

# **NPDES 1200-A General Permit**

**Applying for Permit Coverage  
Developing Your Stormwater Pollution Control Plan**

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State of Oregon  
Department of  
Environmental  
Quality



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# 1. Applying for a 1200A Stormwater Permit

**What is the purpose of this document?** The purpose of this document is to provide technical assistance on developing a Stormwater Pollution Control Plan (SWPCP). You should use this guide if you are an operator of a facility required to develop a SWPCP that complies with a National Pollutant Discharge Elimination System Industrial Stormwater General Permit No. 1200-A.

This document is organized in the following manner:

- Section 1.0 provides information on how to apply for this permit.
- Sections 2.0 through 4.0 provide information on how to develop a SWPCP.
- The appendices provide information that will assist in developing the SWPCP.

**Who Needs to Apply for the Permit** Facilities with primary Standard Industrial Classification code 14, Mining and Quarrying of Nonmetallic Minerals, Except Fuels, as well as concrete and asphalt mix batch plants, which discharge stormwater, mine dewatering water, or both, from a point source to surface waters or to conveyance systems that discharge to surface waters. Please note that the new permit contains specific requirements for un-comingled mine dewatering water discharges that differ from stormwater discharges. If you are not sure whether your discharge is stormwater or mine dewatering water, you should contact the appropriate DEQ or Agent office.

**Permit Effective Dates** The renewed permit is effective from December 4, 2012 to December 3, 2017. Please see summary in Appendix I that compares the new permit requirements to the old permit requirements. Copies of the new permit can be found on DEQ's website at: <http://www.deq.state.or.us/wq/stormwater/industrial.htm>

**Agents** DEQ has entered into agreements with "Agents" to administer the permit on DEQ's behalf. The Oregon Department of Geology and Mineral Industries (DOGAMI) and the City of Portland are the Agent's for the 1200-A permit. The Agents typically conduct the following activities: review application materials, review monitoring data, review no-exposure certifications, conduct inspections and evaluate compliance with the permit. If a facility is operating in an agent's jurisdiction, the operator typically submits application materials, including one paper and one electronic copy of the SWPCP, and other permit documents to the agent rather than DEQ. Please see Appendix V for contact information and addresses for Agent jurisdictions.

**Application Steps** **New applications:** New facilities must submit application materials at least 60 calendar days before beginning operations. Existing facilities that are operating without permit coverage must submit the application materials upon learning of the need for the permit.

Please submit the application form, the SWPCP and checklist, Land Use Compatibility Statement (LUCS) and fees. Once it is approved, please submit one paper copy and one electronic PDF version of the final SWPCP to DEQ or Agent.

Copies of the application forms, LUCS and fee information can be found on DEQ's website at: <http://www.deq.state.or.us/wq/wqpermit/stminfo.htm>. Please see Appendix II for the SWPCP checklist. Please see Appendix V for contact information and addresses for DEQ regional offices.

*Application requirements for new and existing facilities that discharge to impaired waters:*

There are additional application requirements for new applicants and permittees that received coverage under the previous permit and which discharge to impaired waters that do not meet water quality standards for certain pollutants and need a Total Maximum Daily Load (Category 5, 303(d) listed waters). DEQ's Integrated Report describes the condition of Oregon's waters and includes the 303(d) list of impaired waters. More information on impaired waters can be found on DEQ's website, located at <http://www.deq.state.or.us/wq/assessment/assessment.htm>.

These requirements apply to new dischargers or new sources, which can be a newly constructed facility as well as an existing facility that was required to obtain permit coverage, but failed to do so. If these facilities discharge directly to an impaired waterbody or indirectly via a storm sewer system, ditch or other conveyance system they will need to meet these additional application requirements. DEQ or Agent can provide assistance to these facilities in determining whether their proposed discharge will be subject to these requirements.

The new permit requires existing operators which discharge into waters listed as impaired for these pollutants to conduct monitoring two times a year for two years for these pollutants. DEQ or Agent will include specific requirements for such monitoring in the permit assignment letter.

Operators must determine to what waterbody their discharge enters (the receiving water). Your receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to your facility. Man-made conveyances, such as a municipal separate storm sewer system (MS4) storm sewer system, are not considered receiving waters. Your receiving water is the first natural waterbody your stormwater discharge enters. For example, if the discharge enters a storm sewer system that empties into Johnson Creek in the Portland area, which flows into the Willamette River, the receiving water is Johnson Creek, because it is the first natural body of water the discharge will reach. If you discharge into a MS4 system, you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the MS4 operator.

To obtain coverage under the permit, the new source or new discharger must demonstrate (and document) the following:

- There is no exposure of stormwater to the impairment pollutant(s), or the impairment pollutant is not present at the facility,
- The pollutant is not present in the discharge, or
- The pollutant is present, but the discharge is not expected to cause or contribute to a water quality standards exceedance at the end of the pipe. To support this determination, the owner or operator will need to collect

water quality samples of the discharge or gather other information such as conducting modeling.<sup>1</sup>

This information will need to be included with the application materials and in the SWPCP. For more information please see Condition 1 of the Permit Coverage and Exclusion from Coverage section of the permit.

**Renewal Applications:**

Existing facilities that are renewing their coverage under 1200-A permit must submit the renewal application form, the SWPCP and completed checklist by March 15, 2013. Please submit one paper copy of the SWPCP and one electronic PDF version of the SWPCP (preferably on a CD).

These facilities should continue to operate under the terms of the previous 1200-A permit, which expired on June 30, 2012, until they receive written notification (permit assignment letter) that their coverage under the new permit has been granted or denied, at which point the new permit requirements will become effective.

Existing facilities that discharge to impaired waters that do not meet water quality standards for certain pollutants and need a Total Maximum Daily Load (Category 5, 303(d) listed waters) may be required to monitor for those pollutants. If such monitoring is required, it will be noted in the permit assignment letter.

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<sup>1</sup> If a facility has not previously obtained coverage, but has been operating prior to August 1979 the facility is not restricted from coverage based on these requirements.

# 2. Developing a Stormwater Pollution Control Plan

Permit  
Reference

**What is SWPCP?**

The SWPCP is a stormwater management plan that contains detailed information regarding the specific industrial site, your assessment of potential stormwater pollution sources and selection of best management practices (BMPs) that will be implemented on site to address stormwater pollution and meet the technology-based requirements in the permit. Many of the SWPCP requirements are located in Schedule A of the permit. References to specific permit sections are provided on the right hand side of the page in this document.

