

Stormwater Pollution Prevention Plan for the Administration and Maintenance Site

City of Mercer Island

June 2009



Stormwater Pollution Prevention Plan for the Administration and Maintenance Site

Prepared for:

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SWPPP for the Administration and Maintenance Site

City of Mercer Island

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Stormwater Pollution Prevention Plan for the Administration and Maintenance Site

Introduction

The City of Mercer Island is covered by the Western Washington Phase II Municipal Stormwater Permit, issued by the Washington State Department of Ecology (Ecology) in 2007. This permit is issued as part of the National Pollutant Discharge Elimination System (NPDES) Phase II program, which in the state of Washington is regulated by Ecology. As a Phase II community, Mercer Island must prepare Stormwater Pollution Prevention Plans (SWPPPs) for all heavy equipment maintenance (including fueling activities) or storage yards, and material storage facilities owned or operated by the City. The Administration and Maintenance Site includes storage and maintenance yards and therefore the City has developed this SWPPP to fulfill the NPDES Phase II requirement.

The objectives of a SWPPP are:

- To implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of stormwater pollutants.
- To prevent violations of surface water quality, groundwater quality, and sediment management standards.
- To eliminate the discharges of unpermitted process wastewater, domestic wastewater, and other illicit discharges to stormwater drainage systems.

Mercer Island is a community located in Lake Washington between the cities of Seattle and Bellevue, and is traversed by Interstate 90 at its northern end. This report deals with the pollution potential of stormwater runoff from the Administration and Maintenance Buildings (AMB) located on SE 36th Street west of East Mercer Way.

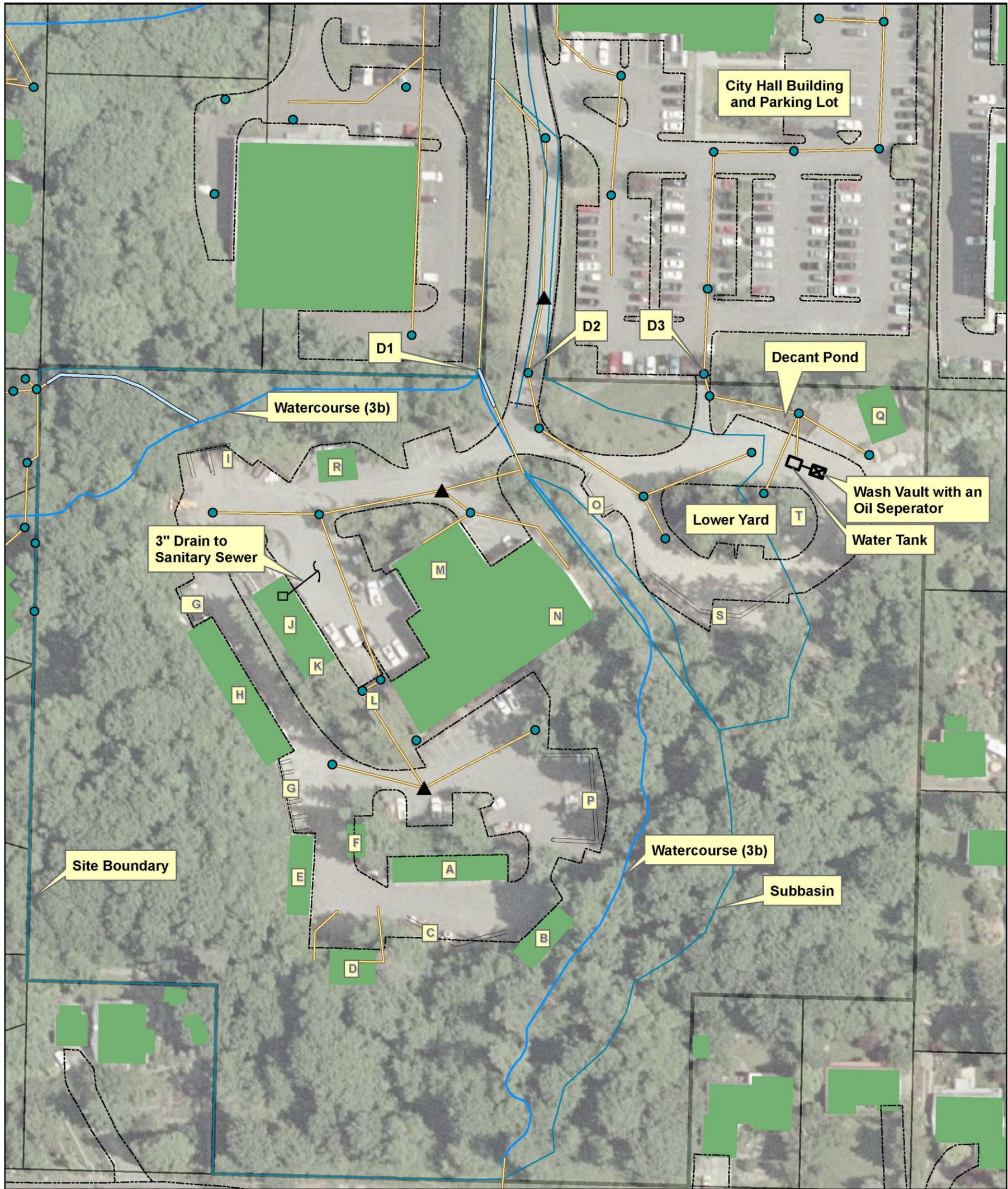
Figure 1 presents a facility site plan of the site, which includes:

