

MEMORANDUM

TO: Toby Vigod
FROM: Frank Giorno
DATE: March 21, 1984
RE: Appendix B - Planning Assessments

Purpose

The purpose of Appendix B is to determine the possible impacts of continued use and the planning instruments already in place. The following are investigated:

- a) surrounding land use
- b) economic activities

as the eventual potential affects from the landfill site.

Planning Instruments

- a) the Parkway Belt Plan
- b) Halton Region Plan
- c) Burlington Official Plan
Official Plan amendment #49
- d) City By-law 4000/3

Existing ConditionsResidential

Of 139 residential units only 6 will see the completed portion of the site. There are no residential units on the North Service Road. Dillon concludes that no impacts are anticipated except for some increased visual exposure by 6 dwellings.

Industrial and Commerical

Two firms are located nearby on the North Service Road, Tridon Ltd. and the Cumis Group. Dillon states that there will be no increase in the existing traffic levels.

Open Space

Open Space recreational activities will not be effected by the landfill's continued operation. The raised contours of the landfill site, however, it will be visible from Bayview Park and also from the Burlington Rod and Rifle Club.

FG:dlb

MEMORANDUM

TO: Toby Vigod
FROM: Frank Giorno
DATE: March 20, 1984
RE: Dillon's Burlington Landfill Site -
Proposed Continued Use
Study, February 1984
Partial Documentation in Support of an Application
for Certificate of Approval

Purpose

This report is the basis for an application for a certificate of approval for the continued use and expansion of the Burlington Landfill Site through until 1987.

Background

- established by the City of Burlington, assumed by the Region in January, 1974.
- April 1980 - a hearing before the Environmental Assessment Board to consider expansion of the site.
- There is a contradiction found in the figure for the approved hectares between the June 1983 report (36 hectares) and the February 1984 report (29.3 hectares). Since 1980, Dillon has done updates on the site's capacity.
- The site will be completed by August, 1984. This contradicts the June 1983 report which states that the capacity will be completed by June of 1984.
- A report entitled Burlington Landfill Site, report on possible continued use - revised October 20, 1983 is referred to.

The Existing Site Operations

- This portion discusses the routing of the vehicular traffic through the landfill site.
- The procedure for weighing of the vehicles and recording with weight.
- The description of the dumping and compacting procedures.
- A description of the equipment on hand.

Waste Quantities and Characteristics

Rates of Refuse Generation

- This section reiterates the finding of the June 1983 reports.
- Until recently a 2.5% increase yearly was experienced.
- In 1983, refuse generation dropped by 10% below the 1982 levels.
- Studies project a short-term growth in garbage. See page 1.

Waste Characteristics and Control

- Only municipal and private haulers collecting waste within the region will be accepted at the site.
- Acceptable waste includes:
 - solid domestic
 - commercial
 - institutional
 - industrial
 - construction debris
 - demolition debris
 - street cleaning
 - public utilities
 - and other municipal activities
- Specifically excluded from disposal at the site:
 - pathological wastes
 - industrial chemicals and sludge
 - liquid industrial wastes
 - hazardous and toxic substances
 - septic tank pumpings
 - radioactive wastes
 - sewage sludge

- the hauler must prove the waste is acceptable prior to its being accepted
- the scale operator has power to refuse any load.
- during the operating phase, the waste is visually inspected by the operators and they are in power to isolate unacceptable loads and can order haulers to remove unacceptable wastes

Traffic Analysis

- Minimum traffic flow changes as a result of the continued use

Site Development

- Continued development is consistent with the Ministry regulations and guidelines for the location and operating of landfill sites. Continued use of landfill will integrate landfill development and ultimately closure of presently approved design.
- base and final contours, surface drainage and leachate control systems will all be extensions of those working currently
- consistent with sound engineering design, the waste capacities were maximized to derive the largest possible landfill site life.

Parkway Belt West Plan and Planning Assessments

- Landfill site use conforms to Parkway Belt West Plan
- After rehabilitation, the site will assist in achieving the goal of a link openface framework. No explanation as to what this is
- planning assessments to determine the possible impacts of the surrounding landuse, population and economic activities found no significant impact.

Design Approach

- the phased concept permits landfill to close prior to completion of final phases
- extending operations in phases makes it possible to use a capacity that is required prior to a regional site opening.

The Four Phases

- Phases A and C - can be carried out above existing landfill grades
- Phases B and D - extends the limits of the fill into the existing buffer zone.

Design Considered

- the final and base contours
- design of surface drainage
- leachate control works
- (the volume of available landfill is the difference between the final and the base contours.)

