Pollution Control Plan Check List

Industry Name: _____
Permit: _____

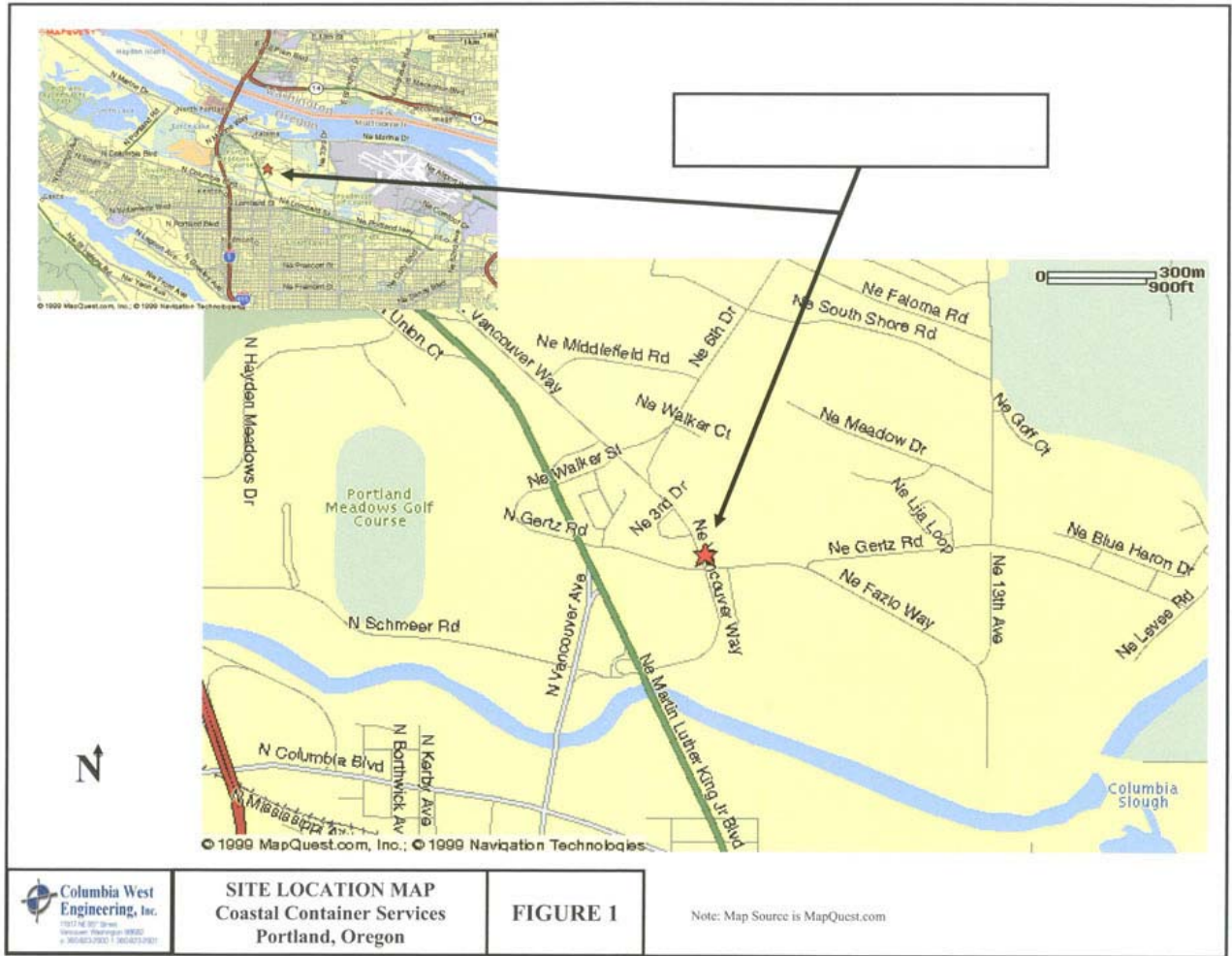
Instructions: Fill in the appropriate page number(s) indicating the location of all the required elements of the Storm Water Pollution Control Plan (SWPCP). Additional requirements may exist beyond the scope of this form depending on site-specific conditions. This form must be completed for the SWPCP to be accepted.

Page #	SWPCP Required Element	Schedule A Reference	Check if Complete (Official use only)
	Cover or Title Page		
	Name of the site (site Common Name)	A.3.a.i	
	Name of the site operator or owner (Permittee Legal Name)	A.3.a.ii	
	DEQ File Number (not ORR #)	A.3.a.iii	
	Site Contact Person's Name and Telephone Number	A.3.a.iv	
	Physical Address of the site including County	A.3.a.v	
	Mailing Address for the Permittee if different from the site address	A.3.a.v	
	Date of SWPCP	A.1.f	
	Site Description		
	Industrial Activities Description (complete description of processes, products made, services provided, etc.)	A.3.b.i	
	List Significant/Hazardous Materials stored, used, treated or disposed of in a manner that allows exposure to stormwater	A.3.b.i	
	Description of methods of storage, usage, treatment or disposal	A.3.b.i	
	Estimate the amount of impervious surface area (including roofs) relative to the total area drained by each stormwater outfall; (should be a percentage of total area for each drainage area, or square footage for each area)	A.3.b.iv	
	Identify the potential pollutants that could be present in stormwater discharges from each drainage area	A.3.b.v	
	The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipal storm sewer system operator	A.3.b.vi	
	Identification of the discharge outfall(s), where storm water monitoring will occur	A.3.b.vii	
	If all outfalls are not to be monitored, include description of outfalls, data or analysis supporting why, per Schedule B.2.b of the permit		
	General Site Location Map (site in location to surrounding properties, roads, surface waters, i.e. street map)	A.3.b.ii	
	Site Layout Drawing		
	Drainage Patterns (clearly identified, understandable)	A.3.b.iii	
	Drainage and Discharge Structures (piping, ditches, outfalls, etc.) (clearly identified, understandable)		
	Outline of drainage area for each outfall (clearly identified, understandable; one outfall per drainage area)		
	Paved Area, Equipment, Tanks, and Buildings in each Drainage Area		
	Areas used for Outdoor Manufacturing, Treatment, Storage and/or Disposal of Significant Materials		
	Runoff Structural Control locations (eg., ponds, swales, construction wetlands)		