The first step in developing a SWPCP is to gain a thorough understanding of the activities conducted and equipment located at your facility to be able to identify potential pollutant discharge concerns. To complete this step, you will need to conduct a detailed walk-through of your facility to identify industrial materials or material handling activities exposed to stormwater, any stormwater BMPs already in place, the direction of stormwater and mine dewatering flows through and from your facility, and the location of all outfalls discharging stormwater or mine dewatering water. If possible, you should conduct your walk-through during a rain event so that you can observe the flow of stormwater and mine dewatering on your site. As part of your walk-through, you should talk with employees who are familiar with daily operations to identify any activities that may cause or contribute to pollution of nearby waters.

**What information should be included in the SWPCP?**

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

- A description of the permitted site and the ongoing industrial activities, including the identification of the potential pollutants that may be present in stormwater runoff such as sediments, oil and grease, and metals.
- A discussion of the BMPs that will be implemented on the site to prevent stormwater and mine dewatering pollution and meet the technology based requirements in the permit.
- A description of the procedures and schedules for conducting required spill prevention and response, preventative maintenance and employee education.

A.  
8

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 II 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.***

<b>Who should prepare and implement the SWPCP?</b>	The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility. This person may be the plant manager, environmental manager, facility engineer, or a hired consultant.	Permit Reference A.7.b
<b>Who should sign the SWPCP?</b>	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:  <u>(A) Signature:</u> (1) <u>For a corporation.</u> 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 ensure 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 <u>partnership or sole proprietorship.</u> By a general partner or the proprietor, respectively. (3) For a <u>municipality, state, federal, or other public agency.</u> 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 (such as the Regional Administrator of the U.S. EPA).  <u>(B) Certification:</u> 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 ensure 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	A.7.c

		Permit Reference
	there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”	
<b>Where should the SWPCP be kept?</b>	The most recent copy of the SWPCP and revisions made in the last three years must be kept at the facility and made available upon request to DEQ or Agent.	B.9
<b>What if the SWPCP needs to be revised?</b>	<p>The SWPCP is a living document. You are required to keep it up-to-date to reflect changes at your site both for your use and for review by the regulatory agencies responsible for overseeing your permit compliance. As conditions change at the site, you will revise practices and procedures such as site design, monitoring locations or BMPs outlined in your SWPCP. Update the SWPCP within 30 days of these changes occurring. Types of changes that would require a revision to your SWPCP include:</p> <ul style="list-style-type: none"> <li>• a new industrial process that may require additional potential pollutants to be used onsite;</li> <li>• the discovery of a new hazardous substance on the property; or</li> <li>• re-routing of stormwater to a different outfall.</li> </ul> <p><b>Every time you revise your SWPCP, you do not need to submit the revisions to DEQ or Agent.</b> You are only required to submit SWPCP revisions related to: (1) changes to site contact; (2) changes based on a corrective action or inspection; (3) changes to monitoring locations or outfalls, and (4) changes to the site or control measures that may significantly change the nature of pollutants in your discharge, or significantly increase pollutant levels, discharge frequency, volume or flow rate.</p> <p>Submit the revised pages of the SWPCP or site map by mail or email within 30 days. Please include an electronic version of the changes. If DEQ or Agent does not comment on the changes within 30 days, the changes are deemed accepted. Please note that if it is necessary to implement changes immediately, you do not need wait until you receive acceptance from DEQ or Agent.</p>	A.7.e and A.9
<b>What if I have already developed a plan for my DOGAMI permit?</b>	If a permit registrant’s DOGAMI operating permit and reclamation plan meets the requirements for a SWPCP in the permit and contains all the required SWPCP elements in condition A.7, then the DOGAMI plan may be substituted for the SWPCP.	A.7.a
<b>Is there a template that’s available?</b>	DOGAMI has developed a DEQ-approved form for the DOGAMI administered sites that includes all of the required elements for a SWPCP. The form is available at DOGAMI’s website at <a href="http://www.oregongeology.org/mlrr/forms/waterquality/1200A/SWPC_Plan_Form_2012.doc">http://www.oregongeology.org/mlrr/forms/waterquality/1200A/SWPC_Plan_Form_2012.doc</a> .	

# 3. Elements of a Stormwater Pollution Control Plan

		Permit Reference
<b>What should be included in the cover page of the SWPCP?</b>	<p>Please list the following information on the title page:</p> <ul style="list-style-type: none"> <li>• The site name or common name.</li> <li>• The legal name of the site 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: <a href="http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login">http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login</a>. 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 Oregon under this name.</li> <li>• The name, telephone number, and e-mail address, if available, of the site operator or owner.</li> <li>• The name of the person preparing the SWPCP.</li> <li>• If you are currently operating under a permit, provide the DEQ file number listed on the permit issued to you.</li> <li>• Facility contact person’s name and telephone number and e-mail address if available. This should be the person that DEQ or Agent can contact regarding the SWPCP.</li> <li>• Physical address of the facility, including county, and mailing address, if different than physical address.</li> <li>• Date of the SWPCP. If you are submitting a revision to the SWPCP, include the current date to ensure that DEQ or Agent has the most recent copy.</li> </ul>	A.8.a
<b>What should be included in the site description section?</b>	<p>In this section, please provide the following:</p> <ul style="list-style-type: none"> <li>• General location map (See Appendix III of this document for examples).</li> <li>• Site specific map (See Appendix III of this document for examples).</li> <li>• Description of the mining and processing activities that take place on site, including the material that will be mined, the method of mining, types of on-site processing and areas that will be affected, and any hazardous or significant materials that are stored, used, treated or disposed of that could be exposed to stormwater or mine dewatering water.</li> <li>• Description of potential pollutants in stormwater runoff.</li> <li>• Description of BMPs used to meet the technology and water quality based requirements in Schedule A.</li> <li>• An estimate of the maximum amount of surface area that could be stripped of vegetation and could contribute to stormwater drainage, including that which could enter mine dewatering pits relative to the total area drained by each stormwater or mine</li> </ul>	A.8.b

- dewatering outfall.
- An estimate of the percentage of disturbed area that will be impervious and not absorb rainfall into the ground.
- Name of receiving waters for stormwater runoff and mine dewatering discharge.
- Identification of discharge outfall(s) and monitoring point(s), including if multiple outfalls are representative.
- The period of expected use of the site.

**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 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. Internet street and satellite maps are also acceptable as general location maps. The property boundary must be highlighted and must show the required features both on the site and around it for about a 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 III for examples of general location maps and information on where to obtain base maps.

