



Vehicle and Metal Recyclers

A Guide for Implementing the Industrial Stormwater General National Pollutant Discharge Elimination System Permit Requirements



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Cover Photo: Calbag Metals Company - Scrap Metal Recycling Facility in Tacoma, WA

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Water Quality Program
Washington State Department of Ecology
Olympia, Washington

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Introduction

All vehicle dismantling and recycling facilities and metal recycling facilities in Washington State that discharge to a surface water body, or a storm sewer that discharges to a surface water body must obtain a National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater General Permit (ISWGP) from the Washington State Department of Ecology (Ecology).

Stormwater may become contaminated as a result of contact with materials stored outside; spills and leaks from equipment or materials used on site; contact with materials during loading, unloading or transfer from one location to another; and from airborne contaminants.

If you are not sure you need a permit, contact your Ecology regional office. A map, showing the regions and their phone numbers, is available on the inside front cover of this document.

In the following sections, we provide guidance on the major elements of the ISWGP requirements and how to meet them. These major elements include:

- Preparing and using a Stormwater Pollution Prevention Plan (SWPPP).
- Sampling stormwater runoff.
- Identifying Corrective Action Levels and what needs to be done should a benchmark level be exceeded, including application of:
 - Operational Source Control Best Management Practices (BMPs).
 - Structural Source Control BMPs, and
 - Treatment BMPs.

You may obtain a copy of the Industrial Stormwater General Permit online at www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html, or call Ecology at 360-407-6600 to ask for a copy.

In addition to the references listed at the end of this document, the following guidance documents are available to assist you in complying with the ISWGP:

- SWPPP template www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html. If you require a hard copy of the SWPPP template, phone Ecology at 360-407-6600 to request a copy.
- [*How to Do Stormwater Sampling: A Guide for Industrial Facilities, Department of Ecology*](#), Revised January 2009, Publication # 02-10-071.
- [*Stormwater Management Manual for Western Washington \(SWMMWW\)*](#), Department of Ecology, February 2005, Publication # 05-10-029 through 05-10-033.
- [*Stormwater Management Manual for Eastern Washington \(SWMMEW\)*](#), Department of Ecology, September 2004, Publication # 04-10-076.

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How to Comply with the Industrial Stormwater General Permit (ISWGP)

In order to comply with the 2010 Industrial Stormwater General Permit (ISWGP), you must:

- Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP)
- Sample and report stormwater discharges.
- Apply Corrective Action Levels when you exceed benchmark levels.

The SWPPP is a document that describes how you will deal with stormwater on your site. You can use the template for all ISWGP permittee sectors. You will need to identify the appropriate portions of the SWPPP template and address those points. You can ignore other portions of the SWPPP template that do not apply to your business. This document will be your primary source of guidance in meeting the requirements of the ISWGP. You must update the SWPPP whenever something changes with regard to stormwater on your site. Additional guidance in developing and maintaining your SWPPP is included below.

Most of the activity required to meet the ISWGP permit requirements will involve stormwater sampling. You must collect stormwater runoff samples as water leaves your property and have the water tested for various pollutants. Your staff can perform the sampling or you may contract with an outside organization to provide assistance. You will collect stormwater samples during storm events and will send reports to Ecology on a quarterly basis. A description of the sampling program must be included in your SWPPP.

There are specific benchmark concentration levels for various pollutants (see Table 2). You will compare the results of your sampling program to the benchmark levels. Results of the comparisons will determine your next steps.

Exceedance of the benchmark level for a pollutant triggers a Level One Corrective action. A Level One Corrective Action requires that you implement any mandatory Operational Source Control BMPs appropriate for your site such as frequent sweeping with a vacuum sweeper.

Sample values exceeding benchmark levels for any single parameter for any two quarters of a calendar year triggers a Level Two Corrective Action. This requires you to implement mandatory Structural Source Controls such as installation of roofs over work areas or berms around oil and fuel storage tanks.

Sample results for a single parameter that exceed benchmark levels for three quarters in a calendar year triggers a Level Three Corrective Action. Should this occur on your site, the permit requires you to provide additional BMPs to treat stormwater before it leaves your site.

This document provides guidance in meeting the three steps described above.

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP)

The ISWGP requires a written Stormwater Pollution Prevention Plan (SWPPP) for your site. A SWPPP documents measures to identify, prevent, and control stormwater pollution. The SWPPP must specify the Best management practices (BMPs) necessary to provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) of stormwater pollution and ensure the discharge does not cause or contribute to a violation of the Water Quality Standards.

To assist you in developing your SWPPP, Ecology has prepared a SWPPP template (MS Word) available at <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html>. The template allows you to “fill in the blanks” and create a SWPPP that will help ensure that your SWPPP addresses all the necessary elements required in Condition S3 of the ISWGP. If you do not have access to the internet, you may obtain a hard copy of the document by calling Ecology at 360-407-6401 to request a copy.

You must modify the SWPPP if the owner/operator or applicable local or state regulatory authority determines during inspections or investigations that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The SWPPP must be modified:

- As necessary to include additional or modified BMPs designed to correct problems identified.
- To correct the deficiencies identified in writing from Ecology.
- Whenever there is a change in design, construction, operation, or maintenance at your facility that significantly changes the nature or quantity of pollutants discharged from the site.

Stormwater Pollution Prevention Plan contents

You must address the five items listed below in your SWPPP. This guidance provides additional detail beyond what is in the SWPPP Template and should be used to complete a SWPPP for managing stormwater on your site.

1. Site map.
2. Facility assessment.
3. List of specific individuals by name or title (pollution prevention team) whose responsibilities include: SWPPP development, implementation, maintenance, and modification.
4. Sampling plan.
5. Best management practices (BMPs). At a minimum your SWPPP must list all BMPs identified in the ISWGP as mandatory and all BMPs listed as applicable in the *Stormwater Management Manual for Western Washington*, *Stormwater Management Manual for Eastern Washington*, or the *Guidance Manual for Preparing/Updating a Stormwater Pollution Prevention Plan for Industrial Facilities*
 - Operational Source Control
 - Structural Source Controls

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- Treatment BMPs
- Stormwater Peak Runoff Rate and Volume Control BMPs
- Erosion and Sediment control BMPs

Site map

The site map must identify:

- The scale or relative distances between significant structures and drainage systems.
- Significant features.
- Stormwater drainage and discharge structures and, by name, any party other than yourself who owns any stormwater drainage or discharge structures on your site.
- The stormwater drainage areas for each stormwater off-site discharge point (including discharges to groundwater) and assign a unique identifying number for each discharge point.
- Each sampling location by unique identifying number.
- Paved areas and buildings.
- Areas of pollutant contact associated with your activities.
- Conditionally approved non-stormwater discharges.
- Surface water locations (including wetlands and drainage ditches).
- Areas of existing and potential soil erosion.
- Vehicle maintenance areas.
- Lands and waters adjacent to the site that may be helpful in identifying discharge points or drainage routes.



Figure 1 – Sampling Site

Facility assessment

The Facility assessment must include a description of the facility, an inventory of facility activities and equipment that contribute to or have the potential to contribute any pollutants to stormwater, and an inventory of materials that contribute to or have the potential to contribute pollutants to stormwater.

The facility description must describe:

- Industrial activities at the site.
- Regular business hours and seasonal variation in business hours or industrial activities.
- The general layout of the facility including buildings and storage of raw materials, and the flow of goods and materials through the facility.

The inventory of industrial activities must identify all areas associated with your activities that have been or may potentially be sources of pollutants, including, but not limited to, the following:

- Loading and unloading of vehicles and metals.
- Outdoor storage of materials.
- Outdoor processing.
- On-site dust or particulate generating processes.
- On-site waste treatment, storage or disposal.
- Vehicle and equipment fueling, maintenance, and/or cleaning.
- Roofs or other surfaces composed of materials (particularly galvanized metal roofs) that may be mobilized by stormwater.

The inventory of materials must list:

- Types of materials handled at the site that may potentially be exposed to precipitation or runoff and could result in stormwater pollution.
- A short narrative for each material describing the potential of the pollutant to be present in stormwater.
- A narrative description of any potential sources of pollutants from past activities on the site.

Sampling plan

The SWPPP must include a sampling plan. The plan must:

- Identify points of discharge to surface water, storm sewers, or discrete groundwater infiltration locations, such as dry wells or detention ponds.
- Include documentation of why a discharge point is not sampled (if applicable).
- Identify each sampling location by its unique identifying number.
- Identify staff responsible for conducting stormwater sampling.
- Specify procedures for sample collection and handling.
- Specify procedures for sending samples to a laboratory.
- Identify parameters for analysis, holding times and preservative, laboratory quantitation levels, and analytical methods.
- Specify the procedure for submitting results to Ecology.

The sampling plan consists of four mandatory sections:

- Sampling.
- Sample Analysis.
- Visual Inspections.

- Reporting.

More detail on the sampling plan included below.

Best management practices (BMPs)

The list of BMPs must include all BMPs identified in the ISWGP as mandatory and all BMPs listed as applicable in the *Stormwater Management Manual for Western Washington*, the *Stormwater Management Manual for Eastern Washington*, or the *Guidance Manual for Preparing/Updating a Stormwater Pollution Prevention Plan for Industrial Facilities*. The different BMP categories are:

- Operational Source Control
- Structural Source Controls
- Treatment BMPs
- Stormwater Peak Runoff Rate and Volume Control BMPs
- Erosion and Sediment control BMPs

More detail on BMPs is included later in this guide.

The SWPPP must be kept on site and updated by your staff following Ecology inspections. If any changes to the SWPPP are identified, either because Ecology determines as a results of an inspection that the SWPPP is or would be ineffective in eliminating pollutants in stormwater discharges or there is a change in design, construction, operation, or maintenance at the facility, the changes must be made within 30 days after the issue has been noted.

Other pollution control plans may be incorporated into your SWPPP by reference to applicable portions of the plan prepared for other purposes at your facility.

2. Stormwater sampling

You must sample stormwater in order to comply with permit requirements. Stormwater sampling helps determine if additional BMPs are necessary.

Note: More information on stormwater sampling, reporting and forms can be found at www.ecy.wa.gov/biblio/0210071.html

Sampling plan

You must create a sampling plan in the SWPPP. In the sampling plan, you will need to:

- Identify points of discharge to surface water, storm sewers, or discrete groundwater infiltration locations.
- Include documentation of why each discharge point is not sampled, for example the pollutant concentrations are substantially identical to a discharge point already being sampled.
- Identify each point by its unique identifying number.
- Identify staff responsible for conducting sampling.

- Specify procedures for sample collection and handling.
- Specify procedures for sending samples to a laboratory.
- Identify parameters for analysis holding times and preservative, laboratory quantitation levels, and analytical methods.
- Specify the procedure for submitting results to Ecology.