Falcon Creek Valley Contingency Plan

- approved by regional council
- design an interception system should groundwater program indicate leachate was degrading the Falcon Creek
- the contingency plan will be redesigned as part of the application
- the base contours, the design of the leachate control works and the monitoring program were based on the hydrogeological study done by Gartner Lee

Final Contour Design

- the maximum proposed elevation occurs with Phase D and is 10 meters higher than the presently approved final contours
- slopes will have a maximum grade of ratio of 4:1 and a minimum grade of 5%.
- this design will promote surface draining without erosion
- the toe of the slope coincides with limits of landfilling and will be set back a minimum of 10 meters from the brow of the ravine slopes to allow sufficient area for drainage work and construction

Surface Drainage

- presently surface is drained by three ditches:

A. West Ditch

- flows through sediment basin to Falcon Creek
- landfill changes will increase drainage from 11.5 hectares to 3.4 hectares

- that represents a 17% increase
- the ditch will have to be extended by 200 meters
- increase flows will necessitate upsizing of some culverts
- a survey check on the ditch will be undertaken

East Ditch

- the East ditch drains to an intermittent tributary of Falcon Creek
- contour changes in the southern portion of the site will decrease drainage area from 8.6 hectares to 7.7 hectares.
- East ditch will continue to function satisfactorily after the expansion

The Northeast Ditch

- the Northeast drainage ditch drains into the Indian Creek watershed
- this drain will have to be relocated to intercept drainage from the new landfill slopes and directed to the gulley on the Indian Creek watershed
- it will drain only 3 hectares of landfill, that is .2 hectares less than before, but field observations suggest that erosion protection of the gulley will be needed

The New Perimeter Ditch

- a new ditch will be constructed along the eastern limits of Phase B to flow into a gulley that flows into Indian Creek.
- it will have a drainage area of 3.8 hectares
- some erosion is anticipated because of the increase flow to the gulley

Off-Site Water Courses - Falcon Creek

- 220 hectare drainage area
- site changes will add about .8 hectares
- impact from the additional landfill area will be minimal

Indian Creek

- drainage area will be reduced, but surface cover changes and grade increases will increase the runoff rate, rate of flow, depths and velocities
- a 50% increase in peak flow will be experienced by the intermittently dry tributary of Indian Creek at the property boundary of the National Sewer Pipe land

Rehabilitation and Afteruse

- recommends progressive rehabilitation as stages are completed
- potential uses include:
 - a) forestation
 - b) experimental planting area
 - c) picnicing grounds
 - d) trails for hiking and cross-country skiing
 - e) open fields
 - f) agriculture (this suggestion was discarded)
- in addition, natural method of succession was also rejected because the process would take too long and it would violate the weed control legislation

First Concept

- reforestration with restricted public access
- experimental planting to test effect of ambient soil conditions on tree growth

Second Concept

- some public use for passive recreation while most of the site will be maintained for natural forest succession, reforestration and some experimental planting
- connect Parkway Belt, Bayview Park and completed portions of the site and the Falcon Creek Ravine (Sassafaras Woods) for hiking trails within these areas
- picnicing at the top of the land formation where there will be a view of Burlington to the south

FG:dlb

MEMORANDUM

MEMO TO Toby Vigod
FROM Frank Giorno
DATE March 21, 1984
RE Appendix A, Burlington Landfill Site, Proposed
 Continued Use, February 15, 1984

Appendix A examines the application of Parkway Belt West Plan to the proposed landfill site expansion.

Background

- the Burlington Landfill is controlled by Ontario Regulation 472/73
- the Parkway Belt planning area was enacted in 1973 and the Parkway plan was approved by cabinet in July 1978
- Ontario Regulation 263/79 was enacted to exempt municipalities from regulation 472/73 for the delivery of public services
- however, municipalities still are required to comply with the requirements of the Parkway Belt West Plan
- the Parkway Belt planning area supercedes all other existing regional or city by-laws within the Parkway Belt planning area
- lands in the planning area can only be developed for agricultural or uses approved prior to the passing of the regulation
- existing uses are also permitted uses
- landfill site was established in 1972 and pre-dated the passing of Regulation 472/73 and therefore is a permitted use

Planning Evaluation

- goals and objectives - the goals are general in nature
- Dillon argues that the goals and objectives cannot be used to assess the conformity of development applications

- these goals and objectives are directed only towards the establishment of a Parkway Belt

Land Use Designation

- the landfill is designated as a part of the escarpment link
- it is referred to as a public use area - public open space and buffer area
- one of the proposed continued use sites is designated as a complementary use area - general complimentary use area

Public Use Area

- Dillon views the public use areas as not specifically defined leaving much room for interpretation.
- Dillon argues that landfills are permitted under section 5.4.1(e) which states that other public uses of land is permitted subject to satisfying the following conditions:
- all natural features are preserved to maximum possible extent
- structure must have a very low lot coverage with limited height and no appearance
- it must have an open space character
- landscaping and berms must be provided where necessary
- it must satisfy any other condition in order to adhere to provisions of the plan
- Dillon argues the expansion of the landfill site will not conflict with any of the above five conditions
- Dillon argues that these conditions are not intended to prohibit development but rather to guide it
- Dillon concludes that none of the conditions preclude the continuation of the landfill operation

Implementation

- all municipal and regional official plans and zoning by-laws must be brought into conformity with the Parkway Belt West Plan