



Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington

Volume IV Source Control BMPs

City of Auburn Community Development and Public Works Departments

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Chapter 1 – Introduction

1.1 Purpose of this Volume

Volume IV of the City of Auburn (COA) Supplemental Manual to the Department of Ecology’s (Ecology) Stormwater Management Manual for Western Washington (SWMMWW) provides additional guidance for selection of source control Best Management Practices (BMPs) to meet Minimum Requirement #3 – Source Control of Pollution.

The Ecology SWMMWW is available online at the link below:

[2014 SWMMWW](#)

1.2 Content and Organization of this Volume

The COA Supplemental Manual Volume IV is organized to correspond to the SWMMWW Volume IV. This Volume should be used in conjunction with the SWMMWW to select and implement source control BMPs to prevent pollutants from contaminating stormwater runoff and entering our rivers, streams and groundwater.

Source Control BMPs in this Volume of the SWMMWW and COA Supplemental Manual that are required must always be applied to the associated activity. Recommended BMPs are to be considered when and where the required BMPs are not achieving or expected to achieve the outcome of the required BMPs. The outcome of all required Source Control BMPs is to eliminate the discharge of pollutants into stormwater runoff to the maximum extent practicable.

Important additions and changes to the SWMMWW Volume IV are summarized below:

- **Chapter 1: Introduction**
 - **Section 1.7** provides references to City of Auburn code related to surface water pollution control.
- **Chapter 2: Selection of Operational and Structural Source Control BMPs**
 - **Section 2.2** provides modifications and additional requirements for the Pollutant Source-Specific BMPs found in Section 2.2 of Chapter 2 in the SWMMWW. Additional BMPs required in the City of Auburn are also provided in this section. See the Table of Contents for a complete list of modified and additional BMPs.
- **Supplemental Appendix IV-H** contains a quick reference phone number guide for local, county, and state agencies.
- **Supplemental Appendix IV-I** provides required Source Control BMPs for homeowners.

Omitted Sections

Several chapters and sections in Volume IV of the SWMMWW do not require any additional clarification in the COA Supplemental Manual. Refer to the SWMMWW for the following chapters and sections:

COA Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington
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- **Chapter 1: Introduction**
 - Sections 1.3 – 1.5
 - Section 1.6 (all subsections)
- **Chapter 2: Selection of Operational and Structural Source Control BMPs**
 - Section 2.1
- **Appendices IV-A – IV-G**
- **Resource Materials**

1.7 Regulatory Requirements Affecting Stormwater Pollutant Control

City of Auburn Codes and Ordinances

The following summarizes Auburn City Code (ACC) that applies to surface water and pollution control. The complete code may be found online at:

<http://www.auburnwa.gov/Home.asp>

- | | |
|--------------------------------|------------------------------------|
| • Chapter 8.08 ACC | Solid Waste |
| • Chapter 12.20 ACC | Driveways |
| • Title 13 ACC | Water, Sewer and Public Utilities |
| • Chapter 13.48 ACC | Storm Drainage Utility |
| • Section 13.48.330 ACC | Off-site Improvements |
| • Title 14 ACC | Project Review |
| • Chapter 15.74 ACC | Land Clearing, Filling and Grading |
| • Title 16 ACC | Environment |
| • Chapter 16.08 ACC | Shoreline Regulation |
| • Chapter 16.10 ACC | Critical Areas |
| • Title 17 ACC | Subdivision |
| • Title 18 ACC | Zoning |

Chapter 2 – Selection of Operational and Structural Source Control BMPs

2.2 Pollutant Source-Specific BMPs

S414: BMPs for Maintenance and Repair of Vehicles and Equipment (Amended)

Description of Pollutant Sources

This applies to businesses and public agencies where fuel filters, engine oil, and other fluids such as battery acid, coolants, and transmission and brake fluids are removed and replaced in vehicles and equipment. It also applies to mobile vehicle maintenance operations, such as at construction sites. COA Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington Volume IV Source Control BMPs

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Related vehicle maintenance activities are covered under the following activity headings in the SWMMWW.

S419 BMPs for Mobile Fueling of Vehicles and Heavy Equipment

S420 BMPs for Painting/Finishing/Coating of Vehicles/Boats/Buildings/Equipment

S421 BMPs for Parking and Storage for Vehicles and Equipment

Pollutants of concern include toxic hydrocarbons, toxic organic compounds, oils and greases, pH, and heavy metals.

Additional Requirements for the City of Auburn

The following BMPs or equivalent measures are required of all businesses and agencies engaged in engine and vehicle repair:

- Employees must be educated about the need for careful handling of automotive fluids. Employees at businesses or agencies who routinely change or handle these fluids must be trained in spill response and cleanup procedures. Spill cleanup materials, such as rags and absorbent materials, must always be kept close at hand when changing oil and other fluids. Soiled rags and other cleanup material must be properly disposed of or cleaned and reused.
- Floor drains inside buildings shall connect to sanitary sewer, be routed through an appropriately sized oil/water separator and shall be approved by the City.
- Do not hose down the maintenance/repair area. Instead, sweep the area weekly to collect dirt, and wipe up spills with rags and other absorbent materials.
- A bermed tarp, ground cloth, or drip pans must be used beneath the vehicle or equipment to capture all spills and drips. The collected drips and spills must be recycled or disposed of properly. See **BMP S444** in Volume IV of the COA Supplemental Manual for disposal options.
- If this activity occurs at a stationary business location, the activity area must be moved indoors. An exception to this requirement would be equipment that is too large to fit under a roofed area. In this case, the outdoor area must be paved, provided with a sump drain, and provision made for stormwater run-on prevention. See **BMP S450** and **S451** in in Volume IV of the COA Supplemental Manual for more on paving, sump drains and holding tanks, and run-on prevention. Contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 for information on requirements for disposal to sewer. If the site utilizes a septic tank, sump contents will need to be pumped and disposed of by an oil recycler or hazardous waste company.
- Recycle oil, antifreeze, batteries, and air conditioning coolant.
- If engine washing is to be performed, then appropriate pretreatment will be required. Contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 for the requirements.
- Contaminated stormwater runoff from vehicle staging and maintenance areas must be conveyed to an American Petroleum Institute (API) or Coalescing Plate (CP) oil and water

separator followed by a basic treatment BMP (see Volume V of the SWMMWW), applicable filter, or other equivalent oil treatment system.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but can provide additional pollution prevention.

- Drain all fluids from wrecked vehicles and car parts upon arrival. Recover air conditioning gases.
- Use reusable cloth rags to clean up drips and small spills instead of disposables: these can be professionally laundered and reused. Do not attempt to launder these at home or at a coin-op laundry.
- Use absorbent pillows or booms in or around storm drains and catch basins to absorb oil and fuel.
- Maintain vehicles under cover where possible.

S431 BMPs for Washing and Steam Cleaning Vehicles/Equipment/Building Structures (Amended)

Additional Requirements for the City of Auburn

General

- Wash water shall be discharged to the sanitary sewer with appropriate pretreatment to remove solids.
- If heavy accumulations of solids are to be removed during washing, then appropriate pretreatment to capture those solids must be provided. Volume II of the SWMMWW contains temporary sediment removal BMPs that can be utilized to capture solids before discharging wastewater to the sanitary sewer system
- Two-step washing may be allowed at all facilities discharging to the sanitary sewer. Provisions must be in place to neutralize the wash water prior to introduction into the sanitary sewer system.
- Facilities with dedicated wash pads with a catch basin having a tee discharge and/or pretreatment equipment, sampling and monitoring ports will be required. Additionally, the installation of a valve may be required to prevent discharge from the system in the event of a spill. All ports must be accessible for inspection and sampling at all times. Any equipment needed for access must be available at all times.
- Contact the City of Auburn Sanitary Sewer Utility for more information 253-931-3010.

New and Used Car Dealer Lots

- If washing previously clean vehicles is accomplished only with cold water and consists of washing only the outside of the vehicles, (no soaps or detergents used) discharge to the private storm drainage system will be allowed provided the site has a flow control structure that acts as

the sediment and oil trap. See Ecology guidance WQ-R-95-56, "Vehicle and Equipment Washwater Discharges/Best Management Practices Manual", November 2012 or most recent update, for more information.

- If soaps or detergents are to be used, washing must occur on a dedicated wash pad. Only the washing of the outside of the vehicles is permitted. The wash pad must be equipped with a catch basin/sediment trap that discharges through a tee outlet to the sanitary sewer. The tee outlet will allow containment of minor amounts of free-floating oil. Wastewater must meet local limitations on wastewater strength and quality. If engines and/or undercarriages are to be washed additional pretreatment will be required. Contact the City of Auburn Sewer Utility at 253-931-3010 for further information.

