M E M O R A N D U M

TO: WEST BURLINGTON CITIZENS GROUP FILE

FROM: FRANK GIORNO

RE: OWMC FACILITIES DEVELOPMENT PROCESS
PHASE 1 REPORT, SEPTEMBER 1982
PHASE 3 INTERIM REPORT: SELECTION OF CANDIDATE SITES, MAY 1983
PHASE 3B: SELECTION OF CANDIDATE SITES, DECEMBER 1984

DATE: FEBRUARY 4, 1987

I. OWMC FACILITIES DEVELOPMENT PROCESS PHASE 1 REPORT, SEPTEMBER 1982

A. The Hydrogeological Inventory for Waste Facilities Development - Southern Ontario

Milton - Figure 7 - A hydrogeological map of Southern Ontario produced by Gartner Lee Associates indicates that the Milton location is within Zone 2 which is described as follows:

> "Subsurface conditions generally consist of a variety of geologic materials and/or variability within a single geologic unit. Variation in geologic and hydrogeologic characteristics exist but this terrain may locally provide natural containment of potential contaminants."

West Burlington - Figure 7 indicates that the West Burlington site is located within Zone 6 which is described as follows:

> "Subsurface conditions are generally controlled by bedrock. Overburden will normally allow rapid movement of groundwater to the rock. Flow in the upper rock mass is commonly associated with open fractures. These conditions usually do not provide natural containment of potential contaminants."

p.36 B. Since it may be difficult to find an acreage suitable for such a facility in Zone 1 on industrially zoned or Crown-owned land, more analysis is required of industrial parks, Crown land and available industrially-zoned land located in Zone 2. Zone 1 subsurface conditions generally consist of silt and

clay soils. These soils normally have lateral and vertical textural uniformity. As such, this terrain exhibits predictable geologic and hydrogeologic characteristics that will naturally restrict potential contaminant movement.

II. OWMC FACILITIES DEVELOPMENT PROCESS
PHASE 3: INTERIM REPORT: SELECTION OF CANDIDATE SITES, MAY 1983

- Included Town of Milton sites.
- Excluded West Burlington and areas having exposed bedrock.

III. OWMC SITE SELECTION PROCESS
PHASE 3B: SELECTION OF CANDIDATE SITES, VOLUME 1 - GENERAL CHARACTERISTICS AND THE IDENTIFICATION OF SITE AREAS, DILLON, DECEMBER 1984

A. Volume 1 describes the selection process, the principles, goals, objectives, etc.

p.iii Executive Summary

The site selection process was designed to provide a second level of protection of the environment beyond that provided by the design and operating procedures of the facilities. As a result, the site sleection process focused on locations which minimized the potential for off-site releases of contaminants which maximized the potential for the detection, containment and clean-up of contaminants, and which minimized the potential for exposure of contaminants to people.

p.iv Areas were excluded when they had the following characteristics:
- Failure to provide second level of environmental protection;
- Probability of major potential risk or impact that was not readily mitigatible;
- Sufficient confidence in the accuracy of the data regarding severe constraints to exclude unsuitable areas.

p.viii Before it was possible to compare siting options, it was first necessary to define the major components of each option. This meant a preliminary identification of preferred access routes from the 400 series of highways to and between sites.

B. Initial comparative evaluation of siting options

The consultants ranked their factors from suitable to unsuitable and rated the options in terms of these various levels of suitability:

Level 5 - severe relative risk
Level 4 - major relative risk or impacxt
Level 2 - suitable
Level 1 - highly suitable

The data employed in stage 3B site selection were largely obtained from secondary sources such as air photo interpretation, agency interviews and preliminary roadside field checks.

p.xvi Milton Sites

Siting option LF-4N (integrated) was found to be most constrained because of problems with air dispersion. An incinerator could not be located at this site.

Siting option LF-4N/PI-1N was found to be suitable for landfill and physical/chemical treatment. It was found to have
- favourable hydrogeology
- favourable regional transportation access.

Siting option LF-4N/PI-13N was found to be more favourable than the other Milton site because it was further removed from the Niagara Escarpment. It also had
- favourable hydrogeology
- favourable regional transportation access.

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