The following list summarizes the sampling elements for taking the sample and sample documentation:

- All permitted facilities must sample the discharge from each designated locations at least once per quarter:
 - 1st Quarter = January, February, March
 - 2nd Quarter = April, May, June
 - 3rd Quarter = July, August, September
 - 4th Quarter = October, November, December
- The parameters required to be analyzed are:
 - Turbidity.
 - pH.
 - Visible oil sheen (doesn't require lab analysis).
 - Total zinc.
 - Total copper.
 - Total lead.
 - Total petroleum hydrocarbons (NWTPH-Dx).
 - Any other parameter required by Ecology.
- Sample the stormwater discharge from the first fall storm event each year. *First fall storm event* means the first time after October 1st of each year that precipitation occurs and results in a stormwater discharge from a facility.
- Collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why you could not collect samples within the first 12 hours.
- Obtain representative samples, which may be a single grab sample, a time-proportional sample, or a flow-proportional sample.
- You need not sample outside of regular business hours, during unsafe conditions, or during quarters where there is no discharge, but must submit a Discharge Monitoring Report each reporting period.
- Designate sampling location(s) at the point(s) where it discharges stormwater associated with site activity off site.
- You are not required to sample on-site discharges to ground (e.g., infiltration, etc.) or sanitary sewer discharges, unless specifically required by Ecology.
- Sample each distinct point of discharge off site except as otherwise exempt from sampling as a “substantially identical outfall”. Sample only one of the “substantially identical outfalls” if two or more outfalls discharge substantially identical effluents (based on similar on-site activities). This exception to sampling each point of discharge does not apply to any point of discharge subject to numeric effluent limitations.

- For each sample taken, you must record the following information and retain it on site for Ecology review:
 - Sample date.
 - Sample time.
 - A notation describing if you collected the sample within the first 12 hours of the discharge event.
 - An explanation of why you could not collect the sample within the first 12 hours, if it was not possible.
 - Sample location (using unique identifying number).
 - Method of sampling and method of sample preservation.
 - Individual who performed the sampling.

Sample analysis

- Analyze, handle, and preserve samples in accordance with the ISWGP. Keep all samples at a temperature below 4° C (39°F). The testing lab usually provides the necessary containers, preservatives, cold packs, and shipping details to meet these requirements.
- The laboratory must use analytical methods that conform to the latest revision of the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136.
- The parameters required to be analyzed are turbidity, pH, total zinc, total copper, total lead, visible oil sheen, total petroleum hydrocarbons (oil and grease), and any other parameter required by Ecology for total maximum daily load (TMDL) or 303 (d) listed waters.
- For oil and grease only, you must take grab samples. Do not transfer samples from one container to another. A wide-mouth solvent pre-rinsed, one-liter glass bottle with a Teflon insert in the lid should be used to collect a minimum of 750 mls. (See also Reference 5).
- Use only accredited laboratories (Chapter 173-50 WAC) for analyzing the following parameters: total zinc, total copper, total lead, and total petroleum hydrocarbons including oil and grease. You can download the list of accredited labs at <http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html>.
- The laboratory must maintain the following documentation:
 - Date of Analysis.
 - Parameter name.
 - Chemical Abstract Service Number (CASN) number, if applicable.
 - Analytical method(s).
 - Individual who performed the analysis.
 - Method detection limit (MDL).
 - Laboratory quantitation level (QL) achieved by the laboratory.
 - Reporting units.
 - Sample result.
 - Quality assurance/quality control data.
- Maintain the original records on site and make them available to Ecology upon demand.
- You may suspend sampling for one or more parameters (other than *visible oil sheen* based on consistent attainment of benchmark values when:

- Four consecutive quarterly samples, collected after the effective date of the ISWGP, demonstrate a reported value equal to or less than the benchmark value; or for pH, within the range of 5.0 to 9.0.
- For purposes of tallying *consecutive quarterly samples* do not include any quarters in which you did not collect a sample, but should have. If this occurs, the tally of consecutive quarterly samples is reset to zero.
- For purposes of tallying *consecutive quarterly samples*:
 - Do not include any quarters in which you did not collect a sample but should have (e.g. discharge(s) occurred during normal working hours, and during safe conditions; but no sample was collected during the entire quarter). If this occurs, the tally of consecutive quarterly samples is reset to zero.
 - Do not include any quarters in which you did not collect a sample because there was no discharge during the quarter (or discharges during the quarter occurred outside normal working hours or during unsafe conditions). If this occurs, these quarters are not included in the tally of consecutive quarterly samples, but do not cause the tally to be reset; i.e., they are skipped over.
- If you sample more than once per quarter you must average all of the sampling results for each parameter (except pH and *visible oil sheen*) and compare the average value to the benchmark value.

Visual inspections

You must conduct visual inspection of your facility at least once per month. Qualified personnel who have the knowledge and skills to assess conditions and activities that could affect stormwater quality at the facility, and evaluate the effectiveness of BMPs required by the ISWGP must conduct inspections.

- In the SWPPP:
 - Identify facility personnel who will inspect designated equipment and facility areas as required.
 - Include a visual inspection report or check list that includes all items required. Ecology has developed a Monthly Site Inspection Form that you may use to comply with this requirement – it is available at www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html.
 - Provide a tracking or follow-up procedure to ensure that a report is prepared and any appropriate action taken in response to visual inspections.
 - Define how the Permittee will comply with signature requirements and records retention requirements.
 - Include a certification of compliance with the SWPPP and ISWGP for each inspection.
- Visually inspect for the following:
 - Observations made at stormwater sampling locations and areas where stormwater associated with industrial activity is discharged off site; or discharged to waters of the state, or to a storm sewer system that drains to waters of the state.
 - Observations for the presence of floating materials, visible oil sheen, discoloration, turbidity, odor, etc., in the stormwater discharge(s).
 - Observations for the presence of illicit discharges such as domestic wastewater, noncontact cooling water, or process wastewater (including leachate).

- If an illicit discharge is discovered, the Permittee must notify Ecology within seven days.
- The Permittee must eliminate the illicit discharge within 30 days.
- A verification that the descriptions of potential pollutant sources required under the ISWGP are accurate.
- A verification that the site map in the SWPPP reflects current conditions.
- An assessment of all BMPs that have been implemented, noting all of the following:
 - Effectiveness of BMPs inspected.
 - Locations of BMPs that need maintenance.
 - Reason maintenance is needed and a schedule for maintenance.
 - Locations where additional or different BMPs are needed and the rationale for the additional or different BMPs.

Record the results of each inspection in a report or checklist and keep records on site for Ecology review. Include the following in the records:

- Time and date of the inspection.
- Locations inspected.
- Statements that the site is either in compliance or out of compliance with the terms and conditions of the ISWGP.
- A summary report and schedule of implementation of the remedial actions to be taken if the site is out of compliance.
- Name, title, and signature of the person conducting the site inspection and the following statement “I certify that this report is true, accurate, and complete, to the best of my knowledge and belief.”

Reporting

Discharge monitoring reports

Submit stormwater sampling data obtained during each reporting period on a discharge monitoring report (DMR) form provided, or otherwise approved by Ecology. Submit quarterly reports within 45 days following the end of a reporting period. If no sample was obtained from the site during a given reporting period, you must submit the DMR form indicating “no sample obtained,” or “no discharge during the quarter” as appropriate. Also, include any available pollutant sampling data that is not required by the ISWGP and an explanation for any missing quarterly data. The DMR must be postmarked or delivered to Ecology at the following address, no later than the dates shown in Table 1.

**Department of Ecology
Water Quality Program – Industrial Stormwater
PO Box 47696
Olympia, WA 98504-7696**

Table 1 DMR Due Dates

Reporting Period	Months	DMR Due Date
1 st	January – March	May 15
2 nd	April – June	August 14
3 rd	July – September	November 14
4 th	October - December	February 14

Note: More information on DMRs can be found at:

www.ecy.wa.gov/programs/wq/stormwater/industrial/sampling.html

If you sample any pollutant at a designated sampling point more frequently than required by the ISWGP, you must include the results in the calculations and reporting of the data submitted in the DMR. You can average sampling results if you sample more than once per quarter.

Annual report

You must submit a complete and accurate annual report to Ecology no later than May 15 of each year using a form provided by or otherwise approved by Ecology.

The annual report must include corrective action documentation. If corrective action is not yet completed at the time of submission of the annual report, you must describe the status of any outstanding corrective action(s).

The following information must be included in each annual report:

- Identify the condition triggering the need for corrective action review.
- Describe the problem(s) and identify the dates they were discovered.
- Summarize any Level 1, 2, or 3 Corrective Actions completed during the previous calendar year and include the dates you completed the corrective action.
- Describe the status of any Level 2 or 3 Corrective Actions triggered during the previous calendar year and the date expected to complete corrective actions.

Records retention

You must retain the following document on site for a minimum of five years:

- A copy of the Industrial Stormwater General Permit.
- A copy of the ISWGP coverage letter.
- Records of all sampling information.
- Inspection reports.
- Any other documentation of compliance with ISWGP requirements.
- All equipment calibration records.
- All BMP maintenance records.
- All original recordings for continuous sampling instrumentation.
- Copies of all laboratory reports.
- Copies of all reports required by the Industrial Stormwater General Permit.
- Records of all data used to complete the application for the ISWGP.

You must extend the period of records retention during the course of any unresolved litigation regarding the discharge of pollutants from your site, or when requested by Ecology.

Make all plans, documents, and records required by the ISWGP immediately available to Ecology or the local jurisdiction upon request, or within 14 days of a written request from Ecology.

Reporting permit violations

In the event you are unable to comply with any of the terms and conditions of the ISWGP that may endanger human health or the environment or the facility experiences any bypass or upset that causes an exceedance of any effluent limitation in the ISWGP, you must:

- Immediately take action to minimize potential pollution or otherwise stop the noncompliance and correct the problem.
- Immediately notify the appropriate Ecology regional office of the failure to comply.
- Submit a detailed written report to Ecology within 30 days unless Ecology requests an earlier submission. The Permittee's report must contain:
 - A description of the noncompliance, including exact dates and times.
 - Whether the noncompliance has been corrected and, if not, when the noncompliance will be corrected.
 - The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3. Corrective action levels

Compare your sampling results to benchmark values for each pollutant to determine if you have reached a Corrective Action Level. Corrective actions are required if pollutant levels exceed benchmark values.

In addition to the Corrective Action Requirements listed below, you must implement any mandatory Level 1, 2, or 3 responses required by condition S4.C of previous Industrial Stormwater General Permit:

www.ecy.wa.gov/programs/wq/stormwater/industrial/permitdocs/ISWGPfinalpermit101508.pdf.

You must continue to operate and /or maintain any source control or treatment BMPs related to Level 1, 2, or 3 responses implemented prior to January 1, 2010.

Permittees sampling more than once per quarter must average all of the sampling results for each parameter (except pH and *visible oil sheen*) and compare the average value to the benchmark value. If the average of the values (at a single location) is above the benchmark, corrective actions are required. The goal of these actions is to reduce the pollution of stormwater.

A *significant amount of a pollutant* is a pollutant that has the potential to cause or contribute to a violation of surface water quality, groundwater quality, or sediment management standards.

Benchmark values (see Table 2 below) are used indicate significant amounts of pollutants for the pollutants you are sampling.

Table 2 – Benchmark Values

Parameter*	Benchmark Value
Turbidity, (NTU)	25
pH Units	Below 5 and above 9
Oil Sheen	No Visible Oil Sheen
Total Petroleum Hydrocarbons(mg/l)	10
Total Zinc, (µg/L)	117
Total Copper, (µg/L)	Western WA: 14 Eastern WA: 32
Total Lead, (µg/L)	81.6

Level 1 Corrective Action – operational source control BMPs

If sampling results show a value that exceeds the appropriate benchmark value(s) (or is outside the listed pH range) in Table 2, a Level 1 Corrective Action has been triggered and you must:

- Review the SWPPP and ensure that it fully complies with the requirements of the SWPPP (identified above) and contains the correct BMPs from the appropriate stormwater manual.
- Make appropriate revisions to the SWPPP to include additional Operational Source Control BMPs with the goal of achieving the benchmark value(s) in future discharges.
- Summarize the Level 1 Corrective Action in the Annual Report.
- If a Level 1 Corrective Action is triggered, you must fully implement the revised SWPPP as soon as possible, but no later than the DMR due date for the quarter the benchmark was exceeded.