A.8.b.i

**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. The site map can be a drawing or sketch of the 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 (such as spill kits, catch basins and oil/water separators) and surface waterbodies. All of these elements need to be clearly identified on the map.

A.8.b.ii

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

Please see Appendix III 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 elements described below.

**Drainage patterns**

Illustrate the drainage patterns of the surface water flow on the site. For example, the map should show if stormwater flows over land as

A.8.b.ii (1)

sheet flow or in a series of drainage ditches.

**Drainage and discharge structures**

Identify discharge structures or outfalls for each drainage basin or sub-basin. Such structures refer to definite points where stormwater runoff is collected, including mine dewatering pits, and leaves the site. Examples of discharge structures or outfalls include pipes, ditches, channels, tunnels, or conduits. For clarity, the outfalls should be numbered on the map.

A.8.b.ii (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**

Drainage basins are specific areas within the watershed in which stormwater runoff flows to a common collection, discharge or outfall point based upon the slope of the land. An approximation of the surface area covered by the drainage basin should be included on the map. Color-coded maps are good for illustrating separate drainage areas. Drainage basins should be drawn with a bold line onto the map to indicate stormwater flow patterns both on and off the permitted site. There should be a separate drainage basin for each outfall.

A.8.b.ii (3)

**Paved areas and buildings**

Identify buildings, structures, and pavement that direct stormwater runoff to a collection area or an outfall. 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.

A.8.b.ii (4)

**Significant materials**

Identify the locations of areas used for treatment, storage or disposal of significant materials that have the potential to be released with stormwater discharges. Significant materials include, but are not limited to: raw materials (including soil, overburden and aggregate stockpiles); fuels; materials such as solvents, detergents, and plastic pellets; finished materials; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act; any chemical the facility operator is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act; fertilizers; pesticides; and waste products. Please ensure that the significant materials you identified in the general description of industrial activities section of the plan are referenced here.

A.8.b.ii (5)

		Permit Reference
<b>Operating equipment areas</b>	Identify the location of any operating equipment areas, such as screening, crushing, and scrubbing areas, as well as any area where a concrete or asphalt batch plant may be located. Note that concrete truck washout water and excess uncured cement is considered process water and must be placed in a contained location that does allow that process water to leave the site.	A.8.b.ii (6)
<b>Structural control measures</b>	Stormwater runoff can be controlled physically by installing structural control measures. Examples of structural controls are vegetative swales, collection and reuse of stormwater, inlet controls, diversion ditches used as outlet control, infiltration devices, and wet retention measures. Identify on the map any structural controls that are being used on your site. Also, identify any structural features for reducing flow or minimizing impervious areas.	A.8.b.ii (7) and (8)
<b>Material loading and access</b>	Identify any loading areas, including garages and roadway access points, drum storage bins, or drum loading areas.	A.8.b.ii (9)
<b>Hazardous waste storage/ disposal</b>	Identify any loading or storage areas of hazardous materials described in the general description section of the plan.	A.8.b.ii (10)
<b>Wells and dewatering pits</b>	Sometimes stormwater infiltrates into the ground through wells, including waste injection wells, seepage or dewatering pits, drywells, groundwater wells, etc. Please identify where and how this occurs on the map.	A.8.b.ii (11) and (13)
<b>Surface waters</b>	Identify bodies of water, such as creeks, springs, wetlands or lakes on site or adjacent to the site.	A8.b.ii (12)
<b>Non-stormwater discharges</b>	Identify the location of authorized non-stormwater discharges. A non-stormwater discharge is any discharge from your facility that is not composed entirely of rainfall or snowmelt runoff or mine dewatering water. Examples of authorized non stormwater discharges are: landscape watering provided that fertilizers, pesticides or herbicides are applied according to manufacturer's instructions; uncontaminated condensate from air compressors; or pavement wash waters that do not use detergents or hot water. For a full list of authorized non-stormwater discharges, please see Paragraph 6 of the Permit Coverage and Exclusion from Coverage section of the permit.	A.8.b.ii (13)
<b>Sampling points</b>	Identify the location of the sampling points where monitoring will occur.	A.8.b.ii (15)
<b>Spill Prevention</b>	Identify the location of the spill prevention and cleanup materials.	A.8.b.ii (16) A.8.b.iii

**What should be included in the general description of the mining and processing activities performed on the site?**

Please prepare an introductory paragraph that includes a brief history of the mining and processing operations at the facility, the current activities, and any future plans for expansion. For example, the following questions should be answered. What does the facility mine or manufacture? What are the processes used to process the materials and to transport them off site?

Next provide a description of significant materials stored, used, treated or disposed of that may be exposed to stormwater runoff, including any runoff which may enter dewatering pits. See page 11 of this document for a list of significant materials. The name of the material given should reflect either the common name (such as gasoline or 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 operator is involved in cleanup 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 external building construction materials (for example, corrugated galvanized siding, concrete tilt-up, etc.), roofing materials (for example, composition, built-up, galvanized corrugated sheet metal, etc.), and paving materials (for example, gravel, asphalt, concrete, etc.). This information will assist DEQ or Agent in providing technical assistance regarding pollutant sources.

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.

**How to identify potential pollutants in stormwater runoff**

Identify and list any potential pollutants on the site that are associated with mining and processing activities on site that could reach and contaminate stormwater and mine dewatering discharge. This includes all solid and liquid (concrete and asphalt additives) 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, should be considered potential pollutants.

A.8.b.iv

Examples of potential pollutants that should be identified in the plan are:

- Sediment that can leave the site during a rain event.
- Naturally-occurring metals, such as mercury, iron, or arsenic, that would be mobilized during mining activities.
- Legacy pesticides in areas that previously were used for agricultural areas.
- Nitrates that may result from blasting activities.
- Metals such as copper, lead and zinc, and oil and grease from manufacturing facilities or due to high volumes of truck traffic.