- A maintenance and engineering office building
- A warehouse
- A park equipment storage structure
- A right-of-way equipment (asphalt-related) storage structure
- Equipment storage structures
- Truck parking bays
- Wash bays
- Uncovered bays for miscellaneous material storage (sand, gravel, mulch, etc.)
- A diesel fueling station for trucks

- Temporary outdoor storage areas for metals, waste, wood, rock, and tree debris)
- A decantation basin for catch basin sediments

Not all of the facilities listed above contribute to stormwater pollution. The site assessment in the following section focuses on those areas with potential to be sources of pollution.

Figure 1 also shows the drainage system. Runoff is directed towards a watercourse/creek that flows north along the eastern portion of the site. This creek (referred to as Watercourse No. 3b in the City's watercourse mapping) flows north off-site through a system of channels and culverts, and eventually drains into Lake Washington, the ultimate receiving waterbody.



Projection: Lambert Conformal Conic
 Datum: Washington Stateplane NAD 1983 Coordinate System

Note:
 Footing Drains are not shown.
 See City as-built drawings for
 footing drain information.



Legend

- Catch Basins
- Catch Basin w/ O/W Separator and Orifice Control
- Ditch
- Storm Pipe
- Approx Paving Limits
- Watercourse
- Subbasins
- Buildings
- Parcels
- Parks Equipment Storage Building
- Parks Storage Building
- Sand Mixer and Scrap Metal Storage Area
- Right of Way Equipment Storage Building # 1
- Truck Parking Bays Building # 1
- Fueling Station
- Open Material Storage Bays
- Truck Parking Bays Building # 2
- Open Material Storage
- Washbay Area Building
- Right of Way Storage Building # 2
- Self-Enclosed Generator
- Warehouse
- Maintenance and Engineering Building
- Sweeper Waste Storage Area
- Outdoor Equipment Storage Area
- Covered Decant Area
- Propane Tank
- Temporary Outdoor Material Storage (Fill, Excavated Material, Waste Asphalt, Rock, Wood Drips, Wood)
- Bio-Diesel Fuel Station

Figure 1
 Facility Site Plan

SWPPP for Administration
 And Maintenance Site
 City of Mercer Island



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Pollution Prevention Team

The following people will be involved in implementing the SWPPP. Each of these individuals is authorized to sign discharge certification forms, and they may delegate the monitoring tasks to any individual who has been properly trained according to the Employee Training Program in this document.

Responsible Official: Glenn Boettcher, Maintenance Director

Team Leader: Bill Sansbury, Street Maintenance Manager
Office Phone: (206) 275-7809
E-Mail: Bill.Sansbury@mercergov.org

Responsibilities: Direct, coordinate, and ensure that BMPs are implemented; schedule semiannual compliance evaluations; review and revise SWPPP when needed; budget for maintenance of existing BMP features; request construction of new or major modification of existing BMPs, if needed.

Site Manager: To be assigned by SWPPP Team Leader

Responsibilities: Coordinate and implement Operational and Source Control BMPs for the facility; participate in compliance evaluations; report problems, needed maintenance, or degradation of BMPs to Team Leader.

Maintenance and Source Control Coordinator: To be assigned by SWPPP Team Leader

Responsibilities: Participate in compliance evaluations; provide advice and technical support for plan revisions; handle maintenance of BMPs.

Monitoring Coordinator: To be assigned by SWPPP Team Leader

Responsibilities: Conduct site monitoring activities.

Site Assessment

The AMB site, its operations, and its site plans were examined to assess the potential of site materials and operational practices to pollute stormwater and consequently impact receiving waters. This assessment includes the production of a Facility Site Plan (Figure 1) showing existing features relevant to stormwater pollution prevention. The assessment also includes an inventory of on-site materials and their pollution potential (Form A-1 in Appendix A); a list of previous spills of materials (Form A-2 in Appendix A); a description of industrial activities and their pollution potential (Form A-3 in Appendix A); and an inspection of the site for the presence of non-stormwater discharges from sanitary sewers or industrial wastewater (Form A-4 in Appendix A). Blank forms for future reassessments are provided in Appendix B.

Discharge Points

Stormwater at the site is drained by multiple catch basins and storm drains and watercourses. There are three distinct discharge points from the site, labeled on Figure 1 as D1, D2, and D3.