Other Washing Events

- Other types of washing events and their locations (such as regional used car sales, RV shows, etc.) will be evaluated on a case-by-case basis according to the discharge criteria stated above.
- Fundraising car washes may wash only the exterior of vehicles. If soap is used the wash water must be captured and directed to the sanitary sewer. For information concerning the use of fundraising car wash kits, contact City of Auburn Public Works Department at 253-931-3010.
- Pressure washing of building facades, rooftops, pavement, and other large surfaces must be conducted in such a way that all of the runoff is collected for proper disposal. Sediment removal BMPs include those as described in Volume II of the SWMMWW and include measures such as check dams, sorbent booms, and catch basin inserts. Temporary curbs, dikes, or berms may be used to direct the water to a collection point or catch basins may be covered to help contain the water. The collected water, provided it meets limits established by King County Wastewater Treatment Division or defined in Chapter 13.20 of the Auburn City Code, should be disposed of to the sanitary sewer. Contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 for more information on allowable discharges to the sanitary sewer.
- On a case by case basis, if runoff does not contain pollutants, following appropriate pretreatment, such as filtration or sedimentation, then this water may be allowed to be discharged to the storm drainage system. Contact the City of Auburn Storm Drainage Utility at 253-931-3010 for more information.

Automatic and Manual Car Wash

- See Chapter 13.20-Sewers of the Auburn City Code and the Auburn Engineering Design Standards.

Truck Washing Facilities

- Wash on a concrete or asphalt paved dedicated wash pad connected to a designed pretreatment device, which discharges to the sanitary sewer See Chapter 13.20-Sewers of the Auburn City Code and the Auburn Engineering Design Standards.

Mobile Vehicle Washers

The following summarizes the requirements for mobile vehicle and grocery cart washers doing work in the City of Auburn. Contact the City of Auburn Storm Drainage Utility at 253-931-3010 for more information.

- Mobile vehicle washers must possess a current City of Auburn Business License.
- Discharge all wash water to the sanitary sewer;
- Mobile vehicle washers shall capture all the wash water generated and discharge it to the sanitary sewer system through an on-site cleanout if available. The use of temporary wash pads, catch basin inserts, and vacuum systems are some possible means to capture the wash water.
- Other requirements may apply depending upon the items to be washed.
- Only wastewater generated within the City of Auburn may be discharged into its municipal sewer system.
- Mobile vehicle washers may wash only the exteriors of the vehicles. Engine washing, cleaning the undercarriage or fifth wheel is strictly prohibited unless prior approval is received from the City Engineer or his/her designee. Additional pretreatment may be required. Discharges from mobile washing must meet the requirements in Chapter 13.20 of the ACC regarding discharge limitations for pH.

S434: BMPs for Cleaning or Washing of Tools, Engines and Manufacturing Equipment (Additional)

Description of Pollutant Sources

This applies to businesses and public agencies that clean manufacturing equipment such as saws, grinders, screens, and other processing devices outside of buildings, and to businesses engaged in pressure washing of engines, equipment, and portable objects.

Pollutants sources include toxic hydrocarbons, organic compounds, oils and greases, nutrients, heavy metals, pH, suspended solids, biochemical oxygen demand (BOD), and chemical oxygen demand (COD).

Pollutant Control Approach

The preferred approach is to cover and/or contain the cleaning activity or conduct the activity inside a building, to separate the uncontaminated stormwater from the pollutant sources. Wash water must be conveyed to a sanitary sewer after approval by the City of Auburn, temporarily stored before proper disposal, or recycled, with no discharge to the ground, a storm drain, or surface water.

The quality of any discharge to the ground after proper treatment must comply with Ecology's Groundwater Quality Standards, Chapter 173-200 WAC and may require a State Waste Discharge Permit. Contact the

Department of Ecology for an NPDES Permit application for discharge of washwater to surface water, storm drain or the ground.

Additional Requirements for the City of Auburn

The following BMPs are required of all businesses and public agencies engaged in cleaning or washing of tools, engines, equipment, and portable objects:

- Illicit connections to the storm drainage system must be eliminated. See **BMP S410** in Volume IV of the SWMMWW for detailed information.
- Employees shall be educated to control washing operations to prevent stormwater contamination.
- Wash water from cleaning roof-top equipment, such as exhaust fans, shall be captured and disposed to the sanitary sewer. The use of wet/dry vacuums, temporary berms or containers, such as plastic pools, are possible ways to capture this water. Wash water shall not be discharged to the storm drainage system.
- Pressure washing must be done in a designated area (such as a wash pad) provided with a sump drain and stormwater run-on prevention. See **BMPs S450** and **S451** in Volume IV of the COA Supplemental Manual for information on sumps (or holding tanks) and run-on prevention. Contact the City of Auburn Storm Drainage Utility at 253-931-3010 for washing operation policy.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but they can provide additional pollution control:

- If soaps or detergents are used, use the least toxic cleaner capable of doing the job. Use non-phosphate detergent, if possible, to reduce loadings at your local wastewater treatment plant.
- Limit the amount of water used in washing activities to reduce the potential of runoff carrying pollutants beyond the designated wash pad or capture system.
- Recycle wash water for subsequent washings.
- Implement one or more of the following stormwater treatment BMPs in addition to the Required BMPs:
 - Oil/water separator (do not use an oil/water separator for wash water containing soaps or detergents).
 - Wet vault for settling.
 - Infiltration basin.
 - Filtration with media designed for the pollutants present.
 - Catch basin with a filter insert for pressure washing to collect suspended solids.
- Catch basin filters and/or sorbent inserts should be selected based on the type of contaminants in the stormwater.

For discharging wash water containing soaps and detergents, the use of infiltration, biofiltration, wet ponds, and wetlands must not result in the violation of groundwater quality standards.

S435: BMPs for Cleaning or Washing of Cooking Equipment (Additional)

Description of Pollutant Sources

This applies to businesses that clean cooking equipment such as vent filters, grills, hoods, and grease traps outside of buildings and clean paved areas and floor mats around cooking equipment.

Pollutants of concern consist of oil and grease, nutrients, suspended solids, biochemical oxygen demand (BOD) and chemical oxygen demand (COD)

Pollutant Control Approach

Businesses engaged in this activity that cannot connect discharges to a sanitary sewer, holding tank, or process water treatment system must contact the Department of Ecology and obtain a National Pollutant Discharge Elimination System (NPDES) wastewater permit.

Additional Requirements for the City of Auburn

The following BMPs are required of all businesses engaged in cleaning or washing of cooking equipment:

- Illicit connections to the storm drainage system must be eliminated. See **BMP S410** in Volume IV of the SWMMWW for detailed requirements.
- Employees must be educated about the need to prevent stormwater contamination from washing operations.
- Wash water cannot be discharged to the storm drainage system.
- Paved washing areas must be swept daily to collect loose solid materials for proper disposal.
- Cleaning and washing of cooking equipment shall take place indoors with drainage to the sanitary sewer system, holding tank, or process treatment system or captured using a tub or similar device to contain all the wash water. The wash water shall be recycled or disposed into the sanitary sewer system, holding tank, or process treatment system. Provisions must be in place to neutralize the wash water prior to discharge to the sanitary sewer system.
- Greasy buildup on cooking equipment must be removed and properly disposed of prior to washing to reduce the amount of material that can potentially contaminate the wash water. Washing must either take place on a wash pad connected to the sanitary sewer, or the wastewater must be collected and disposed in the sanitary sewer.
- Move the activity indoors, into either an existing building or a newly constructed building or shed, with drainage to a sanitary sewer, holding tank, or process treatment system. See **BMP S445** in Volume IV of the COA Supplemental Manual for further information on drainage alternatives. Any connection to the sanitary sewer requires the approval of the City of Auburn.
- If the washing activity cannot be moved indoors or contained in a tub, then the washing area must drain to a sanitary sewer, holding tank, or process treatment system, and provisions must be made to prevent stormwater run-on onto the washing area. See **BMP S445** in Volume IV of the COA Supplemental Manual for detailed drainage requirements and **BMP S451** in Volume IV of the COA Supplemental Manual for methods of run-on prevention.

If discharging to a sanitary sewer, permits must be obtained from the City of Auburn Permit Center. Call 253-931-3090 for more information.

- If a holding tank is used for storage of wash water, the contents must be pumped out before it is full and disposed of appropriately to a sanitary sewer or wastewater treatment system.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but can provide additional pollution protection:

- A cover should be placed over a designated wash area to keep rain from falling on dirty equipment and producing contaminated runoff.
- Implement one or more of the following treatment BMPs in addition to the required BMPs:
 - Oil/water separator.
 - Wet vault for settling.
 - Infiltration basin with pretreatment.
 - Filtration with media designed for the pollutants present.

S436: BMPs for Collection and Disposal of Wastewater in Mobile Interior Washing Operations (Additional)

Description of Pollutant Sources

This applies to businesses that wash floors, carpets and other interior items on a mobile site-to-site basis. The typical washing process includes removing wax and use of machines that spray the wash solution onto the carpet or upholstery and then suck the dirty solution up into a portable tank with limited capacity.

Pollutants of concern consist of nutrients, suspended solids, organic compounds (such as pesticides and chemicals used for flea and odor control), biochemical oxygen demand (BOD), and chemical oxygen demand (COD).