		Permit Reference
	<ul style="list-style-type: none"> <li>• Zinc from unsealed galvanized roofs or downspouts.</li> </ul>	
<b>Stormwater BMPs</b>	In the site description section of the plan, include the control measures (stormwater BMPs) that are installed and implemented on site to meet the technology and water quality limits in the permit (see Schedule A, conditions 1 through 6). For further information, please see section 4.0 of this document.	A.8.b.v
<b>How to estimate the amount of area that will be stripped of vegetation and proportion of impervious area</b>	Once the site map is complete, determine the maximum amount of area that will, in the next five years, be stripped of vegetation and could contribute to stormwater or mine dewatering discharges, relative to the total area drained by each discharge. The total area drained by each discharge should be based upon the outline of the drainage area identified in the site map. In addition, determine the amount of impervious area and total area for each drainage basin identified on the site map. Remember to consider roof area and paved areas as impervious area. Provide this information in area units (total square footage). This estimate should be done for each area that drains to a different outfall. Provide this information in the site description section of the SWPCP.	A.8.b.vi.
<b>Receiving body of water</b>	<p>Your receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to your facility. A facility's discharge may enter directly into its receiving water, or indirectly to the receiving water by discharging first through a municipal separate storm sewer system (MS4), ditch, or other conveyance. Your receiving water is the first natural waterbody your stormwater discharge enters. For example, if the discharge enters a storm sewer system that empties into Johnson creek in the Portland area, which flows into the Willamette River, the receiving water is Johnson Creek, because it is the first natural waterbody the discharge will reach. Man-made conveyances, such as a MS4 system, are not considered receiving waters.</p> <p>If the discharge from your facility does not enter an municipal storm system, you can use your site map and local topographic maps to pinpoint the closest waterways. Using the contours on the topographic map and your facility's outfall locations, determine the direction stormwater runoff flows from your facility. Once you know the direction of flow, you should be able to identify the receiving waters into which you discharge.</p> <p>You are required to describe how stormwater and mine dewatering water discharges from your site. In addition, include the name of the receiving water that ultimately receives the discharge. If you discharge into a ditch, please describe the first natural waterbody to which the ditch discharges. If you discharge into a MS4 system, you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the MS4 operator.</p>	A.8.b.vii

Resources to help you identify your receiving waters:

- Topographic maps, which can be obtained from the U.S. Geological Survey (USGS) at: [http://topomaps.usgs.gov/ordering\\_maps.html](http://topomaps.usgs.gov/ordering_maps.html) or through a retailer.
- DEQ's Facility Profiler website located at <http://deg12.deq.state.or.us/fp20/>. You can use this tool to search by address and see topographic maps, aerial photos and street maps.
- DEQ's Longitude Latitude Identification (LLID) tool, which is located at <http://www.deq.state.or.us/WQ/wqlmaps/wqlmapshome.htm>. To use this tool, enter the address or 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 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, located at <http://deg12.deq.state.or.us/website/findloc/data.asp>. The tool will identify nearby receiving waters. Please note that unnamed waterbodies will not be identified in the LLID tool. In this case, you can use your site map and local topographic maps to pinpoint the closest waterways or walk the site and trace the discharge to the nearest receiving waters.

**Stormwater and mine dewatering 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 or mine dewatering water monitoring will take place (Sampling Points). For clarity, please number the outfalls on the site map and provide a general description of their location in the text of the SWPCP.

A.8.b.viii

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 (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. 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 Agent can verify the drainage areas and the direction of stormwater runoff.

Please see Appendix IV for guidance on Representative Samples.

If you are updating your SWPCP and included monitoring information in the previous SWPCP, please remove this outdated information from the SWPCP or update it to reflect the new permit

		Permit Reference
	requirements. For example, there may be additional pollutant parameters that you need to monitor (such as impairment pollutants) and the sampling frequency may have changed.	
<b>The period of expected use of the site</b>	Describe how long the site is planned to be used. If the site will have prolonged periods of inactivity, this section should describe what actions will be taken to secure the site prior to periods of inactivity. Note that there are reduced inspection requirements for sites that are temporarily inactive in Schedule B of the permit.	A.8.b.ix and B.7.b
<b>Operations and maintenance plan for chemical treatment</b>	If you are using a chemical treatment system for removing sediment or other pollutants from your discharge, you must include an operation and maintenance plan for the system. Information should include the chemicals uses, material safety data sheet(s) for the chemical(s), a schematic of the system and a map showing its location, and the design of how the system disperses its discharge. The plan should also discuss how residues from the treatment process will be stored and disposed of. In addition, there should be a sampling plan to test for the presence of chemical treatment additives or soil stabilization polymers. Note that the system must be operated according to the manufacturer's specification and that any treatment additives be used at a dosing rate that prevents any discharge of toxic substances to waters of the state in harmful amounts. Moreover, the discharge must be treated in a detention pond or other containment system.	A.8.d

## 4. Site Controls and Record Keeping Requirements

<b>Control Measures</b>		Permit Reference
	<p>Control measures or stormwater best management practices (BMPs) used on site to meet the permit requirements can include operational, structural or treatment measures. The site operator is given the flexibility to select the type of control measures, including specific technologies, which he/she believes are best suited to the facility and that will meet the permit's requirements. This flexibility is necessary given the variability of each operation, the differences in the topography from site to site, and differences in the activities and materials exposed to stormwater.</p> <p>Facilities often implement operational or structural source control BMPs to minimize the potential for pollutants coming in contact with stormwater and mine dewatering water that discharges to receiving waters. The new permit refers to these BMPs as Narrative Technology Based Effluent Limits (Schedule A.1 of the permit) Examples of operational BMPs are employee training, good housekeeping measures, and spill prevention. Structural BMPs are physical, structural or mechanical devices used to keep stormwater from coming into contact with mining and processing activities. Examples of structural BMPs are using roofs over storage areas, grading the site to direct stormwater away from material storage areas or areas where equipment is operating, and coating galvanized metal roofs. If operational and structural source control measures are not feasible or adequate at controlling the pollutants in the discharge, then stormwater treatment BMPs that remove pollutants from stormwater may be necessary. Examples of treatment BMPs include detention/retention basins, media filtration, oil/water separators, flocculants, and constructed wetlands.</p> <p>A combination of these control measures usually results in the most effective stormwater management for minimizing the offsite discharge of pollutants in stormwater runoff. Most control measures require regular maintenance to function as intended. Some control measures have simple maintenance requirements, while others may require more extensive upkeep in order to maximize their performance.</p> <p>The following are helpful resources for selecting, installing and implementing control measures for your site:</p> <ul style="list-style-type: none"> <li>• EPA Sector-specific Industrial Stormwater Fact Sheet Series for Mineral Mining and Processing Facilities, located at: <a href="http://www.epa.gov/npdes/pubs/sector_j_mineralmining.pdf">http://www.epa.gov/npdes/pubs/sector_j_mineralmining.pdf</a>.</li> <li>• EPA National Menu of Stormwater BMPs, located at: <a href="http://www.epa.gov/npdes/stormwater/menuofbmps">www.epa.gov/npdes/stormwater/menuofbmps</a>.</li> </ul>	A.1, A.2 and A.8.b.v

- Washington Department of Ecology's Stormwater Management Manuals, located at:  
<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/SrmwtrMan.html>

**Description of Stormwater BMPs**

At a minimum, the plan must describe the BMPs implemented on site to address the following narrative technology based limits: (1) erosion and sediment control, (2) minimize exposure, (3) oil and grease, (4) waste chemicals and material disposal, (5) debris control, (6) housekeeping, (7) spill prevention and response, (8) preventative maintenance, (9) employee education and (10) non-stormwater discharges.