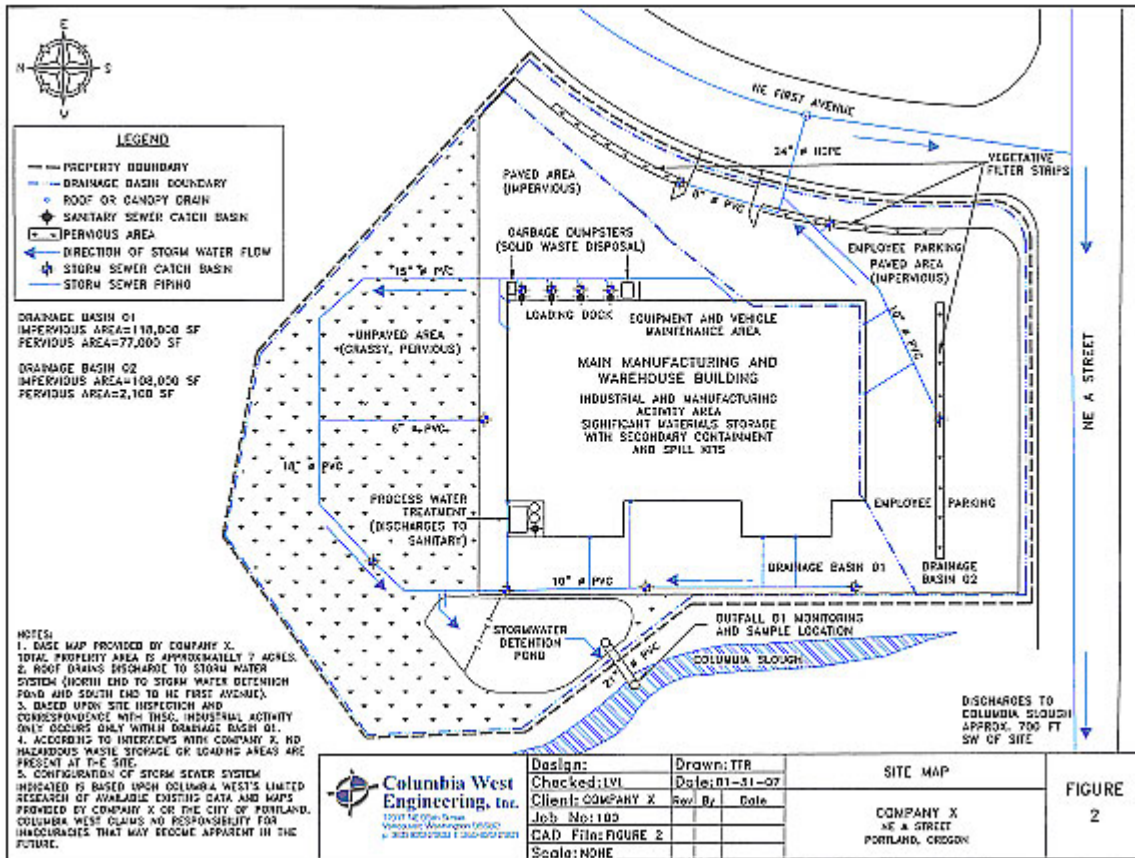
APPENDIX IV

DEQ Industrial Stormwater Permits

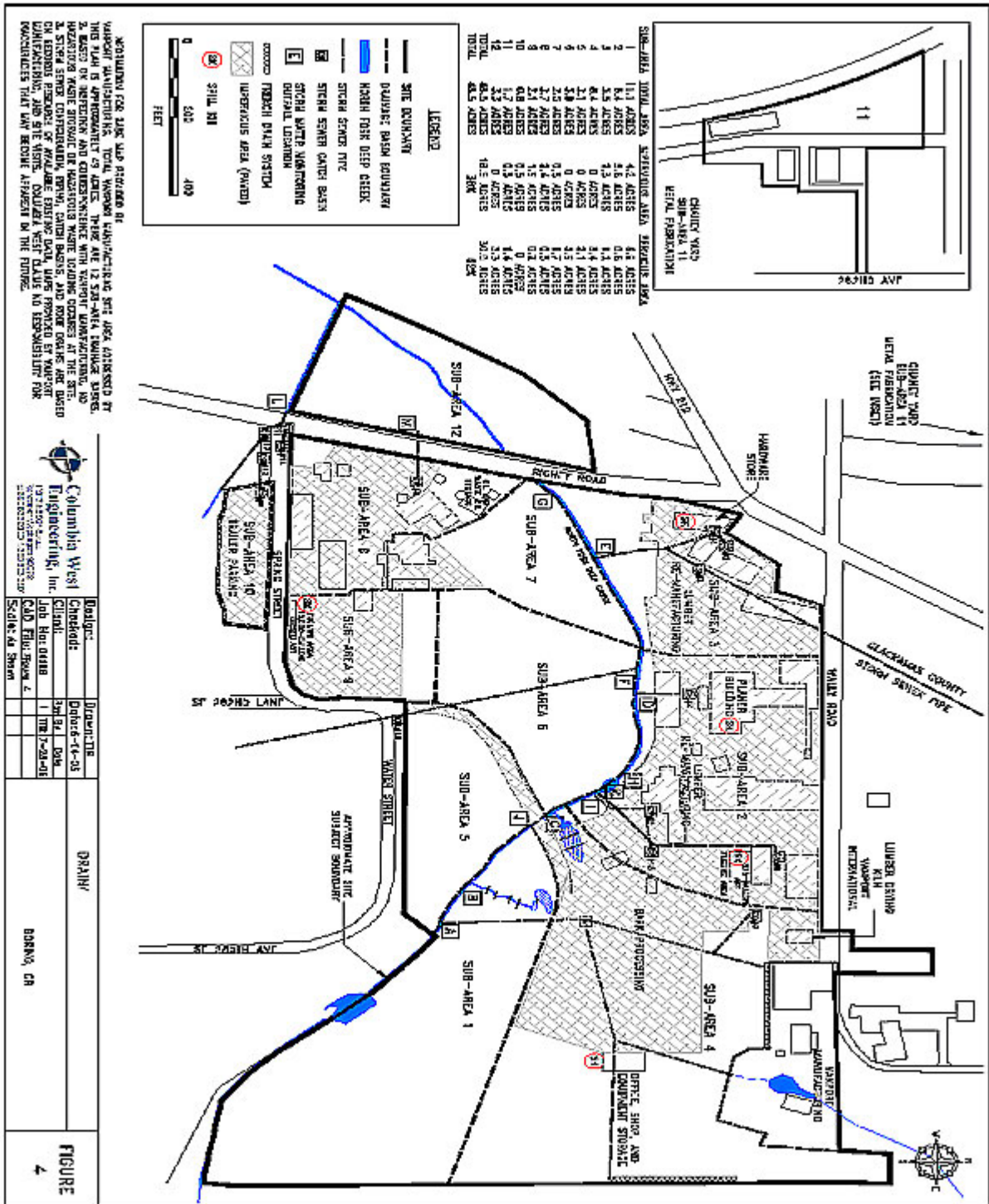
Example Site Maps



Example of General Location Map



Example of Site Map



Example of Site Map

Useful Websites for Site Maps

For very large industrial sites, maps such as the United States Geological Survey (USGS) 7.5 Minute Series Topographic Map can be purchased from the Oregon Department of Geology and Mineral Industries, (503) 731-4444, or from sporting goods stores. The following internet web sites can provide printable aerial photographs, property maps, and/or USGS maps for these purposes.

USGS	http://www.topozone.com
Black & White Aerial Photographs – All State	http://deqapp1/website/lit/data.asp
Site Location Street Maps	http://www.mapblast.com/mblast/mAdr.mb
Property Tax Maps, USGS Maps, & Color Aerial Photographs of Washington County	http://www.co.washington.or.us/deptmts/lut/gis/intermap/map_land.htm
Property Tax Maps, Utilities Maps, & Color Aerial Photographs of the City of Portland	http://www.portlandmaps.com/mapping.cfm
Property Tax Maps of Clackamas County	http://www.clackamas.us/gis/
Property Tax Maps of Tillamook County	http://www.co.tillamook.or.us/
Color Street Maps - Oregon Department of Transportation	http://www.oregon.gov/ODOT/maps.shtml
Property Tax Maps for Lane County	http://www.co.lane.or.us/online.htm
Color Maps of Jackson County	http://www.smartmap.org/
Douglas County Maps	http://www.co.douglas.or.us/puboaa/mapsonline.asp
Color Property Maps for Deschutes County	http://lava5.deschutes.org/mox5/indexPublic.cfm
Color Terrain Map of Josephine County	http://68.185.2.151/website/pumaweb/
Soils Information from the Oregon Bank of the Natural Resource Conservation Service	http://www.or.nrcs.usda.gov/technical/soil/hydric.html

These maps will provide information about the elevations of the land on and around the site. However, the USGS maps are drawn to a scale that may be too small (1 inch - 2000 feet) and may not provide enough detail for the topography of the specific industrial site.

It is important to note that some local governments, such as the City of Portland Map Reproduction Department, (503) 823-4444, have topographic maps for purchase that are drawn to a larger scale (1 inch- 100 feet). These will show greater detail in the topography of the land.