- **Discharge Point D1** drains the majority of the site, discharging to the easterly branch of Watercourse 3b, which flows north roughly through the middle of the site. At the north portion of the site this branch crosses the entrance road culvert and continues north to leave the north site boundary at Discharge Point D1. The pipe system tributary to this discharge point contains two detention pipes (36-inch and 48-inch with restrictor manholes). These manholes have riser tees and provide some oil/water control. The restrictor manholes are shown on Figure 1.
- **Discharge Point D2** drains the westerly portion of the lower yard area, via a pipe system within the site entry road. After leaving the AMB site at Discharge Point D2, this pipe system continues north and discharges to Watercourse 3b about 240 feet north of the site boundary. There is a detention pipe and restrictor within this system prior to discharge to the creek but beyond the north site boundary.
- **Discharge Point D3** drains the easterly portion of the lower yard (including the truck wash area). After leaving the AMB site at Discharge Point D3, this pipe system continues north within the City Hall parking lot; from there, the pipe system continues north and east and ultimately discharges to Watercourse No. 1.

Pollutants from this site that result from site activities include fuel (complex organic chemicals), metals, and suspended solids. Current site conditions provide the potential for these pollutants to be conveyed by stormwater runoff into the receiving storm drains and watercourses.

Site Features

Administration and Engineering Building

The administration and engineering building (N on the site plan) is comprised of offices used for administrative purposes. No mechanical or industrial activity occurs at this location.

Warehouse

Connected to the administration and engineering building, the warehouse (M on the site map) is used to store supplies and equipment. The warehouse also contains a service area for trucks and vehicles. This service area drains to the sanitary sewer and as such, the SWPPP does not identify additional BMPs.

Parks Equipment Storage and Maintenance Buildings

The two equipment storage buildings shown on the site map (A and B) are used to store maintenance materials and mechanical equipment. Examples of the stored items include asphalt-patching materials, paint, chlorine, fuel pellets, small fuel (gas) containers, and fertilizers. Examples of equipment include small park vehicles (tractors, grounds care equipment & mowers, and ATVs), small hand equipment (pitchforks and shovels, etc.), and street sweepers. The maintenance shops have metal painted roofs but the fronts of the buildings are open without walls, which means that heavy rain combined with strong winds could force some rain into the shop. Since the shops have no floor drains, ponded water would likely drain toward the pavement outside and get into the drainage system. Such stormwater that enters the shops may mix with any spilled or loose hazardous materials and run off to the outside. To address this scenario, and be best prepared to prevent pollutant washoff, hazardous material storage should be placed in enclosed lockers and/or on “spill containment pallets” (that provide secondary containment) where possible or at least at the very back of the shops. It is also recommended that the shops be regularly swept and floors cleaned. Some past cleaning has involved blowing the floors with high-pressure blowers. Sweeping is the preferred method to reduce the spread of loose contaminants.

Right-of-Way Equipment Storage Buildings

Buildings D and K are used to store equipment related to roads and right-of-way construction and maintenance (tractors, pavement cutter, street sweeper, etc.). The polluting effect of these shops would be similar to the neighboring maintenance shops due to the similar open fronts; therefore, the same recommendations apply. In addition, drip pans should be placed under any heavy machinery that shows signs of leakage until it can be repaired.

Truck Parking Bays

Parking bays for maintenance trucks are provided in two concrete structures on the western side of the site (Buildings E and H). Since the bays are roofed and the trucks are rarely serviced in the bays, there is low risk of pollution here; potential pollutants

include oil and fuel from leaks. Nevertheless, the floors should be kept clean and inspected for signs of oil leaks.

Open Material Storage

Separate bays for storing sand, gravel, mulch, beauty bark, and various soils are provided on the western end of the site between the parking bays (G and I on the site plan). These bays and areas are not covered and their contents are exposed to rainwater. This has the potential for erosion of the stored materials; potential pollutants include suspended solids, turbidity, and nutrients. Options to reduce this potential include temporary covering (plastic) of those materials more susceptible to erosion, berm off the area to trap runoff or divert storm flows to the truck wash vault.

Outdoor Equipment and Scrap Metal Storage Areas

As shown on Figure 1, various outdoor areas are used to park equipment (e.g., dozers, blowers, sanders) and to dump scrap metals (areas S and C). A site visit revealed signs of corrosion in the metals, especially in those disposed of between the equipment storage shops (B and D). Potential pollutants include dissolved metals from scrap materials, as well as fuel, lubricants, solvents, suspended solids, and turbidity from stored equipment.

Wash Bays

Vehicles at the AMB site are cleaned at the wash bays next to the warehouse (area J on Figure 1). Washwater from those bays is directed to the sanitary sewer system by floor drains and berms that keep the washwater inside the bays. Therefore, washwater is not a concern for stormwater pollution.

Fueling Stations

There are two fueling stations within the site. Site #1 includes a diesel fueling station (area F on Figure 1) with double wall above ground fuel storage and is used by maintenance crews to fuel their trucks. The station is covered by a canopy and is equipped with an emergency spill kit. The canopy, however, does not extend all the way to the asphalt, where trucks park and refuel. The site visit revealed some signs of spillage on the asphalt, which means that surface runoff could be polluted by frequent drips of fuel.

Site #2 includes a 4,000-gallon biodiesel fuel station. This station is equipped with leak detection systems both in the fuel tank and at the dispenser. The fueling area is not covered, however, any overland flow in the area drains to the nearby oil/water separator.

