NPDES 1200-Z Industrial Stormwater General Permit

Applying for Permit Coverage and Developing Your Stormwater Pollution Control Plan Technical Assistance for Industrial Operators

Permit Coverage from 2021-2026



Stormwater Section

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



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1.0 Applying for the Industrial Stormwater General Permit

What is the purpose of this document?

The purpose of this document is to provide technical assistance on applying for an industrial stormwater permit and developing a Stormwater Pollution Control Plan (SWPCP). You should use this guide if you are an operator of an industrial facility required to develop a SWPCP that complies with a National Pollutant Discharge Elimination System, NPDES, Industrial Stormwater General Permit No. 1200-Z.

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 additional information that will assist in developing the SWPCP.

Who needs to apply for the permit

Industrial facilities that discharge stormwater to surface waters or to conveyance systems that discharge to surface waters and conduct industrial activities identified in Table 1 of or Table 2 in 1200-Z permit. 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 item 6 in the Coverage and Exclusion from Coverage section of the permit). These facilities must submit a signed No Exposure Certification (NEC) for approval. Copies of the NEC form can be found on DEQ's website at:

Permit effective dates

The permit expires every five years. The 1200-Z permit is scheduled to expire on June 30, 2026.

On March 25, 2021, the Environmental Quality Commission adopted the renewed permit into Oregon's Administrate Rules. Please see summary in Appendix I that compares the new permit requirements to the old permit requirements. A copy of the new permit can be found on DEQ's website at: https://www.oregon.gov/deq/wq/wqpermits/Pages/Stormwater-Industrial.aspx.

The new requirements for the 1200-Z permit became effective July, 1, 2021.

https://www.oregon.gov/deg/FilterPermitsDocs/indSTnoexposureexcl.pdf.

Agents

DEQ has entered into agreements with several local jurisdictions known as "agents" to administer the permit on DEQ's behalf. 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, they typically submit application materials and other permit documents to the agent rather than DEQ. Please see Appendix V for contact information and addresses for agent jurisdictions.

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.

A complete application includes: the application form, the SWPCP and checklist, Land Use Compatibility Statement (LUCS) and fees. As soon as Your DEQ Online, our electronic system, has launched, applicants must create a profile and fill out the electronic application. The required forms can be uploaded into the system. Applications for sites located in our agent's jurisdictions, will submit paper applications until the electronic system can accommodate agent's applicants too.

Copies of the application forms, LUCS and fee information can be found on DEQ's website at: https://www.oregon.gov/deq/wq/wqpermits/Pages/Stormwater-Industrial.aspx. Please see Appendix II for the SWPCP checklist. Please see Appendix V for contact information and addresses for DEQ regional offices and agents.

Additional requirements for new discharges to impaired waters:

There are additional application requirements for new applicants that discharge to waters that do not meet water quality standards and need a Total Maximum Daily Load (i.e., 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 https://www.oregon.gov/deq/wq/Pages/epaApprovedIR.aspx.

This requirement is limited to new discharger to an impaired water without a Total Maximum Daily Load (TMDL), based on the EPA-approved Category 5: 303(d) list in effect at the time of permit application for pH, copper, lead, zinc, iron, and E. coli that correspond to the specific pollutant(s) for which the water body is impaired. The receiving stream impairment status is determined by the EPA-approved Integrated Report in effect at the time of permit application. These requirements apply to new dischargers, which can be a newly constructed facility as well as an existing facility that is required to obtain permit coverage, when stormwater discharges directly to an impaired waterbody or indirectly through a storm sewer system, ditch or other conveyance system they will need to meet these additional application requirements.

Facilities need to determine where the stormwater from their site discharges to (i.e., 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) pipes, 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 waterbody 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 city or county operating the MS4 system.

To obtain coverage under the permit, the new discharger must meet and document one of the following conditions:

- Prevent exposure to stormwater for pH, copper, lead, zinc, iron and E. coli that correspond to the specific pollutant(s) for which the water body is impaired.
- Provide technical demonstrations that sources of pH, copper, lead, zinc, iron and E.coli that correspond to the specific pollutant(s) for which the water body is impaired are not present at the site.
- Provide DEQ or agent stormwater discharge analytical sampling results to demonstrate the discharge of stormwater is not expected to cause or contribute to an exceedance of water quality standards for pH, copper, lead, zinc, iron and E. coli that correspond to the specific pollutant(s) for which the water body is impaired at the point of discharge.

• Or, if unable to demonstrate pH, copper, lead, zinc, iron and E. coli that correspond to the specific pollutant(s) for which the water body is impaired will not be present in the discharge, but the discharge is not expected to cause or contribute to a water quality standards exceedance at the point of discharge.

Prior to granting permit coverage, DEQ or agent will make a determination if the new discharger is eligible for coverage under a general permit. If the permitting authority determines the discharge will impact impaired waters, coverage will be required under an individual NPDES permit or discharge must cease.

This information will need to be included with the application materials and documented in the SWPCP. For more information please see page 5 of the permit (Condition I of the Permit Coverage and Exclusion from Coverage section of the permit).

Renewal applications:

Existing facilities were automatically renewed under the EQC adopted renewed permit, effective July 1, 2021.

2.0 Developing and Implementing a Stormwater Pollution Control Plan

Permit Reference

What is a Stormwater Pollution Control Plan/SWPCP?

The SWPCP is a stormwater management plan for your site. The plan contains detailed information regarding the specific industrial activities, stormwater capture and conveyance features, your assessment of potential pollution sources and description and locations of control measures and management practices implemented on site to address stormwater pollution. The SWPCP requirements are located in Schedule A of the permit. The reference to the specific requirements in the permit is provided on the right hand side of the page.

The first step in developing a SWPCP is to gain a thorough understanding of how rainfall interacts with the activities and equipment at your facility, in order to be able to identify potential pollutant discharge concerns. To complete this step, you will need to conduct detailed walk-throughs of your facility and discussions with fellow employees. The aim is to identify industrial materials or material handling activities that are exposed to stormwater, the direction of stormwater flows through and from your facility, the location of all stormwater discharge points and areas where stormwater controls or practices are needed or are already in place. If possible, you should conduct one or more walk-through during rain events so that you can observe and map the flow of stormwater on your site. In addition to walk-throughs, you should communicate with fellow site employees who are familiar with daily operations to comprehensively identify any activities and locations that may contribute to stormwater pollution.

What information should be included in the SWPCP?

Permit Reference

What is a Stormwater Pollution Control Plan/SWPCP?

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

- A.10
- A map and description of the permitted site, including ongoing industrial
 activities, current and previous significant materials storage, buildings
 and pavement areas, rainfall exposure and flow paths, stormwater capture
 and conveyance system features and all discharge points (including
 locations where any sheet flow leaves the site).
- Identification of the potential pollutants that may be present in stormwater runoff, such as sediments, oil and grease, and metals.
- A discussion of the site controls that will be implemented to prevent stormwater pollution and meet the both narrative and numeric technology-based effluent limit requirements in the permit.
- A description of the procedures and schedules for conducting required housekeeping, spill prevention and response, operations and maintenance and employee education.