Level 2 Corrective Action – structural source controls BMPs

If sampling results for any two quarters during a calendar year exceed the benchmark value for any single parameter, a Level 2 Corrective Action is required. Facilities that continue to exceed benchmarks after a Level 2 Corrective Action is triggered, but prior to the Level 2 deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

The Level 2 Corrective Action requires you to:

- Review the SWPPP and ensure that it fully complies with the ISWGP and the SWPPP requirements listed above.
- Make appropriate revisions to the SWPPP to include additional Structural Source Control BMPs with the goal of achieving benchmark value(s) in future discharges.
- Sign and certify the revised SWPPP.
- Summarize the Level 2 Corrective Actions (planned or taken) in the Annual Report.
- Fully implement the revised SWPPP as soon as possible, but no later than September 30 of the following year.
 - Ecology may approve additional time if complete installation of necessary Structural Source Control BMPs is not feasible by September 30 of the following year by approving a Modification of Permit Coverage.
 - Ecology may waive the requirement for additional Structural Source Control BMPs by approving a Modification of Permit Coverage if installation of the Structural Source Control BMPs is not feasible or necessary to prevent discharges that may cause or contribute to a violation of a water quality standard.
 - To request a time extension you must submit a detailed technical explanation of why you are requesting the time extension or waiver and a Modification of Coverage Form to Ecology by June 1 prior to the Level 2 deadline. Ecology will approve or deny the Modification of Coverage request within 60 days of receipt.

Level 3 Corrective Action – treatment BMPs

If sampling results show that any three quarterly samples during a calendar year are above the benchmark value for any single parameter, a Level 3 Corrective Action must be completed. Facilities that continue to exceed benchmarks after a Level 3 Corrective Action is triggered, but prior to the Level 3 deadline, are not required to complete another Level 2 or 3 Corrective Action

the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

A Level 3 Corrective Action requires you to do the following:

- Review the SWPPP and ensure that it fully complies with the ISWGP.
- Make appropriate revisions to the SWPPP to include additional treatment BMPs with the goal of achieving the applicable benchmark value in future discharges.
 - Sign and certify the revised SWPPP.
 - A licensed professional engineer, geologist, hydrogeologist, or Certified Professional in Storm Water Quality (CPSWQ) must design and stamp the portion of the SWPPP that addresses stormwater treatment structures or processes.
 - Ecology may waive the requirement for a licensed or certified professional upon your request and demonstration that you or the treatment device vendor can properly design and install the treatment device.
 - Ecology will not waive the Level 3 requirement for a licensed or certified professional more than one time during the permit cycle.
- Summarize the Level 3 Corrective Actions (planned or taken) in the Annual Report.
- The revised SWPPP must be fully implemented as soon as possible, but no later than September 30 of the following year.
 - Ecology may approve additional time if full installation of necessary Treatment BMPs is not feasible by September 30 of the following year.
 - Ecology may waive the requirement for additional Treatment BMPs by approving a Modification of Permit Coverage if installation of the Treatment BMPs is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard.
 - To request a time extension you must submit a detailed technical explanation of why you are requesting the time extension or waiver and a Modification of Coverage Form to Ecology by June 1 prior to the Level 2 deadline. Ecology will approve or deny within 60 days of receipt of a complete Modification of Coverage request.

4. Operational best management practices (BMPs)

Best management practices (BMPs) are activities and procedures implemented to prevent and reduce stormwater pollution. Operational BMPs are any managerial practices used to prevent pollutants from entering stormwater.

BMPs selected for the site must be consistent with:

- *Stormwater Management Manual for Western Washington* (2005 or most recent edition), for sites west of the crest of the Cascade Mountains,
- *Stormwater Management Manual for Eastern Washington* (2004 or most recent edition), for sites east of the crest of the Cascade Mountains,
- Revisions to the above listed manuals or other stormwater management guidance documents or manuals that provide an equivalent level of pollution prevention, are approved by Ecology, and are incorporated into the ISWGP, or

- Documentation in the SWPPP that the BMPs selected are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology.

The following BMPs must be included in the SWPPP. These best management practices provide the best way to keep your vehicle or metal recycling yard in compliance with the ISWGP.

The best operational BMP is to cover all portions of your property where processing or storage will take place. If that is not possible, frequent sweeping with a vacuum sweeper will provide a significant level of pollutant control.

Additional detail on Operational Source Control BMPs is included in Volume IV, Chapter 2.1 of the *Stormwater Management Manual for Western Washington* and Chapter 8.3.1 of the *Stormwater Management Manual for Eastern Washington*. Appendix E in Ecology's on-line SWPPP Template contains a complete list of all mandatory BMPs that may apply to your facility.

Create a pollution prevention team

- Identify one or more individuals who is/are responsible for developing and implementing the SWPPP.

Practice good housekeeping

- Include BMPs that define ongoing maintenance and cleanup of areas that may contribute pollutants to stormwater discharges. Include the schedule/frequency for completing each housekeeping task, based on sampling results and observations made during inspections.
- Vacuum paved surfaces with a vacuum sweeper (or a sweeper with a vacuum attachment) to remove accumulated pollutants a minimum of once per quarter.
- Identify and control all on-site sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation.
- Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water.
- Keep all dumpsters under cover or fit with a lid that must remain closed when not in use.
- Remove and properly dispose of debris, oil, and sludge from all treatment BMP systems such as oil/water separators or settling/detention basins as frequently as necessary to ensure proper operational efficiency of these systems is maintained. Determine, by lab analysis, if sludge is a dangerous waste.
- Promptly repair or replace all substantially cracked or otherwise damaged paved process areas and other impervious containment areas that can be contaminated by pollutant fluid leaks or spills.
- Immediately clean up chemical and petroleum spills.

Preventative maintenance

- Include BMPs to inspect and maintain the stormwater drainage, source controls, treatment systems (if any), and plant equipment and systems that could fail and result in contamination of stormwater. Include the schedule/frequency for completing each maintenance task.
- Clean catchbasins (sumps) if the depth of debris reaches 60% of the sump depth. Keep the debris surface at least 6-inches below the outlet pipe.

- Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil or antifreeze. Take leaking equipment and vehicles out of service or prevent leaks from spilling on the ground until repaired.
- Immediately clean up spills and leaks (using absorbents and vacuuming, etc.) to prevent the discharge of pollutants.
- Prevent the discharge of pollutants to storm drains, groundwater, and surface water.
- Transfer fluids from the vehicles and parts to storage tanks or containers that are located in a covered impervious contained area. Pump fluids from cars. Always use drip pans. Empty drip pans immediately after fluids are collected using appropriate funnels. Replace drain plugs in fluid containing parts after draining fluids.
- Construct impervious maintenance areas using Portland cement concrete or equivalent. Chemically resistant asphalt can be used for battery storage. Do not pave over contaminated soil.
- Batteries cannot be stored outside in the open.
- Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers. If oil filters are removed, drain the oil for 24 hours before disposal. Puncture hole in top of filters to help draining. Recycle your drained filters with your oil.
- Clean all oily parts inside a building or on a covered impervious contained area, such as a diked/bermed concrete pad. Check for visible sheen on the contained stormwater and consider use of floating sorbent pads or booms before discharge. Wash water should not go directly into a stormwater drain or septic system.



- Store fluids in steel or plastic drums that are rigid and durable, resistant to corrosion from the weather and fluid content, nonabsorbent, water tight, rodent-proof, and equipped with a close-fitting cover. Place drums in covered impervious containment areas. Use containers, piping, tubing, pumps, fittings, and valves that are adequate for the fluid and intended use. Waste haulers for used oil and dangerous materials often provide safe containers. (For more information, refer to *Safe Handling of Empty Containers* (Reference 10).
- Label all containers and tanks clearly to prevent mixing wastes. Mixed wastes are considered dangerous wastes. Batteries should be stored in a covered plastic bin or in a covered building.
- Scrap metal cuttings or turnings containing residual cutting oils or coolants must be covered or stored in dumpsters or bins with lids.

Figure 2: Covered Battery Storage

- Use dumpsters, garbage cans, drums, or other suitable containers for disposal of solid wastes contaminated with fluids and other pollutants. These containers must be durable, corrosion resistant, nonabsorbent, non-leaking, and have a solid cover.
- Use only water or local and state government approved materials for dust control.
- Stencil warning signs such as “Dump No Waste” at stormwater catchbasins and drains.

- Use a licensed recycler to collect fluids. (See Appendix D for recommendations on proper waste disposal and/or recycling).
- Post stormwater pollution prevention signs at fluid removal and storage areas. You can obtain a poster from Ecology's Hazardous Wastes and Toxics Reduction (HWTR)

**HELP PREVENT STORMWATER POLLUTION
BY FOLLOWING THESE INSTRUCTIONS:**

1. Do not dump any vehicle fluid or other pollutant down any storm drain.
2. Prevent all outside spills and leaks of fluids, especially when transferring fluids.
3. Keep all paved areas clean of debris that could contaminate stormwater.
4. Use oil spill booms for containment and dry absorbents to clean up spills and leaks of pollutant fluids.
5. Notify management of any outside leak or spill of any fluid or any situation that can cause groundwater or stormwater contamination.
6. Notify your management if an ongoing or recurring visible oil sheen is observed in stormwater discharge(s) or receiving water.
7. Notify management if any stormwater pollution control system is not operating well.

You must immediately place calls to the following three locations to report a spill:

- National Response Center: 1-800-424-8802
- Washington Emergency Management Division: (including Emergency Release Notification) 1-800-258-5990 -OR- 1-800-OILS-911
- Ecology regional office listed below:
 - Bellevue (NWRO) 425-649-7000
 - Olympia (SWRO) 360-407-6300
 - Yakima (CRO) 509-575-2490
 - Spokane (ERO) 509-329-3400

Program or prepare your own as suggested below:

Spill prevention and emergency cleanup plan (SPECP)

- Include BMPs to prevent spills that can contaminate stormwater and specify BMPs for material handling procedures, storage requirements, cleanup equipment and procedures, and spill logs, as appropriate.
- Store all chemical liquids, fluids, and petroleum products on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.
- Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a written plan on how you will manage and dispose of accumulated water if a containment area cover is not practical.
- Block, plug, or cover storm drains that receive runoff from areas where fueling, during fueling.
- Use drip pans or equivalent containment measures during all petroleum transfer operations.

- Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).
- Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible. Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- Do not lock shut-off fueling nozzles in open position. Do not “Top-off” tanks being refueled.
- Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, locations, and reason for spill, date/time clean-up completed, notifications made, and staff involved.
- Identify areas of the facility where oil, toxic material, hazardous material, or other pollutant spills are likely to occur and their drainage points.
- Ensure that employees are aware of spill response procedures, including material handling and storage requirements. Provide access to appropriate spill cleanup equipment. (See References 13 and 14).
- Stop, contain, and clean up all spills immediately upon discovery. Do not flush absorbent materials or other spill cleanup materials into a storm drain or to surface water. Collect the contaminated absorbent material as a solid, place in appropriate disposal containers, and provide disposal according to state and local regulations.
- If you have spilled oil or other hazardous materials to state waters, the ground, or the air, you must report it — regardless of the size of the spill. Take reasonable steps to minimize any adverse impacts to waters of the state and to correct the problem. After you call in the spill report, follow up with written documentation covering the event within 30 days unless Ecology waives or extends this requirement.



