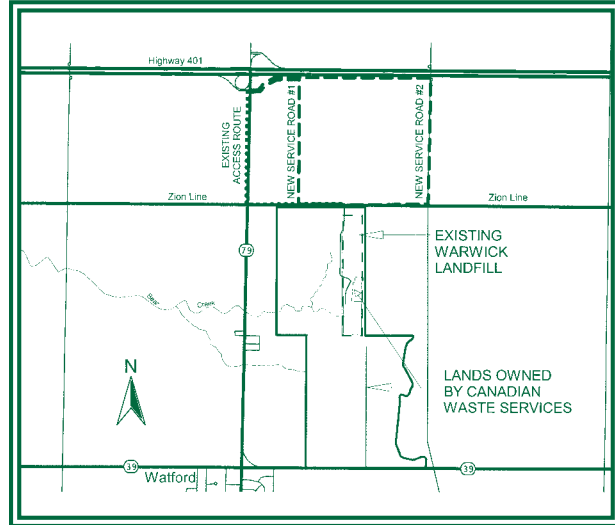


Access Routes Alternatives and Proposed Evaluation Criteria

The current access route to the existing landfill site for all traffic is along Highway 402 to County Road 79, south to Zion Line, then east to the site entrance. In the ToR, CWS identified the following alternative routes for regional access to the site from Highway 402.



- **Existing Haul Route:** County Road 79, south to Zion Line, then east to the site entrance
- **New Service Road #1:** A new service road east from the existing Highway 402/County Road 79 interchange then south to Zion Line in alignment with the site entrance.
- **New Service Road #2:** A new service road east from the existing Highway 402/County Road 79 interchange, then south to Zion Line along the opened road allowance, then west to the site entrance.

Who to Contact...

If you would like more information on the proposed expansion, please call the toll-free Warwick landfill information line at 1-800-555-3561 or For additional information or to discuss the public consultation program, please contact:

Peter Homenuck
IER Planning, Research and Management Services
7501 Keele St., Suite 300
Concord, ON L4K 1Y2
Fax: (905) 660-7812
E-mail: phomenuck@dpra.com

To discuss CWS' proposed landfill expansion, you may also wish to contact:

Kevin Bechard
Divisional Vice-President
Facility Development
Canadian Waste Services
3525 Mavis Road
Mississauga, ON L5C 1T7
Phone: (905) 615-8800 Ext. 23
Fax: (905) 615-1113
E-mail: kbechard@wm.com

If you have questions or comments on the day-to-day operations of the Warwick landfill site, contact:

Reid Cleland
Landfill Manager
Warwick Landfill
8039 Zion Line, R.R. #4,
Watford, ON NOM 2S0
Phone: (519) 849-5810
Fax: (519) 849-5811
E-mail: rcleland@wm.com

Assessment Criteria for Haul Route Alternatives
Public Health and Safety – Risk of contact with spilled hazardous or dangerous waste materials, potential for traffic collisions, effects due to fine particulate exposure.
Natural Environment and Resources – Disturbance to terrestrial and aquatic ecosystems, disruption to recreational resources
Social and Cultural – Disruption to use and enjoyment of residential and agricultural properties due to nuisance effects, disturbance to local traffic networks along the haul routes, disturbance to cultural resources due to nuisance effects, disruption to use and enjoyment of public facilities due to nuisances, compatibility with municipal land use designations and official plans.
Economics - Disturbances to businesses due to nuisance effects, property value impacts, effects on the municipal tax base.

End Uses

CWS stated in the ToR that during the EA one or more end uses for the site would be proposed and that CWS would consult with stakeholders to determine if there are any preferred options. Two concepts proposed by CWS differ in terms of the degree of public access that could be provided:

Private Open Space: The lands would remain as private lands, not accessible to the general public and kept as green space after the closure of the landfill. Where it is feasible, the green space could include partial reforestation.

Public Open Space: A portion of the lands might be used for public open space. The site would be accessible to the public for recreational uses such as playing fields, walking or cross-country skiing trails. Other parts of the site may be used for more passive uses such as reforested areas.

CWS is open to considering other options for the end use of the site that may be suggested. The consultation on end uses will begin with these two concepts, and the public is invited to suggest other alternative end uses for additional discussion.