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.

Who should prepare and implement the SWPCP?

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 any other person with knowledge of the site and of stormwater management practices. Permit registrants must implement the SWPCP and any revisions.

A.8.a and d

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:

A.8.b

(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

Permit Reference

What is a Stormwater Pollution Control Plan/SWPCP?

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) <u>For a partnership or sole proprietorship</u>. 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) <u>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 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."

Electronic signatures will be accepted as part of DEQ's modernization project and compliance with the Electronic Reporting Requirements under 40 CFR 127.

Where does the SWPCP need to be kept?

The most recent copy of the SWPCP and any previous revisions made in the last three years must be kept at the facility and made available upon request to DEQ or other government agencies responsible for stormwater management in your area.

B.16 and D.2

What if the SWPCP needs to be revised?

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 control measures outlined in your SWPCP. Update the SWPCP no later than 30 calendar days of these changes occurring. Examples of changes that would require changes to your SWPCP include: a new person is hired as the site contact for the permit, a new industrial process may require additional potential pollutants to be used onsite, discovery of a new hazardous substance on the property, or adding or removing a building may causes a re-routing of stormwater through a different discharge point.

A.8.f and A.9

Permit Reference

What is a Stormwater Pollution Control Plan/SWPCP?

You are encouraged to revise your SWPCP as often as needed to accurately reflect site conditions and you don't always need to submit the revisions to DEQ or agent. 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 discharge points, and (4) changes to the site or control measures that may significantly change the nature of pollutants in your discharge, significantly increase pollutant levels, discharge frequency, volume or flow rate.

For all revision submittals, send the revised pages of the SWPCP or site map by mail or email no later than 30 calendar days, until notified it is time to submit electronically through Your DEQ Online. Only revisions to monitoring locations (3) require review by DEQ or agent and are deemed accepted after 30 calendar days without a response.

Once directed to use the electronic system to update your SWPCP, you will need to upload a pdf version. However, change of facility contact will be a separate process in the electronic system and will not require an upload of the entire plan.

3.0 Elements of a Stormwater Pollution Control Plan

Permit Reference

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

Please list the following information on the title page:

- 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.
- The name of the person preparing the SWPCP.
- If you are currently operating under a permit, provide the DEQ file number and EPA permit number, as listed on the permit assignment documents.
- Contact person's name and telephone number and email address if available.
 This should be the person that DEQ or agent can contact regarding the SWPCP.
- Physical address of the facility, including county, and mailing address, if different that physical address.
- Primary and any co-located Standard Industrial Classification (SIC) code(s).
- 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.

What should be included in the site description section?

In this section, please provide the following:

- General location map;
- Site specific map;
- Description of the activities, materials used and produced, general operations at the site and any significant materials left from previous operations and exposure to stormwater of all of these;
- Description of potential pollutants in stormwater runoff;
- Description of stormwater flow patterns with arrows, conveyances discharge structures, features to minimize impervious surfaces and structural treatment features;
- Description of site controls used to meet the technology and water quality based requirements in Schedule A and any applicable sector-specific requirements in Schedule E of the permit;
- Estimate of impervious surface area, including buildings, concrete and asphalt surfaces on site:

A.10.a

A.10.b

- Location of wells, springs, wetlands and groundwater wells;
- Location and description of authorized non-stormwater discharges;
- Name of receiving waters for stormwater runoff;
- Identification of all discharge point(s), including sheet flow, and monitoring point(s), including if multiple discharges are substantially similar.

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.7.b.i.(1)

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 conditions, operations and stormwater drainage patterns for the overall site, and includes: property boundaries; buildings; pavement and unpaved areas; process and storage areas; drainage areas and flow paths, stormwater control and conveyance structures (e.g., catch basins, oil/water separators, pipes); all stormwater discharge points and surface waterbodies. All of these elements need to be clearly identified on the map.

A.7.b.i

Please make the map large enough so that the information provided on them can be read 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 the Appendix III for examples of site specific maps and references of useful websites for creating geographic maps for various locations throughout the state.

The site map should include the all elements described below.

Drainage patterns

The drainage patterns of the surface water flow on the site are shown here. For instance, use arrows to indicate the direction of rain water/stormwater-flow over land, as the grade of the surface changes, into drainage pipes, ditches and sheet flows to various discharge points. In addition, indicate areas where infiltration occurs.

A.10.b.i (2) and (3)

Conveyance and discharge structures

Identify conveyance structures and discharge points for each drainage area. Such structures refer to definite points where stormwater runoff is collected and leaves the site (i.e. all the piping, discharge points, sheet flows, etc. on site). Examples of

A.10.b.i (3) (4) and (5)

conveyance and discharge structures include pipes, ditches, channels, tunnels, conduits, inlets and discharge points. For clarity, the locations of all discharge points from the site should be numbered on the map with unique identifiers starting with 001, 002, etc. Sheet flow discharges may be infiltrated or directed to a discharge structure to avoid having to identify them as individual discharge points.

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

The following table is an example:

Discharge	Drainage Area	Location Description
Point ID		
001	A	NE corner of property
002	В	SE corner of property

Monitoring points

Identify the location of sampling points that represent site or activity discharges, where monitoring will occur.

A.10.b.i (4)

Outline of drainage area for each discharge point

Drainage areas are specific areas within the site where stormwater runoff flows to a common discharge or discharge point based upon the slope of the land. An approximation of the surface area covered by the drainage area should be included on the map. Color coded maps are good for illustrating separate drainage areas. Drainage areas 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 area for each discharge point.

A.10.b.i (5)

Paved areas and buildings

Identify buildings, structures, pavement and compacted unpaved areas that direct stormwater runoff to a discharge point. 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 these impervious portions of the site should be noted on the map.

A.10.b.i (6) and A.10.b.viii

Significant materials

Identify the locations of areas used for outdoor manufacturing, treatment, storage or disposal of current use or remaining significant materials. 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; any chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act; TSCA, fertilizers; pesticides; and waste products such as mill slag and sludge that have the potential to be released with stormwater discharges. Please ensure that all significant materials you identified in the general description section of the plan are referenced here and provide any characterization information about significant materials left from past operations.

A.10.b.i (8), (9) and (13) and A.10.b.ii and iii

Structural control and treatment measures

Stormwater runoff can be controlled physically by installing structural control measures. Examples of structural controls are berms, vegetative swales, collection and reuse of stormwater, inlet controls, diversion ditches used as outlet control, infiltration areas or 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.10.b.i (10), (11) and A.10.b.vii

Material handling and access and locations of potential pollution source activities

Identify any loading areas, including garages and roadway access points, drum storage bins, or drum loading areas. Identify locations of treatment, storage and disposal, fueling stations, machinery and vehicle and equipment maintenance cleaning areas.

A.10.b.i (12) and (19)

Hazardous waste storage/disposal

Identify any loading or storage areas of hazardous materials described in the general description section of the plan.

A.10.b.i (13)

Wells

Sometimes stormwater infiltrates into the ground through wells, including waste injection wells, seepage pits, drywells, groundwater wells, etc. Please identify where and how this occurs on the map.