Figure 3. Spill Response Kit

- You must immediately place calls to the following three locations to report a spill:
 - National Response Center: 1-800-424-8802
 - Washington Emergency Management Division: (including Emergency Release Notification) 1-800-258-5990 -or- 1-800-OILS-911
 - Ecology Regional office listed below:
 - Bellevue (NWRO) 425-649-7000
 - Olympia (SWRO) 360-407-6300
 - Yakima (CRO) 509-575-2490
 - Spokane (ERO) 509-329-3400
- Place and maintain emergency spill containment and cleanup kits at all areas where there is a potential for fluid spills. Provide appropriate types and amounts of cleanup materials in cleanup kits. Kits should be readily accessible to personnel.
- Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units.

Note: Ecology recommends that the spill kits include the following:

- Salvage drums or containers.
- Polyethylene disposal bags.
- An emergency response guidebook.
- Safety gloves/clothes/equipment, shovels, and oil containment booms and absorbent pads – all stored in an impervious container.
- Oil absorbents capable of absorbing 15 gallons of fuel.
- A storm drain plug or cover kit.
- A non-metallic shovel.
- A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity.
- Two five-gallon buckets with lids.

Employee training

The ISWGP requires an annual employee-training program on the SWPPP and its implementation. A training plan must be created that will identify the content of the training, how you will conduct training, the schedule/frequency of training, and a log of dates on which specific employees receive their training.

- The training plan in the SWPPP must contain:
 - The content of the training.
 - How the Permittee will conduct training.
 - The frequency/schedule of training. The Permittee shall train employees annually, at a minimum.
 - A log of the dates on which specific employees received training.
- Training must include the following, at a minimum:
 - An overview of what is in the SWPPP.
 - How employees make a difference in complying with the SWPPP and preventing contamination of stormwater.
 - Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
- Train all employees who work in pollutant source areas to identify pollutant sources and understand pollutant control measures such as spill prevention and response, good housekeeping, and environmentally acceptable vehicle component and other material handling practices, particularly the handling of all fluids.
- Include in the SWPPP the content, method, and frequency of the training and a log of the training dates.
- Show the “You Auto Recycle” video available free from Ecology. (See Reference 9)

Inspections

Conduct and document monthly visual inspections to achieve the following:

- Verify that all BMPs are adequate.
- Update the site map to reflect current conditions.

Each inspection must include:

- Observations made at sampling sites and areas where stormwater associated with your activities is discharged off site.

- Observations of the presence of floating materials, suspended solids, oil and grease, discoloration, turbidity, and odor in the stormwater discharges.
- Observations for the presence of illicit discharges such as domestic or process wastewater.
- Verification that the descriptions of the pollutant sources identified in the SWPPP are accurate.
- An assessment that all BMPs have been implemented noting the effectiveness of the BMP, the need and reason for maintenance, and locations where additional or different BMPs are needed.
- You must record the results of all inspections in an inspection report or checklist and keep the records on site for Ecology review. The reports must include:
 - Time and date of the inspection.
 - Locations inspected.
 - Statements that, in the judgment of the person conducting the site inspection, the site is either in or out of compliance with the SWPPP and the ISWGP.
 - A summary report and schedule of implementation of the remedial actions you plan to take if the site inspections indicates that the site is out of compliance.
 - Name, title, and signature of the person conducting the site inspection and the following statement: “I certify that this report is true, accurate, and complete, to the best of my knowledge and belief.”

Record keeping

Include the following in the SWPPP:

- Documentation of procedures to ensure compliance with ISWGP requirement for inspections and recordkeeping.
At a minimum, you must:
 - Identify facility personnel who will inspect designated equipment and facility areas.
 - Provide a tracking or follow-up procedure to ensure that a report is prepared and any appropriate action taken in response to visual inspections.
 - Define how you will comply with signature requirements and records retention.
 - Include a certification of compliance with the SWPPP and ISWGP for each inspection.
- Copies of the following records on site for a minimum of 5 years.
 - The Industrial Stormwater General Permit.
 - The ISWGP coverage letter.
 - All sampling information.
 - Visual Inspection Reports.
 - Reports on spills of oil or hazardous substances in greater than Reportable Quantities.
 - Any other documentation of compliance with ISWGP requirements.
 - All equipment calibration records.
 - All BMP maintenance records.
 - All original recordings for continuous sampling instrumentation.
 - All laboratory reports.
 - All reports required by the ISWGP.
 - All data used to complete the application for the ISWGP.

Illicit discharges

- During each monthly site inspection, look for signs of illicit discharges, especially during dry weather when stormwater isn't discharging from the site. Each monthly site inspection will include:
 - Observations made at stormwater sampling locations and areas where stormwater associated with industrial activity is discharged off site, or discharged to waters of the state or to a storm sewer system that drains to waters of the state.
 - Observations for the presence of floating materials, visible oil sheen, discoloration, turbidity, odor, etc. in the stormwater discharge(s).
 - Observations for the presence of illicit discharges such as domestic wastewater, noncontact cooling water, or process wastewater (including leachate).
 - Measures to identify and eliminate the discharge of process wastewater, domestic wastewater, and other illicit discharges to stormwater sewers, or to surface waters and groundwaters of the state.
 - Water used for controlling dust or from washing vehicles or equipment, steam cleaning and/of pressure washing is considered process wastewater. The Permittee must not allow this process wastewater to comingle with or infiltrate stormwater or enter storm drains. The Permittee must collect the process wastewater in a tank for off-site disposal or discharge it to a sanitary sewer with written approval from the local sewage authority.
 - Any fluids draining from crushing or shredding operations.
- If an illicit discharge is discovered, the Permittee must notify Ecology within 7 days.
- The Permittee must eliminate the illicit discharge within 30 days.

5. Structural best management practices

Structural BMPs are physical, structural, or mechanical devices or facilities designed to prevent pollution from entering stormwater. All BMPs listed in this section are mandatory following a Level 2 Corrective Action.

BMPs must be consistent with:

- *Stormwater Management Manual for Western Washington (SWMMWW)* (latest edition), for sites west of the crest of the Cascade Mountains.
- *Stormwater Management Manual for Eastern Washington (SWMMEW)* (latest edition), for sites east of the crest of the Cascade Mountains.
- Revisions to the manuals listed above or other stormwater management guidance documents or manuals that provide an equivalent level of pollution prevention that are approved by Ecology and incorporated in the ISWGP.
- Documentation in the SWPPP that the BMPs selected are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology.

The SWPPP must include:

- The Structural Source Control BMPs listed as “applicable” in Ecology’s Stormwater Management Manuals or other guidance documents or manuals.
- Mandatory BMPs identified in the Industrial Stormwater General Permit.
- BMPs listed Appendix E of Ecology’s on-line SWPPP template.

Additional detail on Structural Source control BMPs is included in Volume IV, Chapter 2.2 of the *Stormwater Management Manual for Western Washington* and Chapter 8.3.2 of the *Stormwater Management Manual for Eastern Washington*. Appendix E in Ecology's on line SWPPP template contains a complete list of all mandatory BMPs that may apply to your facility.

Construction BMPs discussed in Volume II, Chapter 4 of the *Stormwater Management Manual for Western Washington* and Chapter 7.3.1 of the *Stormwater Management Manual for Eastern Washington* can also be used where appropriate.

In general, the SWPPP must include BMPs to minimize the exposure of processing and material storage areas to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.

Permittees must:

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, crushing, shredding, and fueling operations).
- Perform all cleaning operations indoors, under cover, or in bermed areas that prevent stormwater runoff and run-on and that capture any overspray.
- Ensure that all washwater drains to a collection system that directs the washwater to the sanitary sewer (with proper approval) or a closed-loop system and not to the stormwater drainage system.

The following is a list of typical areas that produce pollutants and their associated best management practices. Following these best management practices is the best way to keep your vehicle or metal recycling yard in compliance with the ISWGP.

Property entrance

Definition

The property entrance is where vehicles entering or leaving the recycling facility travel on paved surfaces not under the control of the site owner.

Property entrance BMPs for unpaved sites:

- Provide power-washing of pavement daily (or more frequently, as required). Collect and treat process water before it discharges off site. Send process water to the sanitary sewer (if approved by local authority).
- Sweep the entrance frequently with a vacuum sweeper to minimize the amount of dirt and pollutants that could be carried off site by vehicles.

Quarry Spall Entrance

- Quarry spall entrance design and installation specifications
 - Install a layer of quarry spalls (4" to 8" thick) at the entrance to your site. The quarry spalls should extend the full width of your entrance.
 - A separation geotextile must be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile must meet the following standards:
 - Grab Tensile Strength (ASTM D4751) 200 psi min.
 - Grab Tensile Elongation (ASTM D4632) 30% max.
 - Mullen Burst Strength (ASTM D3786-80a) 400 psi min.

- AOS (ASTM D4751) 20-45 (U.S. standard sieve size).
Whenever possible, the entrance must be constructed on a firm, compacted subgrade. This can substantially increase the effectiveness of the pad and reduce the need for maintenance.
- Quarry spill entrance maintenance standards
 - If the entrance is not preventing sediment from being tracked onto pavement, then alternative measures to keep the streets free of sediment must be used. This may include street sweeping, an increase in the dimensions of the entrance, or the installation of a wheel wash.
 - Any sediment that is tracked onto pavement must be removed by shoveling or street sweeping. The sediment collected by sweeping must be removed or stabilized on site. The pavement must not be cleaned by washing down the street, except when sweeping is ineffective and there is a threat to public safety. If it is necessary to wash the streets, the construction of a small sump must be considered. The sediment would then be washed into the sump where it can be controlled.
 - Any quarry spalls that are loosened from the pad, which end up on the roadway, must be removed immediately.

Vehicle or metal holding yard

Definition

The **vehicle holding yard** is where a wrecked or used vehicle is temporarily stored on pervious (soil) or impervious paved surfaces (concrete, asphalt, etc.) prior to the dismantling.

Vehicle or metal holding yard BMPs

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert runoff away from these areas.
- Ensure that all washwater drains to a collection system that directs the washwater to the sanitary sewer (with proper approval) or a closed-loop system and not to the stormwater drainage system.
- Inspect all vehicles arriving at the holding area immediately upon arrival for leakage or potential leakage of fluids. Promptly fix and clean up any leaks from the vehicles. Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- Do not dismantle fluid-containing components in the holding area. Parts that do not contain fluids (such as fenders, hoods, and seats) may be removed in the holding area.
- Move vehicles with leakage to the process/dismantling area immediately. Remove the fluids from the leaking components. Use drip pans under leaking components as needed.
- Examine the holding area, at least monthly, for contamination of holding yard paved and soil surfaces. The inspection date, location, observations, and the inspector's signature need to be recorded on the monthly inspection report or checklist.
- Sprinkle or wet down soil or dust with water as long as it does not result in a discharge.
- Scrap metal cuttings or turnings containing residual cutting oils or coolants must be covered or stored in dumpsters or bins with lids.

The processing area – vehicle dismantling and fluid removal

Definition

The **processing area** is where all dismantling work is done on vehicle components that contain fluids. Processing may involve:

- Draining of fuel or other fluid from a single leaking component.
- Removing part or all of the fluid containing components.
- Water or steam cleaning of parts, vehicles, and equipment.