A.8.b.v

If you implement additional BMPs on the site to meet water quality limits or numeric effluent limits that apply to your facility, please include a description of these BMPs in the plan. Please see the discussion below on requirements for numeric effluent limits.

**Narrative Technology Based Requirements- What does minimize mean?**

The technology-based limits require that you minimize (reduce and/or eliminate) stormwater exposure to pollutants using control measures that are technologically available, economically practicable, and achievable in light of best industry practice. When determining what is "best" for your site, evaluate control measures for mining and processing facilities in Oregon and nearby states such as Idaho, Washington, and California. Also, consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reduction likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions. Please keep in mind that the control measures you select must be designed and implemented in accordance with good engineering practices and according to manufacturer's specifications.

A.1.a-c

**Erosion and sediment control**

Erosion control methods such as using slopes or berms to isolate stormwater, vegetating exposed areas, graveling or paving should be used to minimize soil erosion at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales may be used to minimize sediment loads in stormwater discharges. Include in your plan a description of these measures implemented on your site.

A.1.a

The permit requires that facilities implement one or more BMPs to control sediment track-out onto public or private roads. Options include:

- Establishing graveled or paved exits and parking areas prior to any land disturbing activities;
- Graveling all unpaved roads
- Restricting truck traffic from entering mined and disturbed areas during wet weather

- Using an exit wheel wash to remove loose dirt or other materials from vehicles exiting the site.

If a facility operator employs any of the first three BMPs on the list and they are not effective in controlling, DEQ or Agent may require the operator to employ an exit wheel wash.

Facilities must prevent any removal and stockpiling of overburden and other materials that easily erode during wet weather. In addition, facilities must remove any material accumulated in settling ponds, catch basins, or similar facilities at least annually prior to the onset of the wet season and store the material in a location that will prevent erosion or discharge to surface waters.

For activities that involve land disturbance or cause sediment to enter public infrastructure, such as a municipal stormwater system, the operator should contact the local municipality to determine if there are other applicable requirements.

### Minimize Exposure

The first step in an effective stormwater control program is minimizing exposure of manufacturing, processing, material storage areas, loading and unloading areas, dumpsters and other disposal areas, maintenance activities, and fueling operations to rain, snow, snowmelt, and runoff by both locating industrial materials and activities inside or protecting them with storm resistant coverings.

A.1.b

Describe all structural controls or practices used to minimize the exposure of industrial activities to stormwater runoff in the SWPCP. Examples of control measures that could be used at your facility and described in the plan include:

- The location and extent of grading, berms, or curbs used to contain contaminated stormwater or divert stormwater around areas of industrial activity.
- A description of the types of materials and equipment stored within secondary containment and the location of contained storage areas. All hazardous substances must be stored within berms or other secondary containment devices to prevent leaks and spills. 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 or directly to waters of the state. Also include how the retained water within the containment berm is disposed. If you have questions as to whether a material is hazardous, please refer to the table of hazardous substances and corresponding reportable quantities found in 40 CFR 302 Designation, Reportable Quantities and Notification. The following fact sheet may help to determine if your waste is considered hazardous waste:  
<http://www.deq.state.or.us/lq/pubs/factsheets/hw/HowToDetermineHW.pdf>.
- The location of spill cleanup kits and a description of spill cleanup procedures.

- Proper procedures for leaky vehicles and equipment, such as drip pans; parking in a contained area, or parking indoors.
- The use and location of spill/overflow protection equipment.
- Procedures for long-term storage or disposal of equipment and vehicles, such as draining all fluids.
- The location of covered and/or contained equipment cleaning areas.
- The disposal method for all wash water, such as an on-site sump (if a sump is used, specify the pumping frequency) or sanitary sewer. Note that low-pressure cold water without soap that is used to rinse mud off vehicles and equipment must be routed to a sediment treatment measure before being discharged offsite.
- A description of dust control practices used to reduce the activities and air movement that cause dust to be generated from disturbed soil surfaces.

<b>Oil and grease</b>	If applicable, oil/water separators, booms, skimmers or other methods must be used to minimize oil and grease in stormwater and mine dewatering discharges. Please include in your plan a description of these measures implemented on your site along with their location on the site map.	A.1.c
<b>Waste chemicals and material disposal</b>	Wastes chemicals and other refuse must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to stormwater or mine dewatering water. All waste contained in bins or dumpsters must be covered to ensure contaminated stormwater does not seep through the bins or dumpsters. Acceptable covers include, but are not limited to, storing of bins or dumpsters under roofed areas and use of permanent secure lids. You may contact your garbage company and request a lidded dumpster. Include in your plan a description of these measures on your site along with their location on the site map.	A.1.d
<b>Debris control</b>	To minimize debris in stormwater and mine dewatering discharges, please use screens, booms, sealing ponds, or other methods. Include a description of these measures on your site in the plan.	A.1.f
<b>House-keeping</b>	Good housekeeping practices offer a practical and cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater and mine dewatering water. Areas that may contribute pollutants to stormwater and mine dewatering water must be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles help to minimize exposure of stormwater to pollutants. You should also establish protocols to reduce the possibility of mishandling materials or equipment and train employees in good housekeeping techniques. Include in your plan a description of the good housekeeping measures on your site.	A.1.f

**Spill  
Prevention  
and  
Response**

Spills and leaks can be a significant source of stormwater pollution. For this reason, please identify control measures in your plan that are used at your site to minimize the potential for spills, leaks, and other releases that may come into contact with stormwater and mine dewatering water.