A.10.b.i (14) and (16)

Surface waters

Identify surface water bodies such as creeks, springs, wetlands or lakes on site or adjacent to the site.

A.10.b.i (15)

Non-stormwater discharges

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. Examples of authorized non-stormwater discharges are landscape watering, 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 page 8 of the permit. A copy of the new permit can be found on DEQ's website at:

https://www.oregon.gov/deg/wq/wqpermits/Pages/Stormwater-Industrial.aspx.

A.10.b.i (17)

Spill prevention

Identify the location of the spill prevention and cleanup materials.

A.10.b.i (18)

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?

A.10.b.ii and

Next provide a description of significant materials exposed to stormwater runoff, including any left from past uses at the site that may no longer occur. See page 10 of this document for a list of significant materials.

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 or significant materials remain from past activities, include this information in this section of the plan.

It is helpful to provide in this section a description of external building construction materials (i.e., corrugated galvanized siding, concrete tilt-up, etc.), roofing materials (i.e., composition, built-up, galvanized corrugated sheet metal, etc.), and paving materials (i.e., gravel, asphalt, concrete, etc.). This information will assist DEQ or agent in providing technical assistance regarding pollutant sources. For example, stormwater runoff from galvanized roofing and siding often contains high concentrations of zinc.

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

How to identify potential pollutants in stormwater runoff

Evaluate the industrial activities occurring in each drainage area listed in the map and identify in the SWPCP the potential pollutants that may be present in stormwater runoff from these areas.

A.10.b.v

The following activities at industrial facilities have the potential to be major sources of pollutants in stormwater:

Loading and unloading operations

Loading and unloading operations can include pumping of liquids or gases from tankers to storage facilities, pneumatic transfer of dry chemicals, transfer by mechanical conveyor systems, or transfer of bags, boxes, drums or other containers by forklift or other material handling equipment. Material spills or losses from loading and fueling in these areas can accumulate and be washed offsite or into the stormwater conveyance system during a storm.

Outdoor storage

Outdoor storage activities include storage of fuels, raw materials, by-products, intermediate products, final products, and process residuals. Materials may be stored in containers, on platforms or pads, in bins, boxes or silos, or as piles. Storage areas that are exposed to rainfall and/or runoff can contribute pollutants to stormwater when solid materials wash off.

Outdoor process activities

Although many manufacturing activities are performed indoors, some activities, such as timber processing, rock crushing, and concrete mixing, occur outdoors. Outdoor processing activities can result in liquid spillage and losses of material solids, which makes associated pollutants available for discharge in runoff.

Dust or particulate generating processes

Dust or particulate generating processes include industrial activities with stack emissions or process dusts that settle on surfaces. Some industries, such as mines, cement manufacturing, and refractories, also generate significant levels of dust that can be mobilized in stormwater runoff.

Illicit connections and non-stormwater discharges

Illicit connections of process wastes or other pollutants to stormwater collection systems can be a significant source of stormwater pollution. Non-stormwater discharges include any discharge from the facility that is not generated by rainfall runoff (for example, wash water from industrial processes).

Waste management

Waste management practices include everything from landfills to waste piles to trash containment. All industrial facilities conduct some type of waste management at their site, much of it outdoors, which must be controlled to prevent stormwater pollution.

Identify and list any potential pollutants that are associated with industrial activities on site that could reach and contaminate stormwater discharge. This includes all chemical solid and chemical liquid materials that have the potential to spill or be tracked onto exposed surfaces and impact stormwater flowing off of the site. Oils, greases, fuels, or hazardous wastes that are stored anywhere on-site, even if they are stored in a covered area, should be considered potential pollutants.

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

- Sediment that can be tracked off site or flow off 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.
- Zinc from unsealed galvanized roofs, downspouts or fences.

Additional information about potential pollutants that may be present in stormwater runoff from your facility is located on EPA's website, located at https://www.epa.gov/npdes/industrial-stormwater-fact-sheet-series. EPA developed industrial stormwater fact sheets that provide a summary of typical pollutants associated with different industrial sectors/activities and the types of stormwater BMPs used to minimize the discharge of those pollutants.

Stormwater control measures, management practices

and treatment

In the site description section of the plan, include the control measures and management practices that are installed and implemented on site to meet the technology and water quality-based requirements in Schedule A.1 –A.4, Schedule A.13 and any applicable sector-specific requirements in Schedule E of this permit, as well as controls in response to corrective actions. For further information, please see section 4.0 of this document. Include safety data sheets for any stormwater treatment chemicals or substances used in stormwater treatment and stored on site.

A.10.b.vi and vii

How to estimate the proportion of impervious area

Once the site map is complete, determine the amount of impervious area and total area for each drainage area identified on the site map. Remember to consider roof areas, paved areas and compacted unpaved areas as impervious area. Provide this information in area units (i.e., total square footage). This estimate should be done for each area that drains to a different discharge point. Provide this information in the site description section of the SWPCP.

A.10.b.viii

Receiving body of 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. Your facility may discharge 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. 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.

A.10.b.ix

If the discharge from your facility does not discharge into an MS4 storm sewer 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 discharge point 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.

Resources to help you identify your receiving waters:

- 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.
- Often local jurisdictions have GIS mapping tools to help determine the closest discharge points from municipal storm sewer system.
- Try DEQ's Integrated Report web map, by opening the hydrography layers https://hdcgcx2.deq.state.or.us/Html5Viewer211/?viewer=wqsa.

The SWPCP must list all receiving waters, latitude and longitude of each associated discharge points, and applicable SIC code, if facility has co-located operations. If discharge point is to a municipal storm sewer system, list the name(s) and latitude and longitude of the receiving waters and the name of the municipality.

Stormwater monitoring discharge points

You must identify, list, and describe in the SWPCP all monitoring point(s) on the site where stormwater monitoring will take place. To support electronic reporting, please number the discharge points on the site map using unique 3-digit identifiers starting with 001, 002, etc. and provide a general description of their location in the text of the SWPCP.

A.10.b.i.(4) and (5) and A.10.b.x

If the site contains multiple discharge points but monitoring occurs at only a few substantially similar discharge points, you must provide justification for reducing the number of monitoring points. For example, a single monitoring point can be used if all of the discharge points on the site have drainage for similar activities and the same controls and management practices are used within all the drainage area. It is expected that the discharges from these discharge points will be similar in composition. The data or analysis supporting that the discharges are substantially similar must be included in the SWPCP. Also, it is also important to outline on the site map the drainage areas for each discharge point and the topography of the site so that DEQ or agents can verify the drainage areas and the direction of stormwater runoff.

B.2.c.ii

Please see Appendix IV for guidance on substantially similar discharge points. If sampling is subject to a numeric water quality-based effluent limits, all discharge points into the impaired water body must be sampled. There is no sampling reduction allowed for substantially similar discharge points.

B.7

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 requirements. For example, DEQ reduced the number of Category 5 pollutants you need to monitor and the sampling frequency may have changed.