Pollutant Control Approach

Wastewater must be poured into a sanitary sewer drain at the site of collection, the business office, or at another proper location. If sanitary sewer disposal is not available or not allowed, the collected wastewater must be returned to the business site for process treatment or transfer to a holding tank.

Additional Requirements for the City of Auburn

- Absolutely no wastewater from mobile interior wash activities shall be disposed of outdoors, or to a drain connected to the storm drainage system.
- Wastewater from mobile washing operations shall be discharged to a sanitary sewer if it does not contain high concentrations of toxic materials. Some of the chemicals used for flea and odor control are listed by EPA as toxics. Contact the City of Auburn Sanitary Sewer Utility at 253-931-

3010 if you intend to use and discharge these types of chemicals. All wastewater must be poured into a sanitary sewer drain at the site of collection, the business office, or at another proper location.

- If sanitary sewer disposal is not available or not allowed at the site of collection, the collected wastewater must be returned to the mobile business site for process treatment or transfer to a holding tank. See **BMP S445** in Volume IV of the COA Supplemental Manual for details on these drainage/disposal alternatives.
- Carpet cleaning wash water must be disposed of to the sanitary sewer. It is preferred that the dirty wash water be discharged into a toilet or sink at the place where it was generated. Alternatively, the carpet cleaner may discharge the water into the sanitary sewer back at their place of business if located in Auburn. Otherwise, they must contact the sewerage agency providing their service for that agency's approval.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but can provide additional pollution protection:

- Use the least toxic detergents and cleaners that will get the job done. Select non-phosphate detergents when possible.
- Limit the amount of water used in interior washing operations. This will save you time, money, and effort when it comes to proper disposal.
- Recycle wash water for more than one use.

S437: BMPs for Concrete and Asphalt Mixing and Production at Stationary Sites (Additional)

Description of Pollutant Sources

This applies to businesses and agencies that mix raw materials onsite to produce concrete or asphalt. It also applies to subsequent uses such as pouring concrete structures and making other concrete or asphalt products. Mobile concrete pouring and asphalt application are covered in Volume II of the SWMMWW. Requirements for stockpiling of raw materials are covered under **BMP S429** in the Volume IV of the SWMMWW.

Pollutants of concern include toxic hydrocarbons, toxic organic compounds, oils and greases, heavy metals, and pH.

Pollutant Control Approach

Cover and contain processes where possible and prevent stormwater run-on and contamination, where feasible.

Any facility categorized under SIC Code 2951 or SIC Code 3273 may need to comply with Ecology's Sand and Gravel General Permit. Contact the Department of Ecology at 360-407-6979 for additional COA Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington Volume IV Source Control BMPs

information. These facilities may also be subject to City of Auburn requirements. Contact the City of Auburn Public Works Department at 253-931-3010 for further information.

Additional Requirements for the City of Auburn

The following BMPs are required of all businesses and public agencies active in concrete and asphalt mixing and production:

- Eliminate all illicit connections to the storm drainage system. See **BMP S410** in Volume IV of the SWMMWW for a detailed discussion on identifying and eliminating these connections.
- All process water from production, pouring, and equipment cleaning must be discharged to a dead-end sump, a process water treatment system, connected to the sanitary sewer, or recycled. Never wash fresh concrete or concrete mixer washout into streets, storm drainage systems, streams, or other water bodies.
- A BMP maintenance schedule must be established, maintenance documented, and employees educated about the need to prevent stormwater contamination through the use and proper maintenance of BMPs.
- Production and pouring areas must be protected from stormwater run-on. See **BMP S451** in Volume IV of the COA Supplemental Manual for methods of run-on protection.
- Cover the production area for prevention of stormwater run-on. See **BMP S448** and **BMP S451** in Volume IV of the COA Supplemental Manual for information on covers and run-on prevention.
- Use absorbent materials or catch basin filters in and around storm drains and catch basins to filter out contaminants.
- Sweep areas that show accumulation of materials. Vacuum sweeping is also an acceptable method of removing accumulated material.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but can provide additional pollution protection:

- The production and pouring area should be swept at the end of each work day to collect loose chunks of aggregate and raw materials for recycling or proper disposal. See **BMP S444** in Volume IV of the COA Supplemental Manual for disposal options.
- Sweep all driveways and gutters that show accumulation of materials to minimize the amount that could be carried offsite by rain and enter the storm drainage system. Use of vacuum sweepers is most efficient.
- Asphalt plants should use an oil/water separator to treat stormwater runoff. See Volume V of the SWMMWW, Water Quality Treatment BMPs, for more information.
- Pave the mixing, production, and pouring areas. A sump drain in these areas is probably not advisable due to potential clogging problems, but could be used in a curing area. Sweep these areas to remove loose aggregate and recycle or dispose of properly.

- Use storm drain covers or similarly effective containment devices to prevent runoff from entering the storm drainage system. Accumulations of dirty runoff must be disposed of properly.

S438: BMPs for Manufacturing and Post-Processing of Metal Products (Additional)

Description of Pollutant Sources

This applies to businesses such as mills, foundries, and fabricators that manufacture or post-process metal products. A variety of activities such as machining, grinding, soldering, cutting, welding, quenching, cooling, and rinsing may take place. These businesses may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the Department of Ecology and/or an Industrial Wastewater Discharge Permit from King County-Metro. See Section 1.7 of Volume IV of the SWMMWW and COA Supplemental Manual for a discussion of NPDES requirements and contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 to determine if an industrial wastewater discharge permit is necessary.

NOTE: Painting, finishing and coating of metal products is covered under **BMP S420** in Volume IV of the SWMMWW.

Pollutants of concern include toxic organic compounds, heavy metals, oils and greases, pH, suspended solids, and biological oxygen demand (BOD).

Pollutant Control Approach

Cover and contain operations and apply good housekeeping and preventive maintenance practices to prevent the contamination of stormwater.

Additional Requirements for the City of Auburn

The following BMPs are required of all businesses engaged in metals manufacturing or post-processing:

- Eliminate illicit connections to the storm drainage system. See **BMP S410** in Volume IV of the SWMMWW for detailed information on identifying and eliminating illicit connections.
- Process wastewater (including contact cooling water, filter backwash, cooling tower blowdown, etc.) and stormwater runoff from activity areas, must discharge to a sanitary sewer, holding tank, or process treatment system before discharge to surface water or storm drain. Contact the City of Auburn Permit Center at 253-931-3090 to obtain permits for discharge to the sewer. See **BMP S445** in Volume IV of the COA Supplemental Manual for detailed requirements.
- Employees must be educated to control their work with metal products to minimize pollution.
- The activity area must be swept at the end of each work day to collect and dispose of metal fragments and product residues properly. See **BMP S444** in Volume IV of the COA Supplemental Manual for disposal alternatives.

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Additional Guidelines for the City of Auburn

The following BMPs are not required but can provide additional pollution protection:

- Limit the amount of water used in quenching and rinsing. Recycle used water where possible.
- Cover the activity area to prevent rain from contacting the process and reduce the amount of runoff that has to be detained or treated.
- Use a catch basin filter or screen basket insert to capture stray metal particles.
- Implement a program to track purchase and consumption of lubricants, solvents, and additives. Check with operating managers for an explanation if consumption increases. Recommend actions if significant equipment leaks or spills are identified.
- Utilize any additional BMPs which are applicable for materials storage and maintenance activities in your shop.

S439: BMPs for Storage and Treatment of Contaminated Soils (Additional)

Description of Pollutant Sources

This applies to businesses and agencies that store and treat soils contaminated with toxic organic compounds, petroleum products, or heavy metals. Stormwater runoff that comes in contact with contaminated soil can carry those contaminants along with loose dirt into receiving waters.

Additional Requirements for the City of Auburn

The State Department of Ecology regulates businesses disposing and treating contaminated soil. A permit from the Puget Sound Clean Air Agency is required if the treatment method for removing soil contaminants involves forcing air through, or sucking air from, the soil. The Puget Sound Clean Air Agency can be reached at 1-800-552-3565. In addition, approval from the King County Wastewater Services Department may be required if potentially contaminated water is to be discharged from the site. Contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 for information on proper disposal of contaminated water.

The BMPs included here are intended as a supplement to other regulations. The following BMPs are required of all businesses engaged in storage and treatment of contaminated soils:

- The storage area for contaminated soils must be enclosed indoors, covered, or contained by a curb, dike, or berm constructed around the material storage area. If the contaminated soils are covered, stormwater run-on protection must also be provided. **BMP S451** in Volume IV of the COA Supplemental Manual provides further details on containment and run-on prevention.
- Employees must be educated on methods to prevent contamination from leaving the site.
- Cleanup materials must be stocked near the storage area.

- Gutters, storm drains, catch basins, and other drainage system features on the site must be cleaned following the completion of site work, or at least once per year, whichever comes first. Sediments from such cleaning must be disposed of properly. See **BMPs S444** and **S447** in Volume IV of the COA Supplemental Manual for disposal options and details on catch basin cleaning.

