

## Chapter 2 – Stormwater Pollution Prevention Plan (SWPPP) for Park Operations



Bordered by Lake Washington & Lake Sammamish, the City of Bellevue has more than 60 miles of streams, 800 acres of wetlands and 3 small lakes (Larson, Phantom, and Bellevue) that provide rich habitat for fish and wildlife as well as a multitude of benefits that enhance the quality of life for Bellevue residents. Protecting these environmentally sensitive assets from the discharge of harmful pollutants is an important goal of the Parks & Community Services Department.

Stormwater accumulates a variety of pollutants as it runs over roofs, lawns, sidewalks, streets, compacted soils and parking lots before entering streams or groundwater. Pollutants commonly found in urban stormwater include heavy metals, pesticides and fertilizers, oil and grease, bacteria, and sediment. Stormwater runoff contributes to water quality problems that can endanger human health and wildlife.

Bellevue Parks & Community Services operates three maintenance facilities (Resource Management, Bellefields and Golf Course) that have areas where bulk materials are stored and equipment is washed. Bulk materials are also intermittently stored on a temporary basis at park sites when performing maintenance operations such as turf topdressing, infield replenishment and landscape renovation. If not properly managed, pollutants can be discharged from these facilities or sites into the City's stormwater system. The purpose of this section is to identify methods and procedures to reduce or eliminate the contamination of stormwater runoff or discharges of pollutants from

Notes:

Notes:

Bellevue Parks operations. The objectives of a Stormwater Pollution Prevention Plan (SWPPP) are as follows:

- Implement and maintain best management practices that identify, reduce, eliminate and/or prevent the discharge of stormwater pollutants from Parks maintenance facilities.
- Eliminate unpermitted discharges and other illicit discharges to the City's stormwater drainage systems.

## 2.2 Definitions

**Catch Basin** – A reservoir for collecting surface drainage or runoff. Most catch basins have some storage capacity in the bottom to trap sediments, debris and other particles that can settle out of stormwater.

**City's Storm Drainage System** – A conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that are owned by the City or used for collecting or conveying stormwater; which is not combined with sewer; and which is not part of a publicly owned treatment works (POTW).

**National Pollutant Discharge Elimination System (NPDES)** – Permitting program that is a requirement of the federal Clean Water Act, which is intended to protect and restore waters for "fishable, swimmable" uses. The Federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES-delegated permit authority is the Washington State Department of Ecology (DOE).

**Stormwater Pollution Prevention Plan (SWPPP)** – Provides recommendations on how to reduce pollutants in storm water discharges to comply with the National Pollutant Discharge Elimination Systems (NPDES).

## 2.3 Background

The Washington State Department of Ecology requires that the City meet the requirements of the NPDES and State Waste Discharge General Permit and Phase II Municipal Stormwater Permit. Condition of this permit requires that the City implement and maintain a SWPPP for all heavy equipment maintenance or storage yards, and all material storage facilities owned or operated by the City. The permit also

requires the City to include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs. The Resource Management, Bellefields and Golf Course maintenance facilities are included in the SWPPP since activities at these three sites can be categorized as heavy equipment maintenance or storage yards or bulk material storage facilities.

Notes:

## 2.4 Best Management Practices

### Good Housekeeping

“Good housekeeping” is an ongoing approach to improving and maintaining a clean and orderly work environment. Recommendations for good housekeeping are as follows:

- Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels and dust to prevent contact with any soil, vegetation or paved area exposed to stormwater.
- Sweep paved material handling and storage areas regularly as needed to collect and dispose of dust and debris that could contaminate stormwater. Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch or receiving water unless necessary for dust control purposes to meet air quality regulations and unless the pollutants are conveyed to a treatment system approved by the City.
- Clean accumulations of oils, debris, sludge, etc. from all BMP systems regularly, including catch basins, sedimentation basins, oil/water separators, boomed areas and conveyance systems to prevent the contamination of stormwater.
- Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking and any other drainage areas, which are subjected to pollutant material leaks or spills.
- Promptly repair or replace all leaking connections, pipes, hoses, valves, etc. which can contaminate stormwater.
- Use solid absorbents and rags for cleanup of liquid spills and leaks where practical.
- Dispose all green wastes in appropriate storage bins for regular recycling and disposal. All non-green waste and construction debris should be separated and disposed of separately. Contaminated green waste generated from street and parking

Notes:

lot sweeping should be handled separately and transferred to the Eastgate Yard or appropriate vendor who can accept contaminated waste.

### Perform Routine Maintenance

Over time, sediment and pollutants can accumulate in stormwater collection, conveyance and treatment systems, such as basins, ditches, storm drains and oil/water separators. These pollutants can include sediment and other substances such as oils, debris and sludge. When a storm event occurs, the pollutants can become mobilized and transported into receiving waters. Regular maintenance of the stormwater drainage system decreases the amount of pollutants available to contaminate stormwater. Routine maintenance elements and recommendations are described as follows:

1. **Catch Basins** – Catch basins at the Resource Management, Bellefields and Golf Course facilities shall be inspected annually and maintained according to maintenance standards consistent with the *Stormwater Management Manual for Western Washington* (Ecology 2005). Additional inspections may be warranted following major storm events (i.e. greater than 1 inch of precipitation in a 24 hour period).
2. **Parking Lot Sweeping** – Sweeping should occur monthly to reduce the amount of potential sediment entering storm catch basins and conveyance systems. This practice will help reduce the costs associated with commercial cleaning and repairs identified through the NPDES Utility inspection program.
3. **Stormwater Treatment Facilities** – The Resource Management & Golf Course facilities have equipment wash stations that treat stormwater through oil/water separators before discharging into the City's storm conveyance system. These treatment facilities shall be inspected annually and maintained using standards consistent with the *Stormwater Management Manual for Western Washington* (Ecology 2005). The separators shall be vacuor cleaned throughout the year as necessary.
4. **Drainage Systems/Ponds** – Inspection and maintenance of drainage conveyance systems and retention ponds should occur annually. Cleaning of inflow and outflow drains (i.e. removing built up vegetation) should be performed annually. These practices will extend the service life of the system and reduce long term maintenance costs.

