MINISTRY DIRECTIVE

Executive Director,
Highway Engineering Division

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TO: Assistant Deputy Ministers, Executive Directors, Regional Directors, Directors, District Engineers, Regional Managers, Office Managers

SUBJECT: MTO DRAINAGE MANAGEMENT POLICY AND PRACTICE

ALTERNATIVE INDEX LISTING(S): Stormwater Runoff
Urban Drainage
Detention Ponds
Drainage

REFERENCE:
- This directive cancels and supersedes Circular 63-15, "Drainage Policy for King's Highways", dated February 4, 1963
- Provincial Highways Directive B-100, "MTC Design Flood Criteria", dated 80 10 16
- Provincial Highways Directive B-63, "Drainage Act - MTC Policy and Procedures", dated 87 06 01
- Provincial Highways Directive B-55, "Highway Improvements Associated with Land Development", dated 83 08 26
- MTO Drainage Management Technical Guidelines, November 1989
- Ontario Urban Drainage Design Guidelines, April 1987
- Executive Summary, Urban Drainage Management Program for New Development, Ontario (Draft), May 1985
- MTO Drainage Manual (Vol. 1, 2, 3)
- Highway Design Office, Drainage & Hydrology Section

PURPOSE:
(1) To adopt modern drainage management practice in planning and design of drainage for provincial highways.
(2) To state Ministry policy concerning stormwater management for development areas which may have drainage impacts on provincial highways.

BACKGROUND:
- Several drainage management issues are facing this Ministry:
(1) an increasing number of requests is received by the Ministry for permission to discharge the runoff from development areas into highway drainage systems or to have drainage works for development areas built in highway right-of-ways;

(2) stormwater runoff from many development areas is not effectively managed, thus increasing the probability of highways being flooded in heavy storms; and

(3) as a result of piecemeal attempts to control runoff on individual new highway projects, detention ponds may be proposed indiscriminately within the highway right-of-ways. Proliferation of ponds within the highway right-of-ways may create problems in the long term.

This directive pertains to stormwater quantity management. The Ministry has implemented policies and procedures related to water quality protection. These include erosion and sediment control during construction, spills response policy, and deicing chemical research. MTO will continue to address pollution control of highway stormwater runoff as provincial policies and effective engineering technologies in this area are developed.

This directive was developed in consultation with the MTO Drainage Management Advisory Committee, whose composition included representatives from Ministries of Transportation, Natural Resources, and Environment, Association of Conservation Authorities of Ontario, Municipal Engineers Association, Urban Development Institute, Consultants retained by the Ministry to develop MTO Drainage Management Technical Guidelines and a University of Toronto professor as a scientific advisor.

POLICY:

Objectives

The objectives of the policy are:

(1) to maintain and promote good management of provincial highway drainage systems;

(2) to assure that prudent decisions are made before using the provincial highway right-of-ways for detention of stormwater; and

(3) to minimize impacts to the provincial highway system as a result of stormwater runoff from upstream development areas.
Principles

The policy is stated in the five Principles below. The intent and rationale of the Principles are stated in Appendix One.

Principle 1: Fundamental Purpose of Right-of-Ways and Drainage Systems

(1) The fundamental purpose of the right-of-ways of provincial highways is to serve the present and future transportation needs of the province. The fundamental purpose of the drainage systems of provincial highways is to serve drainage needs of the highways. Any other use of a right-of-way or a highway drainage system which may inhibit accomplishment of the fundamental purpose will not be permitted.

(2) Detention of stormwater runoff within the right-of-ways and accommodation of drainage works belonging to outside parties are not fundamental purposes of provincial highway right-of-ways.

Principle 2: Ministry Drainage Management Approach for New Drainage Systems

With respect to planning of new drainage systems of provincial highways and review of drainage proposals of outside parties for development areas, the Ministry endorses the goals and principles of good planning and practice of the Ontario Urban Drainage Management Program, particularly the use of the Master Drainage Plan to achieve coordinated and comprehensive planning for good drainage management. The program is described in a document prepared by the Urban Drainage Implementation Committee titled "Executive Summary, Urban Drainage Management Program for New Development", Ontario (Draft), May 1985.

Principle 3: Use of Right-of-Way by MTO for Stormwater Runoff Detention

Use of the right-of-way of a provincial highway for stormwater runoff detention should not be considered if the fundamental purpose of the right-of-way is inhibited (Principle 1), or the use may pose unacceptable safety or environmental impacts, or unacceptable potential liabilities to the Ministry.
Principle 4: Use of Right-of-Way by Outside Parties

(1) It will be the responsibility of the proponent to demonstrate to the Ministry that the proposed use of the right-of-way or drain of a provincial highway is in conformity with the Principles and that there is no other feasible alternative. The Ministry reserves the right to reject any proposal which may be harmful to its interests.

(2) If Ministry permission is granted to an outside party to use the right-of-way or a drain of a provincial highway for drainage purposes, it will be granted to a municipality (not to a private party) and subject to satisfactory fulfillment of the Ministry's conditions.