If the larger scale map does not provide enough detail for additional information to be added, a land surveyor or professional engineer should be able to map the site and develop a base map to the appropriate scale. An appropriate scale will vary depending on the size of the site. For very small sites, a base map drawn to a scale of 1 inch - 10 feet or 1 inch - 20 feet may be needed. Sites that are larger can be mapped and drawn to scales such as 1 inch - 30 feet, 1 inch - 40 feet, or larger. It is important to remember that additional information (the location of buildings, process areas, drainage patterns, and stormwater control structures) will need to be added to the base map.

APPENDIX V

DEQ Industrial Stormwater Permits

Guidance on Determining Representative Outfalls: Multiple Outfalls with Substantial Similar Effluents

A. Determining the number of sampling points

You must identify in the SWPCP the outfalls that you will sample. Where outfalls are representative (i.e. have substantially similar effluents), you are not required to monitor each outfall. In the SWPCP, you must describe the location of outfalls and a detailed explanation of why the outfalls are expected to discharge substantially similar effluent. This determination should be based on past monitoring or an analysis of industrial activities, site characteristics, significant materials, and management practices and activities within the area drained by the outfalls. If the Department or Agent determines that the outfalls are not representative, you may be required to sample additional outfalls.

A variety of methods can be used to demonstrate that stormwater outfalls are representative and have substantially similar effluents. Three options are discussed below: (1) submission of a narrative description and a site map; (2) submission of matrices, or (3) submission of model matrices. Detailed guidance on each of the three options is provided below. The owner/operator should certify the option selected. If this information is provided in the SWPCP, then the SWPCP certification is sufficient. See the Introduction Section of the guidance document for an example of this certification.

Petition for Identifying Substantially Similar Stormwater Effluents

Option 1: Narrative description and site map

Facilities demonstrating that stormwater outfalls are substantially similar may submit a narrative description of the facility and a site map to DEQ or its Agent. The narrative portion must include a description of why the outfalls are “representative” and have substantially similar effluents.

Permit registrant may demonstrate that these outfalls contain stormwater discharges associated with:

- Substantially similar industrial activities and processes;
- Substantially similar significant materials that may be exposed to stormwater [including, but not limited to, raw materials (such as steel, lumber, fiberglass), fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any

chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with stormwater discharges as per 40 CFR 122.26(b)(12));

- Substantially similar stormwater management practices (retention ponds, enclosed areas, diversion dikes, gutters, and swales) and material management practices (protective coverings and secondary containment); or
- Substantially similar flows, as determined by the estimated runoff coefficient and approximate drainage area at each outfall.

The site map should include:

- facility's topography or surface water runoff flow direction;
- each of the drainage and discharge structures;
- drainage area of each stormwater outfall;
- paved areas and buildings within the drainage area for each stormwater outfall;
- all past or present areas used for outdoor storage or disposal of significant materials;
- identification of the significant materials in each drainage area;
- identification of each existing structural control measures used to reduce pollutants in stormwater runoff, materials loading and access areas; and
- areas where pesticides, herbicides, soil conditioners, and fertilizers are applied.

Use an estimate runoff coefficient for impervious surfaces such as roofs or paving of 0.90 and 0.50 for pervious surfaces or a more specific runoff coefficient from other sources to determine the estimated average runoff coefficient for the drainage area.

Estimated Average Runoff Coefficient (for N areas) =

$$\frac{(\text{Area A})(\text{Runoff Coef. A}) + (\text{Area B})(\text{Runoff Coef. B}) + \dots (\text{Area n})(\text{Runoff Coef. N})}{\text{Area A} + \text{Area B} + \dots \text{Area N}}$$

For more areas, add the Area multiplied by the Runoff Coefficient in the numerator and add the area in the denominator.

Please see Exhibit 1 below for an example of this option.

Option 2:
Use of
matrices to
indicate
similar
outfalls

Facilities demonstrating that stormwater outfalls are substantially similar may include matrices describing specific information associated with each outfall in the facility's SWPCP. Matrix information is required only for those outfalls that the permit applicant is attempting to demonstrate are similar, not for all outfalls. Permit registrants must demonstrate, using the matrices, that the outfalls have stormwater discharges that meet the criteria for substantially similar outfalls, as described in Option 1 above. Refer to Exhibit 2 for examples of matrices that demonstrate substantially similar outfalls.

**Option 3:
Model
matrices**

Facilities demonstrating that stormwater outfalls are substantially similar may include model matrices in the SWPCP. This option is particularly appropriate for facilities with a large number of stormwater outfalls and the potential for numerous groupings of similar outfalls.

Model matrices should contain information for one grouping of substantially similar outfalls. For example, if a facility has 150 outfalls comprised of several groupings of similar outfalls, the facility would choose one of the groupings of similar outfalls to provide information in the model matrices. The permit registrant must demonstrate, using these matrices, that all outfalls within this grouping have stormwater discharges that meet the criteria for substantially similar outfalls, as described in Option 1 above.

**B. Monitoring and
testing
procedures**

These permits require grab sampling of stormwater runoff. A grab sample is a sample that is taken at a point in time rather than over a period of time. Time or flow-weighted compositing of samples may be used as an alternative to grab samples, except when monitoring for pH, oil and grease, and E. coli.

Clean containers of the proper type will be needed to collect a specified quantity of runoff for testing. The laboratory that you will use should be able to furnish you with the proper type and quantity for the number of sampling points and the type of permit that you have. The parameters to test are listed in Schedule B of the permits. For example, the 1200-Z permit requires grab sampling for pH, total suspended solids (TSS), oil & grease, and total metals (copper, lead and zinc).

Once samples have been obtained, an independent laboratory can analyze the runoff and you will be able to compare the results with the benchmarks and/or limitations in Schedule A of your permit. Sampling activities should be coordinated with the laboratory that will analyze the stormwater runoff. Special containers and preservatives will be needed for certain parameters, and samples usually need to be refrigerated during transportation (packed in a cooler with ice).

We recommend that you develop a separate document to detail sampling protocol. This type of document is a useful training tool. The protocol explains where and when to sample, how to collect a sample, where to take the sample for analysis, and what to test for once stormwater is collected.

**C. Frequency of
monitoring**

Schedule B of the permit requires that sampling must be conducted four times per monitoring year. The monitoring year is from July 1st to June 30th. Two samples must be collected before December 31st, and two samples collected after January 1st. Visual observations of drainage areas must be made monthly when at least one storm event has produced runoff. Permit registrants are required to submit the data from sampling activities to the appropriate DEQ Regional Office or to the Agent office by July 31st of each year. A list of DEQ Regional Offices and Agent Offices and their addresses is included in Appendix XI.

D. Monitoring reduction

If the benchmarks are met for at least four consecutive stormwater monitoring events, you do not need to conduct stormwater monitoring for the remainder of the permit term. You are also eligible for the monitoring waiver if you can demonstrate that exceedances of the benchmarks are due to natural or background conditions.

The monitoring waiver does not apply to visual monitoring requirements. The following facilities subject to stormwater discharge limitations under federal regulations for pH, total suspended solids, and oil & grease may not invoke the monitoring waiver (see Schedule A of the permits):

1. 40 CFR Sec. 411: Cement manufacturing category, materials storage piles runoff subcategory
2. 40 CFR Sec. 423: Steam powered electric power generating category, coal pile runoff subcategory
3. 40 CFR Sec. 443: Paving and roofing materials (tars and asphalt), runoff from manufacturing of asphalt paving or roofing emulsion subcategory

In addition, the following provisions apply:

- Sampling must take place during a rainfall event when runoff from the site is occurring.
- Results from sampling events cannot be averaged to meet the benchmarks.
- Sampling must occur in the undiluted discharge stream and not in the receiving waters.
- Monitoring waivers may be allowed for individual parameters.
- Parameters in exceedance or not previously sampled must be monitored as required in Schedule B of the Permit until the monitoring waiver condition is met.