Additional Guidelines for the City of Auburn

The following BMPs are not required but can provide additional pollution protection:

- If feasible, the storage area should be swept weekly for collection of stray soil, which can be added back to the piles or properly disposed. See **BMP S444** in Volume IV of the COA Supplemental Manual for information on disposal options.
- Implement one of the following treatment BMPs in conjunction with a runoff containment plan:
 - Vegetated biofilter.
- Implement treatment BMP for the targeted pollutant (see Volume V of the SWMMWW).

The use of any treatment BMP must not result in the violation of groundwater, surface water, wastewater, or drinking water quality standards.

S440: BMPs for Temporary Storage or Processing of Fruits or Vegetables (Additional)

Description of Pollutant Sources

This applies to businesses that temporarily store fruits and vegetables outdoors prior to processing or sale, or that crush, cut, or shred fruits or vegetables for wines, frozen juices, and other food and beverage products. These businesses may include farmers markets, fruit and vegetable stands, and fruit and vegetable processors. Nutrients and soil washing off of fruit and vegetables can have a detrimental effect on receiving waters.

Pollutants of concern include nutrients, suspended solids, biochemical oxygen demand (BOD), and color.

Pollutant Control Approach

Store and process fruits and vegetables indoors or under cover whenever possible. Educate employees about proper procedures. Eliminate illicit connections to the storm drainage system. Cover and contain operations and apply good housekeeping and preventive maintenance practices to prevent the contamination of stormwater.

Additional Requirements for the City of Auburn

- Businesses that store or process fruits and vegetables are required to be covered under an Individual NPDES Permit and may require an Industrial Wastewater Discharge Permit from King

County Metro. Contact the Washington State Department of Ecology for information on BMPs related to fruit and vegetable processing and storing. Additional permitting may be required from the County Health Department.

S441: BMPs for Storage of Solid Wastes and Food Wastes (Additional)

Description of Pollutant Sources

This applies to facilities such as hospitals, restaurants, meat and seafood markets, veterinarian clinics, schools, grocery stores, assisted living centers, multifamily residential properties and group assembly halls that store solid wastes and food wastes outdoors. This includes ordinary garbage. If improperly stored, these wastes can contribute a variety of different pollutants to stormwater, for more information call the Auburn Solid Waste and Recycling Utility at 253-931-3038. **NOTE:** Dangerous solid wastes must be stored and handled under special guidelines. Businesses and agencies that store dangerous wastes must follow specific regulations outlined by the Department of Ecology. Ecology regulations are outlined in Section 1.7 of Volume IV of the SWMMWW. Please contact the Department of Ecology at 360-407-6300 for the specific requirements and permitting information.

Pollutants of concern include toxic organic compounds, oils and greases, heavy metals, nutrients, suspended solids, chemical oxygen demand (COD), and biochemical oxygen demand (BOD).

Pollutant Control Approach

Store wastes in suitable containers with leak-proof lids. Sweep or shovel loose solids. Educate employees about the need to check for and replace leaking containers.

Additional Requirements for the City of Auburn

The following BMPs are required of all businesses and public agencies engaged in storage of non-dangerous solid wastes or food wastes:

- All solid and food wastes must be stored in suitable containers. Piling of wastes without any cover is prohibited.
- Waste storage areas and trash enclosures for food or liquid bearing wastes must be connected to the sanitary sewer and bermed or sloped to prevent stormwater run-on.
- Waste storage areas and trash enclosures over 200 square feet in area require a permanent cover.
- Trash compactors or dumpsters for food or liquid-bearing wastes shall drain to the sanitary sewer system using a design approved by the City of Auburn.
- Storage containers must be checked for leaks and replaced if they are leaking, corroded, or otherwise deteriorating. If storage containers contain liquid wastes of any kind, then the

container shall be located on a pad equipped with a drainage system connected to the City sanitary sewer.

- Storage containers must have leak-proof lids or be covered by some other means. Lids must be kept closed at all times. This is especially important for dumpsters, as birds can pick out garbage and drop it, promoting rodent, health, and stormwater problems.
- Do not completely fill containers of waste grease and oil. Leave a minimum of four inches of freeboard to prevent spills when the containers are moved or handled for recycling.
- Employees must be trained to check storage containers frequently for leaks and to ensure that the lids are on tightly.
- The waste storage area must be swept or otherwise cleaned frequently to collect all loose solids for proper disposal in a storage container. Do not hose the area to collect or clean solids.
- If containers are cleaned, all rinse water from cleaning must be disposed of in a sanitary sewer or septic system.
- Inspect regularly and clean out catch basins on the property that receive drainage from waste storage area. See **BMP S447** in Volume IV of the COA Supplemental Manual for details on catch basin cleaning.

Additional Guidelines for the City of Auburn

The following BMPs are not required, but can provide additional pollution protection:

- If the amount of waste accumulated appears to frequently exceed the capacity of the storage container, then another storage container should be obtained and utilized.
- Provide a backup storage container if the amount of waste accumulated appears to frequently exceed the capacity of the storage container.
- Locate drain to sanitary sewer at one end or side of the enclosure to ease cleaning the drain.
- In enclosures with drains to the sanitary sewer, provide an area for washing floor mats.
- Store containers such that wind will not be able to knock them over.
- Designate a storage area, pave the area, and slope the drainage to a holding tank or sanitary sewer drain. If a holding tank is used, the contents must be pumped out before the tank is full and properly disposed. See **BMP S444** in Volume IV of the COA Supplemental Manual for more information on disposal options.
- Compost appropriate wastes. Contact Auburn Solid Waste and Recycling Utility Recycling at 253-931-3038 for more information on composting.
- Recycle solid wastes. The Industrial Materials Exchange (IMEX) program facilitates the transfer of excess materials and wastes to those who can use them. IMEX can be reached at 206-263-8465

S442: BMPs for Mining and Quarrying of Sand, Gravel, Rock, Peat, Clay and Other Materials (Additional)

Description of Pollutant Sources

This applies to surface excavation and on-site storage of sand, gravel, and other materials that are mined. All mining operations that have stormwater runoff from the site are required to apply for a National Pollutant Discharge Elimination System (NPDES) permit with the Department of Ecology. Ecology has specific BMPs required by the permit. Some additional BMPs to help meet Ecology's discharge performance standards are listed below. Other permits from the Washington Department of Natural Resources and the City of Auburn may be required.

Pollutants of concern are suspended solids, nutrients, pH, oils, and metals.

Pollutant Control Approach

Provide containment and or cover for any on-site storage areas to prevent run-on and discharge of suspended solids and other pollutants.

Additional Requirements for the City of Auburn

- Measures to control track-out and dust shall be implemented. Wheel washes, sweeping and paving high traffic areas are some common practices.

Additional Guidelines for the City of Auburn

- If the material is appropriate, use excavated spoil material to form compacted berms along downslope sides of the site to contain runoff. Berms should be seeded to promote growth of grass or other vegetation to limit erosion from the berms. Safety measures to prevent flooding due to berm failure shall be considered.
- Semi-permanent stockpiles should be seeded to promote vegetation growth which can help to limit erosion from the stockpiles.
- Use sediment ponds to promote settling of suspended solids. Refer to Volume V of the SWMMWW for more information.
- Use anchored tarps to cover stockpiles at small-scale mining operations if there is a potential for contaminated stormwater to leave the site.
- Provide containment and or cover for any on-site storage areas to prevent run-on and discharge of suspended solids and other pollutants.

S443: BMPs for Water Reservoir, Transmission Mainline, Wellhead, and Hydrant Flushing Activities (Additional)

Description of Pollutant Sources

COA Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington
Volume IV Source Control BMPs
Version 3

Construction and operation of drinking water infrastructure, as well as emergency response activities, can generate sediments, rust, turbidity and suspended solids, bacteria, and chlorinated water. Flushing of the water delivery system is necessary to maintain drinking water quality and ensure public health. Flushing activities can result in increased flows in downstream conveyances. These high flows may cause flooding and create erosion in downstream channels.

Pollutant Control Approach

Establish operational controls for flow rate and volume of discharges, removal of sediments, neutralization of chlorine, and maximizing the beneficial use of the resource.

Additional Requirements for the City of Auburn

- Discharges of untreated hyperchlorinate water must go to the sanitary sewer. Prior City approval is required. Contact the City of Auburn Sanitary Sewer Utility at 253-931-3010 for more information.
- Alternatively, non-emergency discharges of de-chlorinated potable water may go to the storm drainage system at prior approved flow rates provided the following limits are met:
 - Chlorine residual ≤ 0.1 ppm
 - pH 6.5 – 8.5
 - Turbidity ≤ 10 NTU

Coordinate with the City of Auburn Storm Drainage Utility at 253-931-3010. The receiving stormwater conveyance shall be monitored for the duration of the discharge.

- Evaluation of the receiving conveyance system for capacity and/or obstructions may be required.
- City approval may be required for draining and flushing reservoirs, standpipes, wellheads, and transmission lines. Notification, monitoring, reporting, flow control measures, and other special conditions may apply. Contact the City of Auburn Public Works Department at 253-931-3010 for the requirements.
- For routine hydrant and water main flushing, coordinate with the City of Auburn Storm Maintenance and Operations section at 253-931-3048. In all cases, the receiving storm pipe shall be monitored for the duration of the discharge to maintain no more than a half full-pipe flow rate.
- Significant releases of water can have a detrimental effect on the storm and sanitary transmission system as well as receiving waters. Notification of these releases must be promptly made to the City by calling 253-931-3048.