4.0 Stormwater Pollution Control Plan Site Controls and Record Keeping Requirements

	Permit Reference
Control measures and management practices	
Control measures and management practices used on site to meet the permit requirements can include operational, structural, infiltration or treatment measures and is commonly a combination of these. The site operator is given the flexibility to select the type of control measures, including specific technologies, which they believe are best suited to the facility and that will meet the permit requirements. This flexibility is necessary given the variability of each industrial operation, the differences in the topography from site to site, and the varieties in the activities and materials exposed to stormwater.	A.1 and A.10.b.i (8) and A.10.b.vi and vii
Facilities must implement operational or structural control measures to minimize the potential for industrial pollutants coming in contact with stormwater that discharges to receiving waters. The permit refer to these measures and practices as narrative technology-based effluent limits. Examples of operational measures are employee education and training, good housekeeping measures, and spill prevention. Structural measures are physical, structural or mechanical devices used to keep stormwater from	A.1

coming into contact with industrial activities. Examples of structural measures are using roofs over storage areas, re-grading the site to direct stormwater away from material storage areas, installing berms, and coating galvanized metal roofs. If operational and structural control measures are not feasible or adequate at controlling the pollutants in their discharge, then stormwater treatment measures that remove pollutants from stormwater may be necessary. Examples of treatment measures include detention/retention/infiltration basins, media filtration, and constructed wetlands. 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. The following are helpful resources for selecting, installing and implementing control measures for your site: DEO Industrial Stormwater Best Management Practices Manual, located at: http://www.oregon.gov/deg/FilterDocs/IndBMP021413.pdf • EPA Sector-specific Industrial Stormwater Fact Sheet Series, located at: https://www.epa.gov/npdes/industrial-stormwater-fact-sheet-series EPA National Menu of Stormwater Best Management Practices, located at: https://www.epa.gov/npdes/national-menu-best-management-practices-bmpsstormwater Washington Department of Ecology's Stormwater Management Manuals, located at: http://www.ecy.wa.gov/programs/wq/stormwater/municipal/StrmwtrMan.html **Description of stormwater control measures** At a minimum, the plan must describe the control measures implemented on site to address the following narrative technology based limits: (1) minimize exposure, (2) oil A.1 and and grease control, (3) waste chemicals and material disposal, (4) erosion and sediment A.10.b.vi control, (5) debris control, (6) dust generation and vehicle tracking of industrial and vii materials, (7) housekeeping, (8) spill prevention and response, (9) preventative maintenance, (10) employee education and (11) non-stormwater discharges. In addition, certain facilities are also required to meet sector-specific requirements in Schedule E of the permit (please see discussion below). If there are any additional control measures you implement on the site to meet water quality limits, sector-specific requirements, numeric and narrative technology-based and water quality-based effluent limits that apply to your facility or in response to a need for corrective actions, please include a description of these measures in the plan. Please see the discussion below on requirements for numeric effluent limits and sector-specific requirements. Narrative technology based requirements- What does minimize mean? The technology-based limits require that you minimize (i.e., defined as reduce and/or A.3.a-c 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 industry, evaluate control

measures for similarly situated industries 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 manufacturer's specification.

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.

Describe all structural controls and operational 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, petroleum/oil, and other chemical solid or chemical liquid materials that have the potential to contaminate stormwater should 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. Also include how the retained water within the containment berm is disposed. 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. The following fact sheet may help to determine if your waste is considered hazardous waste: https://www.oregon.gov/deg/FilterDocs/HWDetermination.pdf.
- The location of spill cleanup kits and a description and 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.

Facilities can opt out of the permit by submitting a "No Exposure Certification" to DEQ or agent when all industrial activities are protected from contact with stormwater. Please see page 8 of the permit for the "No exposure Certification" qualifications. The "No Exposure Certification" form is located on DEQ's website at https://www.oregon.gov/deq/FilterPermitsDocs/indSTnoexposureexcl.pdf. The

A.1.a

EPA Guidance Manual (EPA 833-B-00-001) and (EPA 833-F-00-0015) may be	
used to determine whether the no exposure criteria are met.	
Oil and grease control	
If applicable, oil/water separators, booms, skimmers or other methods must be used	A.1.b
to minimize oil and grease in stormwater discharges. Please include in your plan a	A.1.0
description of these measures implemented on your site along with their location on	
the site map.	
Waste chemicals and material disposal	
Wastes chemicals and other refuse must be recycled or properly disposed of in a	A.1.c
manner to eliminate or minimize exposure of pollutants to stormwater. All waste	71.1.0
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. If temporary covers are chosen such as tarps, they must be secured	
properly. 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.	
Erosion and sediment control	
Erosion control methods such as vegetating exposed areas, paving or clean gravel	A.1.d
cover should be used to minimize soil erosion at the site. Sediment control methods	A.1.u
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.	
For activities that involve land disturbance, please contact the local municipality to	
determine if there are other applicable requirements.	
Debris control	
	A 1 -
To minimize debris in stormwater discharges, please use screens, booms, sealing	A.1.e
ponds, or other methods. Include in your plan a description of these measures on	
your site in the plan.	
Dust generation and vehicle tracking of industrial materials	
Dust, soil and particulates can be carried offsite by wind or vehicle tracking, thereby	A.1.f
ingressing soil loss from disturbed gross and ingressing the likelihood of	
increasing soil loss from disturbed areas and increasing the likelihood of	
sedimentation and water pollution. As an operator, you are responsible for	
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materials or equipment and train employees in good housekeeping techniques. Include in your plan a description of the good housekeeping measures and known maintenance schedules on your site.

Spill prevention and response procedure

Spills and leaks can be a significant source of industrial 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.

A.1.h and A.10.c.i

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 develop a Spill Prevention and Response Procedures plan to describe how stormwater will be managed for spill prevention and response 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 the plan if pertinent.

Describe any structural controls or procedures you have put into place to minimize the potential for leaks, spills, and other releases. At a minimum, conduct and document spill prevention and response measures including the following:

- Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment;
- Store all hazardous substances (see Schedule D.3, Definitions),
 petroleum/oil liquids, and other chemical solid or chemical liquid
 materials that have potential to contaminate stormwater within berms or
 other secondary containment devices to prevent leaks and spills. If the
 use of berms or secondary containment devices is not practicable, then
 store such substances in areas that do not drain off-site or into the storm
 sewer system;
- Plainly label containers to encourage proper handling and facilitate proper response if spills or leaks occur as required by local, state and federal rules;
- Implement preventative measures, such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- Develop procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Make the methods and procedures available to appropriate personnel. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures. Have the necessary clean-up material on-site and readily available; and
- Procedures for notification of appropriate facility personnel, DEQ or agent, and the Oregon Emergency Response System (1-800-452-0311), when a spill may endanger health or the environment. Contact information must be in locations that are readily accessible and