A.1.g and  
A.8.c.i

You are required to develop Spill Prevention and Response Procedures (SPRP) for the permitted facility. Describe any structural controls or procedures you are putting in place to minimize the potential for leaks, spills, and other releases. At a minimum, include:

- Procedures for clearly labeling containers (such as, “Used Oil,” “Spent Solvents,” or “Fertilizers and Pesticides”) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.
- Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling. The SPRP should identify areas where potential spills of significant materials may contact and potentially contaminate stormwater and mine dewatering discharges. Outfalls where the contaminated stormwater or mine dewatering water would leave the site must be identified.
- Procedures for quickly stopping, containing, and cleaning up leaks, spills, and other releases. A list of the materials in the spill kit and any other cleanup equipment should be included in the SPRP. The equipment must be on the site and readily available for use by trained personnel. The location of these materials must be identified in the SPRP and on the site map. It may also be useful to identify in the SPRP where contaminated material is stored and disposed of.
- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. This information should include names, phone numbers and titles of people notified. It should also include contact information for the Oregon Emergency Response System (OERS). All spills that reach a waterbody are required to be reported to OERS. The following spill guidance provides additional information on what to do if there is a spill at your facility, located at DEQ’s website at: <http://www.deq.state.or.us/lq/pubs/factsheets/cu/WhatToDoWhenYouveHadASpill.pdf>. Information on reportable quantities and notification procedures required by state and federal law can be found in Oregon Administrative Rules, Chapter 340, Division 108, Oil and Hazardous Material Spills and Releases.

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. Also be aware that local jurisdictions may have reporting requirements as well if the spill is to an MS4 system. You should check with the local jurisdiction to make this determination and include it in the plan if pertinent.

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 cleanup and how often training occurs.

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 cleanup measures. It may be useful to include in the SPRP where the incident reports are kept and to whom the incident was reported, such as managers, police, or a state or local agency.

**Preventative maintenance**

Maintenance programs are intended to ensure that structural control measures and industrial equipment are kept in good operating condition, and to prevent or minimize leaks and other releases of pollutants. A Preventative Maintenance Program is required to ensure the effective operation of material management areas, industrial equipment, and stormwater control measures. A good maintenance program requires regular inspections and testing along with maintenance and repair of industrial equipment and industrial systems.

A.1.h and  
A.8.c.ii

Describe procedures in your plan to:

- Maintain industrial equipment so that leaks and other releases are avoided.
- Maintain your site’s control measures in effective operating condition.
- The schedule you will follow for inspections, maintenance and repair activities, and regular pickup and disposal of waste materials.

**Employee Education**

You must develop and implement an Employee Orientation and 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. If you use chemicals at your facility to treat stormwater

A.1.i and  
A.8.c.iii

or mine dewatering water, employees who handle the chemicals must be trained in their proper use, as well as in proper disposal of residual solids.

A schedule for employee education must 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 and mine dewatering water 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.

**Non-Stormwater Discharges**

You must eliminate any non-stormwater discharges not authorized by a NPDES permit (see authorized non-stormwater discharges in Paragraph 6 of the Permit Coverage and Exclusion from Coverage section of the permit). Unauthorized non-stormwater discharges cannot be discharged from your facility unless specifically authorized by a separate, individual NPDES permit. If non-stormwater discharges are present on the site that are not authorized under the permit, include in the plan measures you are taking to control or eliminate these discharges.

A.1.k

**Numeric effluent limitations**

Sites with primary industrial classifications of Industrial Sand (Standard Industrial Code (SIC) 1446), Construction Sand and Gravel (SIC 1442), or Crushed Stone (SIC 1422, 1423, and 1429) facilities that discharge uncommingled mine dewatering water are subject to federal numeric effluent limits (also called effluent limitation guidelines) that must be achieved in their discharge. The effluent limits are maximum concentrations or levels of specific pollutants that can be discharged. If your facility is classified in one of the categories listed above, refer to Schedule A.11 of the permit for the specific numeric concentration limits and Schedule B.2 for monitoring requirements. If your facility is subject to numeric effluent limits, you must document in your plan the location and type of control measures installed at your site to meet those limits. For assistance in identifying your SIC, visit <http://www.ehso.com/siccodes.php>.

A.2 and  
A.11

# Appendix I - New 1200-A Permit Requirements

Category	Old 1200-A	New 1200-A																
<b>Best Management Practices</b>	Implement best management practices (BMPs) that are appropriate for the site and describe the BMPs in a Stormwater Pollution Control Plan (SWPCP).	Added mandatory BMP requirements (for example, “erosion and sediment control, spill prevention response”) in the Technology-Based Effluent Limit section. Additional erosion and sediment control requirements (for example, preventing sediment trackout).																
<b>Water Quality Based Effluent Limits</b>	Do not cause a violation of in-stream water quality standards.	Do not cause <i>or contribute to</i> a violation of instream water quality standards.  Uncommingled mine dewatering water from certain categories of facilities are subject to numeric effluent limits.																
<b>Benchmarks</b>	Meet statewide stormwater discharge concentration benchmarks total suspended solids, settleable solids, pH and oil and grease.	Meet lower TSS benchmarks.  Facilities subject to numeric effluent limits for TSS or pH are not also subject to benchmarks.																
<b>Other Pollutants</b>	Facilities that discharge to impaired waters for sediment or turbidity have the option to sample their discharge based on a turbidity value of 160 NTU or implement additional BMPs.	Added permit eligibility requirements for new discharges to impaired waters without water quality restoration plans.  Removed the turbidity monitoring option.																
<b>Impairment Pollutants</b>	No requirement	Facilities discharging to waters impaired for the following pollutants, but for which there is not a total maximum daily load (TMDL), must monitor twice per year for these pollutants:  <table border="0" style="width: 100%;"> <tr> <td>Aldrin</td> <td>Heptachlor</td> </tr> <tr> <td>Arsenic</td> <td>Iron</td> </tr> <tr> <td>Arsenic (tri)</td> <td>Lead</td> </tr> <tr> <td>Chlordane</td> <td>Mercury</td> </tr> <tr> <td>Copper</td> <td>PCBs (Concrete Batch Plants only)</td> </tr> <tr> <td>DDT</td> <td>Temperature (mine dewatering only)</td> </tr> <tr> <td>DDT Metabolite (DDE)</td> <td>Zinc</td> </tr> <tr> <td>Dieldrin</td> <td></td> </tr> </table> New facilities discharging into waters impaired with any of the above pollutants must prevent any exposure to the pollutant in their discharge, document in the facility’s SWPCP that the pollutant is not present at the site, or provide information to DEQ or Agent that their discharge would not cause or contribute to a water quality standards violation.  New facilities discharging to a water that has a TMDL must comply with the requirements of the TMDL, if any exists.	Aldrin	Heptachlor	Arsenic	Iron	Arsenic (tri)	Lead	Chlordane	Mercury	Copper	PCBs (Concrete Batch Plants only)	DDT	Temperature (mine dewatering only)	DDT Metabolite (DDE)	Zinc	Dieldrin	
Aldrin	Heptachlor																	
Arsenic	Iron																	
Arsenic (tri)	Lead																	
Chlordane	Mercury																	
Copper	PCBs (Concrete Batch Plants only)																	
DDT	Temperature (mine dewatering only)																	
DDT Metabolite (DDE)	Zinc																	
Dieldrin																		