Yard Waste and Temporary Disposal Area

The yard waste and temporary disposal area is located in the lower yard on the northeastern side of the site (area P on Figure 1). This area is used to store waste or recycled items until they can be reused or disposed of. Examples of materials stored include leaves, downed trees and branches, wood and wood chips, fill, rock, and excavated materials. The materials typically stored generally do not pose much risk of

pollutant sources that could be washed into the storm system. An exception is the temporary soil piles, which could be subject to erosion in heavy rains. Potential pollutants include suspended solids, turbidity, and nutrients from stored soil (and leaves). These piles should be temporarily covered with plastic if they are unworked for extended periods (weeks), in the same way that stockpiles are covered at construction sites. In particular, soil should be covered during the winter wet season.

Sediment Decantation Basin and Storage Facility

The decant facility (Q on Figure 1) is located at the northeast corner of the AMB site and is comprised of two open decant wetponds and a covered storage bay. Grit and sediments factored from catch basins throughout the city are dumped into the lower decant wetpond and temporarily stored until they can be moved to the covered storage bay for long-term decanting. The covered storage bay has open sides; however, any runoff from the storage bay is directed back to the lower wetpond. The upper, smaller wetpond is used for decanting non-catch basin factor soils (e.g., wet soils collected through City operations such as a utility excavation or pothole). These non-contaminated soils are periodically relocated to the temporary storage areas on the site. The upper wetpond discharges via pipe to the lower wetpond. An area next to the decant facility is used as a truck wash area. Washwater is collected in a large oil/water separator vault prior to being discharged to the downstream pipe system.

Observations from the site visit indicate that the area around the wash vault and oil/water separator is not graded to a low point and can drain to the west and enter the downstream pipe system without being treated. This is a potential concern.

Administrative Requirements

Required Signatures

This SWPPP and certification statements (i.e., non-stormwater discharge) must be signed by a duly authorized representative of the facility. Subsequent modifications to this SWPPP and certification statements must also be signed as described above.

Plan Retention and Availability

This SWPPP shall be retained on-site or within reasonable access to the site. It shall be made available to the Department of Ecology upon request, but is not submitted to Ecology. The plan shall also be submitted to the municipal operator of the storm sewer system.

Required Plan Modifications

If Ecology notifies the City of Mercer Island that the SWPPP does not meet one or more of the minimum requirements of the Stormwater Permit, the City shall submit a plan for modification to Ecology within 30 days of such notice.

The SWPPP shall be modified accordingly whenever there is a change in design, construction, operations, or maintenance that causes the SWPPP to be less effective in controlling pollutants. Modifications need not be submitted to Ecology.

Whenever an inspection reveals that the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the SWPPP shall be modified, as appropriate, within two weeks of such inspection. Modifications shall be implemented in a timely manner. Modifications need not be submitted to Ecology.

Non-Compliance Notification

If conditions specified in the Permit are not complied with, or will not be complied with, the City shall notify the Department of Ecology's Northwest Regional Office (425-649-7000). The City shall provide:

- A description of the nature and cause of non-compliance, including the quantity and quality of any unauthorized waste discharges.
- The period of non-compliance, including exact dates and times and/or the anticipated time when compliance will be achieved.
- The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.

In addition, immediate action shall be taken as expeditiously as practicable, to stop, contain, and clean up any discharge or spill and all reasonable steps shall be taken to minimize any adverse impacts to waters of the state and correct the problem. Ecology shall be notified by telephone so that an investigation can be made to evaluate any

resulting impacts, the corrective actions taken, and to determine if additional action should be taken.

In the case of any discharge which could constitute a threat to human health, welfare, or the environment, the City shall notify the Department of Ecology's Northwest Regional Office within 24 hours from the time the City becomes aware of the circumstances. If this information is provided orally, a written submission covering these points shall be provided within five days after knowledge of the circumstances, unless Ecology waives or extends this requirement or extends this requirement on a case-by-case basis.

Maintenance of Records

All records will be kept in this notebook using the forms provided in Appendix B for:

- Storage of new materials constituting a pollution hazard (*Form A-1. Material Inventory*)
- Spills of significant materials (e.g., oil, antifreeze, leachate, other pollutants) (*Form A-2. List of Significant Spills and Leaks*)
- Areas associated with industrial activity (*Form A-3. Areas Associated with Industrial Activity*)
- Non-stormwater discharge dry weather inspections (*Form A-4. Non-Stormwater Discharge*)
- Wet weather runoff inspections (*Form B-1. Wet Weather Inspection*)
- Preventative maintenance inspections (*Form B-2. Preventative Maintenance Inspection*)
- Training achievements (*Form B-3. Training Achievements*)
- Monitoring results (*Form B-4. Sampling Event Log*)
- Changes in Stormwater Pollution Prevention Plan

All records are to be dated and kept in reverse chronological order. As an alternative to maintaining the inspection forms in Appendix B, the City may use its maintenance tracking system, "WebWorks." If the WebWorks maintenance records are used, the City should document information similar to that presented in Appendix B