available http://www.oregon.gov/deg/Hazards-and-Cleanup/envcleanup/Pages/How-To-Report-A-Spill.aspx. 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. Employees must be knowledgeable of the spill response plan. It is useful to include in the spill plan information on employee training on spill prevention and clean-up and how often it occurs. The spill plan must be part of the required employee education. 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 procedures. It may be useful to include where the incident reports are kept and to whom the incident was reported. In addition, large facilities with multiple tenants must indicate how spill response will be coordinated between the permit registrants and tenants at the site. Preventative maintenance A preventative maintenance programs are intended to ensure that structural control A.1.i and measures and industrial equipment are kept in good operating condition and to A.10.d prevent or minimize leaks and other releases of pollutants. A good maintenance program requires regular inspections and testing along with maintenance and repair of industrial equipment and industrial systems. Describe procedures in your plan to: Maintain industrial equipment so that leaks and other releases are avoided. Maintain your site's stormwater control measures in effective operating condition. Include the schedule you will follow for inspections, maintenance and repair activities, and regular litter pick up and disposal of waste materials. **Employee education** You must develop and implement an Employee Orientation and Education Program. A.1.i and The purpose of this program is to inform personnel of the SWPCP, the spill A.10.f 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 or commonly some combination of these approaches. A schedule for employee education needs to be included in the SWPCP. Such education and training must occur no later than 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. Non-stormwater discharges You must eliminate any non-stormwater discharges not authorized by an NPDES A.1.k and permit (see authorized non-stormwater discharges in item 8 of the Permit Coverage A.10.b.i.(17)

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. Include the location and description of any authorized non-stormwater discharges in your SWPCP. Numeric effluent limitations Technology-based: A.2 and Some industrial activities have federal numeric effluent limits (also called effluent Schedule E limitation guidelines) that must be achieved in stormwater discharges. The effluent and Sch. 13 limits are maximum concentrations or levels of specific pollutants that can be discharged. If your facility includes one of the industrial categories listed below, refer to Schedule E of the permit for the specific numeric concentration limits and monitoring requirements: Discharge from asphalt emulsion facilities. Discharge from material storage piles at cement manufacturing facilities. Contaminated stormwater runoff from non-hazardous and hazardous waste landfills. Discharge from coal storage piles at steam electric generating facilities. Discharge containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures. If your facility is subject to numeric technology-based effluent limits, you must document in your plan the location and type of control measures installed at your site to meet those limits. Water quality-based: If your facility is subject to numeric or narrative water quality-based effluent limits, control measures or treatment needed to comply must be included in the plan. **Sector-specific requirements** Certain facilities are required to meet the following sector-specific requirements in Schedule E Schedule E of the permit: Tailoring their SWPCP to meet additional sector-specific plan requirements (adding information to the site map related to the sector-specific activities on site). Narrative and numeric technology based effluent limits (e.g., housekeeping requirements for fabricated metal products industries (Sector AA) for their raw steel handling storage areas). The SWPCP needs to specifically document how you will comply with those requirements. Sector-specific benchmarks. Not all sectors will have additional sector-specific discharge requirements. Please see table below for the list of sectors. For the transportation and warehousing sectors, the SWPCP must address all stormwater discharge associated with industrial activities at the site. You are responsible for complying with sector-specific requirements associated with your primary industrial activity and all co-located industrial activities. Co-located industrial activities are secondary activities located on-site that are identified in Table 1

or Table 2 (for Portland Harbor and Columbia Slough dischargers) of the permit.

Your primary Standard Industrial Classification (SIC) code best describes the primary industrial activities performed by your facility under which you are required to obtain permit coverage. The SIC code is a four digit number assigned to businesses. These SIC codes may differ from company-wide SIC codes or those used for other programs such as worker's compensation insurance. If you do not know your SIC code and Title, try the OSHA Web Site located at: http://www.osha.gov/pls/imis/sic_manual.html or contact DEQ or agent for assistance.

Some facilities may have multiple industrial activities and may be subject to more than one sector requirement. There may be different requirements for different discharge points depending on the type of industrial activity conducted in each drainage area. Facilities are required to conduct benchmark/effluent limit monitoring for those discharge points with activities from the specific sectors that have sector-specific benchmarks/effluent limits.

Table: Specific Sectors with additional requirements

Table. Opecific decitors wi	
Sector A – Timber Products	Sector P – Land Transportation and Warehousing
Sector B – Paper and Allied Products Manufacturing	Sector Q – Water Transportation
Sector C – Chemical and Allied Products Manufacturing	Sector R – Ship and Boat Building or Repairing Yards
Sector D – Petroleum Refining and Related Industries	Sector S – Air Transportation Facilities
Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products	Sector T – Treatment Works
Sector F – Primary Metals	Sector U – Food and Kindred Products
Sector G – Metal Mining (Ore Mining and Dressing)	Sector V – Textile Mills, Apparel, and other Fabric Products Manufacturing; Leather and Leather Products
Sector H – Coal Mines and Coal Mining- Related Facilities	Sector X – Printing and Publishing
Sector I – Oil and Gas Extraction and Refining	Sector W – Furniture and Fixtures
Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities	Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
Sector L – Landfills and Land Application Sites, an Open Dumps	Sector Z – Leather Tanning and Finishing
Sector M – Motor Vehicle Parts, Used	Sector AA – Fabricated Metal Products
Sector N – Scrap and Waste Materials	Sector AB – Transportation Equipment, Industrial or Commercial Machinery
Sector O – Steam Electric Generating Facilities	

You must maintain records of the following information:

- Copies of the SWPCP and any revisions.
- A copy of the permit, including coverage documents.
- Copies of corrective action and inspection reports.
- Inspection, maintenance, repair and education activities.
- Visual observations.
- All reporting requirements.
- 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. However, this information must be provided to the DEQ and agents or other government agencies responsible for stormwater management in your area upon request. Please retain this information for at least three years.

Appendix I: New 1200-Z Permit Requirements

Category	2021 Ref.	2018 1200-Z	New 1200-Z (Effective July 1, 2021)	
Sources Covered	Table 1	Transportation sectors industrial activity regulation limited to auxiliary activities listed in Table 1.	Eligibility for coverage determined by auxiliary activities at facility; however, once regulated under permit must include all industrial activities, as defined in Schedule D, in stormwater pollution control plan.	
Permit Coverage and Exclusion from Coverage	Condition I.1	New applicants must evaluate all discharge points associated with industrial activity into Category 5: 303(d) listed receiving waters.	New applicants must meet eligibility requirements for all discharge points associated with industrial activity into Category 5: 303(d) listed receiving waters for copper, lead, zinc, pH, iron and E. coli.	
Mass Reduction Measures	Sch. A.6	No similar requirement.	Mass reduction devices that reduced the mass of pollutants at or above DEQ-approved design storm capacity, prior to this permit cycle must re-certify proper operation and maintenance by hiring a professional engineer or certified engineering geologist.	
Impairment Exceedances	Sch. A.13	Complete Tier 1 corrective actions when stormwater sample results exceed impairment reference concentrations. Submit Tier 1 corrective action to DEQ or agent no later than 60 calendar days from receiving monitoring results.	Tier 1 corrective action does not apply to an exceedance of impairment monitoring. Two consecutive exceedance of impairment monitoring for copper, lead, zinc or pH (outside range), impairment monitoring escalates to numeric water quality-based effluent limit. For iron and E. coli, two consecutive exceedance requires narrative water quality-based effluent limit. No corrective action response for exceedance of fecal coliform or enterococcus.	
Benchmarks	Sch. B.2	Statewide benchmarks specific to Portland Harbor, Columbia River, Columbia Slough and the rest of the state.	Geographic benchmarks set using seven georegions and marine waters. Columbia Slough benchmark for BOD ₅ lowered from 33 mg/L to 24 mg/L.	
Benchmarks	Sch. B.2	Modeling used EPA translators to convert modeled results from dissolved to total.	Regional translators applied where appropriate based on conversion from dissolved to total.	
Impairment Monitoring	Sch. B.3, B.4, B.5	Monitor for all Category 5: 303(d) list impairments for which the receiving water is impaired.	Limited monitoring to Category 5: 303(d) list impairments for which the	

