

6.0 MONITORING PROGRAM:

A ground and surface water monitoring program has been established for the Burlington Landfill Site. It is recommended that the program be maintained. Several modifications should be made to reflect the need to monitor in the continued use areas B and D and to further define the leachate plume characteristics.

Following is a summary of the recommended program:

Surface Water - (4 times annually)

Falcon Creek SW1, SW2, SW3 (if flowing)

Indian Creek SW4, SW5, SW6, SW7, SW10, SW11 (if flowing)

Ground Water - (once annually)

BH1-I, 1-II

BH2-I, 2-II

BH7-I, 7-II, 7-III

BH12-I, 12-II, 12-III

BH13-I, 13-II

BH14-I, 14-II

BH15-I, 15-II

BH16-I, 16-II, 16-III, 16-III

BH17-I, 17-II, 17-III, 17-III

BH18-I, 18-II, 18-III

BH21-I, 21-II, 21-III

BH22-I, 22-II, 22-III

- Leachate - (4 times annually)
 - First Manhole on toe-drain downgradient of landfill

Parameters for Surface Water, Ground Water and Leachate

Conductivity	Magnesium
pH	Calcium
Hardness	Sodium
Alkalinity	Potassium
Chlorides	Iron
Sulphates	Phenols
Phosphorous (total and soluble)	Biological oxygen demand
Total Kjeldahl Nitrogen	Chemical oxygen demand
Free Ammonia	*Total Coliforms
Nitrite	*Fecal Coliforms
Nitrate	*Fecal Strep

*Surface Water Only

In addition we recommend that:

- Water level measurements be made at least 3 times a week at the Falcon Creek weir at SW3.
- Ground water levels be measured once annually
- Leachate flows in the toe-drain be continuously recorded (the meter should be checked twice weekly to ensure operation is maintained).

- Selected samples of ground water and leachate be tested for volatile organics to ascertain which parameters may be indicative of leachate movement.
- An annual visual inspection during spring or early summer of the creeks and landfill for leachate springs.
- An annual review and assessment of the monitoring data be carried out and a report prepared for submission to the Ministry of the Environment.
- There is no current need for gas monitoring as discussed in Section 4.4.

The monitoring program as described above may be modified from time to time depending on the results of the analysis and review by the Ministry of the Environment.