NPDES 1200-A General Permit

Category	Old 1200-A	New 1200-A
<b>Benchmark Exceedances</b>	Within 30 days of receiving water quality sample results that exceed a benchmark concentration, submit Action Plan that contains (1) results of review, (2) a corrective action, (3) and an implementation schedule.	Complete Tier I corrective actions are required when stormwater sample results exceed benchmark or impairment reference concentrations. Tier I requirements are similar to responses in the old permit, except only submit to DEQ or Agent changes made to SWPCP based on investigation. Retain Tier I corrective action report on site and submit to DEQ or Agent upon request.  Tier II corrective actions are required if a second-year geometric mean concentration exceeds a benchmark. Must implement treatment BMPs within two years. Professional engineer or certified engineering geologist must design and stamp the portion of the SWPCP addressing the treatment measures.
<b>Sampling</b>	Sample 4 times per year. Samples must be collected at least 14 days apart.	Added requirement to monitor during first 12 hours of a stormwater discharge event (This does not apply to discharges of mine dewatering water).
<b>Monitoring Waiver</b>	Monitoring waiver can be obtained for individual parameters after four consecutive samples collected are at or below the benchmark or exceedance due to background or natural conditions.	Monitoring waiver can be obtained for individual parameters after four consecutive samples are at or below the benchmarks <i>or reference concentrations</i> based on geometric mean evaluation or due to background natural conditions.  Waivers are not available for numeric effluent limits.
<b>Inspections</b>	Regular inspections of diversion ditches, seepage ponds and receiving waters during operation.  Monthly inspections of areas where potential spills of significant materials or industrial activities occur, and where stormwater control measures, structures, catch basins, and treatment facilities are located.	Added daily inspections of active clearing, grading and excavation areas when stormwater discharge is occurring.  Reduced inspection requirements for unstaffed or inactive sites to every three months during the rainy season.  Added that permit holders must document inspection results in a report and retain it on site

# Appendix II - DEQ 1200-A Permit Stormwater Pollution Control Plan (SWPCP) Check List

**Instructions:** Complete this form and submit with SWPCP. Fill in the appropriate page number(s) indicating the location of information in the SWPCP. New requirements are highlighted and italicized.

Site Name:

File No.:

Permit Schedule		Requirement	Page #	Comments (For official use only)
<b>SIC codes</b>		<i>Provide primary and any additional SIC Codes (in renewal application or in cover letter if already submitted application)</i>		
<b>Signature</b>	A.7.c	Signed and certified in accordance with 40 CFR 122.22		
<b>Title Page</b>	A.8.a	Site name		
		Site owner or operator, telephone number, and e-mail address, if available		
		Name(s) of the person(s) who prepared the plan		
		DEQ Permit File (not ORR #) and DOGAMI site number, if applicable		
		Contact person name, telephone number, and e-mail address, if available		
		Site physical address, including county name		
		Site mailing address (if different)		
		Plan Date		
<b>Site Description</b>	A.8.b.iii	Mining and processing activities conducted on-site (description of processes, products made, services provided, etc.)		
		Significant materials (include methods of storage, usage, treatment, and disposal)		
<b>General Location Map</b>	A.8.b.i	Site in relation to surrounding properties, transportation routes, surface waters, and other relevant features.		
<b>Site Map (please identify clearly)</b>	A.8.b.ii	Drainage patterns		
		Drainage and discharge structures (piping, ditches, etc.)		
		Drainage area outline for each stormwater outfall		
		Paved areas, equipment, tanks, buildings in each drainage area		
		Areas of outdoor manufacturing, treatment, storage or disposal of significant materials		
		Operating areas including concrete and asphalt batch plants		

Permit Schedule		Requirement	Page #	Comments (For official use only)
		Stormwater structural control measures		
		Stormwater features to reduce flow or minimize impervious surfaces		
		Material loading and access areas		
		Used oil, hazardous waste treatment, storage and disposal facilities		
		Location of wells (including waste injection wells, seepage pits, and drywells)		
		Location of springs, wetlands and surface waterbodies (both on-site and adjacent to the site)		
		Location of groundwater wells		
		Location of non-stormwater discharges		
		Location of sampling points and outfalls		
		Location of spill prevention and cleanup materials		
<b>Potential Pollutants</b>	A.8.b.iv	Identify potential pollutants that could be present in stormwater for each drainage basin		
<b>De-vegetated and Impervious Area</b>	A.8.b.vi	Estimates, by individual stormwater or mine dewatering outfall, of the surface area that will be stripped of vegetation in the next five years. Estimates, by individual stormwater or mine dewatering outfall, of impervious area including paved areas and building roofs.		
<b>Receiving Waters</b>	A.8.b.vii	Name(s) of the receiving water(s). If to a municipal storm sewer system include ultimate receiving waters and name of municipality.		
<b>Monitoring Locations</b>	A.8.b.viii	Identify discharge outfall(s) and sampling point(s) where stormwater monitoring will occur.		
		If all outfalls are not monitored, include description of outfalls, data, and analysis supporting outfalls are representative according to Schedule B.2.c.		
<b>Period of Expected Use</b>	A.8.b.ix	The period that the site is expected to be used.		
		If the site is not operated on a year-round basis, describe what actions are undertaken to ensure that the site is secure during periods of inactivity		

Permit Schedule		Requirement	Page #	Comments (For official use only)
Site Controls	A.8.b.v	Identify <b>Best Management Practices</b> to meet technology based requirements (Sch. A.1) and any applicable sector specific requirements (Sch.E): <ul style="list-style-type: none"> <li>• Erosion and sediment control,</li> <li>• Minimize exposure,</li> <li>• Oil and grease,</li> <li>• Waste chemicals and material disposal,</li> <li>• Debris control,</li> <li>• Housekeeping,</li> <li>• Spill prevention and response,</li> <li>• Preventative maintenance,</li> <li>• Employee education, and</li> <li>• Non-stormwater discharges</li> </ul>		
Procedures and Schedules	A.8.c	<b>Spill prevention and response procedures.</b> Include methods to prevent spills along with clean-up and notification procedures. Spill prevention plans may be substituted if stormwater is adequately addressed.		
		<b>Preventative maintenance procedures.</b> Include procedures for inspection, maintenance and repairs, and schedule for regular pick up and disposal of waste materials, and inspection for leaks and condition of drums, tanks and containers		
		<b>Employee education schedule.</b> Orientation within 30 days, education annually.		
O& M plan if using chemical treatment	A.8.d	Describe chemicals used and application rates and include material safety data sheets		
		Include a system schematic including the locations of the system, the inlet, and the discharge, as well as the discharge dispersion device design.		
		Describe your plan for disposing residues from chemical treatment.		
		Include a sampling plan, including monitoring frequency, for treated water to test for chemical treatment additives or soil stabilization polymers.		