Category	2021 Ref.	2018 1200-Z	New 1200-Z (Effective July 1, 2021)
	and Appendix A		receiving water is impaired for one or more of the following: copper, lead, zinc, pH, iron, E. coli, fecal coliform and enterococcus.
Monitoring Waiver	Sch. B.9	Monitoring waiver can be obtained for individual parameters after four consecutive samples are below the benchmarks based on geometric mean evaluation or due to background natural conditions.	Monitoring waiver can be obtained for individual parameters after five consecutive samples are equal to or below the benchmarks based on geometric mean evaluation or due to background natural conditions. All monitoring must be reinstated on July 1, 2025, and continue until the end of the permit term.
Inspections	Sch. B.12	Visual observation for the presence of floating, suspended or settleable solids, color, odor, foam, visible oil sheen, or other obvious indicators of pollution in the stormwater discharge at all discharge point(s), including discharge points that have been authorized to be substantially similar in accordance with Schedule B.2.c.ii.	Visual observation for the presence of floating, color, odor, foam, visible oil sheen, or other obvious indicators of pollution in the stormwater discharge at all discharge point(s), including discharge points that have been authorized to be substantially similar accordance with Schedule B.7.c.ii. Conduct visual observations of a sample in a clean, colorless glass or plastic container in well-lit area during regular business hours of operation and safe conditions at all discharge points during a runoff event.
Reporting	Sch. B.13	Permit registrant must submit all monitoring results required in this permit via DEQ approved Discharge Monitoring Report (DMR) forms.	Electronic reporting through "Your DEQ Online" will be required when directed by DEQ or agent.
Compliance Schedule	Sch. C	No similar requirement.	If impairment monitoring escalates to a numeric water quality-based effluent limit and the permit registrant is unable to immediately comply, the permit registrant may request a compliance schedule up to 2-years prior to being subject to the numeric limit. Permit registrants must submit status reports and must comply with the numeric limit within 24 months.
Sector- specific Benchmarks	Sch. E	Benchmarks concentrations adopted from EPA.	Adjusted benchmark calculations applicable to water quality standards.

Appendix II: DEQ Industrial Stormwater Permit Stormwater Pollution Control Plan (SWPCP) Checklist

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 italicized. At a minimum, the SWPCP must include the components below and describe how the permit registrants intends to comply with the narrative technology-based effluent limit to eliminate or reduce the potential to contaminate stormwater and prevent any violation of instream water quality standards.

Site Name:	File	No.:

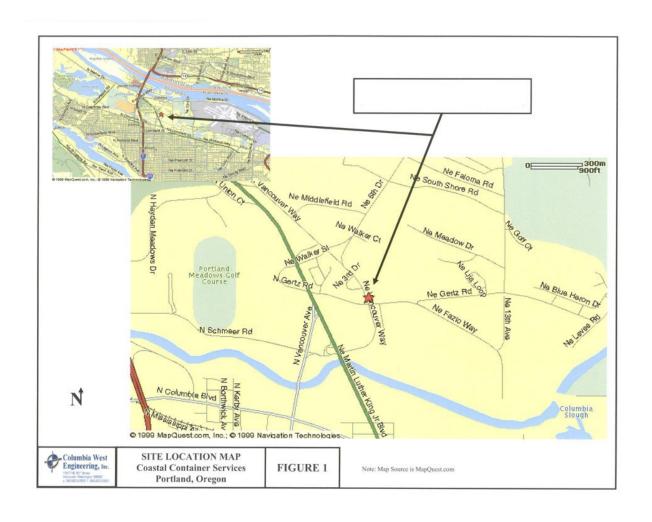
Permit So	chedule	Requirement	Page #	Comments (For official use only)
New Discharger	Condition I.1.a or b	A new discharger to an impaired water without a TMDL must meet one of the conditions in this section of the permit to obtain coverage		
Signature	A.8.b	Signed and certified in accordance with 40 CFR 122.22		
		Plan date		
		Name of the site		
		Name of the site operator or owner		
		The name of the person(s) preparing the SWPCP		
Title Page	A.10.a	File No. and EPA permit No.		
		Primary SIC code and any co-located SIC codes		
		Contact person(s) name, telephone number and email		
		Physical address, including county		
		Mailing address if different		
General Location Map	A.10.b.i.1	General location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features		
Site	A.10.b.i	Drainage patterns, with flow arrows		
Map (please identify	(2-19)	Conveyance and discharge structures, such as piping or ditches		
clearly)		Exact location of all monitoring points labelled with a unique three-digit identifying number starting with 001, 002, etc.		
		Outline of the drainage area for each discharge point		
		Paved areas and buildings within each drainage area		
		Locations of discharge points if different from monitoring points		
		Areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials		
		Areas of known or discovered significant materials from previous operations		

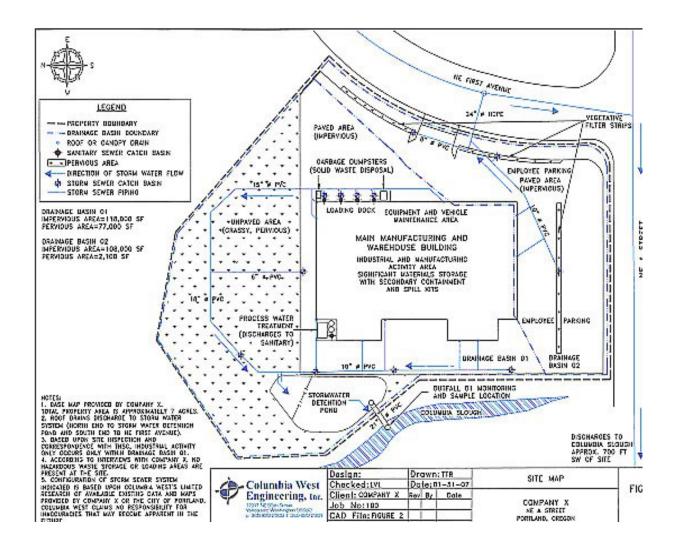
Permit So	chedule	Requirement	Page #	Comments (For official use only)
		Existing structural control measures for minimizing pollutants in stormwater runoff		
		Structural features that reduce flow or minimize impervious areas		
		Material handling and access areas		
		Hazardous waste treatment, storage and disposal facilities		
		Location of wells including waste injection wells, seepage pits, drywells		
		Location of springs, wetlands and other surface waterbodies both on-site and adjacent to the site		
		Location of groundwater wells		
		Location and description of authorized non-stormwater discharges		
		Location and description of spill prevention and cleanup materials		
		Locations of the following materials and activities if they are exposed to stormwater and applicable:		
		Fueling stations		
		Vehicle and equipment maintenance cleaning areas		
		Loading/unloading areas		
		Locations used for the treatment, storage, or disposal of wastes		
		Liquid storage tanks		
		Processing and storage areas		
		Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;		
		Transfer areas for substances in bulk		
		Machinery		
		Locations and sources of run-on to your site from adjacent property		
Site Description	A.10.b.ii	A description of industrial activities conducted at the site and significant materials stored, used, treated or disposed of in a manner which exposes those activities or materials to storm-water. Include in the description the methods of storage, usage, treatment or disposal		
	A.10.b.iii	Location and description, with any available characterization data, of areas of known or discovered significant materials from previous operations		
	A.10.b.iv	Regular business hours of operation		

