

M E M O R A N D U M

TO: WEST BURLINGTON FILE

FROM: FRANK GIORNO

RE: SITE SELECTION PROCESS - PHASE 4A
TECHNICAL APPENDIX SURFACE WATER CONSIDERATIONS
CANDIDATE SITE LF-4N

DATE: FEBRUARY 4, 1987

Flood Susceptibility

- p.106
 - Site LF-4N is fairly flat, gentle slope from 186 metres a.s.l northeast to 182 metres a.s.l in southeast corner.
 - It is moderately well drained with a permanent wetland on the southeast corner.
 - 2 ha in the extreme northwest and southwest are part of the Indian Creek flood plain.
 - A minor tributary of Indian Creek exists to the east but it is not significant.
 - 4 swales conveying runoff eventually flow into Indian Creek.
- p.108
 - Inadequate culvert outlets near the site. Because of the flatness of the site, overlapping of the roads results in on-site flooding.
- p.110
 - Recommends siting the landfill facility to the east away from potential flood area adjacent to Bell School Line.

Drainage Improvements

- Improvements required to on-site drainage system.
- Peak flows will increase because of developments of on-site slopes from landfilling.
- Some downstream channel and culvert improvements can be expected.

p.113 Surface Water Use

- Information gained from walk and talk survey and from questionnaire.
- Surface water from Indian Creek used for livestock.
- Domestic use wells drawn from drilled, bored or dug wells supplemented by cisterns.
- There appears to be low potential for interference with potable waters because no surface waters were identified for potable purposes downstream from the storm water outfall.

Regional Water Use

- Based on permits to take water (PTTW) issued by MOE.
- 12 PTTW identified in study areas: 11 for irrigation purposes such as agricultural crops, market gardening, tree nursery and golf course.
- No municipal or industrial permits were identified.

Dowstream Water Users Index (DSWUI)

- This index identifies low volume sensitive water users downstream, i.e., potable water supplies.
- The total stream length through rural, wooded and recreational land would provide an index of the extent of potential sensitive water use.
- The DSWUI was calculated for streams downstream from projected storm water outfall for each site.
- The DSWUI was used to allow inter-site water use comparisons.
- The DSWUI for LF-4N is 21.4.

Access Routes and Stream Crossings

The stream crossing distances for alternative routes to LF-4N are:

Preferred access route to LF-4N	
from Highway 401	- 2,210 metres
from QEW	- 3,985 metres
LF-4N to Pl-13N	- 2,185 metres

Rail Access

- Rail access crosses 1 to 2 minor streams.
- No floodplains or wetlands are crossed.

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SUMMARY OF FINDINGS

Flood Susceptibility

- LF-4N is characterized by poor topographic relief.
- Is considered only moderately well drained.
- There is a permanent wetland near the south boundary.
- Small areas in the extreme northwest and southwest are designated floodplains.
- Inadequate culvert capacity can cause flooding.
- Swales downstream from culverts #16 and #17 do not appear to have sufficient capacity to prevent flooding.

Drainage Improvements

- Drainage can be conveyed by perimeter ditching to existing outlets.
- Or all site run-off can be rerouted to Indian Creek outlet at the southwest.
- No rerouting of runoff or major channelization or ditching around the perimeter is anticipated.
- 1,400 metres of downstream channelization may be required if existing outlets are maintained, except if run-off is rerouted to Indian Creek.
- Four culverts require replacement, if existing outlets are maintained, but only 2 if run-off is rerouted to Indian Creek.
- Stormwater management ponds may be used to reduce post development flows.

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Water Use

- Local water use is considered to be relatively minor.
- Surface is not used for potable supplies.
- Streamwater is used for livestock.
- 12 MOE PTTW were identified.
- Regional use of water is mainly for irrigational purposes.
- No municipal water intakes were identified.
- The DSWUI - 21.4.

Access Routes

- Access routes cross streams with a significant potential for interference in the event of an accidental spill.
- There are 3 major stream crossings.
- Stream crossing distances range from 400 to 3,985 metres.
- The access road DWSUIs range from 87.4 to 350.9.
- Rail access crosses 1 to 2 minor streams.

M E M O R A N D U M

TO: WEST BURLINGTON CITIZENS GROUP FILE

FROM: FRANK GIORNO

RE: LOCATION OF SITE D AND LF-4N OWMC

DATE: FEBRUARY 4, 1987

SITE D

Site D is located between Highway 25 and First Line south of Britannia Road in the Town of Milton, on Lot 3 and parts of 4, Concession 11 of the former geographical Township of Trafalgar.