Best Management Practices

Good Housekeeping

Good housekeeping practices are important for reducing or eliminating pollutants in stormwater runoff. Good housekeeping involves maintaining a clean and orderly work environment. Keeping all areas clean will prevent the spread of pollutant-containing material. Extra attention to surfaces draining to storm sewers can significantly reduce pollutant washoff. An orderly work environment will reduce the chance for inadvertent spills. The following practices should be employed:

- Site Manager (See Pollution Prevention Team) shall keep a running inventory of all chemical substances (Form A-1, *Material Inventory*) and Material Safety Data Sheets (MSDS) in a fixed location.
- Hazardous materials in the maintenance shops should be kept in enclosed storage lockers and/or on “spill containment pallets” (that provide secondary containment) where possible or stored in an orderly fashion at the back of the shops, as far away from the front as possible. Containers should be well sealed, clean, and labeled with substance name and date (and hazards, if appropriate).
- Promptly and properly dispose of all empty containers from cleaners, oil, or chemicals.
- Ensure an adequate supply of absorbent pads or materials is available for cleanups.
- Use absorbent for any minor oil spills or leakage on paved area in front of the maintenance shops or service areas. When the liquid has been absorbed, sweep up and dispose of it properly.
- Loading and unloading areas are to be frequently cleaned using vacuum-type street sweepers, or hosed off into the sanitary sewer drainage system, while avoiding drainage to storm sewers.
- Sweep weekly or as needed. Pick up and properly dispose of any trash or debris, if present.
- For vehicles or equipment under repair, inspect daily for leaks. For all other stored and parked vehicles, containers, or equipment, inspect weekly. Contain leaks and then repair or replace item promptly; clean up as detailed in the Spill Prevention and Emergency Cleanup Plan.

Inspections and Preventative Maintenance

Inspections and preventative maintenance are essential for maintaining the performance of Best Management Practices over time.

Preventative maintenance inspections of stormwater system features should be carried out during inspections (see Monitoring Plan). If inspections reveal recurring maintenance issues at specific locations, increase inspection frequency to monthly at these locations.

Observations from inspections should be recorded on the *Preventative Maintenance Inspection Form* (Form B-2) provided in Appendix B. Conditions of the following features should be recorded:

- Oil/water separator
- All catch basins, with emphasis on the restrictor control catch basins
- Watercourse 3b at the culvert crossing and discharge point D1
- Decant facility
- All paved surfaces for evidence of pollutants (e.g., oil stains, discoloration, sediment accumulation).

A nominal cleaning frequency for catch basins and oil/water separators is stated below. Adjust these frequencies as necessary (site-wide or for specific structures) if inspections reveal that more frequent cleaning is needed. Regular vactoring and sediment removal will maintain maximum sediment retention capacity, prevent washout of sediment, and limit the dissolving of pollutants into water. Additionally, truck and loader drippings when handling the waste around the decant facility should be hosed or swept back into the decant basin when necessary.

Factor the following:

- All catch basins twice annually or as needed, and especially after major storms
- Oil-water separator twice annually, immediately after significant spills, and additionally as necessary. For heavy oil accumulation, obtain the services of a firm that collects oil/oily liquids.

Sediment and Erosion Control

On the AMB site, a potential problem is erosion from the sand and gravel storage bays, as well as the temporary soil piles at the yard waste and disposal area. The BMP for stockpiles shall be to provide temporary plastic covers or berm off the area to trap runoff and divert storm flows to the truck wash vault. In certain instances, berms or sills at the bottom of the bays to reduce the washout of suspended solids could be an effective alternative.

Source Controls

Source control measures minimize the opportunity for pollutants to enter the stormwater system. Source controls are often the most effective methods for water quality protection. The above site assessment, as well as measures described in the Spill Prevention and Emergency Cleanup section of this SWPPP, include source control measures. This section includes additional source control BMPs. Some of the larger BMP source controls will require significant capital expenditures and would be implemented as funding allows.

- For storage of hazardous materials in maintenance shops, use drums and containers/lockers set in “drip pan” type receptacles where possible. Use containers that are durable, corrosion resistant, non-absorbent, and non-leaking.
- Ensuring overflow protection during fuel delivery from tank trucks and during the filling process. Train employees on the proper use of fuel dispensers; post signs in accordance with the Uniform Fire Code (e.g., “No Topping Off” signs); and make sure that the automatic shutoff on the fuel nozzle is functioning properly.
- Use drip pans to collect leaks and spills from equipment/vehicles if parked outside for extended periods.
- Properly dispose of scrap metals by sending them to a landfill or determining if they can be reused as quickly as possible. Otherwise, keep them stored in a covered space until disposal. If this is unrealistic, a recommended site improvement should include adding a covered roof area for additional storage space.
- Construct a “covered bay storage area” covering soil stockpiles when they remain unworked for extended periods, particularly in the wet season.
- Regrade the area in the vicinity of the truck wash/decant station or add new curbing and catch basins to ensure that this area is all drained, collected, and routed through the oil/water separator. In addition, re-route the existing piped drainage system at the west end of the lower yard to discharge to the large oil/water separator used for truck washing. This system currently discharges to the D2 outfall, which does have a detention system with an oil/water restrictor elbow; however, re-directing the flow in this system would allow it to be also treated by the larger oil/water separator that provides better treatment. During design of this re-routing of flow, potential impacts to the downstream system would need to be assessed.