Additional Guidelines for the City of Auburn

- During emergency repairs and activities, such as mainline breaks, erosion control measures shall be taken as practicable. Use of sandbags, check dams, plastic sheeting, pumps, and other erosion control measures should be employed to minimize erosion as much as possible.
- Excavation de-watering should be managed to minimize downstream environmental impacts. Use of vacor trucks, diverting flow to grassy areas, filter bags, and retention ponds should be employed.

S444: BMPs for Disposing of Contaminated Stormwater and Waste Materials Properly (Additional)

Additional Requirements for the City of Auburn

Every business and residence in Auburn must dispose of solid and liquid wastes and contaminated stormwater properly. There are generally four options for disposal depending on the type of materials. These options include:

- Sanitary sewer and septic systems
- Recycling facilities
- Public or private, permitted solid waste disposal facilities
- Permitted hazardous waste treatment, storage, and disposal facilities

Many liquid wastes and contaminated stormwater (depending on the pollutants and associated concentrations present) can be put into the sanitary sewer. Animal wastes can also be disposed of in a sanitary sewer. A permit may be required for discharges to the sanitary sewer system. Please contact the City of Auburn Utility Billing Section at 253-931-3038 for design and permit requirements. See Appendix G, Volume IV of the SWMMWW for Management of Street Wastes.

If wastes cannot be legally discharged to a sanitary sewer or septic system, one of the other three disposal options must be used. Recycling facilities are a recommended option for many commercial and household items, including used oils, used batteries, old equipment, glass, some plastics, metal scrap materials, solvents, paints, wood and land clearing wastes, and various other solid wastes.

Solid wastes that cannot be recycled and that are not hazardous must be disposed of at a licensed solid waste disposal facility. Dangerous and hazardous wastes must be properly transported to an appropriate hazardous waste treatment, storage, and disposal facility. The City of Auburn Solid Waste Utility at 253-931-3047 can provide information on waste disposal options.

Maintain records for all materials that are recycled or disposed.

Appendix H, Volume IV of the COA Supplemental Manual has a list of telephone numbers to contact for assistance.

S445: BMPs for Discharging Process Wastewater to a Sanitary Sewer, Holding Tank, or Water Treatment System (Additional)

Additional Requirements for the City of Auburn

This BMP is a minimum requirement for all industrial and commercial activities that generate contaminated process wastewater, such as washing activities, composting activities, and production and processing activities. The water used in these activities shall not drain to surface waters or groundwater untreated. Process water must drain to a sanitary sewer, holding tank, on-site treatment system, wastewater treatment system, or be recycled.

In order to connect to the sanitary sewer, contact the City of Auburn Permit Center at 253-931-3090 for information on sanitary sewer connection permits. Call the City of Auburn Sanitary Sewer Utility at 253-931-3010 for pretreatment and permit information.

If a sanitary sewer is not available, the only remaining options are holding tanks or an on-site wastewater treatment facility.

The contents of the holding tank must be pumped out or drained before the tank is full and disposed of properly (see **BMP S444** in Volume IV of the COA Supplemental Manual).

If the on-site wastewater treatment facility option is taken, then it must be designed to receive and effectively treat all discharges of process water from the business. The Washington State Department of Ecology must be contacted for approval of such a facility.

If the activity is to remain uncovered, then define a designated area for the activity and provide a mechanism for prevention of stormwater run-on into the activity area. (e.g. a curb, dike, or berm). The designated area shall be paved and sloped to a central collection drain and be connected to the sanitary sewer, (with pretreatment if required), the on-site holding tank, or the on-site treatment facility, whichever method is selected.

Monitoring and maintaining all collection systems and keeping records of inspections and maintenance may be required.

S446: BMPs for Implementing Integrated Pest Management Measures (Additional)

Additional Requirements for the City of Auburn

Use of herbicides, fungicides, and rodenticides should always be done with extreme caution, not only because of the potential harm to humans and pets, but also because of the potential harm to fish, wildlife, and our water resources. In light of the toxic nature of these compounds, special attention should be given to pesticide usage in all applications. The discussion below applies more to large-scale licensed pesticide users, but should be considered for backyard applications as well.

Commercial, agricultural, and other large scale pesticide users, such as golf courses and parks, shall adhere to the principles of integrated pest management (IPM), a decision-making process for pest management that strives for intelligent, environmentally sound control of pests. It is a systems approach to pest management that combines agronomic, biological, chemical, and genetic information for educated decisions on the type of control to use, the timing and extent of chemical application, and whether non-chemical means can attain an acceptable level of pest control.

IPM is a preventive measure aimed at knowing the exact pests being targeted for control, the locations and times when pests will pose problems, the level of pest-induced damage that can be tolerated without taking action, the most vulnerable life stage, and control actions that are least damaging to the environment. The major components of IPM are as follows:

- Monitoring and inventory of pest populations
- Determination of pest-induced injury and action levels
- Identification of priority pest problems
- Selection and timing of least toxic management tools
- Site-specific treatment with minimized chemical use
- Evaluation and adjustment of pesticide applications

Monitoring of pest populations is key to successful IPM implementation. Pest problems are universally easier to control if the problem can be discovered early. With IPM, pesticides are used only as a last resort. Maximization of natural controls, including biological controls and removal of pests by hand, is always the first choice.

Additional concerns are storage, equipment clean-up, spill protocols, and waste disposal.

More information on IPM is available from the Washington State Department of Agriculture and from the Washington State University Extension Service, or in Appendix F, Volume IV of the SWMMWW.

S447: BMPs for Cleaning Catch Basins (Additional)

Additional Requirements for the City of Auburn

Cleaning catch basins regularly is one of the most important stormwater source control measures that a business can take. Catch basins are typically located at low spots in parking lots, along curbs and road edges, and where storm drain pipes combine flows. Catch basins collect surface runoff for storm drains that are typically located directly underneath them. Most catch basins have some storage in the bottom that never drains to an outflow pipe. This permanent storage area is intended to trap sediments, debris, and other particles that can settle out of stormwater, thus preventing clogging of downstream pipes and washing of these solids into receiving waters. All of the solids and stagnant water collected from catch basin sumps must be disposed of properly. The sump contents shall not be flushed into the catch basin outflow pipe.

For additional information on the maintenance of catch basins, refer to Section 4.6, Volume V of the SWMMWW. Perform regular inspections of the basins and their grates. Remove trash and collected sediment when 60% of the sump depth has been filled or sediments are within 6 inches of the bottom of the outlet pipe.

It should be apparent that the use of other BMPs, such as frequent sweeping of activity areas, covering activity areas, reducing activity occurrence, and containing run-off from activity areas will help reduce catch basin cleaning frequency, thus saving time and money. All businesses and agencies should set up maintenance schedules for all of their BMPs so coordinated BMP maintenance efforts results in reduced catch basin cleaning frequencies.

Use of catch basin inserts such as filter socks, absorbent pillows, and filter baskets require an increased inspection frequency to prevent plugging and flooding.

Dispose of street waste in accordance with Appendix G, Volume IV of the SWMMWW for Management of Street Wastes.

S448: BMPs for Covering the Activity with a Roof or Awning (Additional)

Additional Requirements for the City of Auburn

In many cases, a simple roof or awning will protect the activity from coming into contact with stormwater, and usually at a lower cost than a complete building. These structures require building permits to construct. Contact the City of Auburn Permit Center at 253-931-3090 to obtain permits.

The area of the roof cover shall be sufficient to prevent any precipitation from reaching the covered materials. Provisions shall be made to prevent stormwater run-on into the covered area. The installation of sumps or sanitary sewer drains may also be necessary. Roof drains shall discharge outside and be directed away from the covered area.

S449: BMPs for Covering the Activity with an Anchored Tarp or Plastic Sheet (Additional)

Additional Requirements for the City of Auburn

Some activities, such as stockpiling of raw materials, can be effectively covered with a sturdy tarp or heavy plastic sheet made of impermeable material. Weights such as bricks, tires, or sandbags should be used to anchor the cover in place. Run-on shall be prevented from reaching the activity or material. Stormwater run-off from the cover shall be directed away from the stockpile and work zone, and if uncontaminated, directed to the stormwater collection system. The tarp must be inspected daily to ensure that no holes or gaps are present in the tarp coverage. An example of this type of cover is shown in [Figure 2.2- 1 Stockpile Covering](#).