Submit in writing your request to exercise the monitoring waiver to DEQ or its Agent (please see Schedule B.3 of the permits for more information). If DEQ or its Agent does not comment on the request within 30 calendar days, it is deemed approved.

Substantially Similar Effluents – Exhibits

EXHIBIT 1. PETITION TO SAMPLE SUBSTANTIALLY SIMILAR OUTFALLS (NARRATIVE DESCRIPTION/SITE MAP)

Examples

- I. The Pepper Company of Philadelphia, Pennsylvania, is primarily engaged in manufacturing paperboard, including paperboard coated on the paperboard machine (from wood pulp and other fiber pulp). This establishment is classified under SIC code 2631. Pursuant to the November 16, 1990, NPDES stormwater permit application regulations, this facility is considered to be “engaging in industrial activity” for the purposes of stormwater permit application requirements in 40 CFR 122.26(b)(14)(i) and (ii).

- II. “When an applicant has two or more outfalls with substantially similar effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially similar outfalls.” [40 CFR 122.21(g)(7)]

In accordance with 40 CFR 122.21(g)(7) of the NPDES regulations, the Pepper Company hereby petitions the State of Pennsylvania (the permitting authority) for approval to sample certain representative stormwater outfalls in groupings of stormwater outfalls that are substantially similar. The Pepper Company will demonstrate that of the ten (10) outfalls discharging stormwater from our paperboard manufacturing plant, there are two pairs of substantially similar outfalls. Outfalls 3 and 4 are substantially similar and should be grouped together. Outfalls 8 and 9 are substantially similar and should be grouped together. Outfalls 1, 2, 5, 6, 7, and 10 have distinct characteristics and, therefore, will not be grouped together with other outfalls for the purposes of stormwater discharge sampling.

- III. The Pepper Company will demonstrate that the substantially similar outfalls that have been grouped together contain stormwater discharges associated with: (1) substantially similar industrial activities and processes that are occurring outdoors; (2) substantially similar significant materials (including raw materials, fuels, finished materials, waste products, and material handling equipment) that may be exposed to stormwater; (3) substantially similar material management practices (such as runoff diversions, gutters and swales, protective coverings, and structural enclosures); and (4) substantially similar flows, as determined by the estimated runoff coefficient and approximate drainage area at each outfall.

1. Industrial Activities

A. Description of Industrial Activities at the Pepper Company

The Pepper Company receives wastepaper in bales. This baled wastepaper is sent through a hydropulper and converted to pulp. The fiber material is concentrated, stored, and then drawn through refiners to the paper machines. Wires, plastics, and miscellaneous material are removed during the pulping.

Three systems are used to produce top liner, back paper, and filler. The highest quality fiber is used for the top liner, the medium quality is used for the back paper, and the poorest quality is used for the filler paper. Wireforming or conventional boxboard processes are employed to produce clay-coated boxboard, using a water-based clay-coating material. Additional materials may be used as binders. These are stored indoors and are not exposed to precipitation. Ammonia is used in the clay-coating process. Off-grade fiber and trim material are ground up and returned to the liquid process stream. Slime control agents, consisting of bactericides, are used in association with this process. These agents are organic materials used to prevent souring of mill operations. They are received in drums and stored indoors. Empty drums are returned to the supplier to reuse. In addition, the Pepper Company operates an onsite landfill for the disposal of miscellaneous waste materials removed during pulping and paper cuttings operations.

B. Demonstration of Why Outfalls Are Substantially Similar in Terms of Industrial Activities Conducted Outdoors.

Outfalls 3 and 4

Outfalls 3 and 4 are substantially similar in terms of industrial activities conducted outdoors. Both outfalls contain stormwater discharges associated with the outdoor storage of baled wastepaper. The wastepaper, which consists of old corrugated containers, mixed paper, and other types of wastepaper, is received weekly and stored for up to 3 weeks in Storage Areas #1 and #2. These uncovered storage areas are enclosed by chain-link fencing.

Outfalls 8 and 9

Outfalls 8 and 9 drain stormwater runoff from areas where all industrial activities occur indoors. The industrial activities occurring under roof cover at these two outfalls include hydropulping, storage of concentrated fiber material, refining, and paperboard production. These industrial processes have no potential for contact with precipitation.

2. Significant Materials

A. Description of Significant Materials at the Pepper Company

The significant materials listed below are used by the Pepper Company to manufacture paperboard. These materials are stored indoors, unless otherwise indicated.

(i) Raw materials, including baled wastepaper (off-spec damaged paper stock or recycled paper) [wastepaper is stored outdoors at Storage Areas 91 and 12]; clays, ammonias, sizings, and slime control agents (chlorine dioxide); caustic; ammonia, which is stored in two tanks. [See Storage Area 93].

(ii) Waste Materials, including miscellaneous materials removed during pulping and paper cuttings (such as staples, rubber bands, styrofoam, etc.). These waste materials are stored indoors in open dumpsters. However, prior to disposing of the waste in the onsite landfill, these dumpsters are moved outdoors where they are potentially exposed to precipitation for 12 hours or less. [See Storage Area 43].

(iii) Finished Products, including paperboard and molded fiber products. These are always stored indoors.

(iv) Others, including wood pallets (which are used to transport and haul raw materials, waste materials, and finished products) are stored both indoors and outdoors. [See Storage Area #3]. The Pepper Company has an above-ground fuel tank with a pump. [See Storage Area #3].

B. Demonstration of Why Outfalls are Substantially Similar in Terms of Significant Materials that Potentially May be Exposed to Stormwater

Outfall 003 and 004

Outfalls 003 and 004 are substantially similar in terms of significant materials that may be exposed to stormwater. Both outfalls contain stormwater discharges associated with the outdoor storage of baled wastepaper. The wastepaper, which consists of old corrugated containers, mixed paper, and other types of wastepaper, is received weekly and stored for up to 3 weeks in Storage Areas #1 and #2. These uncovered storage areas are enclosed by chain-link fencing.

Outfalls 8 and 9

Outfalls 008 and 009 are substantially similar in terms of significant materials. Both outfalls contain stormwater runoff from areas that have no significant materials potentially exposed to stormwater. All industrial activities occurring in the areas drained by Outfalls 008 and 009 occur completely indoors.

3. Material Management Practices

A. Description of Material Management Practices at the Pepper Company

The Pepper Company uses a wide range of stormwater management practices and material management practices to limit the contact of significant materials with precipitation. Non-structural stormwater management practices include employee training, spill reporting and clean-up, and spill prevention techniques. Structural stormwater management practices include:

- (i) Diversion Devices (both above-ground trenches and subterranean drains) are used to divert surface water from entering a potentially contaminated area.
- (ii) Gutters/Swales (constructed of concrete or grass) channel stormwater runoff to drainage systems leading to separate storm sewers.
- (iii) Overland Flow (which is the flow of stormwater over vegetative areas prior to entrance into a stormwater conveyance) allows much of the stormwater to infiltrate into the ground. The remainder is naturally filtered prior to reaching the stormwater conveyance. This is not considered sheet flow since natural drainage channels may be carved out during a heavy storm event.

B. Demonstration of Why Outfalls Are Substantially Similar in Terms of Stormwater Management Practices Used

Outfalls 003 and 004

Outfalls 003 and 004 are substantially similar in terms of stormwater management practices used. Both outfalls contain stormwater discharges associated with the outdoor storage of baled wastepaper, located in Storage Areas #1 and #2. Concrete gutters at both sites channel stormwater away from the storage areas down to the respective outfalls.

Outfalls 008 and 009

Outfalls 008 and 009 are substantially similar in terms of stormwater management practices used. Both outfalls contain stormwater runoff from areas that have no significant materials potentially exposed to stormwater. All industrial activities occurring in the areas drained by Outfalls 008 and 009 occur completely indoors. Both outfalls receive overland flow stormwater. From roof drains, the stormwater in both drainage areas is then conveyed over similarly graded vegetative areas prior to entrance into the respective outfalls.