TOWNSHIP OF WARWICK EA PEER REVIEW TEAM

NAME	DISCIPLINE
James Feilder , Jade Acoustics Inc.	Noise and Vibration Assessment
Tony Van der Vooren , Jade Acoustics Inc.	Air Quality and Air Emissions Health Assessment
Robert Mayer , Mayer Heritage Consultants Inc.	Archeological and Heritage Resources Assessment
Gerry Forbes , Synectics Transportation Consultants Inc.	Traffic Impacts
David Vert , BDO Dunwoody	Economic/Municipal Finance
Geza Gaspard , LGL Limited	Natural Environment and Natural Heritage Resource Issues
David Hardy , Hardy Stevenson and Associates Limited	Social Impacts and Public Consultation
Wilf Ruland , Citizens' Environmental Consulting	Groundwater Impact Issues
Paul Bowen , Terraprobe	Landfill Design, Geotechnical Issues, Surface Water Management, Landfill Gas and Proposed Gas Utilization
Mark Schollen , Schollen and Company Inc.	Visual Impacts
Mark L. Dorfman , Mark L. Dorfman Planner Inc.	Environmental Assessment and Land Use Planning Uses
Maria Kellehar , ENVIRONSRIS	Environmental Affects Associated with Potential for Over Supply of Capacity on Waste Diversion Programs
Peter Pickfield , Turkstra Mazza Associates	Legal/Co-ordination



WARWICK LANDFILL EXPANSION THE ENVIRONMENTAL ASSESSMENT PROCESS

The environmental assessment (EA) for the proposed Warwick landfill expansion is underway. As Canadian Waste Services (CWS) proceeds with the studies, it has committed to involve local municipalities, the public, community interest groups and government agencies throughout the EA. This is the second in a series of newsletters that CWS will distribute as the EA process continues. To receive the earlier EA newsletter, or those distributed during the development of the Terms of Reference, please call the toll-free Warwick landfill information line at 1-800-555-3561.

UPDATE

ON EA ACTIVITIES

Approval of the Terms of Reference

- In October 1999 the Terms of Reference (ToR) for the EA was submitted to the Minister of the Environment.
- On January 11, 2000 the Minister of the Environment approved the ToR.
- CWS has started the EA studies.

EA Peer Review Process

CWS and the Township of Warwick ('the Township') signed a Memorandum of Understanding (MOU). It commits funding from CWS for the Township to hire independent experts to review technical elements of the EA, including the series of proposed discussion papers described in EA Newsletter No. 1 (July 2000). The Township has selected their team of consultants, who will review a series of technical Discussion Papers addressing a range of topics related to the proposed landfill expansion. The peer review team is listed on the back page. The Township of Warwick peer review team has prepared and submitted its comments on Discussion Paper #1 in February of 2001, and prepared and submitted its comments on Discussion Paper #2 in April 2001.

While the management of the peer review process is the responsibility of the Town, the public and the Environmental Assessment Study Group (EASG) will also have access to the peer review reports

SUMMARY OF THE PROPOSED LANDFILL EXPANSION

The existing Warwick landfill site is located on part of Lot 20, Concession 3 in the Township of Warwick. The CWS proposal to expand the landfill includes the following:

- Additional annual waste disposal capacity of up to 750,000 tonnes per year;
- Expansion on lands owned or controlled by CWS;
- Solid, non-hazardous domestic, commercial, industrial and institutional waste;
- Waste generated in Ontario (primarily central and south-west Ontario).

EA OPEN HOUSE #2

The second EA Open House will be held on Thursday, June 7, 2001 2 p.m. to 9 p.m. at the Centennial Hall in Watford

Come to discuss:

- Draft Discussion Paper #2 on the Proposed Criteria and Indicators for the Assessment of Alternatives
- Discussion Paper #1 on the Proposed Public Consultation Program (Final)

DRAFT DISCUSSION PAPER #2 ON THE PROPOSED CRITERIA AND INDICATORS FOR THE ASSESSMENT OF ALTERNATIVES IS NOW AVAILABLE

The Draft of Discussion Paper #2 on the Proposed Criteria and Indicators for the Assessment of Alternatives is now available for public review and comment. Copies will be available at the open house, or call the toll-free information line (1-800-555-3561) for your copy.

WHAT'S INSIDE...