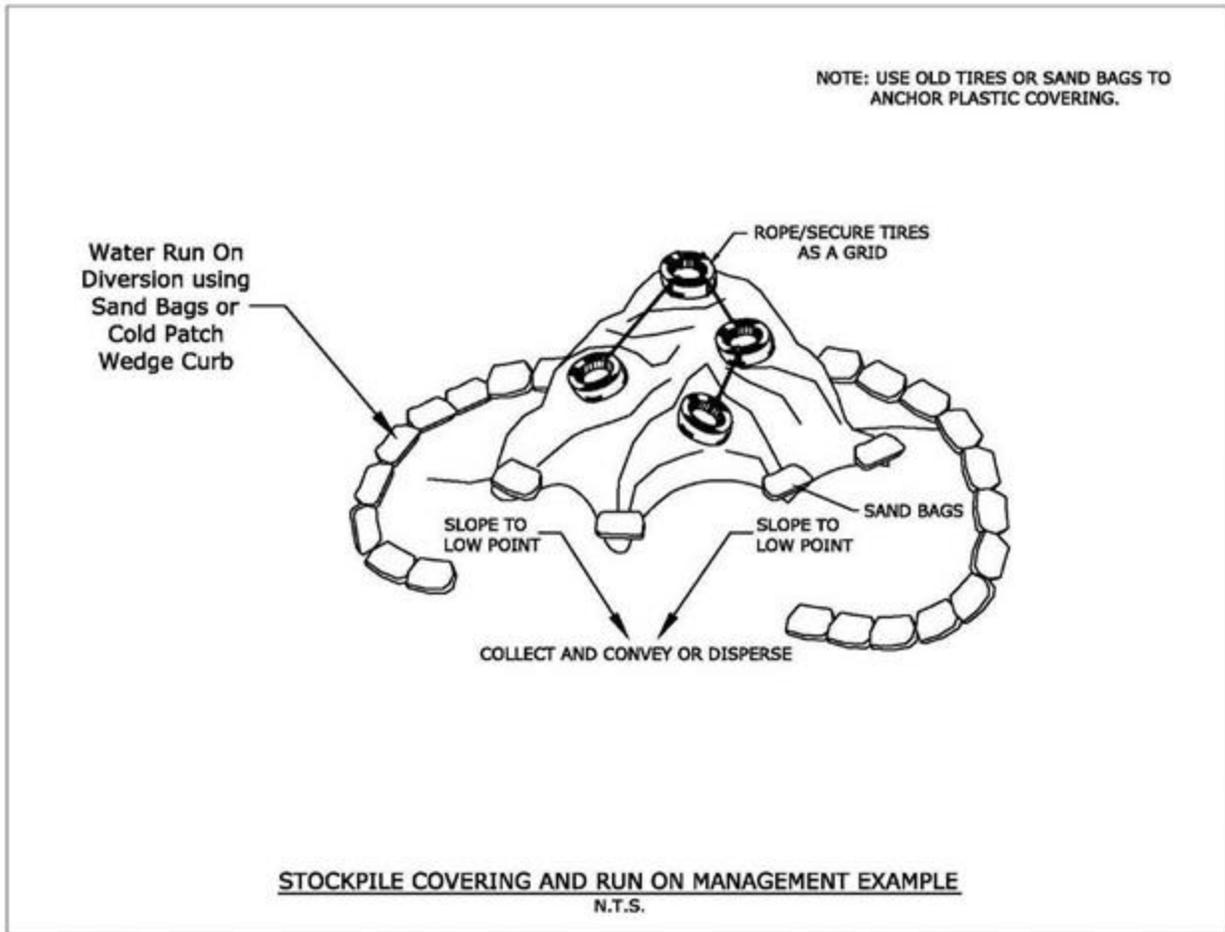


Figure 2.2- 1 Stockpile Covering

S450: BMPs for Paving the Activity Area and Sloping to a Sump, Holding Tank, or Oil/Water Separator (Additional)

Additional Requirements for the City of Auburn

This BMP applies to several activities that cannot be covered effectively. It is particularly suited to activities with the potential for leaks and spills, but that otherwise do not generate excessive amounts of polluted runoff. The activity area shall be paved and sloped to a central collection point. A sump, holding tank, or oil/water separator (Figure 2.2- 2 Paved Area with Sump Drain) serves to provide spill containment until the liquids can be pumped out and properly disposed. The minimum volume for the sump shall be equivalent to the volume generated by the anticipated activity plus rain water. Sizing justification shall be included in design submittals.

To prevent run-on, the area should be enclosed with a berm, curb, or dike. Frequent inspections of the sump, holding tank, or oil/water separator are necessary. Inspections and maintenance shall be

recorded in a log in the Operations and Maintenance Manual for the site. Commercial services that pump sumps and holding tanks are listed in the Yellow Pages of the phone directory under Environmental and Ecological Services.

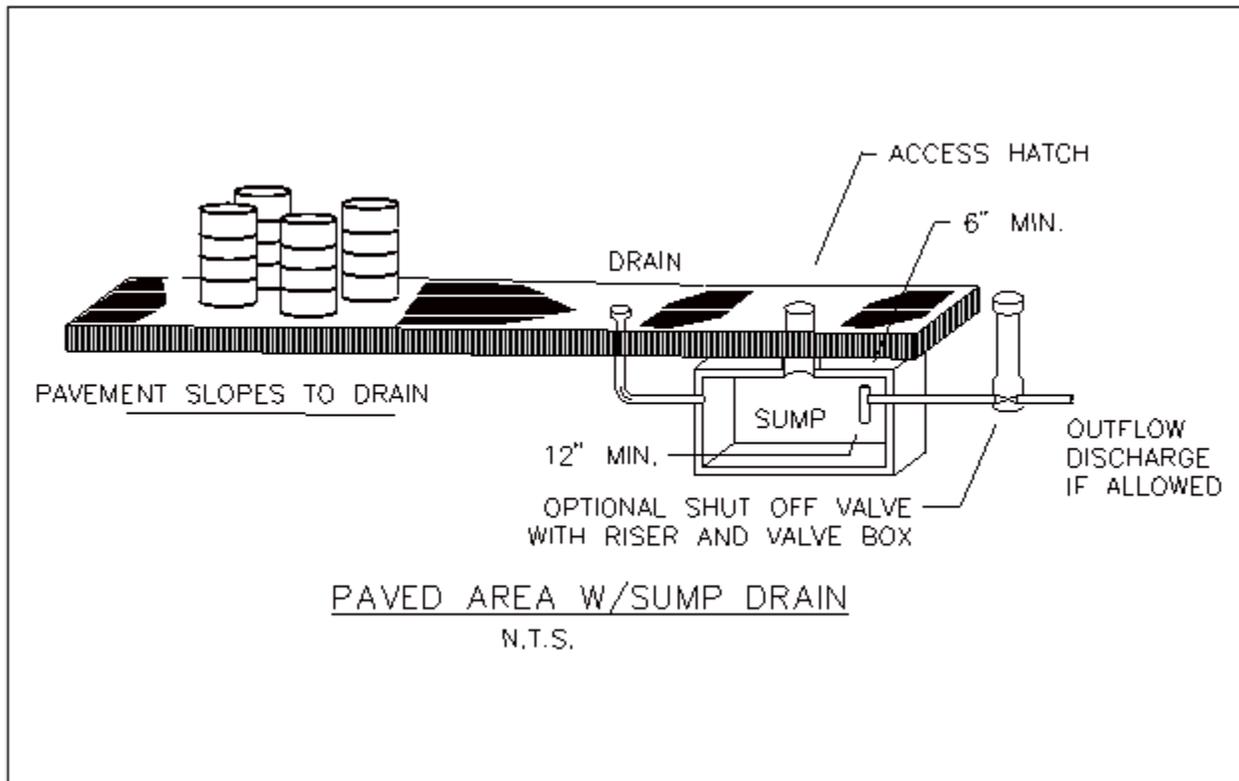


Figure 2.2- 2 Paved Area with Sump Drain

S451: BMPs for Surrounding the Activity Area with a Curb, Dike, or Berm or Elevating the Activity (Additional)

Additional Requirements for the City of Auburn

This set of BMP options can be an effective means for prevention of stormwater run-on to an activity area. In addition, a curb, berm, or dike can be used for containment of spills in the activity area, or for containment of contaminated activity runoff. Generally, a containment BMP, is most applicable to spill control situations; that is, sites where runoff is relatively clean, but occasional spills may occur.

If a curb, berm, or dike is used for runoff containment, and other containment sizing regulations (such as fire codes, Environmental Protection Agency, or Department of Ecology restrictions) do not apply, the containment volume shall be 100% of the volume of the largest tank plus the volume of stormwater runoff from rain events up to the 25-year, 24-hour storm within the containment area is contained or 110% of the volume of the largest tank, whichever is greater.

Impervious containment may consist of membrane lined soil enclosures, containment pallets, plastic pools, mortar mixing tubs, and water troughs.

Regular inspections of the containment area and proper management of any collected stormwater is required.

Development of a spill plan may be necessary for storage of liquids. See **BMP S426** in Volume IV of the SWMMWW. For permanent storage facilities see **BMPs S409, S429, S427, and S428** in Volume IV of the SWMMWW.