Employee Training Program

Frequency

Perform in-depth pollution prevention training for new employees within 30 days of hiring, and a refresher briefing held annually addressing:

- Good housekeeping.
- Spill prevention and response procedures.
- Materials handling and storage.
- Announce any changes to the plan.
- Announce any new management practices related to stormwater pollution prevention.

Employee Training Program Topics

Good Housekeeping

- Review and demonstrate basic cleanup procedures.
- Clearly indicate proper disposal locations.
- Be sure employees know where routine cleanup equipment is located.

Spill Prevention and Response

- Clearly identify potential spill areas and drainage routes
- Post warning signs in spill areas with emergency contacts and telephone numbers
- Drill on spill clean-up procedures
- Identify the locations of spill clean-up equipment and the persons responsible for operation of the equipment
- Instruct mobile refueling drivers to always check automatic shut-off functioning

Spill Prevention and Emergency Cleanup Plan

Purpose and General Information

This plan provides for measures and procedures to prevent or minimize contamination of stormwater runoff from the site during normal operations and in the event of spills. The maintenance and engineering facility has three catch basins with restrictor devices and oil/water separator “tees” that provide some potential for capturing and holding spills of lighter weight fluids (two on-site and the third within the City Hall property for discharge D2). The oil/water separator vault at the truck wash/decant area provides similar protection. However, these structures provide limited protection and the City must be able implement responsive measures in the event of a spill.

Spill Prevention and Proposed Measures

Likely Spill Locations

The most likely spill location is the fueling station; however, spills could occur anywhere machinery is operated and parked. In addition, another potential location is where stored hazardous are handled and transported around the site (such as smaller fuel tanks and paint containers).

Leak Detection

Fueling station site #1 does not have any leak detection systems installed. Fueling station site #2 has a detection system at both the tank and dispenser.

Inspections

One of the most effective spill prevention measures is the performance of routine visual inspections to detect potential spill situations. These shall be done on a regular basis during the course of operating the station. Items to be monitored are:

- **Fuel Station.** Check the asphalt and the surroundings of the fueling station for signs of spills.
- **Manholes with Restrictor Devices** (See Figure 1). Check for sheen or odor.
- **Decantation Facility and Oil/Water Separator.** Check for sheen or signs of spills on surrounding pavement.

Housekeeping

Good housekeeping, as described above, can prevent a significant amount of contaminants from entering runoff as well as promote pride in providing a clean facility.

In addition, new employees should be briefed on the spill cleanup plan as part of their job training and orientation. The storm drainage system, spill prevention practices, and spill cleanup procedures are to be reviewed in detail.

All site employees are to be given a refresher briefing on the spill cleanup plan annually, stressing the importance of spill prevention, good housekeeping and emergency spill cleanup procedures.

Spill Kit

Currently, the site has a spill kit within the covered fueling station. This spill kit primarily contains a supply of materials to contain small spills.

It is recommended that the site be equipped with a few more pieces of equipment to assist in handling spills. A minimal spill kit should contain the following materials:

- 1 - 40 pound bag of Oil Sponge
- 1 - 5 pounds bag of Absorb -All
- 1 - flat-edge short shovel
- 10 - 18-inch x 18-inch oil absorbent pads
- 1 - pair of chemical resistant long rubber gloves
- 1 - roll of duct tape
- 2 - 6 mil thickness 30-gallon plastic bags
- 1 - clear plastic eye and face protection shield
- 2 - plastic tarps
- 4 - oil-absorbent "booms," minimum length 10 feet each
- 2 - rolls of yellow "caution" tape

If materials from the kit are used for spills, the site supervisor should report the items used and request that they be restocked immediately for use. In addition, the kit should be checked semi-annually to verify that all materials are available.

Emergency Spill Response

In the event of a major or significant spill, the following actions should be taken, remembering that safety of staff and visitors is paramount:

- 1. Notify the supervisor on duty.**
- 2. Determine the danger to personnel.** If the material is suspicious in nature as indicated by fumes or smoke being released, clear the immediate area and get personnel upwind of the spill. If the situation is severe enough to warrant, close the facility and evacuate the area.
- 3. Call for assistance.** The supervisor should make a quick assessment of the nature and severity of the spill so that the appropriate notifications can be made.
- 4. Isolate the spill.** For spills of a known material which does not present a personnel hazard, use the materials in the Spill Kit to berm off and soak up the spill as appropriate. Liquids such as hydraulic oil, diesel oil, motor oil, antifreeze, or paint can be controlled in this manner. If catch basins are threatened in the spill area, use the tarps and oil boom rolls to keep the material out as much as is possible. Use the rubber gloves, boots and face shield as needed to avoid contact

with the material. The yellow "Caution" tape may be needed to warn personnel of a slip hazard from oil spills.