**For Official Use Only**

Date received:

Plan Accepted: N/Y

Notes:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
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NPDES 1200-A General Permit

6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

# Appendix III - Example Site Maps and Resources



General Location Map

Example of





- + Spill Response Equipment
- ← General Flow Direction
- Discharge Point (DP)  
Discharge Water Quality Swale  
and Storm Drainage Channel Locations



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 DOGAMI, (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.

<b>Oregon Explorer</b> Aerial Photographs (2011), Topographic Maps, Location Maps	<a href="http://tools.oregonexplorer.info/oe_map_viewer/viewer.html?Viewer=OE">http://tools.oregonexplorer.info/oe_map_viewer/viewer.html?Viewer=OE</a>
<b>Google Earth</b> Aerial Photographs (2012)	<a href="http://www.google.com/earth/index.html">http://www.google.com/earth/index.html</a>
Site Location Street Maps	<a href="http://www.mapquest.com/">http://www.mapquest.com/</a> or <a href="http://maps.google.com/">http://maps.google.com/</a>
<b>Washington County</b> Property Tax Maps, USGS Maps, Aerial Photographs	<a href="http://washims.co.washington.or.us/InterMap/">http://washims.co.washington.or.us/InterMap/</a>
<b>Clatsop County</b> Aerial Photographs, Tax Lot Maps, Property Ownership	<a href="http://www.co.clatsop.or.us/default.asp?deptid=3&amp;pageid=540">http://www.co.clatsop.or.us/default.asp?deptid=3&amp;pageid=540</a>
<b>Columbia County</b> Aerial Photographs, Tax Lot Maps, Property Ownership	<a href="http://webmap.co.columbia.or.us/geomoose2/">http://webmap.co.columbia.or.us/geomoose2/</a>
<b>City of Portland</b> Property Tax Maps, Utilities Maps, Aerial Photographs	<a href="http://www.portlandmaps.com/mapping.cfm">http://www.portlandmaps.com/mapping.cfm</a>
<b>Clackamas County</b> Aerial Photographs, Property Maps	<a href="http://www.clackamas.us/gis/">http://www.clackamas.us/gis/</a>
<b>Tillamook County</b> Property Tax Maps	<a href="http://www.co.tillamook.or.us/">http://www.co.tillamook.or.us/</a>
<b>Oregon Department of Transportation</b> Color Street Maps	<a href="http://www.oregon.gov/ODOT/maps.shtml">http://www.oregon.gov/ODOT/maps.shtml</a>
<b>Lane County - Property Tax</b>	<a href="http://apps.lanecounty.org/TaxMap/Search.aspx">http://apps.lanecounty.org/TaxMap/Search.aspx</a>
<b>Jackson County - Color Maps</b>	<a href="http://www.smartmap.org/">http://www.smartmap.org/</a>
<b>Douglas County - Maps</b>	<a href="http://www.co.douglas.or.us/puboaa/maponline.asp">http://www.co.douglas.or.us/puboaa/maponline.asp</a>
<b>Deschutes County</b> Color Property Maps	<a href="http://lava5.deschutes.org/mox5/indexPublic.cfm">http://lava5.deschutes.org/mox5/indexPublic.cfm</a>
<b>Josephine County</b> Color Terrain Map	<a href="http://68.185.2.151/website/pumaweb/">http://68.185.2.151/website/pumaweb/</a>
<b>Natural Resource Conservation Service (NRCS) – Oregon</b> Soils Information	<a href="http://www.or.nrcs.usda.gov/technical/soil/hydric.html">http://www.or.nrcs.usda.gov/technical/soil/hydric.html</a>

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 IV - Determining Representative Outfalls

## **A. Determining the number of sampling points**

You must identify in the SWPCP the outfalls that you will sample. Where outfalls are representative (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 site activities, site characteristics, significant materials, and management practices and activities within the area drained by the outfalls. If DEQ 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 or mine dewatering water 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.

## **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 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 site activities and processes;
- Substantially similar significant materials that may be exposed to stormwater or mine dewatering water [including, but not limited to, raw materials, fuels, materials such as solvents, detergents, and plastic pellets; finished materials; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act; any chemical the operator is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act; 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 estimated runoff coefficient of 0.90 for impervious surfaces such as roofs or paving, 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 operator 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.

## 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. Nonstructural stormwater management practices include employee training, spill reporting and cleanup, 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**

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

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

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

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

# Appendix V - DEQ and Agent Offices

DEQ Northwest Region	DEQ Western Region		DEQ Eastern Region		
700 Lloyd Building at 700 NE Multnomah St., Suite #600 Portland, OR 97232 503-229-5263 or 1-800-452-4011	165 East 7th Avenue, Suite 100 Eugene, OR 97401 541-687-7326 or 1-800-844-8467		800 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801 541-278-4605 or 1-800-304-3513		
Clackamas	Benton	Lane	Baker	Hood River	Sherman
Clatsop	Coos	Lincoln	Crook	Jefferson	Umatilla
Columbia	Curry	Linn	Deschutes	Klamath	Union
Multnomah	Douglas	Marion	Gilliam	Lake	Wallowa
Tillamook	Jackson	Polk	Grant	Malheur	Wasco
Washington	Josephine	Yamhill	Harney	Marrow	Wheeler

AGENT OFFICES	
<p><b>City of Portland</b> Bureau of Environmental Services Water Pollution Control Laboratory 6543 N. Burlington Ave. Portland, OR 97203-5452 (503) 823-7584</p>	<p><b>Department of Geology and Mineral Industries</b> 229 Broadalbin St SW Albany, OR 97321 (541) 967-2082</p>