4. Flow Characteristics

Demonstration of Why Outfalls Are Substantially Similar in Terms of Flow, as Determined by the Estimated Runoff Coefficient and Approximate Drainage Area at Each Outfall

Outfalls 003 and 004

Outfalls 003 and 004 are substantially similar in terms of flow. Both drainage areas have a 2 to 7 percent grade and contain fine textured soil (greater than 40 percent clay) with a vegetative cover. The estimated runoff coefficient for both outfalls is 0.2. The approximate drainage area for each outfall is similar. Outfall 003 has an approximate drainage area of 3,500 square feet- Outfall 004 has an approximate drainage area of 2,900 square feet

Outfalls 008 and 009

Outfalls 008 and 009 are substantially similar in terms of flow. Both drainage areas have a 2 to 7 percent grade and contain fine textured soil (greater than 40 percent clay) with a vegetative cover. The estimated runoff coefficient for both outfalls is 0.2. The approximate drainage area for each outfall is similar. Outfall 008 has an approximate drainage area of 7,600 square feet. Outfall 009 has an approximate drainage area of 8,700 square feet.

EXHIBIT 2 – Matrices Demonstrating Substantially Similar Outfalls

Industrial Activities					
OUTFALL	Outdoor Storage of Raw Material & Material Handling Equipment	Fueling	Waste Material Storage (Dumpster)	Loading/Unloading of Raw Materials, Intermediate Products, & Final Products	Landfill activity
003	X	-	-	X	-
004	X			X	-
008	-	-	-	-	-
009	-	-	-	-	-


Significant Materials That May Be Exposed To Stormwater						
OUTFALL	Outdoor Ammonia Tank	Wood Pallets	Aboveground Gas Tank	Waste Materials	Baled Wastepaper	Finished Products
003	-	-	-	-	X	-
004	-	-	-	-	X	-
008	-	-	-	-	-	-
009	-	-	-	-	-	-

Stormwater Management Practices					
OUTFALL	Runoff Diversion	Wetland/Swales	Vegetative Filter Strip	Catch Basin Insert Bags (without overflow)	Vacuum Sweeping
003	-	X	-	-	-
004	-	X	-	-	-
008	-	-	X	-	-
009	-	-	X	-	-

Flow Characteristics		
OUTFALL	Estimated Runoff Coefficient	Approximate Drainage Area of Outfall (sq. ft.)
003	0.2	3,500
004	0.2	2,900
008	0.2	7,600
009	0.2	8,700

APPENDIX VI

Discharge Monitoring Report Form for 1200-Z Permit

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit								Print Form
Permittee Legal Name:				ODEQ File No./Facility ID:				 State of Oregon Department of Environmental Quality
Facility Common Name:				Reporting Period: July 1, _____ to June 30, _____				
Facility Location:				Laboratory Name:				
County:				Laboratory ORELAP #:				
Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of laboratory results sheet(s) and associated QA/QC information to this form								
Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Permit Benchmark		5.5 - 9.0	130	10	0.1	0.4	0.6	406
Name/Title Principal Executive Officer or Authorized Delegate								
(Please Print)								
Telephone:				Email:				
I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.								
Sign here:								Date

See reverse side for additional visual monitoring requirements

Monthly Visual Observations

Record Visual Observations for Oil and Grease Sheen and Floating Solids:

Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	Floating Solids (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.
---	--

Date	Observations (please note the sampling point(s) name or number)
------	---

July	
August	
September	
October	
November	
December	
January	
February	
March	
April	
May	
June	

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jurisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater
Section
Water Pollution Control Lab
8543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) and the QA/QC documentation to the appropriate DEQ regional office annually by July 31st:



DEQ Northwest Region Office
2020 SW 4th Ave. Suite 400
Portland, OR 97201
Phone: (503) 229-5263
Hours: 8 am - 5 pm


DEQ Eastern Region Office
300 SE Reed Market Rd.
Bend, OR 97702-2237
Phone: (541) 388-6146
Hours: 8 am - 5 pm

DEQ Western Region Office
(Benton, Lincoln, Marion,
Polk, and Yamhill counties)
750 Front St NE, #120
Salem, OR 97301-1039
Phone: (503) 378-8240
Hours: Mon - Thurs: 8 am - 5 pm
Fri: 8 am - noon, 1 - 5 pm

DEQ Western Region Office
(Lane and Linn counties)
1102 Lincoln St. Suite 210
Eugene, OR 97401
Phone: (541) 686-7838
Hours: 8 am - 5 pm

DEQ Western Region Office
(Coos, Curry, Douglas, Jackson,
and Josephine counties)
221 Stewart Ave. Suite 201
Medford, OR 97501
Phone: (541) 776-6010
Hours: 8 am - noon, 1 - 5 pm

Discharge Monitoring Report Form for 1200-COLS Permit

Industrial Stormwater Discharge Monitoring Report - 1200COLS Permit										Print Form	 State of Oregon Department of Environmental Quality
Permittee Legal Name:					ODEQ File No./Facility ID:						
Facility Common Name:					Reporting Period: July 1, to June 30,						
Facility Location:					Laboratory Name:						
County: Multnomah					Laboratory ORELAP #:						
Monitor for the following pollutants at the sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of the laboratory results sheet(s) and associated QA/QC information to this form.											
Name or # of Sampling Point(s) (group data per sampling point)	Sample Date and Time	pH*	Suspended Solids, Total*	Oil and Grease, Total*	Copper, Total	Lead, Total	Zinc, Total	E. coli	Phosphorus, Total	BOD ₅	* Effluent limits for these parameters apply to some industries - see permit, Schedule A.7. Note 1: Submit this report to the appropriate DEQ regional or agent office (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3. Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in mg/L in parentheses - e.g. ND (0.021) Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for department or agent approval. Note 4: For the 4th year of coverage under the permit that became effective on September 1, 2008, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. The geometric mean value is automatically calculated if using the excel version of the report.
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml	mg/L	mg/L	
Geometric Mean (Note 4)											
Geometric Mean (Note 4)											
Geometric Mean (Note 4)											
Permit Benchmark		5.5 - 8.6	60	10	0.036	0.06	0.24	406	0.16	33	
Name/Title Principal Executive Officer or Authorized Delegate											
(Please Print)											
Telephone:					Email:						
I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.											
Sign here:								Date			

See reverse side for additional visual monitoring requirements

Monthly Visual Observations

	Record Visual Observations for Oil and Grease Sheen and Floating Solids:	
	Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	Floating Solids (associated with industrial activities) - No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.
	Date	Observations (please note the sampling point(s) name or number)
July		
August		
September		
October		
November		
December		
January		
February		
March		
April		
May		
June		

For facilities located within the City of Portland, please submit one (1) copy of this report, laboratory results sheet(s) and QA/QC documentation to the City of Portland annually by July 31st:

City of Portland
 Industrial Stormwater Section
 Water Pollution Control Laboratory
 6543 N. Burlington Ave.
 Portland OR 97203-5452

For facilities **NOT** located in the City of Portland, please submit one (1) copy of this report, laboratory results sheet(s) and QA/QC documentation to DEQ annually by July 31st:

DEQ Northwest Region Office
 Stormwater Section
 2020 SW 4th Avenue, Suite 400
 Portland, OR 97201

APPENDIX VII

DEQ Industrial Stormwater Permits

Calculating Geometric Mean of Monitoring Results

Background: By June 30th of the 4th year of the permit term, permit registrants must calculate the geometric mean of the last four monitoring results for each benchmark parameter at each outfall and report this value on the Discharge Monitoring Report (DMR) Form. (see Schedule A.9 of the permits for the specific permit requirements).