For unknown materials which are suspected to present a hazard to personnel, keep personnel at a safe distance. If catch basins are threatened in the spill area and can be safely reached, use the tarps and oil boom rolls to keep the material out as much as is possible.

- 5. Clean up the spill.** When they are saturated, place the pads, booms and absorbent in the trash bags provided. Place the bags in a hazardous materials storage cabinet using the bulk half-drum container. Use additional absorbent to thoroughly soak up the liquid. Do not wash free liquid or absorbent down catch basins or off of paved areas.

For spills of oily liquids which have occurred in the washing area, inspect oil/water separator tanks (if any) for free oil floating on top. Contact an oil cleaning service to remove large quantities. For small quantities, the absorbent pads or booms may be used to soak up the oil. Dispose of oil-contaminated materials in trash bags provided in the kit. Place the bags in a hazardous materials storage cabinet using the bulk half-drum container, and provide for disposal within 72 hours.

For spills of unknown materials, once a determination has been made of the nature of the material and whether it is a special waste, accomplish cleanup and disposal as recommended by the Fire Department or Health District. Use the protective equipment in the spill kit to avoid contact with the material if so advised by the trained specialists called to the scene. Some materials may require special handling and disposal.

After all free liquid or material and absorbent has been removed, the area may be treated with a detergent solution and washed down into a sanitary sewer to eliminate a slip hazard for personnel.

Monitoring Plan

To comply with the Stormwater Permit, the City of Mercer Island must perform periodic visual observations of discharges from the facility to evaluate the effectiveness of the BMPs. Water quality sampling of discharges is not required by this Permit. This SWPPP includes a visual monitoring plan, to begin the fourth quarter of 2009.

Inspection frequency and location is summarized in the following table:

Inspection Type	Period	Frequency	Location
Wet Weather	Oct., Nov. or Dec.	Annually ¹	<ul style="list-style-type: none"> ■ All catch basins, with closer inspection of restrictor catch basins (including off-site catch basin located on City Hall property) ■ Oil/water separator vault ■ Asphalt surface surrounding the fuel station
Dry Weather	July, Aug. or Sept.	Annually ¹	Same as Wet Weather

¹ The City may increase frequency or decrease frequency based upon need, as determined by the initial inspection findings.

The following periodic observations are to be performed, with results recorded on the provided inspection forms. See the Best Management Practices section for additional inspection and maintenance requirements.

Annual Wet Weather Inspection

Inspect one time during the wet weather period, during a storm event generating observable overland flow. Follow and fill out the *Wet Weather Inspection Form* (Form B-1 in Appendix B) and make additional notes as needed.

During wet weather inspections:

- Verify that the description of potential pollutant sources and the Facility Site Plan are accurate.
- Make certain that the pollutant reduction controls are being implemented, maintained, and are functioning adequately.
- Inspect all drainage structures for defects and maintenance needs.
- List observations of floating materials, suspended solids, oil and grease, discoloration, turbidity, odor, etc. in stormwater discharges and their probable source.

Annual Dry Weather Inspection

Inspect one time each year, following at least seven days of dry weather. Follow and fill out the *Non-Stormwater Discharge Dry Weather Assessment and Certification Form* (Form A-4 in Appendix A)

The objective of these observations is to determine if unauthorized non-stormwater discharges (e.g., domestic wastewater or noncontact process wastewater) to the stormwater drainage system are occurring. These illicit flows are much more difficult to detect during periods with stormwater flows, and therefore it is important to make these observations during a very dry period.

During dry weather inspections:

- If flow is present, then the inspector must determine whether or not it is a result of non-stormwater discharges. The inspector must use his/her judgment as to the source. Smoke testing or dye studies are not required to differentiate between industrial and non-industrial sources at this site.
- If flow is present and believed to be a non-stormwater discharge (e.g., domestic wastewater, process wastewater, etc), then corrective action(s) should be identified and completed on Form A-4.
- If flow is present and believed to be industrial discharge (i.e. washwater, leachate), then the Department of Ecology's Northwest Regional Office must be notified (425-649-7000).

Reporting

Inspection data obtained during each monitoring period must be summarized and reported on a Discharge Monitoring Report (DMR) form.

Records Retention

Records must be retained for a minimum of five (5) years. Records include but are not limited to:

- inspection reports
- maintenance records
- records of repairs (including costs)

Appendix A Site Assessment

**FORM A-1.
Material Inventory**

Completed by: **City Staff / R. W. Beck**
 Title:
 Date: **September 2008**

List materials handled, treated, stored, or disposed of at the site that may potentially be exposed to precipitation or runoff. Also indicate if any spills or leaks of pollutants that have occurred since November 18, 1989 (Including any pollutants no longer handled on-site).