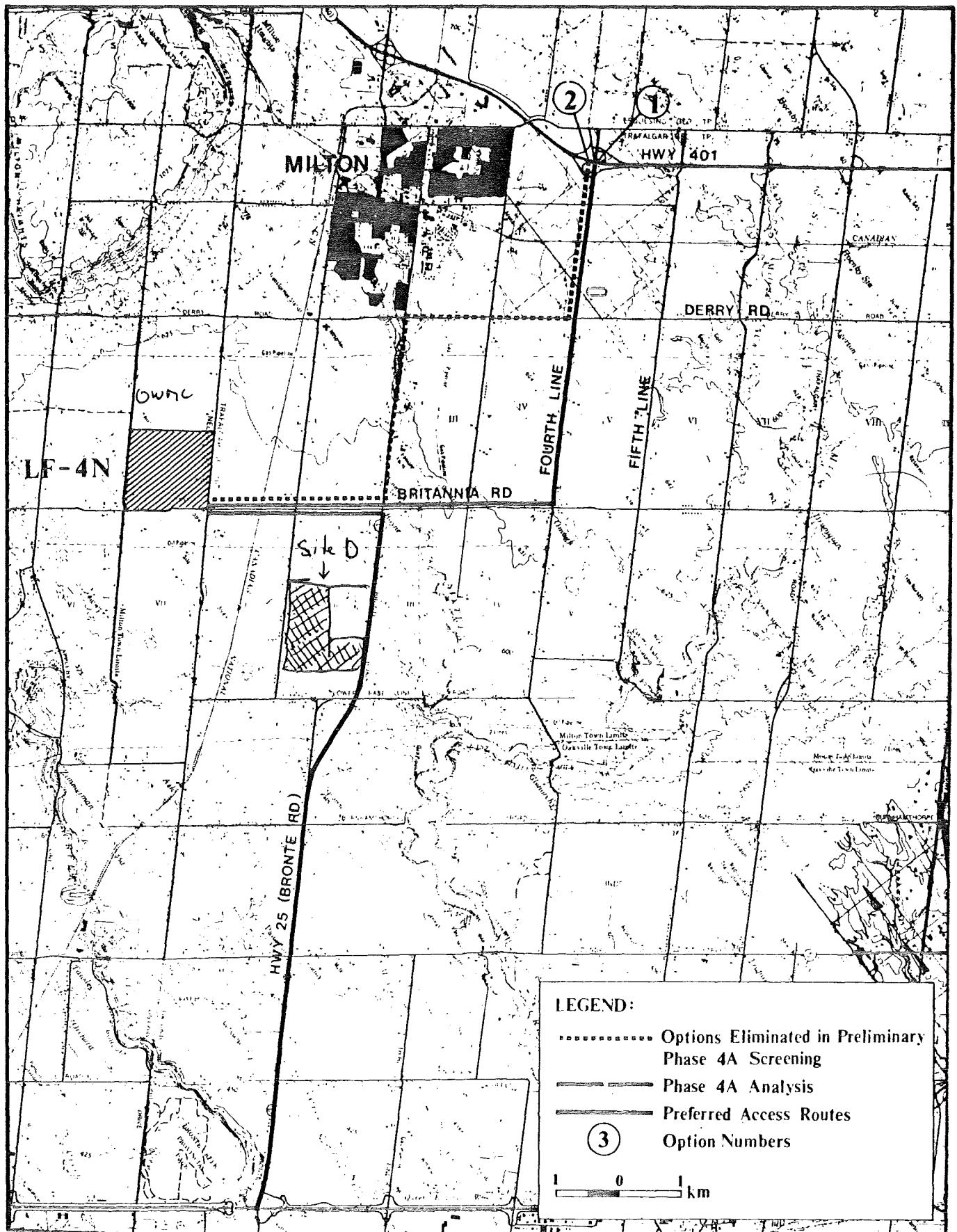
The Regional Study Area is located between Highway 25 and First Line south of Britannia Road, Tremaine Road, Lower Baseline Road and 16 Mile Creek.

OWMC SITE LF-4N

Includes Lots 6 and 7, Concession 7, Town of Milton, formerly the Township of Nelson. It is bounded on the northeast by Tremaine Road West (Regional Road 22), on the southeast by Britannia Road (Regional Road 6) and on the southwest by Bell School Line.

See attached map for more detail.

/lg
Att.



LF-4N/PI-1N
TO LF-4N
PHASE 4A ACCESS ROADS
FIGURE 6.2