The geometric mean tends to dampen the effect of very high or low values and is an appropriate measure of stormwater discharges given their highly variable nature. However, if the geometric mean of these monitoring results exceeds any of the benchmark parameters, the Department will revoke a facility's coverage under the general permit and require them to obtain an NPDES Individual Permit.

The scenarios below provide examples of how to calculate the geometric mean.

EXAMPLE 1

- A Portland industry discharging into the Columbia Slough collects four Total Suspended Solids (TSS) samples reported in milligrams per liter (mg/l). The TSS benchmark values are: 6, 50, 9, and 1,200 mg/l.
- To calculate the geometric mean the following methods can be used:

METHOD 1 (Use only with four data values)

STEP 1: Multiply all four of the results together: $6 \times 50 \times 9 \times 1200 = 3,240,000$

STEP 2: Take the Square Root of the number derived in Step 1: $\text{Sqrt}(3,240,000) = 1,800$

STEP 3: Take the Square Root of the number derived in Step 2: $\text{Sqrt}(1,800) = 42.4$

METHOD 2: Use Microsoft Excel to take the geometric mean of the numbers using the GEOMEAN function in four cells A1 through A4.

STEP 1: Enter the values 6, 50, 9, and 1,200 into cells A1 through A4

STEP 2: In the cell where the result shall go enter: =GEOMEAN(A1:A4)
The value will be **42.4**

- **The Geometric Mean = 42.4 mg/l TSS and is below the TSS benchmark of 50 mg/l in the 1200-COLS Permit.** This facility will remain operating under the permit.

EXAMPLE 2

- Industry in Eugene operating under the 1200-Z permit collects four Copper samples reported in milligrams per liter (mg/l). The Copper benchmark values are: 0.05, 0.075, 0.15, and 0.15 mg/l.
- Using either of the two methods outlined above, **the Geometric Mean of the four samples is 0.095 mg/l and is below the Copper benchmark value of 0.10 mg/l in the 1200-Z permit.** This facility will remain operating under the permit.

EXAMPLE 3

- Industry in Medford operating under the 1200-Z permit collects four Lead samples at 2 outfalls. The Lead benchmark value is .06 mg/l.

Sampling Event	Outfall 1	Outfall 2
1 st sample	0.07	0.08
2 nd sample	0.01	0.15
3 rd sample	0.14	0.25
4 th sample	0.04	0.06
Geometric Mean	0.044	0.11

- **The Geometric Mean for Outfall No. 2 is 0.11 mg/l and is above the Lead benchmark of 0.06 mg/l.** This facility's coverage under the permit will be revoked.

APPENDIX VIII

DEQ Industrial Stormwater Permits Guidance on Establishing Natural or Background Conditions

Background:

On August 10, 2006, the Department of Environmental Quality (DEQ) adopted revisions to NPDES Industrial Stormwater General Permits No(s). 1200-COLS, 1200-Z and 1200-A. The 1200-COLS permit became effective on September 1, 2006. The revisions to the 1200-Z and 1200-A permits became effective on July 1, 2007.

Schedule A of the permits requires permit holders to investigate the cause of a benchmark exceedance(s). Permit holders may determine that the exceedance was due to background or natural conditions not associated with their industrial activities at the site. The new permit requires permit holders to submit an Action Plan to DEQ or the local agent that contains a sampling plan and methodology for demonstrating that the elevated pollutant levels are due to background or natural conditions.

Guidance:

The purpose of this document is to provide guidance on determining whether benchmark exceedances are due to site-specific background/natural conditions and to provide suggestions on how to develop an acceptable sampling plan and methodology. It should be noted this is general guidance and not a technical protocol. There is no simple recipe, especially for metals, phosphorus, and bacteria. It is the responsibility of the permit holder to make a valid and defensible case supported by research, investigations, and data when attempting to establish that benchmark exceedances are caused by natural or background conditions.

Please note that some benchmark levels, including Oil and Grease, BOD₅ (5-day biochemical oxygen demand), and TSS (Total Suspended Solids) cannot be assessed with respect to background levels since they are technology based limits established under federal regulations or percentile reductions (85 % for TSS) established by DEQ. For the other benchmarks, many of which are water quality-based, each parameter will need a tailored approach in establishing the background level, described below.

pH:

Many areas of the state receive acid rain from time to time. Sites which continually or intermittently have low pH and cannot find any site-related reason for the exceedance should compare the pH of the stormwater runoff from the site to rainwater. Low background concentrations due to acid rain will vary with most rainfall occurrences. Permit holders must evaluate background concentrations for each sampling event. Permit holders should compare pH levels of rainwater and stormwater runoff. If the stormwater runoff has a lower pH than rainwater, the cause of the benchmark exceedance will not be considered background conditions.

Metals (Copper, Lead, Zinc):

An investigation of metals exceedances and the establishment of natural background levels may require an investigation of the historical use of the site as well as natural soil characteristics. This investigation can be used if the soils on the site are exposed to

stormwater (i.e., stormwater runoff from bare soil areas or from gravel areas where soil has migrated through the gravel). This investigation would be similar to the Phase I and Phase II Environmental Site Audit that is made during the prospective sale of a property and that determines if the elevated metals levels are due to soil contamination from previous site use or due to natural levels in the soil. If the metals levels are the result of soil contamination from current or historical activities at the site then the benchmark exceedance would not be considered the result of background conditions. If it appears that the metals concentrations cannot be attributed to current or historical operations or processes then further investigation into the soil concentration level of the parameter of concern must be made in order to establish a justification for the natural or background conditions. This investigation should consider the following:

1. Site evaluation:
 - Determine potential for current or historical contamination of the site from past practices or operations. If none, proceed to the next bullet:
 - Take a set of soil samples at a range of depths within the top soil layer on the site (up to 3 feet deep) at each of several locations on the site. These samples must be representative of soils. Depth-composited sampling at each sampling point is allowed.
 - Mix the samples with a volume of water 20 times the solids weight and discard settleable solids. Analyze for both total and dissolved metals of interest.
2. Reference site evaluation:
 - This may be from adjacent or nearby properties with the same general soil type and soil profile properties, but should not include any areas that may have been part of a larger operation which included the site to be evaluated in 1 above.
 - Determine potential for current or historical contamination of the reference site from past operations and practices.
 - Take representative soil samples from the reference site at depths similar to the site sample depths and compositing if performed.
 - Mix the samples with a volume of water 20 times the solids weight and discard settleable solids. Analyze for both total and dissolved metals.
3. Compare the site results to the reference site results.
 - If the results from the site and the reference site are similar, and the reference site metals concentration is greater than the benchmark for the parameter of interest, the permit holder has established that the benchmark exceedance is due to background conditions.

Phosphorous:

High phosphorous levels may come from sites that have leaking sanitary sewer systems, failed septic systems, many years of agricultural fertilizer application, populations of wild or domesticated animals, use soaps that contain phosphorus, or naturally high soil levels. Before looking for 'naturally' high sources of phosphorus, first check for leaks or spills from failed systems, or other human sources and take corrective actions to eliminate the phosphorus source. This investigation may include, but is not limited to the following:

- Surface runoff sampling at other locations than the regular sampling locations in order to try to localize the source.
- Visual Inspection of the stormwater discharge point(s) during dry weather. The easiest method to identify non-stormwater discharges is to inspect each discharge point for the presence of flow during dry weather. Keep in mind that drainage from a

storm event can continue for several days and groundwater may infiltrate the underground stormwater collection system. Also, non-stormwater discharges may be intermittent and require periodic inspections to ensure no discharge.

- Investigation of the sanitary or septic systems for leaks. This may include a camera survey of the condition of the drainage piping.
- Investigation of the site building and drainage plans to establish that there were no inadvertently designed illicit connections between the sanitary/septic system and the stormwater discharge drainage system.
- Dye checking the various drainage systems to verify that there were no cross connections to the wrong discharge system during construction. Get approval from DEQ before conducting any dye tests.
- Determine whether or not the phosphorus may be coming from washing activities involving vehicles, equipment, buildings, sidewalks, etc.