Appendix IV – H Quick Reference Phone Numbers

City of Auburn	
Storm Drainage and Sewer Utilities	253-931-3010
Permit Center	253-931-3090
Valley Regional Fire Authority	253-288-5800
Solid Waste Management Utility	253-931-3038
Household Hazardous Waste	253-931-3038
Recycling Services	253-931-3038
Environmental Protection Agency (EPA) - Region X	800-424-4372
IMEX (Industrial Materials Exchange)	206-263-8465
King County	
Wastewater Program (septic)	206-477-8050
Household Hazardous Waste	206-296-4692
Tacoma-Pierce County Health Department	
On-Site Sewage	253-798-6470
Hazardous Waste Line	800-287-6429
University of Washington Center for Urban Water Resources	253-254-7030
Washington State Department of Agriculture	360-902-1800
Washington State Department of Ecology	360-407-6000
Northwest Regional Office	425-649-7000
Dangerous/Hazardous Waste	425-649-7000
NPDES Stormwater or Wastewater Permits	360-407-6000
Spill Reporting (spill to water)	800-424-8802 and 800-258-5990
Spill Reporting (spill to land)	425-649-7000
Recycling	800-732-9253
Groundwater Quality and Protection	360-407-6000
Underground Ground Storage Tanks	800-826-7716
Washington State University/Pierce County Cooperative Extension	253-798-7180
Puget Sound Clean Air Agency	206-343-8800

Appendix IV – I Source Control BMPs for Homeowners

Actions taken each day in and around homes have a profound effect on surface water quality and fish habitat in this region. Stormwater goes directly to rivers, streams and to Puget Sound. Stormwater does not go to the wastewater treatment plant. Any pollutants that get into the stormwater go directly to surface water. Small amounts of pollution from many different sources can significantly affect our waterways. Yard maintenance, waste storage, car washing and maintenance, and pool cleaning are some of the activities that can adversely impact water quality. The best management practices (BMPs) discussed in this section are practical ways to keep stormwater from becoming polluted in the first place. It is recommended that all residents in Auburn use these BMPs. Please note that some of these procedures are required by various state, or city laws, and are noted as required BMPs.

A general list of BMPs for homeowners is described in this chapter. Some of the BMPs described in Chapter 4 may also be applicable to homeowners.

- Automobile Washing
- Automobile Maintenance
- Storage of Solid Wastes and Food Wastes
- Composting
- Yard Maintenance and Gardening
- Swimming Pool and Spa Cleaning and Maintenance
- Household Hazardous Material Use, Storage, and Disposal
- General Home Maintenance
- Pet Waste

Automobile Washing (for Single-Family Residences)

Car washing at home will cause wash water to enter the storm system and flow untreated into surface waters. Soaps and detergents, even the biodegradable ones, can have immediate and long-term effects. Wash water from car washing could be considered an illicit discharge and is prohibited from entering the stormwater system per Auburn City Code and state requirements.

Additional Guidelines for the City of Auburn

The best option is to take cars to a commercial car wash that has a recycle system and discharges wastewater to the sanitary system for treatment. If this option is not feasible, use the suggested BMPs below.

At Home

- Wash cars directly over lawn areas or make sure the wash water drains to a vegetated area.
- Ideally, no soaps or detergents should be used, but if one is used, select one without phosphates.
- Consider using commercial products that allow cleaning a vehicle without water.
- Use a hose nozzle with a shut-off valve to save water.

- Do not wash cars if rain is expected.
- Pour the bucket of soapy, dirty wash water down your sink.

Away from Home

- Take cars to a commercial car wash that has a recycle system and discharges wastewater to the sanitary sewer for treatment.
- Support fundraising activities that sell tickets for a wash at a commercial car wash.
- Go to fundraising car washes where sponsors use Auburn's Car Wash loaner kits. Use a Car Wash loaner kit. If your group is planning a car wash in Auburn, call (253) 931-3010 to get information about using a Car Wash loaner kit.

Automobile Maintenance

Additional Requirements for the City of Auburn

- Recycle all oils, antifreeze, solvents, and batteries. Many local car parts dealers and gas stations accept used oil. The King County Household Hazardous Wastemobile makes regular, scheduled visits to Auburn and accepts oil, oil filters, antifreeze, and solvents, (website: <http://www.hazwastehelp.org/HHW/proper-disposal.aspx> or call 206-296-4692). Old batteries can actually be worth money. Recycle old batteries at automotive or battery shops.
- Never dump new or used automotive fluids or solvents on the ground, in a storm drain or street gutter, or in a waterbody.
- Do not mix wastes. Always keep your wastes in separate containers which are properly labeled and store them out of the weather.

Additional Guidelines for the City of Auburn

- Fix all leaks, to keep the leaky material off the streets and out of the stormwater system and local waterways.
- To dispose of oil filters, punch a hole in the top and let drain for 24 hours. After draining, wrap in 2 layers of plastic and dispose of in your regular garbage or recycle by taking it to the King County Household Hazardous Waste Wastemobile. Note: used oil must be recycled at an approved facility and **cannot** be disposed of in your regular garbage. Use care in draining and collecting antifreeze to prevent accidental spills. Spilled antifreeze can be deadly to cats and dogs that ingest it.
- A tarp, ground cloth, sheet of cardboard, drip pans, or other materials to contain drips must be used beneath the vehicle or equipment to capture all spills and drips. Keep a bag of kitty litter on hand to absorb spills. Sprinkle a good layer on the spill, let it absorb and then sweep it up. Place the contaminated litter in a double plastic bag (bag in a bag), tie it up, and dispose of it in your regular garbage. Do not leave kitty litter out in the rain.
- If body work is performed outside, be sure to use a tarp to catch material resulting from grinding, sanding, and painting. Dispose of this waste by double bagging in plastic and placing in garbage.

Storage of Solid Wastes and Food Wastes

Improper storage of food and solid waste at residences can lead not only to water pollution problems, but problems with neighborhood pets and vermin as well. Following the BMPs listed below can help keep property a clean and healthy place to live.

Additional Requirements for the City of Auburn

- All waste containers kept outside should have lids and be free of leaks. If the hauler container lid is damaged or the container is leaking, please call the City of Auburn Utility Billing at (253) 931-3038 for information on lid repair and container replacement.

Additional Guidelines for the City of Auburn

- Store waste containers under cover if possible, or on grassy areas.
- Inspect the storage area regularly to pick up loose scraps of material and dispose of them properly.
- Recycle as much as you can. The City of Auburn offers curbside recycling. Also, look under "Recycling" in the phone book for firms which take other recyclables or call the City of Auburn Solid Waste Division at (253) 931-3047.
- Purchase products which have the least amount of packaging materials.
- Recycle biodegradable materials such as grass clippings and vegetable scraps in your yard waste cart instead of throwing them away. Call the City of Auburn Utility Billing at (253) 931-3038 for more information on yard and food scrap recycling.

Composting

Composting is an earth-friendly activity as long as the rules outlined below are followed. The following BMPs are applicable to composting. For more information go to the City of Auburn's website at www.auburnwa.gov or call the City of Auburn Solid Waste Division at (253) 931-3047.

Additional Requirements for the City of Auburn

- Locate compost piles on an unpaved area that is not subject to stormwater run-on or runoff; that is not prone to water ponding during storms, and well away from wetlands, streams, lakes and other drainage ways.

Additional Guidelines for the City of Auburn

- Compost piles must be maintained and turned over regularly to work properly. Large piles of unattended compost may create odor and vermin problems and are not allowed within City limits.
- Do not put hazardous or non-decomposable waste in the pile.
- Cover the pile for two reasons:

- To keep excess water from cooling down the pile; which will slow down the rate of decomposition.
- To keep stormwater from washing nutrients into waterways.
- Building a small earthen dike around a compost pile is an effective means of preventing nutrient-rich compost drainage from reaching stormwater paths.
- An alternative to traditional backyard composting is worm composting. For more information on getting started with worm composting, call the City of Auburn Solid Waste Division at (253) 931-3047.

Yard Maintenance and Gardening

This section deals with the normal yard maintenance activities typically performed at residences. Overwatering, overfertilizing, improper herbicide application, and improper disposal of trimmings and clippings can all contribute to serious water pollution problems. Following the BMPs listed below will help alleviate pollutant runoff.

Additional Requirements for the City of Auburn

- Follow the manufacturer's directions exactly for mixing and applying herbicides, fungicides, and pesticides, and use them sparingly. Never apply when it is windy or when rain is expected. Never apply over water, within 100 feet of a well-head, or adjacent to streams, wetlands, or other waterbodies. Triple-rinse empty containers, using the rinsate for mixing your next batch of spray, and then double-bag and dispose of the empty container in your regular garbage.
- Never dispose of grass clippings or other vegetation in or near storm drains, streams, lakes, or Puget Sound.
- Make sure all fertilizers and pesticides are stored in a covered location.