Parts that do not contain fluids (such as fenders, hoods, and seats) and sealed units (such as spicer axle assemblies, shock absorbers, and bumper shocks) may be removed outside the processing area.

Processing area BMPs

- Design the processing area to retain all fluids that may be spilled or released so they do not disperse and pollute stormwater or groundwater. Refer to cover and containment options below.
- Use drip pans or containers under parts or vehicles that drip or are likely to drip liquids.
- Design the processing area to prevent the runoff of stormwater from the non-processing area into the processing area.
- Sumps in the processing area must be blind or dead sumps.
- Wastewater (wash water from vehicle, equipment, and parts washing or steam cleaning) discharges from the processing area must be:
 - Conveyed to sanitary sewer with sewer authority approval and proper pretreatment needed
 - Treated and reused in a closed-loop zero-discharge system.
- Remove fluids to prevent spillage in the processing area by using drip pans or other devices to collect fluids.
- Remove fluids from fluid-containing components prior to any partial or total dismantling of the component.
- Close engine hoods after parts and/or fluid removal.

Processing area cover and containment BMPs:

You may choose one of the following containment approaches to help meet ISWGP requirements:

1. Enclosed building

An enclosed building with a contained impervious floor, such as Portland cement concrete, or other impervious surface that is chemically resistant to all vehicle fluids. There must be no floor drainage to the outside other than connections to sanitary sewers authorized by the local sewer authority. There must be no discharge to a storm drain or to surface water.

2. Containment with a roof

Install an impervious contained pad, Portland cement concrete, or other impervious surface, under a roof.

3. No discharge option (only for eastern Washington)

A “no stormwater discharge” option from uncovered contained processing areas is acceptable only in those areas of eastern and central Washington with low rainfall. Low rainfall areas have an annual average precipitation of 15 inches a year or less. A “no stormwater discharge” option means that no stormwater is allowed to flow from the processing area. Any stormwater in the area must be small enough in volume to be collected for separate treatment or disposal. Stormwater may be disposed of in a sanitary sewer if local authorities allow. Check with your

local sewage plant operator for information on discharge limits and to obtain a discharge permit if required.

Processing area flooring BMPs

- Construct the impervious pad with Portland cement concrete that is chemically resistant to gasoline or other vehicle fluids that may leak or spill—or equivalent impervious containment. Do not use gravel as the material for the pad because it is not impervious to water and other fluids.
- The pad must have a perimeter dike, berm, dead-end sump, inward sloping, or other physical barrier to contain spills and leaks. The dike or berm should prevent stormwater from running onto the pad from other areas and running off the pad into adjacent areas. Construct the dike, berm, or inward slope to allow mobile equipment access to the processing area.

Fluid storage area

Definition

The **fluid storage area** is the area(s) where solvents, fuel, oil, coolants, liquid chemicals, and other fluids from vehicles are stored prior to use, resale, recycle, treatment, or disposal.

Fluid Storage area cover and containment BMPs

You may choose one of the following containment approaches to help meet ISWGP requirements:

1. Enclosed building

An enclosed building with a contained impervious floor, such as Portland cement concrete, or other impervious surface that is chemically resistant to all vehicle fluids. There must be no floor drainage to the outside other than connections to sanitary sewers authorized by the local sewer authority. There must be no discharge to a storm drain or to surface water unless authorized by an Ecology wastewater discharge permit.

Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.

2. Containment with a roof

- Install an impervious contained pad, Portland cement concrete or other impervious surface, under a roof.
- Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.

3. No discharge option (only for eastern and central Washington)

A “no stormwater discharge” option is acceptable only in those areas of eastern and central Washington with low rainfall. Low rainfall areas have an annual average precipitation of 15 inches a year or less. A “no stormwater discharge” option means that no stormwater is allowed to flow from the area. Any stormwater in the area must be small enough in volume to be collected for separate treatment or disposal. Stormwater may be disposed of in a sanitary sewer

if local authorities allow. Check with your local sewage plant operator for information on discharge limits and to obtain a discharge permit if required.

BMPs for tank storage (typically used for waste oils) and container storage (typically 30 or 55 gallon drums):

- Label each container/tank with its contents. For on-site reusable fluids, label as follows: “Useable Antifreeze,” “Useable Gasoline,” etc.
- Use impervious secondary containment of tanks (Figures 4 and 5) or double-walled tanks. Double-walled tanks do not need additional containment but should be Underwriters Laboratory (UL) approved.

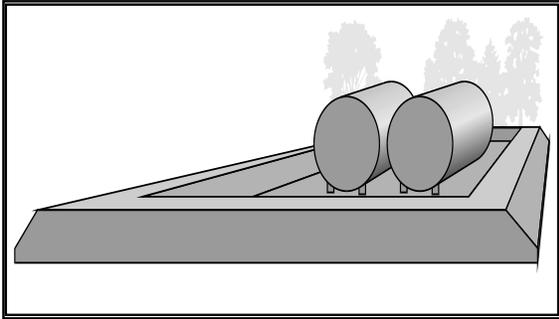


Figure 4. Above ground tank storage
(typically used for used oil)

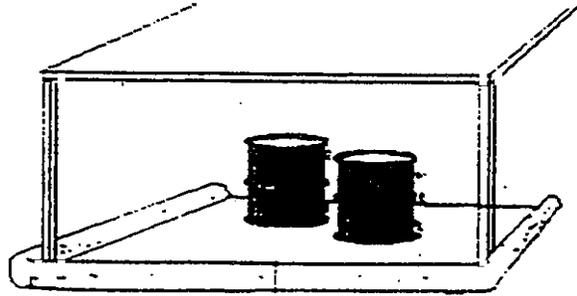


Figure 5. Covered and bermed containment

- The secondary containment area must be:
 - Paved, or equivalent.
 - Free from cracks and gaps.
 - Impervious to contain leaks and spills.
 - Enclosed with walls or dikes sufficient to contain 10 % of the total volume of all the containers/tanks or 110 % of the largest container/tank stored in the containment area, whichever is greater.
 - Covered or you must have a written plan for handling accumulated stormwater.
- Inspect the tank containment areas regularly to identify problem components such as fittings, pipe connections, and valves for leaks/spills, cracks, corrosion.
- Include tank overflow protection to prevent spills during filling of the tanks.
- In low rainfall areas, uncovered secondary containment areas for tanks may slope to a drain to discharge uncontaminated stormwater only. The drain must have a valve to stop any fluids from being released. The drain valve should be kept closed unless emptying uncontaminated stormwater.
- The stormwater drain outlet may have a dead-end sump for the collection of small spills. If a dead-end sump is used, slope the floor toward the sump and the sump must include a locked drainage valve or plug. Keep the valve or plug in the closed position to prevent releasing fluids. Clean the sump weekly, or as needed, to prevent the accumulation of fluids.
- Uncovered containment structures must have a written plan for proper handling and disposal of accumulated stormwater.

- Examine entire fluid storage areas monthly for fluid spills or leaks. Clean up any accumulated fluids promptly and repair leak and spill sources. Record inspection date, location, observation, correction measures, and signature by a member of the Pollution Prevention Team.
- Locate spill pallets under cover and on level and stable surfaces. An example is a commercially available plastic tray that holds four 55-gallon drums, with a cover to keep out the rain (See Figure 6).
- Handle and store dangerous wastes, including anti-freeze solutions, solvents, degreasers, spent lead acid batteries and battery acids in accordance with Ecology’s hazardous waste handling requirements (see Reference 7).
- Do not mix incompatible materials such as oils, antifreeze, windshield washer fluids, and brake fluids with solvents (Appendix C, pg. 30).
- Store reactive, ignitable, or flammable liquids in compliance with applicable uniform fire code requirements and hazardous waste regulations (Chapter 173-303 WAC).
- Recycle, treat, or dispose of all fluids in accordance with applicable state and local government requirements (Appendix C, pg. 30 and References 8 and 9).

Note: If windblown rain at lean-to and/or covered storage facilities with open sides for containers cause, or can cause the discharge of contaminated stormwater (with significant amount of pollutants), use proper containment and treatment.

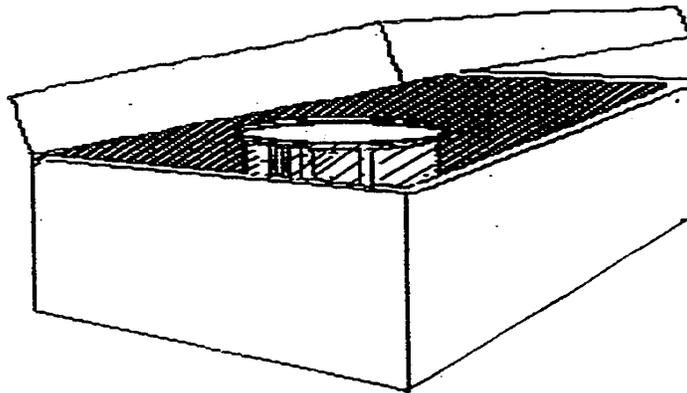


Figure 6. Container Completely Encloses Storage Tank. This applies only to fluid storage in low rainfall areas. It is applicable for battery storage everywhere.

Vehicle or metal storage yards

Definition

The **vehicle or metal storage yard** is generally an outdoor area on a pervious surface such as soil or rock, used to store vehicles in various stages of dismantling, or metal waiting further processing or shipment.

Storage yard BMPs

- Remove all fluids and batteries in the vehicle process area prior to transfer to the yard with the exception of sealed units such as spicer axle assemblies, shock absorbers, and bumper shocks.
- Do not remove fluids or dismantle or remove vehicle components in the vehicle storage yard. This may result in a release of hazardous liquids to the environment.
- Remove windshield washer fluid. Recycle or reuse the washer fluid.
- Immediately clean up any fluid leaks found in the storage yard.
- Use drip pans to temporarily contain drips/leaks of fluids from the stored vehicles or use plastic sheets to cover oily parts until the vehicle is transferred back to the process area.
- If the stormwater runoff from the vehicle storage yard contains a significant amount of oil, use additional operational and source control BMPs and/or direct the contaminated stormwater to an oil/water separator or equivalent oil removal system until the benchmark value for oil is no longer exceeded.
- Employees must continually watch for spills or releases while attending to their normal work activities. Employees must immediately report any spill or releases of materials that may contaminate stormwater to the appropriate person or persons identified in the SWPPP (preferably a lead person). This person(s) must order a prompt cleanup of the spilled or released materials.
- Devise a system for identifying which vehicles have been drained of fluids and which have not. This will help ensure that all vehicles have been drained before entering the storage yard and ensure that only drained vehicles are going to the crusher.

Vehicle or metal crusher

Definition

A **vehicle crusher** is a mechanical device that reduces the volume of vehicle hulks prior to transporting to a scrap metal yard. It can be either portable (mobile) or stationary. A crusher is a source of stormwater and/or soil contamination when fluid containing parts are crushed.

Stationary vehicle crusher cover and containment BMPs

You may choose one of the following cover and containment approaches to help meet ISWGP requirements for stationary crushers:

1. Impervious surface with cover

Crush the vehicles on an impervious concrete or asphalt pad that is resistant to the fluids and sloped to drain away from the perimeter. This area should have a dike or other physical barrier around the perimeter and a roof or cover. Otherwise, it must be located inside a building.

2. Impervious surface without cover (only for eastern and central Washington)

Containing the crusher in an area without cover is acceptable only in those areas of eastern and central Washington with low rainfall. Low rainfall areas have an annual average precipitation of 15 inches a year or less. Crush vehicles on an impervious concrete or asphalt pad that is resistant to the fluids. The containment area should have a dike or other physical barrier around the perimeter.