- **DP#1: Proposed Public Consultation Program – Now Finalized**
- Revised Discussion Paper Process
- **Environmental Assessment Study Group (EASG)**
- **Upcoming EA Consultation Activities**
- **DP #2: Proposed Criteria and Indicators for the Assessment of Alternatives**
- What are the Assessment Criteria?
- Landfill "Footprint" Alternatives and Proposed Evaluation Criteria
- Alternatives for Leachate Treatment and Proposed Evaluation Criteria
- Access Routes Alternatives and Proposed Evaluation Criteria
- End Uses
- **Township of Warwick EA Peer Review Team**
- **Who to Contact**

DP #1: PROPOSED PUBLIC CONSULTATION PROGRAM - NOW FINALIZED

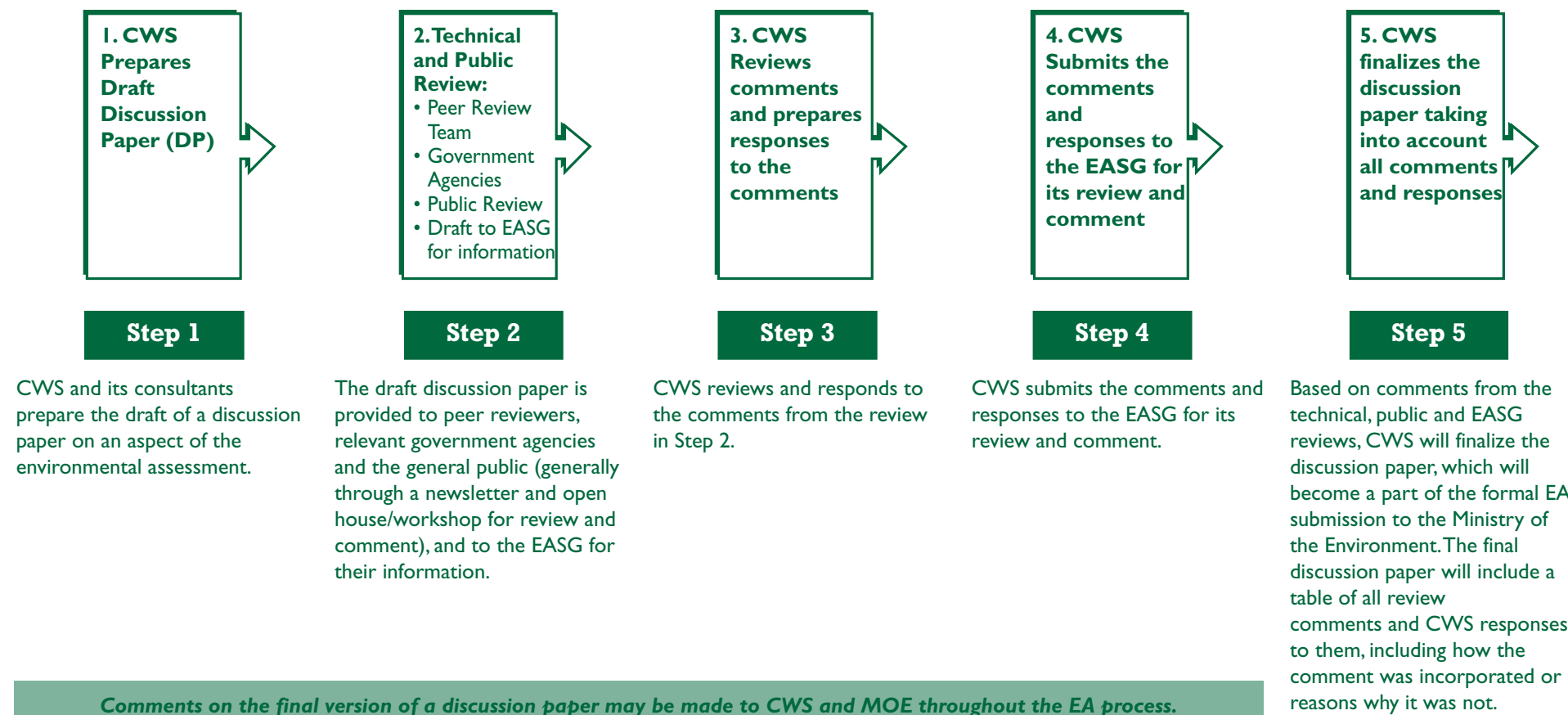
Discussion Paper # 1 on the Proposed Public Consultation Program has been finalized based on comments received by the peer review team, the EASG, government review agencies and the general public. The final discussion paper will be made available at the open house on June 7 or can be obtained by calling the toll-free information line at 1-800-555-3561. A table summarizing comments on the July 2000 Draft 2 discussion paper and CWS responses has been provided in the final discussion paper.