## Spill Prevention & Response

Spills can contribute a variety of pollutants to the stormwater drainage system and nearby waterways, but this result is often preventable if appropriate practices for chemical and waste handling and spill response are implemented.

1. **Spill Prevention** – To reduce the potential for spills, the following practices shall be implemented:
  - Clearly label all containers that contain potential pollutants.
  - Store and transport liquid materials in appropriate containers with tight fitting lids.
  - Place drip pans underneath containers, fittings, valves and any other area where materials are likely to spill or leak.
  - Use tarpaulins, ground cloths or drip pans in areas where materials are mixed, carried and applied to capture any spilled materials.
2. **Spill Plan** – The Resource Management, Bellefields and Golf course facilities shall implement site specific spill plans to address small spills and leaks. These plans shall be updated annually and posted at appropriate points in the building, such as loading areas, product storage areas and waste storage areas. The spill plan shall include the following information:
  - Facility description including the address and telephone number, the nature of the facility and the general types of chemicals used.
  - Names addresses and telephone numbers of designated spill response employees who are responsible for implementing the spill.
  - Site drainage plan showing locations of storage areas for chemicals, storm drains and other relevant drainage or materials information.
  - Description of the emergency cleanup and disposal procedures.
  - Names and telephone numbers of agencies to contact in the event of a spill
3. **Spill Cleanup Kits** – Spill cleanup kits shall be stored near areas with a high potential for spills so that they are easily accessible. The spill kit contents must be appropriate to the types and quantities of materials stored or otherwise used at the facility

Notes:

Notes:

and refilled when materials are used. Spill kits may include the following items:

- Absorbent pads
- Sorbent booms
- Absorbent granular material (e.g. kitty litter)
- Personal protective equipment (e.g. latex gloves, safety goggles)
- Thick plastic garbage bags
- Drain cover

4. **Spill Cleanup & Disposal** – To minimize release of pollutants into the storm drainage system, the following procedures shall be implemented when there is a spill:
- Immediately report spills that involve potentially flammable or hazardous substances to the Bellevue Fire Department. Notify the Utilities 24-hour Emergency Response Line (425-452-7840) that an illicit discharge has occurred.
  - Immediately evaluate whether the illicit discharge can be safely contained or prevented from entering the drainage system and/or receiving waters.
  - Determine the responsible party, if possible.
  - Characterize the nature of the pollutant so that the appropriate personal protective equipment (PPE) can be utilized.
  - If you know what the substance is, follow the recommended procedures for containment/cleanup for that substance. If necessary, refer to the material safety data sheet (MSDS) for the substance.
  - If the substance is unknown, the following steps shall be taken:
    - If it is safe to do so, attempt to contain the spill. Use physical barriers, such as sand bags, or an absorbent, such as a pad or clay litter.
    - Do not use water or any other substances on the spill unless it is safe to do so.
    - Do not wash or push the substance toward the drain, indoors or out, until it has been identified and a safe cleanup method has been determined.

- Immediately notify your supervisor of the spill and what steps have been taken to contain it or identify the substance.
- If necessary, place warning signs or barriers around the area to keep people away.
- Do not use a vacator to clean up flammable substances.

Notes:

## Inspections

The Resource Management, Bellefields and Golf Course maintenance facilities shall be regularly inspected by the designated SWPPP Manger where heavy equipment and material storage areas are exposed to stormwater. During these inspections, staff shall assess how the stormwater BMPs are operating. Routine visual inspections shall occur at least quarterly during the wet season (October – March) and at least once during the dry season. Some types of equipment, processes and BMPs will require more frequent checks than others. Visual inspections of wash stations should occur monthly with a written log maintained each year of the person who made the inspection, the date of the inspection, and what action was taken as a result of the inspection. Removal and clearing debris from the separators should occur immediately after each inspection as required.

## Reporting & Recordkeeping

Records shall be kept of all inspections, observations and compliance documentation for each of the Resource Management, Bellefields and Golf Course facilities. The results of each visual inspection shall be summarized in an inspection report or checklist and be entered into the City's Maximo database. The visual inspection report shall include the following:

- Scope of the inspection and date.
- Major observations relating to the implementation of the SWPPP.
- Summary of the actions which will be taken to meet NPDES Municipal Stormwater permit requirements.
- Tracking procedures to ensure that an inspection report is prepared and appropriate corrective actions take.

Notes:

## 2.5 Training

All staff members shall be trained annually on safe techniques for handling materials, spill control procedures and operations and maintenance of BMPs to prevent illicit discharge of pollutants into the City's stormwater system. All pollution prevention team members shall be trained annually in the operation, maintenance and inspections of BMPs. This training will be documented for compliance with NPDES Municipal Stormwater permit requirements.