Mobile vehicle crusher cover and containment BMPs

You may choose one of the following cover and containment options to help meet ISWGP requirements for mobile crushers:

1. Containment with cover

Crush the vehicles on an impervious concrete pad that is resistant to the fluids and sloped to drain away from the perimeter. This containment area must have a dike or other physical barrier around the perimeter and a roof or cover. Otherwise, it must be located inside a building.

2. Containment without cover

Crush vehicles on an impervious concrete pad that is resistant to the fluids. The containment area must slope away from the perimeter and have a dike or other physical barrier around the perimeter.

3. On pervious surfaces (only for eastern and central Washington)

Crushing on pervious surfaces is acceptable only in those areas of eastern and central Washington with low rainfall. Low rainfall areas have an annual average precipitation of 15 inches a year or less. All vehicles must be completely drained of fluids prior to crushing. Crushing shall take place during dry weather and on sites where the maximum annual groundwater table is greater than 5 feet below the ground surface and soil will not be contaminated.

Vehicle crusher BMPs:

- Crush only vehicles that have had fluids removed from all components except the sealed units such as spicer axle assemblies, shock absorbers, and bumper shocks.
- Remove fluids only in the process area.
- Angle crushers to allow fluids to flow out of crusher. All fluids should be collected in a labeled container that has secondary containment. If crushing on a pervious surface, place a tarp under the collection container.
- Check fluid collection container regularly to ensure fluids do not reach top of container.
- Empty fluid collection container when it is 75 % full and crusher is not in operation. You must handle fluids released during crushing as hazardous waste.
- The use of self-contained crushers designed to collect leaks within the crusher unit is recommended.
- Clean up all fluid leaks and spills promptly.
- After each crushing operation, clean area around crusher. Dispose of all wastes and any contaminated soil appropriately.

Ecology requires removal of all mercury switches and other mercury containing components from the vehicles prior to crushing. Most vehicle shredders require that all mercury switches be removed from the vehicles.

Waste/scrap piles of metal and/or vehicle components

Definition:

Scrap engines, transmissions, and other scrap parts stored outside can cause pollution of surface water and contamination of soil.

Waste/scrap pile BMPs:

- Remove fluids from all scrap components prior to transfer to outside storage except for sealed units such as spicer axle assemblies, shock absorbers, and bumper shocks.

- Store all batteries separately in a non-leaking covered container or under a roof area with containment.
- Scrap metal cuttings or turnings containing residual cutting oils or coolants must be covered or stored in dumpsters or bins with lids.

Waste/scrap pile cover and containment BMPs:

You may choose one of the following cover and containment options to help meet ISWGP requirements:

1. Containment pad under cover (preferred)

Store the scrap components on an impervious concrete containment pad under a roof or waterproof tarp. To prevent stormwater run-on and runoff, install a dike, berm, or other physical barrier around the perimeter, and/or an inward sloping of the pad to a sump with appropriate outside grading.

2. Uncovered containment pad (minimally acceptable)

Ensure that all fluids have been drained from parts. Store parts on an uncovered impervious concrete or chemically resistant asphalt pad with inward sloping (with appropriate outside grading to prevent runoff), a dike, or other physical barrier for containment.

Direct the stormwater runoff from the pad to an oil/water separator or other appropriate treatment system if the stormwater drainage from the containment contains a significant amount of oil or any other pollutant.

3. No discharge to surface water (only for eastern and central Washington)

A “no stormwater discharge” option is acceptable in those areas of eastern and central Washington with low rainfall. Low rainfall areas have an annual average precipitation of 15 inches a year or less. A “no stormwater discharge” option means that no stormwater is allowed to flow from the area. Any stormwater in the area must be small enough in volume to be collected for separate treatment or disposal. Stormwater may be disposed of in a sanitary sewer if local authorities allow. Check with your local sewage plant for information on discharge limits and to obtain a discharge permit if required.

Storage of parts for sale

Definition:

The parts storage area is where parts removed from vehicles are stored for resale.

Storage of Parts for Sale BMPs:

You may choose one of the following BMPs to help meet permit requirements:

1. Storage in building (preferred)

Store parts in a building with no floor drainage to the outside other than approved connections to sanitary sewers.

2. Storage under cover (preferred)

Store parts on an impervious concrete or chemically resistant asphalt pad with inward sloping or dike or other physical barrier under a roof. If you use inward sloping, the grading outside and adjacent to the pad must be sufficient to prevent the run-on of stormwater.

3. Storage on uncovered impervious containment

Store parts on an uncovered impervious concrete pad with inward sloping (with appropriate outside grading to prevent run-on), or dike, or other physical barrier for containment.

4. Storage on uncovered ground areas

Remove fluids from all parts before being stored, except sealed units such as Spicer axle assemblies, shock absorbers, and bumper shocks. Replace all plugs/caps/seals intended to retain fluids before storing the parts. Use drip pans, as needed, to contain remaining drips of fluids. Use appropriate cover, such as a roof or tarp, for storage of all oily parts that are not steam cleaned.

If the stormwater discharge from an uncovered parts storage area contains oil sheen or greater than a benchmark value of oil and grease—or any other pollutant—then appropriate corrective action steps must be taken. Action steps include identification and elimination of the source of the oil and may include use of an oil/water separator or other appropriate system for treatment prior to discharge to surface water.

5. For storage in low rainfall areas

In those areas of eastern and central Washington with low rainfall, a “no stormwater discharge” option is acceptable. Low rainfalls can be defined as those areas that have an annual average precipitation of 15 inches a year or less. A “no stormwater discharge” option means that no stormwater is allowed to flow from the area. Any stormwater in the area must be small enough in volume to be collected for separate treatment or disposal. Stormwater may be disposed of in a sanitary sewer if local authorities allow. Check with your local sewage plant for information on discharge limits and to obtain a discharge permit if required.

Contaminated soil

Definition:

All areas of a vehicle recycler facility that have exposed soil may have contaminated soil. Contaminated soil is any soil that has been exposed to a pollutant. The severity of the contamination will depend on factors such as: the toxicity of the pollutant, waste fluid control method, total cumulative fluid volume lost, and spill cleanup procedures.

Contact Ecology’s regional office for spills of dangerous or hazardous waste such as gasoline, diesel, strong acids or bases, and mercury if:

- The material is released into the environment. (Small spills on impervious surfaces are not considered a release to the environment.)
- The spill is a threat to human health or the environment. (If it takes more than a shovel full of soil to clean up the spill, it is a threat.)

BMPs for contaminated soils

- Control the source
- Contain the spilled material
- Clean up the soil

Collect the contaminated soil in appropriate containers, analyze it, and contact Ecology’s Toxics Cleanup Program to determine proper disposal technique. You may move it to an on-site

covered impervious containment area for temporary storage or cleanup or arrange to transport it to a waste treatment facility (see Appendix E).

- Prevent contact with stormwater
 - Place the contaminated soil in drums or containers and place on an impervious surface under a fixed cover or cover the contaminated soil with a durable plastic cover, or equivalent, to prevent contact with rainwater.
 - Divert stormwater around the covered contaminated soil to prevent the contamination of stormwater.
- Collect and treat the stormwater
 - Contain, collect, and treat any stormwater runoff from the contaminated soil site with an oil/water separator or other appropriate treatment if it contains a significant amount of oil or other pollutant.

Erosion and sediment control (ESC)

Definition:

During heavy storms and high runoff conditions, soil that is loose from heavy site activity or poor soil stabilization can erode. The areas likely to be affected by soil erosion are drive lanes and sloped yard areas with exposed soil. Erosion and sediment control BMPs are those that are intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, and sediment traps and ponds.

All facilities must evaluate the risk of soil erosion on their site. At a minimum, the SWPPP must include a narrative that describes significant amounts of soil erosion at the site. If you discover soil erosion or a potential for soil erosion then use the following BMPs:

- **Drive lanes** - Construct the drive lanes through the storage yard with 3/4 inch crushed rock or equivalent stable surface.
- **Other areas** - Install crushed rock, gravel, or other erosion control techniques such as vegetative covers. Install check dams, riprap, gravel filter berms, stormwater conveyance channels, and settling basins, as needed (see References 2 and 3, for additional information on ESC BMPs).

Stormwater collection and conveyance system

Definition:

The **stormwater conveyance system** includes ditches, drains, stormwater sewers, and gutters that direct rainwater from your facility to another conveyance system, water body, or collection system. It is an important component of your stormwater pollution prevention plan. The following are some required BMPs:

- Keep uncontaminated stormwater away from pollutant sources and treatment systems wherever possible. This can be achieved by grading the runoff areas appropriately and installing contained concrete pads, or equivalent, such that uncontaminated stormwater drains around them.
- Collect, segregate, and convey, as needed, significantly contaminated stormwater to appropriate treatment BMPs.

- Convey all contaminated stormwater in impervious channels, piping, etc., to prevent the contamination of soil and groundwater during conveyance. Use of durable plastic liners may be appropriate in some cases.

6. Use treatment best management practices

Treatment BMPs are physical, structural, or mechanical devices or facilities designed to treat and remove pollution that has entered stormwater. The BMPs listed in this section will be incorporated into the SWPPP following a Level 3 Corrective Action.

Ecology-approved emerging technologies for use in treating stormwater can be found online at www.ecy.wa.gov/programs/wq/stormwater/newtech/technologies.html. New technologies are occasionally added to the list.

Design and installation of Treatment BMPs typically require the services of a professional engineer to properly size and locate the collection and treatment facilities.

Treatment technologies that can be used to meet the requirements following a Level 3 Corrective Action are contained in:

- Volume V of the *Stormwater Management Manual for Western Washington*.
- Chapter 5 of the *Stormwater Management Manual for Eastern Washington*.
- Chemical treatment as approved by Ecology.
- Mandatory BMPs identified in the Industrial Stormwater General Permit.
- BMPs listed Appendix E of Ecology's on line SWPPP Template.

References*

1. [October 2009 Industrial Stormwater General Permit](#), Department of Ecology.
2. [Stormwater Management Manual for Western Washington](#), Department of Ecology, February 2005, Publication # 05-10-029 through 05-10-033.
3. [Stormwater Management Manual for Eastern Washington](#), Department of Ecology, September 2004, Publication # 04-10-076.
4. [Guidance for Evaluating Emerging Stormwater Treatment Technologies: Technology Assessment Protocol-Ecology](#), Department of Ecology, Revised January 2008, Publication # 02-10-037.
5. [How to Do Stormwater Sampling: A Guide for Industrial Facilities](#), Department of Ecology, Revised January 2009, Publication # 02-10-071.
6. Hazardous Waste Services Directory: www.ecy.wa.gov/apps/hwtr/hwsd/default.htm
7. [Hazardous Waste Generator Checklist](#), Department of Ecology, Revised October 2004, Publication # 91-12b.
8. [Vehicle Recycling Manual: A Guide for Vehicle Recyclers - You Auto Recycle](#), Ecology HWTR Program, January 2009, Publication #97-433.
9. [You Auto Recycle](#), Ecology HWTR Program, February 2003, Publication # 97-433, Video Publication # 04-04-024.
10. [Safe Handling of Empty Containers](#), Ecology HWTR Program, Revised October 2004, Publication # 96-431.
11. [Used Oil Facts](#), Ecology HWTR Program, April 2005, Publication # 02-04-006.
12. [Focus on Spent Antifreeze](#), Ecology HWTR Program, September 2003, Publication #03-04-017.
13. [Focus on: Spill Reporting under the Dangerous Waste Regulations](#), HWTR Program, Revised July 2007, Publication #92-119.
14. [Focus on Emergency Spill Response in Washington State](#), Ecology Spill Response Program, October 2009, Publication #97-1165-CP.
15. [Removal Guide for Vehicle Mercury Light Switches & ABS G-Force Sensors](#), Ecology HWTR Program, August 2006, Publication #05-04-024.