Revised Discussion Paper Process

Rather than simply publish an environmental assessment report at the end of the planning process, CWS has decided that consultation with the public and

government agencies would be more effective if a series of discussion papers were issued over the EA process. This gives all participants an opportunity to provide their input at the time when key decisions are being made. Draft 2 of Discussion Paper #1 outlined a review process for each discussion paper. Based on public/agency/EASG/peer review comments, the process that will be used for DP #2 onward has been revised. Beginning with DP #2, each discussion paper will go through the steps outlined below. Each step in the process is intended to encourage ongoing discussion with, and scrutiny by, the various stakeholders in the development of the EA. Consultation on discussion papers that rely on the content of and decision resulting from previous discussion papers will not occur until consultation on the previous discussion paper has been completed.

WHAT IS THE REVISED DISCUSSION PAPER PROCESS?



ENVIRONMENTAL ASSESSMENT STUDY GROUP (EASG)

The EASG was established to provide an opportunity for representatives from key stakeholder groups in the community and the general public to participate in the detailed environmental assessment. The EASG is involved in the ongoing work during the EA process, reviewing documents and providing advice/comments to CWS. The current membership of the EASG includes representative(s) from:

- Local residents and the general public;
- Township of Warwick;
- Warwick-Watford Landfill Committee;
- County of Lambton;
- Lambton Federation of Agriculture; and,
- Canadian Waste Services.

A representative from the Ministry of the Environment (MOE) attends the EASG meetings, subject to availability, in a support role. To date, the EASG has met three times:

- September 28, 2000 – Orientation meeting and review of Discussion Paper #1: *The Proposed Public Consultation Program*

- November 20, 2000 -Presentation on Initial Draft of Discussion Paper #2: *Proposed Criteria and Indicators for the Assessment of Alternatives*
- May 7, 2001 – Discussion of Review Comments Received on Discussion Paper #1:

The next EASG meeting is scheduled for Tuesday, June 26, 2001 from 7:00 to 9:00 p.m. at the Lambton Mutual Insurance Company. The public is welcome to attend EASG meetings as observers.

UPCOMING EA CONSULTATION ACTIVITIES

A public open house will be held on June 7 at the Centennial Hall in Watford from 2-9 pm. The open house will provide an opportunity to review the draft Discussion Paper #2 - Proposed Criteria and Indicators for the Assessment of Alternatives with the community. Discussion Paper #1 on the Proposed Public Consultation Program (Final) will also be available for review. The open house will be advertised in local papers, and a notice sent to the project contact list. Consultation activities are planned for each of the series of discussion papers and at key points in the EA process.

DP#2: PROPOSED CRITERIA AND INDICATORS FOR THE ASSESSMENT OF ALTERNATIVES

Discussion Paper #2 on the *Proposed Criteria and Indicators for the Assessment of Alternatives* is now available for public review. Discussion Paper #2 deals with the first step in the "alternative methods" part of the Environmental Assessment. Before a detailed evaluation of the impacts of expanding the Warwick Landfill can be carried out, decisions have to be made about the basic design components of the landfill, called "alternative methods" in the EA process. During the development of the ToR, CWS considered different ways of designing the landfill expansion and came to the conclusion that the following alternatives warranted further evaluation in the EA, in consultation with the public and government agencies.

- Landfill "Footprint" Alternatives;
- Leachate Treatment Methods;
- Access Routes; and
- End Uses

The proposed evaluation criteria for the alternatives are addressed in Discussion Paper #2, which provides additional detail (definitions, rationale and indicators) and refinement of the initial set of criteria provided in the approved ToR.

What are the Assessment Criteria?