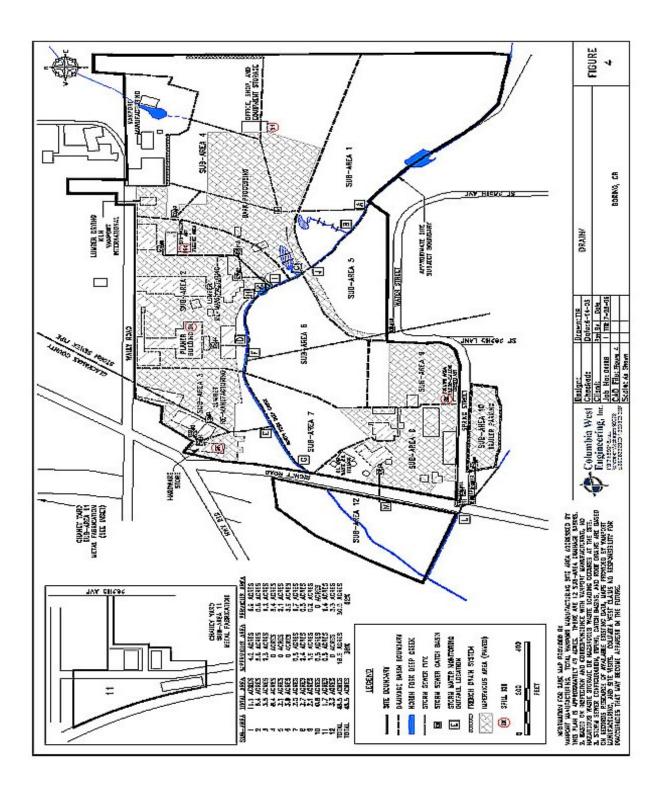
Permit So	chedule	Requirement	Page #	Comments (For official use only)
	A.10.b.v	For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, a description of the potential pollutant sources that could be present in stormwater discharges and if the source is associated with a co-located SIC code		
	A.10.b.viii	An estimate of the amount of impervious surface area (including paved areas and building roofs) and the total area drained by each stormwater discharge point to be reported in area units		
	A.1.k	Non-stormwater discharges		
	A.10.b.vi	A description of control measures installed and implemented to meet the technology and water quality-based requirements and any applicable sector-specific requirements in Schedule E		
Site	A.10.0.v1	A description of how the stormwater control measures address potential pollutant sources from industrial activities and significant materials on-site, spills and leaks and authorized non-stormwater discharges		
Controls	A.1.a	Minimize Exposure		
	A.1.b	Oil and Grease		
	A.1.c	Waste chemicals and material disposal		
	A.1.d	Erosion and sediment control		
	A.1.e	Debris control		
	A.1.f	Dust generation and vehicle tracking		
	A.1.g	Housekeeping		
	A.10.b.vi	Include known maintenance schedules and frequency of housekeeping measures		
	A.1.h and A.10.c	Spill prevention and response procedures:		
		Procedures for preventing and responding to spills and cleanup		
Procedures/ Schedules	A.10.c.i	Indicate who is responsible for on-site management of significant materials and include their contact information		
		Spills prevention plans required by other regulations may be substituted for this provision if the spill prevention plan addresses stormwater management concerns and the plan is included with the SWPCP		
	A.1.h.v	Develop procedures for expeditiously stopping, containing and cleaning up leaks, spills and other releases		
	A.1.h.vi	Documentation and notification, including OERS number		
	A.1.i and	Preventative maintenance:		

Permit Schedule		Requirement	Page #	Comments (For official use only)
	A.10.d	Procedures for conducting inspections, maintenance and repairs to prevent leaks, spills, and other releases from drums, tanks and containers exposed to stormwater		
		Schedules or frequency of maintaining all control measures		
		Schedules of waste collection		
		Operations and Maintenance:		
		Include an operation and maintenance plan for active treatment and passive treatment systems		
	A.10.e	Include system schematic, manufacturer's maintenance and operations specifications		
		Include routine maintenance standards and schedules		
		Employee Education:		
	A.10.f and	Develop and maintain an employee orientation and education program to inform personnel of the pertinent components and goals of this permit and the SWPCP		
	A.1.j	Orientation no later than 30 calendar days of hire or change in duties, annually thereafter		
		Include a description of the training content and the required frequency		
		Facility triggered Tier 2 under current permit term Yes		
Tier 2 Status	A.10.b.vii	A description of stormwater treatment controls or source controls, including low impact development, in response to corrective action requirements and operation and maintenance procedures		
		Include safety sheets for any stormwater treatment chemicals or substances used in stormwater treatment and stored on site		
Receiving	A 10 :	The name(s) of the receiving water(s), latitude and longitude of discharge points, and applicable SIC code, if facility has co-located operations		
Waters	A.10.ix	If discharge point is to a municipal storm sewer system, name(s) and latitude and longitude of the receiving water and municipality		
Monitoring Locations		The identification of each discharge point and the location(s) where stormwater monitoring will occur as required by Schedule B.6		
	A.10.x	Existing discharge points excluded from monitoring must include a description of the discharge point(s) and data or analysis supporting that the discharge point(s) are substantially similar as described in Schedule B.7.c.ii		

Appendix III: Example Site Maps for 1200-Z SWPCPs







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 https://www.usgs.gov/products/maps/topo-maps
Site Location Street Maps	https://www.openstreetmap.org/
Property Tax Maps, Utilities Maps, and Color Aerial Photographs of the City of Portland	https://www.portlandmaps.com/
Property Tax Maps of Clackamas County	http://www.clackamas.us/gis/
Color Street Maps - Oregon Department of Transportation	http://www.oregon.gov/ODOT/Pages/maps.aspx
Property Tax Maps for Lane County	http://apps.lanecounty.org/TaxMap/Search.aspx
Color Maps of Jackson County	http://www.smartmap.org/
Tax Maps of Jackson County	http://jacksoncountyor.org/assessor/Maps/Assessors-Maps
Douglas County Maps	http://www.co.douglas.or.us/puboaa/mapsonline.asp
Tax Maps for Deschutes County	https://www.deschutes.org/assessor/page/deschutes-county-tax-maps
Color Terrain Map of Josephine County	https://www.anyplaceamerica.com/directory/or/josephine-county-41033/
Soils Information from the Natural Resource Conservation Service	https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

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. 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 Substantially Similar Effluent at Multiple Discharge Points

Determining the number of sampling points

You must identify in the SWPCP the discharge points that you will sample. Where discharge points have substantially similar effluents, you are not required to monitor each discharge point. In the SWPCP, you must describe the location of discharge points and a detailed explanation of why these discharge points 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 discharge points. If the Department or agent determines that the discharges are not substantially similar, you may be required to sample additional discharge points.