16. [Auto Mercury Switch Removal from Hoods, Trunks & ABS Sensor](#), Video Publication #05-04-023.

*C your Ecology regional office for copies of references or help on web links.

Appendices

Appendix A. Acronyms

AKART	All known, available, and reasonable methods of prevention, control, and treatment
BMP	Best management practice
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWA	Centralized Waste Treatment
DMR	Discharge Monitoring Reports
EPA	Environmental Protection Agency
ESC	Erosion and Sediment Control
FWPCA	Federal Water Pollution Control Act
HWTR	Hazardous Waste and Toxics Reduction Program
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
SARA	Superfund Amendment and Reauthorization Act
SEPA	State Environmental Policy Act
SIC	Standard Industrial Classification Codes
SMCRA	Surface Mining Control and Reclamation Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total maximum daily load
UIC	Underground Injection Control Program
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality

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Appendix B. Glossary

303(d)-listed water body: Water bodies as listed as Category 5 on Washington State’s Water Quality Assessment

Adaptive management procedures (defined in S4.C. of the modified permit): Actions the facility operator must take when any of the samples exceed benchmark values, including the preparation of a written report.

AKART: Acronym for “all known, available, and reasonable methods of prevention, control, and treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling the pollution associated with a discharge.

Application: A request for coverage under this general permit pursuant to WAC 173-226-200. Also called a Notice of Intent (NOI)

Benchmark value: A pollutant threshold concentration, above which a pollutant is considered likely to cause a water quality violation and below which is unlikely to cause a water quality violation. Benchmark values are not water quality criteria and site-specific conditions must still be considered to determine if an actual water quality violation exists.

Best management practices (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures, management practices, and structural practices to prevent or reduce the stormwater pollution. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the ISWGP, BMPs are further categorized as operational source control, structural source control, erosion and sediment control, and treatment BMPs.

Bypass: The intentional diversion of waste streams from any portion of a treatment facility.

Catchbasin insert (CBI): Typically, a CBI consists of a box, brackets, fabric bag, etc., containing a filter or absorbent medium that is placed into a catchbasin.

Clean Water Act: The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC et seq.

Combined sewer: A sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Construction activity: Clearing, grading, excavation, and any other activity that disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, industrial buildings, and demolition activity.

Control plan: A total maximum daily load (TMDL) determination, restrictions for the protection of endangered species, a groundwater management plan, or other limitations that regulate or set limits on discharges to a specific water body or groundwater recharge area.

Dangerous wastes: Wastes designated in the Washington State Dangerous Waste Regulations, WAC 173-303-070 through 173-303-100.

Dead-end sump: Impervious pit for the collection of spilled or leaked fluids.

Discharge Monitoring Report (DMR): A report to record and send sampling results to Ecology. Use form in Appendix F. (Worksheet 11, pg. 48)

Demonstrably equivalent: The technical basis for the selection of all stormwater BMPs are documented within a SWPPP. The SWPPP must document:

1. The method and reasons for choosing the stormwater best management practices selected.
2. The pollutant removal performance expected from the practices selected.
3. The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected.
4. An assessment of how the selected practices will comply with state water quality standards.
5. An assessment of how the selected practices will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment.

Detention: The temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Discharge [of a pollutant]: Any addition of any pollutant or combination of pollutants to waters of the United States from any point source. This definition includes additions of pollutants into waters of the United States from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharger: An owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the federal Clean Water Act.

Domestic wastewater: Water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Ecology: The Washington State Department of Ecology.

EPA: The United States Environmental Protection Agency.

Equivalent BMPs: Operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

Erosion: The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and sediment control BMPs: BMPs that are intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, and sediment traps and ponds.

Existing facility: A facility that was in operation prior to the effective date of the ISWGP. It also includes any facility that is not categorically included for coverage but is in operation when identified by Ecology as a significant contributor of pollutants.

Facility: Any NPDES *point source* (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

Functionally equivalent: The operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM for eastern or western Washington.

General permit: A permit that covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

Groundwater: Water in a saturated zone or stratum beneath the land surface or a surface water body.

Hazardous wastes: Any liquid, solid, gas, or sludge (including any material, substance, product, commodity or waste, regardless of quantity) that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or 173-303-100.

Heavy metals: Metals of high specific gravity (such as, lead, zinc, and copper) that pose long-term environmental hazards.

Illicit discharge: Any discharge that is not composed entirely of stormwater and is not covered under a separate NPDES permit and conditionally approved discharges listed in Special Condition S3.C.

Inactive facility: A facility that no longer engages in business, production, providing services, or any auxiliary operation.

Industrial activity: (1) the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14)(i-xi) that must apply for either coverage under the ISWGP or no exposure certification, (2) any facility conducting any activities described in Table 1, and (3) identified by Ecology as a significant contributor of pollutants. Table 1 lists the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14)(i-xi) in a different format.

Landfill: An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application site, surface impoundment, injection well, or waste pile.

Land application site: An area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Leachate: Liquid that has percolated through the soil and contains substances in solution or suspension.

Lean-to: A single pitch roof usually attached to the side of a building.

Local government: Any county, city, or town having its own government for local affairs.

Material handling: Storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product, or waste product.

Media filters: Particulate or fabric materials in either fixed bed, cartridge, or catchbasin configuration that exhibit filtration or adsorption properties.

Municipality: A political unit such as a city, town, or county incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES): The national program for issuing, modifying, revoking, terminating, monitoring, and enforcing water discharge permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

New discharge(r): A facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, is not a new source, and has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New facility: A facility that begins activities that result in a discharge or a potential discharge to waters of the state on or after the effective date of this general permit.

Non-conforming land use: An industrial facility located in an area that is not zoned for industrial land uses.

Noncontact cooling water: Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

Notice of Termination (NOT): A request for termination of coverage under this general permit as specified by Special Condition S11 of the ISWGP.

Off-line facility: Water treatment facility to which stormwater runoff is restricted to some maximum flow rate or volume.

Oil: Materials, including but not limited to, petroleum, fuel, oil and gasoline, sludge, oil refuse, and oil mixed with waste other than dredged spoil. (40 CFR Subpart 112.2(a))

Operational source control BMPs: Schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. Not included are BMPs that require construction of pollution control devices.

pH: A numerical measure of the alkalinity (7 to 14) or acidity (less than 7) of a substance.

Pollutant: The discharge of any of the following to waters of the state:

- Dredged spoil
- Solid waste
- Incinerator residue
- Filter backwash
- Sewage; garbage
- Domestic sewage sludge (biosolids)
- Munitions
- Chemical wastes
- Biological materials
- Radioactive materials
- Heat
- Wrecked or discarded equipment
- Rock
- Sand
- Cellar dirt
- Industrial, municipal, and agricultural waste.

This term does not include sewage from vessels within the meaning of section 312 of the FWPCA nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the FWPCA.

Pollution: Contamination or other alteration of the physical, chemical, or biological properties of waters of the state; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish, or other aquatic life.

Process wastewater: Any water, which, during manufacturing or processing, comes into direct contact or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Qualified personnel: Those who possess the knowledge and skills to assess conditions and activities that could affect stormwater quality at the facility and evaluate the effectiveness of best management practices required by the ISWGP.

Quantitation level (QL): Known as Minimum Level of Quantitation (ML) means the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Reasonable potential: The likely probability for pollutants in the discharge to exceed the applicable water quality criteria in the receiving water body.

Redevelopment: Development on a site that is already substantially developed (i.e., has 35% or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure;

replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities.

Regular business hours: Those periods when the facility is engaged in its primary production process, but does not include additional shifts or weekends when partial staffing is at the site primarily for maintenance and incidental production activities. Regular business hours do not include periods of time that the facility is inactive and unstaffed.

Representative [sample]: A sample of the discharge that accurately characterizes stormwater runoff generated in the designated drainage area of the facility.

Runoff: That portion of rainfall or snowmelt water not absorbed into the ground that becomes surface flow.

Sanitary sewer: A sewer that is designed to convey domestic wastewater.

Sediment: The fragmented material that originates from the weathering and erosion of rocks, unconsolidated deposits, or unpaved yards and is transported by, suspended in, or deposited by water.

Sedimentation: The gravity-induced settling of soil particles transported by water. The process is accelerated in slower-moving, quiescent stretches of natural water bodies or in treatment facilities such as sediment ponds and wet ponds. Sedimentation occurs when the velocity of water in which soil particles are suspended is slowed for a sufficient time to allow particles to settle. The settling rate is dependent on the soil particle size. Heavier particles, such as sand and gravel, can settle more rapidly than fine particles such as clay and silt.

Self-determination: A determination by the facility operator that additional actions must be taken to reduce the contamination of stormwater, as a result of an inspection or sampling.

Severe property damage: Substantial physical damage to property, damage to the treatment facilities that would cause them to become inoperable, or substantial and permanent industrial loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Significant amount: An amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention, control, or treatment or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality standards or sediment management standards.

Significant contributor of pollutant(s): A facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the state.

Significant materials: Includes, but is not limited to: 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 CERCLA; any chemical the facility is required to report pursuant to section 313 of

title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with stormwater discharges.

Significant process change: Any modification of the facility that would result in any of the following:

- Add different pollutants in a significant amount to the discharge.
- Increase the pollutants in the stormwater discharge by a significant amount.
- Add a new industrial activity (SIC) that was not previously covered.
- Add additional impervious surface or acreage such that stormwater discharge would be increased by 25% or more.

Source control BMPs: Physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater.

Standard industrial classification (SIC): The statistical classification standard underlying all establishment-based federal economic statistics classified by industry as reported in the 1987 SIC Manual by the Office of Management and Budget.

State Environmental Policy Act (SEPA): The Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Storm sewer: Also called a storm drain. A sewer that is specifically designed to carry stormwater.

Stormwater: That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body or a constructed infiltration facility.

Stormwater discharge associated with industrial activity: The discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant (see 40 CFR 122(b)(14)).

Stormwater Drainage System: Constructed and natural features that function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, or divert stormwater.

Stormwater management manuals for western and eastern Washington (SWMM): The technical manuals prepared by Ecology for stormwater management. For BMPs implemented prior to February 2001, it is the *Stormwater Management for the Puget Sound Basin* published in 1992. For all facilities west of the crest of the Cascade Mountains as of February 1, 2002, it is the *Stormwater Management Manual for Western Washington*. The *Stormwater Management Manual for Eastern Washington* is the applicable SWMM for all facilities east of the crest of the Cascade Mountains as of November, 2004. It also applies to any future revision of the technical manuals as they become available.

Stormwater pollution prevention plan (SWPPP): A documented plan that reflects the measures used to identify, prevent, and control the contamination of point source discharges of stormwater and groundwater.

Structural source control BMPs: Physical, structural, or mechanical devices or facilities designed to prevent pollutants from entering stormwater.

Surface waters of the state: Includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state.