If the evaluation concludes that human sources are not responsible for the phosphorus levels then investigate potential natural sources:

- Groundwater source options:
 - If groundwater is influencing the stormwater discharge system, install a sampling well for shallow groundwater to establish a background concentration.
 - Sample the storm drainage system at a delayed time interval after surface water runoff has ceased and before the discharge from the system has stopped in order to test for shallow groundwater contributions to the system.
 - High phosphorous levels may be considered as site contamination rather than as natural background and a deeper well sampling may be needed to establish the natural background level.
- Wild animals: Photographic recording of the presence of wild animals on several different dates associated with and just prior to the regular sampling events. The evaluation must conclude regular or continued impact from wild animals is the source of the high phosphorous levels.

E. Coli:

Elevated levels of E. coli typically occur at sites which have leaking sanitary sewer systems, failed septic systems, cross connections between sanitary and storm sewer conveyance systems, or populations of wild or domesticated animals. E. coli originating from birds, raccoons and other wildlife may be present in large numbers in stormwater runoff. Impervious surfaces and piped stormwater conveyance often greatly reduce the time in which it takes these bacteria to reach a nearby stream. For example, E. coli deposited on a paved surface may be washed into a nearby stream within minutes via a piped stormwater conveyance system. However, in the absence of pavement and piping this runoff may take several days to reach surface waters. E. coli typically die-off in a matter of days so they are much less likely to survive natural overland transport, as evidenced by the low bacteria numbers seen in forested watersheds with abundant wildlife. Impervious surfaces and piped stormwater conveyance systems cause the quick transport of E. coli which may exacerbate impacts to nearby waterways.

First investigate anthropogenic (human sources) of E. coli. The investigation may include, but is not limited to the following:

- Surface runoff sampling at other locations than the regular sampling locations in order to try to localize the source.

- Investigation of the sanitary or septic systems for condition. This may include a video survey of the drainage piping for condition. Hire a contractor who can video photograph the line and identify connections between the sanitary/septic system and the stormwater conveyance system.
- Investigation of the site building and drainage plans to try to establish that there were no inadvertently designed illicit connections between the sanitary/septic system and the stormwater discharge drainage system. The piping schematic is a map of the site showing pipes and drainage systems used to carry wastewater, washwater, cooling water and sanitary wastewater. A review of the “as-built” piping schematic is a good way to determine if there are any cross connections to the stormwater collection system. In addition, inspect the path of floor drains in older buildings by following saw cuts in the concrete or asphalt. If the cuts lead to storm drain piping a cross connection may be present.
- Cross connections occur when sanitary sewer lines are inadvertently connected to the storm sewer system. A dye check of the various drainage systems to verify that there were no cross connections to the wrong discharge system during construction should be performed. A dye test can be performed by releasing dye into the sanitary and then observing the discharge points of the stormwater and sanitary collection system for discoloration. Please contact your local municipality or service district to report all dye testing activities prior to the dye release. Unreported dye tests can result in unnecessary investigations by regulatory or code staff.
- Smoke testing of wastewater and stormwater collection systems is used to detect connections between the two systems. During dry weather the stormwater collection system is filled with smoke and then traced to sources. For example, the appearance of smoke at the base of a toilet indicates that there may be a cross connection between the sanitary and the stormwater systems.

If the evaluation concludes that human sources are not responsible for the stormwater bacteria levels, then investigate the following:

- Potential natural sources, such as the presence of wild animals and provide the following: photographic recording of the presence of wild animals on several different dates associated with and just prior to the regular sampling events. The evaluation must conclude regular or continued impact from wild animals.
- An evaluation of the hydrologic impact of the site’s stormwater conveyance system. Changes to the system may be necessary in order allow for a more natural E. coli die-off rate before stormwater is discharged to local waterways.



State of Oregon
Department of
Environmental
Quality

APPENDIX X

NOTICE OF TERMINATION

NPDES Industrial Stormwater Discharge General Permits Nos. 1200-A, 1200-Z and 1200-COLS

Submission of this Notice of Termination constitutes notice that the facility identified below is no longer authorized to discharge stormwater associated with industrial activity under these NPDES Permits. **All necessary information must be provided on this form.** Please print in ink or type.

I. Facility Operator Information

II. Facility Site Information

Legal Name	Phone No.	Site Name	
Company		Mailing Address	
Mailing Address		City	State Zip Code
City	State	Zip Code	County
Permit No:			
Facility/File ID (located on face page of permit)			

III. Reason for Termination

Check Here if you are No Longer the Operator of the Facility

Check Here if there is No Longer Stormwater Discharge Associated with Industrial Activities

Please explain if there are other reasons for permit termination: _____

Certification

Please read the certification statement carefully before signing.

I certify under penalty of law that all stormwater discharges associated with industrial activity from the identified facility that are authorized by a NPDES General Permit have been eliminated or that I am no longer the operator of the facility. I understand that by **submitting this Notice of Termination, I am no longer authorized to discharge stormwater associated with industrial activity under this general permit, and that discharging pollutants in stormwater associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit.** I also understand that the submittal of this Notice of Termination **does not release an operator from liability for any violations of this permit or the Clean Water Act.**

Signature of Legally Authorized Representative Date

Name of Legally Authorized Representative (Type or Print)

Instructions for Completing the Notice of Termination Form

Who May File a Notice of Termination (NOT) Form:

Permit registrants who are presently covered under an Oregon Department of Environmental Quality (DEQ) NPDES Industrial Stormwater Discharge General Permit Nos. 1200-Z, 1200-COLS or 1200-A may submit this form when their facilities no longer have any stormwater discharges associated with industrial activity as defined in the stormwater regulations at 40 CFR 122.26(b)(14), or when they are no longer the operator of the facility.

Section I: Facility Operator Information:

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same name as the facility. The operator of the facility is the legal entity, which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator. Enter the existing NPDES Stormwater General Permit number (e.g. 1200-Z, 1200-COLS or 1200-A) and the DEQ File number provided to the facility when you registered for coverage under the permit. The DEQ file number can be found on the first page of your permit. If you do not know the permit or file number, contact DEQ regional office or DEQ Agents (see contact information below).

Section II: Facility/Site Location Information:

Enter the facility's or site's official or legal name and complete address, including city, state and ZIP code.

Section III: Reason for submitting this Notice of Termination:

- If there has been a change of operator and you are no longer the operator of the facility or site, check the corresponding box.
- If all stormwater discharges associated with industrial activities at the facility or site have been eliminated, check the corresponding box.
- If there is another reason for termination of the permit please enter a brief description of this reason. If additional space is needed please include it in a letter attached to this submission.

Section IV Certification:

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

- For a corporation: by a responsible corporate officer, which means (I) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (II) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; or
- For a partnership or sole proprietorship: by a general partner or the proprietor; or
- For a municipality, State, Federal, or other public facility: by either a principal executive officer or ranking elected official.