A set of criteria is required for the evaluation of alternatives. These criteria are used to ensure that the EA decisions thoroughly consider all of the relevant environmental impacts, and they provide a systematic framework for documenting the reasons for these decisions. In Appendices of Discussion Paper #2 a detailed criteria list is provided. In summary, the criteria have been organized into four major categories:

- Public Health and Safety;
- Natural Environment and Resources;
- Social and Cultural; and
- Economics

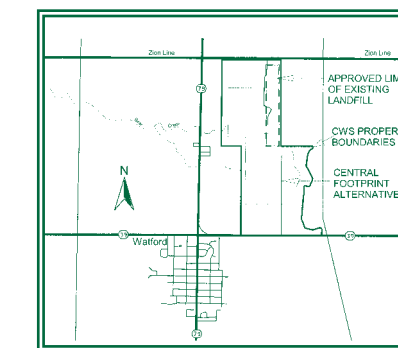
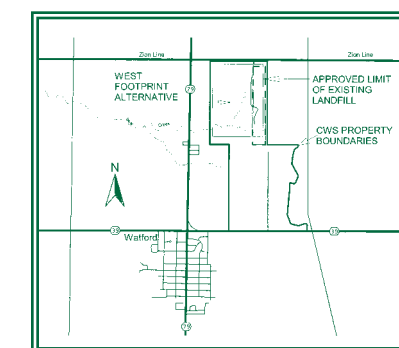
Each category has then been sub-divided into three groups according to 'study areas', or the locations where the impacts would mainly occur in each case.

- Impacts On-site and in the Site Vicinity;
- Impacts Along the Haul Routes; and
- Community Impacts.

The criteria that are applicable to each topic are summarized in the tables below. For additional information and to read more about the criteria applicability, rationale and indicators please refer to the tables in the Appendices of Discussion Paper #2.

Landfill "Footprint" Alternatives and Proposed Evaluation Criteria

The ToR identified two landfill footprints or areas within the CWS property where waste could be deposited: the "west" alternative and the "central" alternative. The "west" alternative will use the northern portion of the landfill, west of the current landfill and would provide the greatest separation between the landfill and the village of Watford to the south. The "central" option would involve expansion on lands to the south and west of the existing landfill site.



Assesment Criteria for Landfill Footprint Alternatives

Public Health and Safety - Effects due to fine particulate exposure

Natural Environment and Resources - Loss/displacement and disturbance/diversion of surface water resources, loss and disturbance to terrestrial and aquatic eco-systems, displacement of agricultural land, disruption to recreational resources.

Social and Cultural - Disruption to use and enjoyment of residential properties and public facilities, visual impact of the landfill, nuisance associated with vermin, disturbance to cultural resources due to nuisance effects, displacement /destruction of archaeological resources.

Economics - Disruption to businesses

Alternatives for Leachate Treatment and Proposed Evaluation Criteria

The approved ToR identified seven leachate treatment alternatives that will be considered for the Warwick Landfill expansion:

1. Full on-site treatment with no liquid effluent discharge – the leachate would be combusted (burned) leaving an ash residue or it can be heated to evaporate off the water leaving a concentrated sludge. The ash or sludge can be landfilled on-site or disposed of at another appropriate disposal site.

2. Full on-site treatment with discharge of effluent to surface water – leachate would be collected and stored before being processed through a treatment unit. The treated liquid effluent that is retained in a storage lagoon and eventually discharged to a surface watercourse following significant testing.

3. On-site pre-treatment with discharge via forcemain to an upgraded Watford Sewage Treatment Plant

4. On-site pre-treatment with discharge via truck haulage to an upgraded Watford Sewage Treatment Plant

5. On-site pre-treatment with discharge via truck haulage to another sewage treatment plant (e.g. London) – the Leachate would be collected and pre-treated through a process that is similar to the full on-site treatment processes discussed above. A truck would then transfer the pre-treated effluent to a sewage treatment plant.

6. Off-site disposal of raw leachate via truck haulage to the Blackwell Road Sarnia Leachate Treatment Plant - full off-site treatment and effluent discharge involves the collection and trucking of leachate directly to the Blackwell Road Sarnia Leachate Treatment Plant without any pre-treatment at the Warwick landfill site.

7. Leachate re-circulation (in combination with any other alternative(s); but would not involve spray irrigation of leachate).

Assessment Criteria for Leachate Treatment Alternatives

Public Health and Safety - Effects due to exposure to landfill gas and fine particulate matter, risk of contact with spilled hazardous or dangerous waste, potential for traffic collisions

Natural Environment and Resources - Effects on baseflow quantity/quality, disturbance to aquatic and terrestrial ecosystems, disturbance to recreational resources.

Social and Cultural - Disruption to use and enjoyment of residential properties and public facilities due to nuisance effects, effects on other public services, disturbance to local traffic networks along the haul routes, disturbances to cultural resources, level of community service provided by the landfill.

Economics - Disturbances to businesses along the haul route, new business opportunities related directly to landfill construction and operation, effect on the cost of service to the community.