Additional Guidelines for the City of Auburn

- Use natural, organic soil amendments. Visit <http://your.kingcounty.gov/solidwaste/naturalyardcare/> Click on Build healthy soil.
- Use an integrated pest management program (IPM), which is a natural, long-term, ecologically based approach to controlling pest populations. See **BMP S411**, and Appendix F – Example of an Integrated Best Management Program, in Volume IV of the SWMMWW.
- Follow manufacturer's directions when applying fertilizers. More is not better, either for your lawn or for local waterbodies. Never apply fertilizers over water or adjacent to ditches, streams, or other water bodies. Remember that organic fertilizers have a slow release of nitrogen, and less potential to pollute than synthetic fertilizers.
- Save water and prevent pollution problems by watering lawns sensibly. Lawns and gardens typically need the equivalent of 1-inch of rainfall per week. Put a wide mouth jar out where watering is occurring, and measure the water with a small plastic ruler. Overwatering to the point of runoff can carry polluting nutrients to the nearest waterbody.

- Consider using native plants as a vegetated buffer zone adjacent to streams or other water bodies. Call the Garden hotline at 206-633-0224 for advice and assistance in developing a planting plan or visit <http://your.kingcounty.gov/solidwaste/naturalyardcare/> Click on Plant right for your site.
- Reduce the need for pesticides and fertilizers on lawns by improving the health of the soil. Aerating, thatching, and topdressing with compost will improve soil health and help wanted grasses compete with weeds and moss.
- Use a mulching mower and mow higher to improve soil/grass health and reduce or eliminate pesticide use.
- Compost all yard clippings, or use them as mulch to save water and keep down weeds in your garden. See Composting BMP for more information.
- Practice organic gardening and virtually eliminate the need to use pesticides and fertilizers. Contact King County Master Gardener Phone Clinic at 206-296-3440 for information and classes on earth-friendly gardening.
- Pull weeds instead of spraying and get some healthy exercise, too. If you must spray, use the least toxic formulations that will get the job done. The Master Gardener program listed above can help advise you on which spray to use.
- Work fertilizers into the soil instead of letting them lie on the ground surface exposed to the next rain storm.
- Plant vegetation suited to Northwest conditions because they require less water and fewer to no fertilizers and pesticides.
- The City of Auburn has a curbside yard waste recycling program. Call 253-931-3038 for more information.

Swimming Pool and Spa Cleaning and Maintenance

Despite the fact that we immerse ourselves in it, the water from pools and spas is far from chemically clean. Nutrients, pH, and chlorine can adversely affect fish and wildlife in waterbodies. Following these BMPs will ensure the cleanliness of your pool and the environment.

Additional Requirements for the City of Auburn

- Pool and spa water must be dechlorinated if it is to be emptied into a ditch, on the ground or a lawn, or to the storm drainage system. Contact a pool chemical supplier to obtain the neutralizing chemicals needed. The rate of flow into the ditch or drainage system must be regulated so that it does not cause problems such as erosion, surcharging, or flooding. Contact the City of Auburn Storm Drainage Utility at 253-931-3010 for the conditions for discharge approval. Water discharged to the ground or a lawn must not cross property lines and must not produce runoff.
- Swimming pool cleaning wastewater and filter backwash shall not be discharged to the municipal storm drainage system.
- If pool and spa water cannot be dechlorinated, it must be discharged to the sanitary sewer. Prior to draining a pool or spa, contact the City of Auburn Sanitary Sewer Utility

at 253-931-3010 for the conditions for discharge approval. A pool service company can help determine the frequency of cleaning and backwash of filters.

- Diatomaceous earth used in pool filters cannot be disposed of in surface waters, on the ground, or into storm drainage systems or septic systems. Dry it out as much as possible, bag it in plastic, and dispose of at the landfill.

Additional Guidelines for the City of Auburn

- Hire a professional pool service company to collect all pool water for proper disposal. Make sure to ask where the water will be disposed of and ensure the proper permits have been obtained.

Household Hazardous Material Use, Storage, and Disposal

Oil-based paints and stains, paint thinner, gasoline, charcoal starter fluid, cleaners, waxes, pesticides, fingernail polish remover, and wood preservatives are just a few hazardous materials typically used in a residential setting.

When hazardous materials are dumped on the ground or in a storm drain, they can be washed directly to receiving waters where fish and wildlife can be harmed. Hazardous materials can also infiltrate into the ground and contaminate drinking water supplies. If disposed of with regular garbage, hazardous chemical containers can leak at the landfill and contaminate groundwater. Groundwater contamination can also occur if hazardous products are poured down a sink or toilet into a septic system. Do not pour hazardous chemicals down the drain if household plumbing is connected to municipal sewers, either. Many compounds will "pass through" the wastewater treatment plant without treatment and contaminate receiving waters, or they can harm the biological process used at the treatment plant, reducing overall treatment efficiency.

With such a diversity of hazardous products present in all homes in Auburn, a large potential for serious environmental harm exists if improper methods of storage, usage, and disposal are employed. Using the following BMPs will help keep these materials out of soils, sediments, and waters.

Additional Requirements for the City of Auburn

- Dispose of hazardous materials and their containers properly. Never dump products labeled as poisonous, corrosive, caustic, flammable, inflammable, volatile, explosive danger, warning, caution, or dangerous outdoors, in a storm drain, or into sinks, toilets or drains. Call the King County Hazardous Waste Line at 206-296-4692 or 1-888-TOXIC ED for information on disposal methods, collection events, and alternative products. Household hazardous wastes from City of Auburn residents are accepted at King County Household Hazardous Waste Facilities.
- Store hazardous materials containers under cover and off the ground. Keep them out of the weather to avoid rusting, freezing, cracking, labels being washed off, etc.

Additional Guidelines for the City of Auburn

COA Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington
Volume IV Source Control BMPs
Version 3

- Store hazardous materials out of the reach of children.
- Check hazardous material containers frequently for signs of leakage. If a container is rusty and has the potential of leaking soon, place it in a secondary container before the leak occurs and prevent a clean-up problem.
- Store hazardous materials containers under cover and off the ground. Keep them out of the weather to avoid rusting, freezing, cracking, labels being washed off, etc.
- Keep appropriate spill cleanup materials on hand. Kitty litter is good for many oil-based spills.
- Ground cloths and drip pans must be used under any work outdoors which involves hazardous materials such as oil-based paints, stains, rust removers, masonry cleaners, and others bearing label warnings as outlined above.
- Latex paints are not a hazardous waste, but are not accepted in liquid form at the landfill. To dispose, leave uncovered in a protected place until dry, then place in the garbage. If you wish to dry waste paint quickly, just pour kitty litter in the can to absorb the paint. Once paint is dry, leave the lid off when you place it in the garbage so the garbage collector can see that it is no longer liquid.
- Use less toxic products whenever possible. The King County Household Hazards Line at 206-296-4692 or 1-888-TOXIC ED and the Washington Toxics Coalition at 206-632-1545 have information detailing alternatives to toxic products.
- If an activity involving the use of a hazardous material can be moved indoors out of the weather, then do so. Make sure proper ventilation is provided.
- Follow manufacturers' directions in the use of all materials. Over-application of yard chemicals, for instance, can result in the washing of these compounds into receiving waterbodies. Never apply pesticides when rain is expected.
- When hazardous materials are in use, place the container inside a tub or bucket to minimize spills.
- Purchase only the amount of product that is needed.

General Home Maintenance

This section deals with the normal maintenance activities typically performed in residential settings. Following the BMPs listed below will help alleviate pollutant runoff.

Additional Requirements for the City of Auburn

- Pressure washing of building facades, rooftops, pavement, and other large objects must be conducted in such a way that all of the runoff is collected for proper disposal. No runoff shall leave the site. Temporary curbs, dikes, or berms may be used to direct the water away from storm drains. Sweep up and collect debris for disposal as solid waste as an alternative to pressure washing.

Additional Guidelines for the City of Auburn

- Carpet cleaning wash water must be disposed of to the sanitary sewer. It is preferred that the dirty wash water be discharged into a toilet or mop sink at the place where it was generated.
- Clean brushes and tools coated with non-water-based paints, finishes, or other materials in a manner that allow collection of used solvents (e.g. paint thinner, turpentine, xylol, etc.) for proper disposal at a Household Hazardous Waste Facility. Call the King County Household Hazards Line at 206-296-4692 or 1-888-TOXIC ED for information on disposal methods, collection events, and alternative products. Household hazardous wastes from City of Auburn residents are accepted at King County Household Hazardous Waste Facilities.

Pet Waste

Pets can generate pollutants from fecal deposits, animal washing, and cage or kennel cleaning. Pollutants include bacteria which can pollute water ways and make people sick. To prevent pet waste pollutants from entering the storm drains, follow the BMPs listed below.

Additional Requirements for the City of Auburn

- Regularly scoop, sweep and clean up pet waste deposited on walks and at home. Dispose of pet waste in the garbage or flush it down the toilet.
- When cleaning out cages and kennels, wash directly over lawn areas or make sure the wash water drains to a vegetated area. Alternately, dispose of the wash water down the toilet or a mop sink.
- Do not dispose of unused pet pharmaceuticals in a storm drain, or flush down a toilet, or wash down a sink. Visit www.takebackyourmeds.org for a list of locations that take back unused pharmaceuticals.
- Kennels, boarding facilities, veterinarians: Refer to **S402 BMPs for Commercial Animal Handling Areas** in Volume IV of the SWMMWW.