A variety of methods can be used to demonstrate that stormwater discharge points 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 discharge points 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 discharge points have substantially similar effluents.

Permit registrant may demonstrate that these discharge points 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; any chemical the facility 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 discharge point.

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 discharge point;
- paved areas and buildings within the drainage area for each stormwater discharge point;
- 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) =

$$\frac{\big((\text{Area A})(\text{Runoff Coeff. A}) + (\text{Area B})(\text{Runoff Coeff. B}) + \cdots (\text{Area n})(\text{Runoff Coeff n})\big)}{\text{Area A} + \text{Area B} + \cdots \text{Area n}}$$

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 substantially similar discharge points

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

Option 3: Model matrices

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

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

Substantially Similar Effluents – Exhibits

Exhibit 1 – Example of request for reduced monitoring based on substantially similar discharge points: Narrative description

- 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 discharge points with substantially similar effluents, the Director may allow the applicant to test only one discharge point and report that the quantitative data also apply to the substantially similar discharge points." [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 discharge points in groupings of stormwater discharge points that are substantially similar. The Pepper Company will demonstrate that of the ten (10) discharge points discharging stormwater from our paperboard manufacturing plant, there are two pairs of substantially similar discharge points. Discharge points 3 and 4 are substantially similar and should be grouped together. Discharge points 8 and 9 are substantially similar and should be grouped together. Discharge points 1, 2, 5, 6, 7, and 10 have distinct characteristics and, therefore, will not be grouped together with other discharge points for the purposes of stormwater discharge sampling.
- III. The Pepper Company will demonstrate that the substantially similar discharge points 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 discharge point.

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 Discharge Points Are Substantially Similar in Terms of Industrial Activities Conducted Outdoors.

Discharge points 3 and 4

Discharge points 3 and 4 are substantially similar in terms of industrial activities conducted outdoors. Both discharge points 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.

Discharge points 8 and 9

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

C. 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) <u>Raw materials</u>, 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) <u>Waste Materials</u>, 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) <u>Finished Products</u>, 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].

D. Demonstration of Why Discharge Points are Substantially Similar in Terms of Significant Materials that Potentially May be Exposed to Stormwater

Discharge point 003 and 004

Discharge points 003 and 004 are substantially similar in terms of significant materials that may be exposed to stormwater. Both discharge points 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.

Discharge points 8 and 9

Discharge points 008 and 009 are substantially similar in terms of significant materials. Both discharge points contain stormwater runoff from areas that have no <u>significant materials</u> potentially exposed to stormwater. All industrial activities occurring in the areas drained by Discharge points 008 and 009 occur completely indoors.

E. 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) <u>Diversion Devices</u> (both above-ground trenches and subterranean drains) are used to divert surface water from entering a potentially contaminated area.
- (ii) <u>Gutters/Swales</u> (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.

F. Demonstration of Why Discharge Points Are Substantially Similar in Terms of Stormwater Management Practices Used

Discharge points 003 and 004

Discharge points 003 and 004 are substantially similar in terms of stormwater management practices used. Both discharge points 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 discharge points.

Discharge points 008 and 009

Discharge points 008 and 009 are substantially similar in terms of stormwater management practices used. Both discharge points contain stormwater runoff from areas that have no <u>significant materials</u>

potentially exposed to stormwater. All industrial activities occurring in the areas drained by Discharge points 008 and 009 occur completely indoors. Both discharge points 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 discharge points.

G. Demonstration of Why Discharge Points Are Substantially Similar in Terms of Flow, as Determined by the Estimated Runoff Coefficient and Approximate Drainage Area at Each Discharge Point

Discharge points 003 and 004

Discharge points 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 discharge points is 0.2. The approximate drainage area for each discharge point is similar. Discharge point 003 has an approximate drainage area of 3,500 square feet-Discharge point 004 has an approximate drainage area of 2,900 square feet

Discharge points 008 and 009

Discharge points 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 discharge points is 0.2. The approximate drainage area for each

discharge point is similar. Discharge point 008 has an approximate drainage area of 7,600 square feet. Discharge point 009 has an approximate drainage area of 8,700 square feet.

Exhibit 2 – Example of request for reduced monitoring based on substantially similar discharge points: Matrix table description

Industrial Activities								
Discharge Point	Outdoor Storage of Raw Material and Material Handling Equipment	Fueling	Waste Material Storage (Dumpster)	Loading/Unloading of Raw Materials, Intermediate Products, and Final Products	Landfill activity			
003	X	-	-	Х	-			
004	X			X	-			
800	-	-	-	-	-			
009	-	-		-	-			

Significant	Significant Materials That May Be Exposed To Stormwater								
Discharge	Outdoor	Wood	Aboveground	Waste	Baled	Finished Products			
Point	Ammonia	Pallets	Gas Tank	Materials	Wastepaper				

003	-	-	•	1	X	-
004	-	-	-	-	X	-
800	-	-	-	-	-	-
009	-	-	•	•	1	-

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

Flow Characteristics							
Discharge Point	Estimated Runoff Coefficient	Approximate Drainage Area of Discharge point (sq. ft.)					
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 Regional Offices

Northwest Region

700 NE Multnomah St., Suite 600 Portland, OR 97232 503-229-52886 or 1-800-452-4011

Western Region

165 East 7th Avenue, Ste. 100 Eugene, OR 97401 541-686-7930 or 800-844-8467

Eastern Region

800 SE Emigrant, Suite 330 Pendleton, OR 97801 541-278-4600 or 800-452-4011

Northwest Re	gion counties		Western Reg	ion counties	;
Clackamas	Multnomah	Benton	Douglas	Lane	Marion
Clatsop	Tillamook	Coos	Jackson	Lincoln	Polk
Columbia	Washington	Curry	Josephine	Linn	Yamhill

Eastern Region counties							
Baker	Gilliam	Hood River	Lake	Sherman	Wallowa		
Crook	Grant	Jefferson	Malheur	Umatilla	Wasco		
Deschutes	Harney	Klamath	Morrow	Union	Wheeler		

Agent Offices

City of Portland

Bureau of Environmental Services Water Pollution Control Laboratory 6543 N. Burlington Ave. Portland, OR 97203-5452 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 503-681-5175

City of Eugene

410 River Avenue Eugene, OR 97404 541-682-8616