Suspended solids: Particulates in water or wastewater.

Total maximum daily load (TMDL): A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources.

Total Maximum Daily Load Cleanup Plan: A description of the type, amount, and sources of water pollution in a water body with strategies to control pollution. Percentages of the *total maximum daily load* are allocated to the various *pollutant* sources. The *TMDL* calculations include a *margin of safety* to ensure that the water body can be protected in case there are unforeseen events or unknown sources of the *pollutant*. The calculation also accounts for reasonable variation in water quality.

Treatment BMP: BMPs that are intended to remove pollutants from stormwater.

Turbidity: The clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

Underground injection control well: A well that is used to discharge fluids into the subsurface. An underground injection control well is one of the following:

- A bored, drilled, or driven shaft.
- An improved sinkhole.
- A subsurface fluid distribution system. (WAC 173-218-030).

Unstaffed: The facility has no assigned staff. A site may be unstaffed even when security personnel are present, if pollutant generating activities are not included in their duties.

Vehicle: A motor-driven conveyance that transports people or freight, such as an automobile, truck, train, or airplane.

Vehicle maintenance: The rehabilitation, mechanical repairing, painting, fueling, and/or lubricating of a motor-driven conveyance that transports people or freight, such as an automobile, truck, train, or airplane.

Wasteload allocation (WLA): The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2(h)).

Water Quality Standards: The Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC, Ground Water Quality Standards (Chapter 173-200 WAC), Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).

Waters of the state: Those waters that are defined as “waters of the United States” in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and “waters of the state” as defined in Chapter 90.48 RCW which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. This includes wetlands created, restored, or enhanced as part of a mitigation procedure. This does not include constructed wetlands or the following surface waters of the state intentionally constructed from sites that are not wetlands: irrigation and drainage ditches, grass-lined swales, canals, agricultural detention facilities, farm ponds, and landscape amenities.

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Appendix C. Vehicle waste material management

Note: The *You Auto Recycle* manual (Reference 8) and video (Reference 9) are useful sources of detailed information on fluid management at vehicle recycler facilities.

Call HWTR at 360-407-6700 for copies. More information on waste management can be downloaded at: <http://www.ecarcenter.org>

Wastestream	Recommended Management
Antifreeze	<ul style="list-style-type: none"> • Store separately for resale or recycle. • Clearly label containers (“Waste Antifreeze”, “Useable Antifreeze”, etc.) • If not recyclable, send to a treatment, storage, and disposal facility (TSDf) for proper disposal. See http://www.ecy.wa.gov/apps/hwtr/hwsd/default.htm or Reference 12.
Batteries	<p>INTACT: Accumulate in a contained area under cover prior to sale, deliver to recycler, or return to manufacturer.</p> <p>BROKEN: Accumulate acid from broken batteries in resistant containers with secondary containment. Send to TSDf for proper disposal.</p>
Brake fluid	Accumulate in separate, marked, closed container. Do not mix with waste oil. Recycle. Check with waste hauler.
Fuel	Store leaded gasoline, unleaded gasoline, and diesel separately for use or resale. Mixtures of diesel, gasoline, oil, and other fluids may not be recyclable and may require expensive disposal. Do not mix with brake fluid or used antifreeze.
Mercury light switches	<ul style="list-style-type: none"> • Remove mercury light switch assembly from hood and trunk or ABS system. • Place in leak-proof closed container labeled “Used Mercury Switches • Keep container with switches under cover until properly disposed.
Used oils including crankcase oil, transmission oil, power steering fluid, and differential/rear end oil	<ul style="list-style-type: none"> • Keep used oil in separate containers marked “USED OIL ONLY.” Arrange for pick-up by responsible firm for off-site recycling. • Do NOT mix with brake fluid or used antifreeze. • Do NOT mix with any other waste if you plan to burn it in your shop for heating. Heater must be designed for a capacity of not more than 0.5 million BTU/hr and combustion gases from the heater vented outside.
Oil filters	<ul style="list-style-type: none"> • Puncture the filter dome and drain it for 24 hours. • Put oil drained from filters into used oil collection container • Keep drained oil filters in a separate container marked “USED OIL FILTERS ONLY.” • Locate a scrap metal dealer or other responsible entity that will pick up your filters and properly recycle/dispose of them. • Dispose of drained oil filters into a dumpster ONLY with the approval of your local landfill operator.
Paint	<ul style="list-style-type: none"> • Accumulate oil-based and water-based paints separately for use or resale. • If not recyclable, send accumulations to TSDf for disposal.
Shop towels/oily rags	<ul style="list-style-type: none"> • Use cloth towels that can be laundered and reused. • Accumulate used shop towels in a closed container. • Sign up with an industrial laundry service that can recycle your towels.
Solvents	<ul style="list-style-type: none"> • Consider using less hazardous solvents or switching to a water spray cabinet parts washer that does not use solvent. • Accumulate solvents separately and recycle. Contact solvent disposal co. • Do not mix with used oil. • Do not evaporate as a means of disposal.
Windshield washer fluid	Accumulate separately for reuse or resale. If acceptable by the local sewer authority, discharge to sanitary sewer.

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Appendix D. Lists of recycler and waste handling businesses

This partial list of vendors is for informational purposes only and not for endorsements by Ecology.

Tire Recycle

Tire Disposal and Recycling, Tacoma, 253-460-6326
L&S Tire Company Spokane 509-464-0976, Lakewood 253-582-5586

Batteries for Recycle

Battery Systems (locations throughout Washington): Seattle, 206-762-5522, Union Gap
509-248-4874
Budget Batteries (locations throughout Washington), Tacoma, 206-922-3737
Northwest Recycling, Bellingham 360-733-0100
Interstate Batteries (locations throughout Washington): 1-800-325-2902

Drum Recycle (Steel & Plastic)

Industrial Container Services, Seattle, 206-763-2345
Emerald Services, Seattle, 888-832-3008

Oil Filter Recycling

Able Cleanup Technologies, Spokane, 866-466-5255
FBN Enterprises, Bellevue, 425-466-9642

*For lists of additional recycler and waste handling facilities refer to: “Hazardous Waste Services Directory”, Ecology HWTR Program. Call 360-407-6700 for updated lists or download at www.ecy.wa.gov/apps/hwtr/hwsd/default.htm

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Appendix E. Regional treatment centers for petroleum contaminated soils

For a list of additional Regional Treatment Centers for Petroleum Contaminated soils download at <http://www.ecy.wa.gov/programs/spills/response/assistancesoil%20map.pdf>

Roosevelt Regional Landfill (Disposal Only)
Roosevelt, WA
800-275-5641

Fife Sand & Gravel (Bio-Remediation)
Fife, WA
253-922-7710

Lefarge Cement (Cement Incorporation).
5400 W. Marginal Way SW
Seattle, WA
206-937-8025

Petroleum Reclaiming Services.
(Stabilization/Disposal)
Tacoma, WA 98421
253-383-4175

Remtech, Inc. (Thermal Desorption)
Spokane, WA 99224
509-624-0210

Rinker Materials (Soil Remediation)
Everett, WA
425-355-2111

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Appendix F. SWPPP template

To assist you in developing your SWPPP, Ecology has prepared a SWPPP template (MS Word) that is available at <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html>.

The template allows users to “fill in the blanks” and create a SWPPP that will help ensure that your SWPPP addresses all the necessary elements required in Condition S3 of the ISWGP.

If you do not have access to the Internet, you may obtain a hard copy of the document by calling Ecology at 360-407-6401 to request a copy.

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Appendix G. UIC Program requirements

Underground Injection Control (UIC) Program Requirements for Vehicle and Metal Recyclers

Chapter 173-218 WAC UIC Program, <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-218>

The UIC Program protects groundwater by regulating discharges from UIC wells. UIC well discharges also have to meet the Water Quality Standards for Ground Waters of the State of Washington (GWQS), Chapter 173-200 WAC. Application of all known, available and reasonable methods of prevention, and treatment is a requirement for all UIC wells, WAC 173-218-080.

What is a UIC well?

UIC wells are structures that discharge fluids into the subsurface and are either deeper than the largest ground surface dimension or a subsurface fluid distribution system (a system that contains perforated pipe). Examples of UIC wells are drywells, infiltration trenches with perforated pipe, french drains, and drain fields. A septic system drain field or well that serves 20 or more people per day or has a design capacity of 3,500 gallons per day is also a UIC well.

Prohibited discharges to UIC wells

Motor vehicle waste from vehicular repair or maintenance activities that include dismantling facilities are prohibited unless the discharge is protected from receiving vehicle waste, 173-218-040 (5) (b) (ii). Stormwater that comes in contact with motor vehicle waste fluids and meets the GWQS is **not** prohibited.

UIC wells receiving industrial wastewater are prohibited unless authorized under a permit, 173-218-040 (5) (b) (vi).

Stormwater discharges containing hazardous substances are prohibited except when the stormwater meets the non endangerment standard by applying best management practices (BMPs) and the requirements in WAC 173-28-090 authorized under a permit. The section below, Groundwater protection requirements, explains the WAC 173-218-090 requirements.

UIC wells are prohibited in vehicle recycler process areas except under another Ecology permit that would require treatment.

UIC Program requirements

- All UIC wells must be registered once with Ecology. If wells are located on tribal land register with EPA Region 10; and
- Meet the groundwater protection requirement (non-endangerment standard). The discharge must meet the GWQS at the top of the groundwater table to be rule authorized or a permit will be needed to operate the well(s).

Registration

Ecology has an online web application registration process found at <http://www.ecy.wa.gov/programs/wq/grndwtr/uic/UIConlineregis.html>. Complete the Industrial Commercial form. An Excel spreadsheet for Industrial/Commercial facilities registration is also available for owners with many wells. Contact Ecology's UIC coordinator for a copy.

- Registration is required for new UIC wells **before** they are used.
- Registration deadlines for owners of existing wells built and in use before February 2006:
 - Owners of less than or equal to 50 wells the registration deadline was February 2009.
 - Owners of more than 50 wells are required to register by February 2011.
 - Registration extensions are allowed with Ecology approval.

Groundwater protection requirements

Design new UIC wells receiving **non**-industrial parking lot, road, or building roof stormwater by using the *Guidance for UIC wells that Manage Stormwater*, found at <http://www.ecy.wa.gov/biblio/0510067.html>. Refer to the current Ecology stormwater manuals for the necessary treatment best management practices (BMPs) or visit Ecology UIC home page for a list of approved treatment BMPs, <http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html>.

Do not allow other wastes mixed with storm water discharges to UIC wells.

Add UIC wells located in your industrial footprint to your Stormwater Pollution Prevention Plan that identifies, prevents, and controls stormwater pollution to your UIC wells.

Implement the operational and structural BMPs as listed in this guidance except for stormwater sampling unless sampling is required in a wastewater permit or enforcement action.

Facilities with UIC wells in use before February 2006 and used for stormwater management must determine if any of their UIC wells are considered a high threat to groundwater and retrofit any high threat wells if found (a well assessment). The well assessment requirement is fulfilled by implementing BMPs in your SWPPP that address discharges to your UIC wells. Determine if any of the wells are constructed into groundwater. Water would be present during the dry season and when the well has not received any recent discharges. Decommission (close) any UIC wells constructed into the groundwater by meeting the requirements in WAC 173-218-120 found at <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-218>. Determine if the site is within a groundwater protection area such as a Well Head Protection or in a Critical Aquifer Recharge Area. Your local government may require additional groundwater protection.