Please submit the completed form to the DEQ regional office or DEQ Agent office listed below:

DEQ REGIONAL OFFICES:

DEQ Northwest Region
2020 SW 4th Ave., Suite 400
Portland, OR 97201-4987
(503) 229-5263 or 1-800-452-4011

DEQ Western Region
750 Front St. NE, Ste. 120
Salem, OR 97301-1039
(503) 378-8240 or 1-800-349-7677

DEQ Eastern Region
700 SE Emigrant, Suite 330
Pendleton, OR 97801
(541) 276-4063 or 1-800-452-4011

AGENT OFFICES (for 1200-Z and 1200-COLS permits):

City of Portland

Bureau of Environmental Services
Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, OR 97203-5452
Contact: Michael Pronold
(503) 823-7584

**Clean Water Services
(includes all or part of
Beaverton, Cornelius, Forest
Grove, Hillsboro, Sherwood,
Tigard and Tualatin)**

2550 SW Hillsboro Highway
Hillsboro, OR 97123
Contact: Rick Fischl
(503) 681-5134

City of Eugene

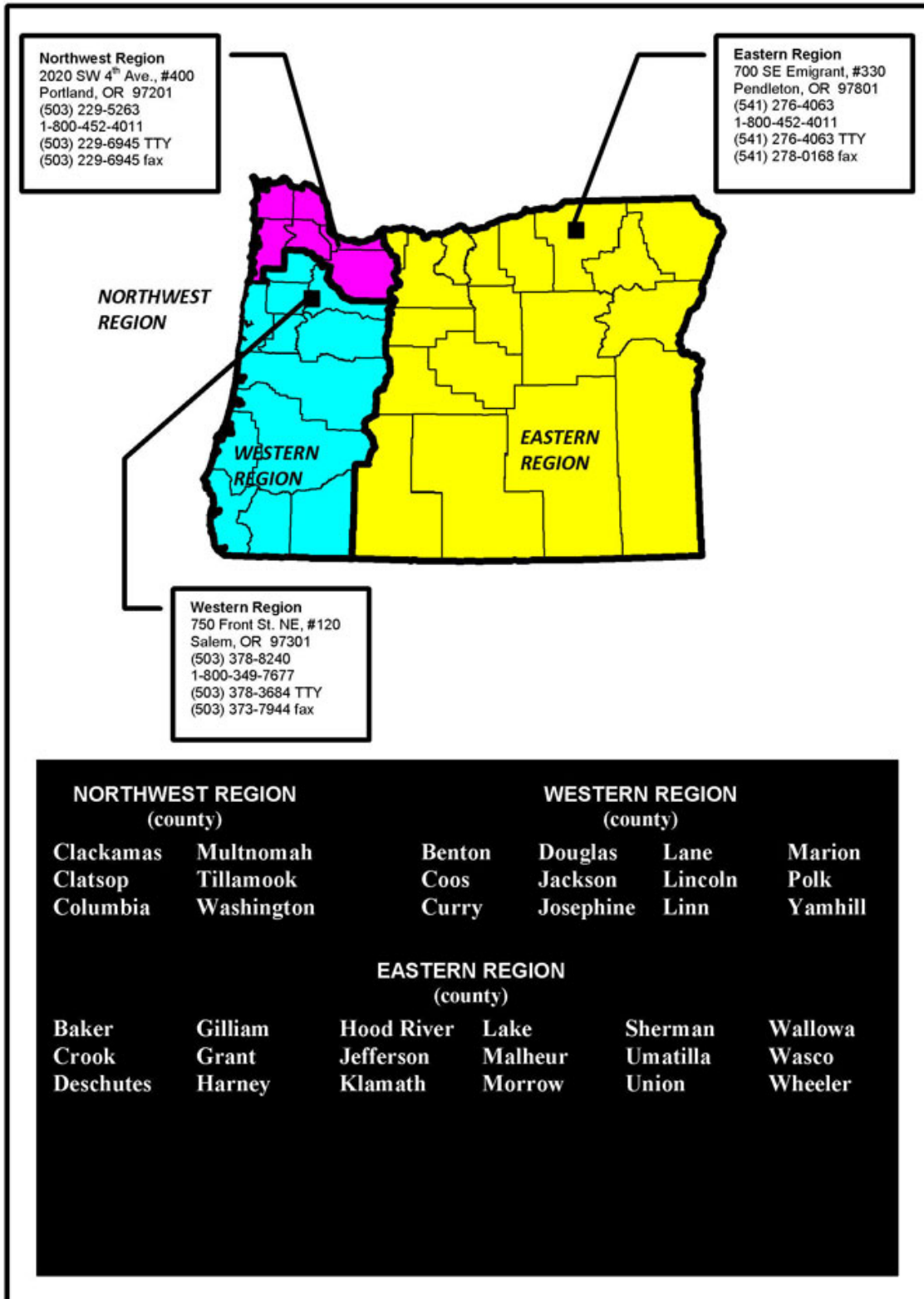
410 River Avenue
Eugene, OR 97404
Contact: Gary Cloyes
(541) 682-8616

For the 1200-A permit: All mining operations are required to submit their application materials to the Department of Geology and Mineral Industries (DOGAMI), an Agent of DEQ. Please send your application materials to: Department of Geology and Mineral Industries, Mineral Land Regulation and Reclamation Program, 229 Broadalbin St. SW, Albany, OR 97321, (541) 967-2039. Batch plant operators (no mining activities at the site) should submit their materials to DEQ regional office.

(Page Left Blank)

APPENDIX XI

DEQ Offices



Cities or Districts Acting as DEQ Agent

CITY/DISTRICT	CONTACT NAME, TELEPHONE, & EMAIL	ADDRESS
Portland	<p style="text-align: center;">Michael Pronold (503) 823-7584 michaelp@bes.ci.portland.or.us</p>	<p style="text-align: center;">Water Pollution Control Laboratory 6543 N. Burlington Avenue Portland, OR 97203- 5452</p>
<p style="text-align: center;">Clean Water Services (Cities within CWS service district*)</p>	<p style="text-align: center;">Rick Fischl (503) 681-5134 fischlr@cleanwaterservices.org</p>	<p style="text-align: center;">2550 Southwest Hillsboro Hwy. Hillsboro, OR 97123</p>
Eugene	<p style="text-align: center;">Gary Cloyes – Public Works Stormwater (541) 682-8616 gary.a.cloyes@ci.eugene.or.us</p>	<p style="text-align: center;">410 River Avenue Eugene, OR 97404</p>

* Note: Clean Water Services coverage area consists of all or part of the following communities: Beaverton, Cornelius, Forest Grove, Hillsboro, Sherwood, Tigard, and Tualatin.

APPENDIX XII

Industrial Stormwater Permits

GLOSSARY and DEFINITION OF TERMS

Action Plan: Action Plan is an addendum to the Stormwater Pollution Control Plan (SWPCP) developed in response to modification to the SWPCP or in response to a benchmark exceedance.

Benchmarks: Benchmarks are guideline concentrations not effluent limitations. They are an adaptive management tool designed to assist in determining if the implementation of the SWPCP is reducing pollutant concentrations to below levels of concern, or if certain best management practices (BMPs) will need to be modified, deleted, or added.

Benchmark Parameters: Benchmark parameters are physical, chemical, or biological constituents that are evaluated in stormwater discharge. These parameters can include pH, oil and grease, and certain metals, such as copper, lead, and zinc. The specific 1200-Z benchmark parameters can be found in Schedule A, condition 8 of the permit. The specific 1200-COLS benchmark parameters can be found in Schedule A, condition 7 of the permit.

Best Management Practices (BMPs): BMPs are practices or procedures that include methods to prevent toxic and hazardous substances and other pollutants from reaching receiving waters. They are designed to address the quality of a site's practices with respect to stormwater leaving the site, and may ultimately affect the ability of the site to meet water quality standards or benchmarks. They are most effective when organized into a comprehensive SWPCP.

Local Public Agencies Acting as the Department's Agent: The department authorizes local public agencies to act as its agent in implementing these permits if they entered into a Memorandum of Agreement (MOA). The agent may be authorized to conduct the following activities, including but not limited to: application review and approval, including SWPCP review; inspections; review monitoring data; stormwater monitoring, verification and approval of no-exposure certifications, and review of transfer and termination requests.

Spill Prevention Response Procedure (SPRP): A document to prevent spills and provide procedures for clean-up and notification in the event of a spill. It is a component of the SWPCP.

Stormwater Pollution Control Plan (SWPCP): The SWPCP is a plan that contains detailed information regarding the specific industrial site and the potential impacts that the site may pose to water quality resources and shows how they will be addressed. The required elements of the SWPCP can be found in Schedule A of the permits.