

Officials mute on possible contamination at Everett Crowley Park

Are areas of Everett Crowley Park contaminated? Are the tons of toxic waste and debris dumped at this location over the 30 years it was the municipal dump, and now covered with a veneer of topsoil, a health hazard? Or, has it broken down into benign substances?

Recent concerns by local residents prompted The REVUE to do some investigating, the results of which are enlightening and disturbing.

In 2014 a report was commissioned by the City of Vancouver to investigate this very issue. Entitled the Environmental Review at Everett Crowley Park (former Kerr Street Landfill), it was conducted by SynergyAspen Environmental Inc. However, it appears the report was never made public and was only released by the City Clerk's Office in August 2023 in response to a Request for Access to Records under the Freedom of Information and Protection of Privacy Act.

Despite some of the information in the report being redacted, SynergyAspen's recommendations weren't. They included:

- uneven terrain and 'garbage' at surface along the bank of the new Kinross Creek;
- poor growing "hot spot areas" in the park, due to landfill gas venting;
- significant iron fouling within the storm sewer drains connected to the interception drain and at surface in its vicinity.

At the time, SynergyAspen recommended a Long-Term Monitoring and Maintenance Plan including the installation of:

- Groundwater assessment wells to establish groundwater flow regime between the former landfill area and New Kinross Creek and Avalon Pond;
- Sentinel wells to provide an indication of the landfill cover thickness at all drilled locations;
- Effluent discharge sampling flowing into the sanitary sewer system and data to be included as part of the long-term maintenance monitoring data;
- Landfill Gas Monitoring to measure the methane, O₂, CO₂ and temperature levels to determine where the highest gas venting points are located;
- Detailed South Slope Assessment including complete slope stability analyses.

Were these recommendations acted upon? Is long term monitoring taking place? If so, where are the results?

These questions were posed in emails sent to Civic Engagement & Communications at the City of Vancouver, Green Party City Councillor Pete Fry, the Vancouver Park Board, and SynergyAspen Environmental Inc.

The email was also sent to the Everett Crowley Park Committee, a sub-committee of the Champlain Heights Community Association made up of park users and local residents who "are working to see this green space protected and enhanced for the long term."

All have acknowledged receipt of the email but at press time none had responded.

Everett Crowley Park – toxic landfill to urban wilderness

During the 1930's, it was common practice to dump garbage into the ravine formed by Kinross Creek, a stream that drained the vast uninhabited area in the southeast



Construction waste like this corroded pipe is not uncommon to find adjacent to the mulched trails that meander through the park.

corner of Vancouver into the Fraser River. Filling of the ravine started on the western side, adjacent to Kerr Street, with mostly residential garbage.

At that time as well, and through to the late 1960's, a sand and gravel quarry operated primarily in the northeast portion of the area and uphill from landfill.

In 1946, the area was officially declared the Kerr Street Dump and became the primary landfill for the City of Vancouver until 1966. At the same time, Kinross Creek was diverted around the fill area by the installation of a steel culvert along the eastern side of the ravine. At the time, the culvert ran under Marine Drive, through what is now Kinross Ravine Park, to the Fraser River.

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In the early 1950's oily wastes were prohibited and in 1956 septic tank waste were also banned.

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During the 1960's, roofing companies were permitted to dispose of unused barrels of tar in the ravine. As late as 1988, it was reported some hikers discovered an area where a tarry substance was visible at surface. Environment Canada advised the City of Vancouver Parks Board to bury this area and until 1996 the Parks Board staff covered the tarry area with soil from other areas of the city. There is no information available indicating exactly where that area is. where a tarry substance was visible at surface.

After 1966 and for the next 2-3 years, the site was used for disposal of clean fill (reported to be heavy clay) and demolition debris, from building excavations, with the majority of the fill placed in the area of the former ravine.

Depth of the landfilling activities ranges from 49m in the central area of the former ravine to an average of less than 12m across the remainder of the site. The total volume of waste deposited in the ravine and the surrounding area has been estimated at 3.8 million cubic metres, with yearly quantities ranging from 230,000 cubic metres in 1946, 295,000 cubic metres in 1950, to a high of 490,000 cubic metres in 1956.

Closure of the landfill was completed with the placement of a 1.5 metre soil cap across the entire area of the former landfill.

About the same time, the quarry was abandoned. The sand and gravel had been excavated below the water table and had formed an irregular shaped pit approximately two hectares in area and 15-18 metres deep. Groundwater and surface drainage filled the pit, creating what is now Avalon Pond and a small stream (previous landfill drainage ditch), is now the new Kinross Creek.

Following the completion of covering and filling, the site was abandoned and allowed to naturally re-vegetate.



Amidst the tangle of invasives species (morning glory) that proliferate throughout the park, dead zones, possible "hot spots of venting menthane, are still apparent.



*Tree dieback in the park (as shown above) is likely caused by landfill contamination just beneath the surface.
- All photos by Bibianna Husar-Geddes*

Over the period of 1967 to 1973 the area was reported to have settled one metre. In 1974 the site was placed in the care and custody of the City Parks Board.

Ten years later, based on potential toxicity concerns raised by the Ministry of Environment, a 96-hour LC50 assay test was conducted. Such a test determines the concentration of a substance that is lethal to 50% of a test population within a 96-hour exposure period. This assay is a common method for assessing the acute toxicity of chemicals, especially in aquatic systems. The results have not been made available but following the test the drainage from the steel culvert installed in 1946 in Kinross Creek ravine was routed to the Metro Vancouver sanitary sewer.

At the same time a PVC drain was installed on the north side of SE Marine Drive to collect a leachate seep emerging in the road ditch east of the current Kinross Ravine Park.

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In the early 1970's the former landfill was a popular location for motocross riders. Many of the trails now present at the park were originated during that time. This activity continued until 1975 when they were banned from the site after it was put in the care of the Parks Board.

Another activity that changed the topography of the former landfill was hang gliding. In 1983 the BC Hang Gliding Association proposed to the Parks Board the construction of a temporary training facility. Construction began in 1983 with 2,000 truckloads of 'clean' fill from commercial excavations producing a rough hill, which is now known as Mount Everett. The facility opened in 1985 but was abandoned shortly thereafter due to the hill being too low and too close to trees.

Everett Crowley Park was opened to the public in 1987. On the Park Board website, it's described as "a recently developed green sanctuary, offering a lush woodland feel. Before being redeveloped by settlers, this area was a coniferous forest of hemlock and cedar trees, with a beautiful waterfall and salmon-bearing creek running through a natural ravine."

The REVUE will continue to endeavour to get answers from city staff and elected representatives about possible contamination and whether the recommendations of the 2014 report were implemented. In the meantime, report any environmental concerns to:

Vancouver Coastal Health
<https://www.vch.ca/en/health-topics/health-protectino-permits-and-licensing>

MetroVancouver Environmental Management and Testing: <https://metrovanvancouver.org/services/liquid-waste/environmental-management-and-testing>