# CONTAMINATION MANAGEMENT

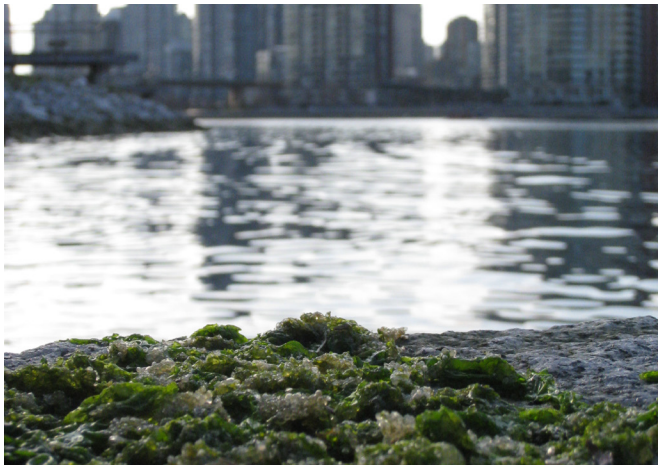

Photo Source: PWL Partnership Landscape Architects Inc.

## PART 1: PURPOSE AND DEFINITION

The purpose of this BMP is to provide for the planning and maintenance of an uncontaminated park system that may result during excavation work. It provides guidelines for the health and safety of construction workers as well as the protection of park sites for the health and safety of park users, the flora and fauna found within the park system, and to eliminate the potential for the spread of contaminants to other areas during construction work, whether by removing soils from the site, releasing particulates into the air or allowing contaminates to leach off site.

Common sources of contamination include underground storage tanks, railway ties and tracks, creosote piles, and known or suspected contaminated areas, such as manufacturing facilities, service stations, dry cleaners and junkyard or salvage properties or other sites types as listed in BMP 000 Importing Fill Material. Signs of contamination may include a rainbow sheen on soil or groundwater, discoloration of the soil, floating oil or fuel, and unusual odours. Many of these contaminants can be identified during the planning phase by consulting the city database for known contaminated sites and by consulting with the City of Vancouver Contaminated Sites Team (CST) prior to excavation.

## PART 2: APPLICATIONS AND LIMITATIONS

This BMP applies to all VPB worksites where excavation will occur. While site contamination may be more likely in new park construction, particularly on sites that have experienced previous uses as listed above. However, the same procedures as listed below should be followed where excavation is to take place within existing VPB parks. This can include but is not limited to fencing, irrigation, drainage system and play field installations.

When contaminated materials are suspected to be present, workers should protect eyes, lungs and skin from potentially contaminated material. In addition to avoiding vapour inhalation, contact with the material, and recognizing potentially flammable material all workers should wear at a minimum a respirator with an organic vapour cartridge as required, gloves, safety glasses, pants and long sleeve shirts. For additional worker precautions the CST should be contacted.

## PART 3: GUIDELINES

Guidelines are listed below that describe the procedures to take when contamination is encountered. However, as previously mentioned, it is important to note that many issues can and should be avoided by consulting CST and the city database of contaminated sites during the planning phase. These steps will help limit the discovery of unexpected contamination and will allow for removal of the contaminants more effectively and under optimal conditions. However, there are still instances in which unexpected soil or groundwater contamination is identified after excavation begins. In these circumstances the Site Supervisor must:

- Stop excavation work and call CST immediately to seek advice.
- Inform the Operations Superintendent and work crew they may have encountered contamination during excavation.
- Implement required health and safety procedures in accordance with Exposure Control Plan and use PPE related to the contaminated material.
- If approved by CST (or their pre-qualified environmental consultant) and if there is sufficient space, stockpile suspect contaminated soil on 6 Mil polyethylene liner and ensure stockpile is not located near or upslope from a storm sewer catch basin.
- Not relocate soil offsite until required licensing, documentation and disposal facility has been confirmed by CST. NOTE: known or suspect contaminated soil cannot be transported to Kent Yard; suspect contaminated soil with pending laboratory results cannot be transported to the Vancouver Landfill until classified by CST.
- Ensure excavation water is not discharged to storm sewer until CST (or their pre-qualified environmental consultant) has confirmed treatment is not required.
- Not leave site at end of day until stockpiled soil is covered with 6 Mil polyethylene liner.
- Work with CST (or their pre-qualified environmental consultant) to monitor removal of contamination and conduct appropriate sampling as determined by CST.
- If required, have Operations Superintendent obtain Waste Discharge Permit as required under the City of Vancouver's Sewer and Watercourse Bylaw No. 8093 and the Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007.
- If required, ensure groundwater treatment system operates correctly and that CST (or their pre-qualified environmental consultant) conducts required sampling.
- Keep records of the amount of contaminated soil removed offsite and the disposal location.
- Ensure any Hazardous Waste (as identified by CST) is transported in accordance with the Hazardous Waste Regulation (i.e. License to Transport and Provincial Waste Manifests utilized; waste transported to facility permitted to accept Hazardous Waste).
- Maintain all records of loads of Hazardous Waste transported from the work site to the disposal site.
- Provide all documentation of contamination transportation and disposal to Operations Superintendent.

END OF BMP