Material	Purpose/Location	Quantity (Units)			Exposed since Nov. 89 (Yes/No)	Likelihood of contact with stormwater. If yes, describe reason.	Past Spill or Leak	
		Used	Processed	Stored			Yes	No
Fuel	Refueling of trucks at the main facility's fuel station	N/A	N/A	N/A	NA	Likely due to dripping onto asphalt surfaces with the cover of the fueling island not extending beyond the pumps		X
Scrap Metal	Temporary storage at various locations around site (area C on Site Plan)	N/A	N/A	N/A	Unknown	Likely as rain falls directly into the corroding metals		X
Topsoil/Bark	Stored in uncovered bays	N/A	N/A	Varies	Yes	Likely due to direct contact with stormwater with potential for erosion leaching into the neighboring catch basins		X
Chlorine, Paint and Asphalt Patch	Park storage building at the main facility			Small amount	?	Very minimal since the structure is roofed and those materials are stored inside		X
Grit / Sediments	Decant Facility	N/A	N/A	N/A	?	Low since runoff from the storage bay is covered and directed back to the decand wetpond. The only concern is the dripping from vectors.		X

FORM A-2.
List of Significant Spills and Leaks

Completed by: **City Staff / R. W. Beck**
 Title:
 Date: **September 2008**

List all spills and leaks of toxic or hazardous pollutants since November 18, 1989, that were significant. Significant spills and leaks include but are not limited to, releases of oil or hazardous substances in excess of reportable quantities. Although not required, we suggest you list spills and leaks of non-hazardous materials.

Date (month/day/year)	Location (as indicated on site map)	Description				Response Procedure		Preventive Measures Taken
		Type of Material	Quantity	Source, If Known	Reason for Spill/Leak	Amount of Material Recovered	Material No longer exposed to Storm- water (Yes/No)	
1993	Adjacent to areas D,E,F,G on Site Plan	----	----	Offsite water main broke, causing flooding through site, which picked up loose materials	Breaking a Water Main	N/A	No	Water main fixed

FORM A-3.
Areas Associated With Industrial Activity

Completed by: **City Staff / R. W. Beck**
 Title:
 Date: **September 2008**

List areas and activities, not included on previous worksheets, which may be sources of pollution. Discuss the potential of these areas and activities as potential pollutant sources and identify any pollutant that may be generated by that activity.

Industrial Area or Activity	Potential Stormwater Pollutant from Area or Activity	Likelihood of being present in stormwater discharge. If yes, describe reason.
Equipment Storage Buildings	Chlorine, Paint, Fuel, Fertilizer (Nitrogen, Phosphorus)	Unlikely when such hazardous materials are placed at the back of the shop
Right-of-Way (Asphalt-Related) Storage Building	Asphalt Related Pollutants	Unlikely when such hazardous materials are placed at the back of the shop
Outdoor Soil Storage Bays	Suspended Soils / Turbidity	Likely due to erosion from direct rainfall and overland flow into catch basins
Fueling Station	Fuel (hydrocarbons)	May be present when drips on asphalt are washed out by stormwater runoff
Decantation Basin	Grit / Sediments	May be present due to drips from loader and trucks; some areas do not drain to oil/water separator

FORM A-4.
Annual Non-Stormwater Discharge Dry Weather (July 1 to September 30)
Assessment & Certification

Completed by:
 Title:
 Date:

The dry season inspection shall determine the presence of unpermitted non-stormwater discharges such as domestic wastewater, wash water, or leachate to the stormwater drainage system.

Tests may include: visual observations of flows, odors, oily conditions, and other abnormalities; dye tests, television line surveys; and/or analysis and validation of accurate piping schematics

Inspection Date	Inspection Location	Method Used to Test or Evaluate Discharge	Flow Present (yes or no)	Identify Potential Significant Sources of Non-Stormwater Flow	Person(s) Who Conducted the Test

CERTIFICATION

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

A. Name & Title

B. Phone:

C. Signature

D. Date Signed

Appendix B Inspection Forms

FORM B-1.
Wet Weather Inspection

Completed by:
Title:
Date:

These inspections are to be performed and recorded quarterly. The wet weather inspection will be performed during a runoff generating storm to verify the functioning
Indicate which of the two inspections is performed by circling one of the two types of inspections above.

Inspection Date	Inspection Location	What to Look For	Condition

CERTIFICATION

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

A. Name & Title
C. Signature

B. Phone:
D. Date Signed

FORM B-2.
Preventative Maintenance Inspection

Completed by:
Title:
Date:

These inspections are to be performed and recorded quarterly. The wet weather inspection will be performed during a runoff generating storm to verify the functioning
Indicate which of the two inspections is performed by circling one of the two types of inspections above.

Inspection Date	Inspection Location	What to Look For	Condition

CERTIFICATION

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

A. Name & Title
C. Signature

B. Phone:
D. Date Signed

**FORM B-3.
Training Achievements**

Completed by:

Title:

Date:

Note all significant training achievements on this form including staff meetings, courses, and job training

Date:

Personnel:

Achievement(s):

**FORM B-4.
Sampling Event Log**

Completed by:
Title:
Date:

Parameter	Sample Date	Sample Time	Sample Location (1)	CAS Number	Analytical Method	Concentration Detected	Reporting Units	MDL (2)	PQL (2)	Sampler (3)

(1) Use Monitoring Plan Site Map ID
 (2) MDL = method detection limit; PQL = laboratory practical quantitation limit
 (3) Must be conducted by qualified person identified in the SWPPP