Principle 5: Territory Without Municipal Organization

The Ministry may make special provisions to allow relaxation of Principle 4 for developments in a territory without municipal organization.

PROCEDURE:

The Principles are applicable to planning, design and management of the Ministry's projects involving drainage and to review of drainage plans of outside parties which may affect provincial highways.

For any given situation, all relevant Principles should be observed.

The use of these Principles should also be encouraged when the planning and design of a proposed highway drainage system is carried out under the Drainage Act.


The effectiveness of the directive will be monitored by the Highway Design Office (Drainage and Hydrology Section).

IMPLEMENTATION: 89 11 22

- O -
The intent and rationale of the five Principles of the directive are presented in this appendix to facilitate proper interpretation of the Principles.

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<td>To bring to an end indiscriminate discharge of stormwater runoff from development areas to highway drainage systems and unwise use of right-of-way (R.O.W.) for runoff detention.</td>
<td>The key to resolve drainage concerns of the Ministry successfully is to encourage good modern drainage management practice by the Ministry and by all other parties concerned.</td>
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<td>To usher in good modern drainage management practice in order to minimize drainage concerns of the Ministry.</td>
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<td>Principle 1:</td>
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<td>Fundamental Purpose of R.O.W. and Drainage Systems</td>
<td>To explain the fundamental purpose of R.O.W. and the drainage systems of provincial highways, and to assure its compliance.</td>
<td>To protect the integrity of the provincial highway system.</td>
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<td>Ministry’s Drainage Management Approach</td>
<td>To provide leadership to Ministry staff and other parties concerned in applying good modern drainage management practice for new drainage systems.</td>
<td>To protect the Ministry’s flexibility of preserving spare drainage capacities and vacant R.O.W. for future highway purposes.</td>
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<td>The citation of the Ontario Urban Drainage Management Program is primarily for providing a standard reference for planning concept and methodology. It does not eliminate any means of implementation such as the use of the Drainage Act where applicable.</td>
<td>The provincial highway system has priority claim for use of these infrastructures and lands.</td>
<td>This Principle is the turning point towards achieving the policy objectives.</td>
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<td>Principle 3:</td>
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<td>Use of R.O.W. by MTO for Runoff Detention</td>
<td>To minimize use of the R.O.W. for runoff detention.</td>
<td>The current need for the use of the R.O.W. for runoff detention often arises from misapplication of modern drainage management practice or lack of Master Drainage Planning.</td>
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<td>This need should diminish if these Principles are implemented successfully.</td>
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APPENDIX ONE

Subject Matter

Principle 4:
Use of R.O.W. by Outside Parties

Intent

To discourage use of the R.O.W. for runoff detention for non-Ministry projects.

To discourage reliance on the use of provincial highway drains as an expedient substitute for new drains required for new developments.

To minimize the impact on provincial highways caused by drainage works for new developments.

To encourage developers and municipalities to coordinate their drainage plans within the framework of a Master Drainage Plan.

To establish a general rule that agreements should be negotiated between the Ministry and the municipality, not between the Ministry and developers or land owners.

Protection of the Ministry’s interests includes requiring an outside party who proposes to use a R.O.W. or highway drainage system to obtain approval of the proposed works from relevant regulatory agencies.

Rationale

It is a basic responsibility of developers and municipalities to provide stormwater management facilities for development areas.

It is unlikely to be able to relocate a runoff detention facility away from a R.O.W. after the facility is constructed.

It may not be in the public interest, nor is it a Ministry’s obligation or good engineering practice, to allow unwarranted use of highway drains to serve developments.

It will be difficult and impractical for the Ministry to enforce fulfillment of conditions of agreements by developers or land owners. The Ministry will deal with a statutory body having jurisdiction over the land, i.e. the municipality.

Non-Ministry drainage works connected to a highway drainage system or constructed in a R.O.W. are not deemed to be works constructed under the Public Transportation and Highway Improvement Act. Proprietors are responsible for their works and for obtaining all necessary approvals. The Ministry has no intention to perform approval functions of other agencies.

Principle 5:
Territory Without Municipal Organization

To allow relaxation of the application of Principle 4 for developments in territory without municipal organization.

Principle 4, if applied to its full intent in this situation may be unrealistic and cause undue hardship. It is desirable that the Ministry makes attempts to accommodate these special needs if this can be done without liability to the Ministry or harm to the provincial highway system.
IMPLEMENTATION GUIDELINES
FOR
PROVINCIAL HIGHWAYS DIRECTIVE B-237,
MTO DRAINAGE MANAGEMENT POLICY
AND PRACTICE
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The purpose of these guidelines is to assist Ministry staff in the implementation of Provincial Highways Directive B-237, "MTO Drainage Management Policy and Practice". The directive and the document titled "MTO Drainage Management Technical Guidelines", collectively provide an approach to drainage management of provincial highways, and for review of drainage management proposals of outside parties that may affect provincial highways. This directive is not applicable to the miscellaneous drainage matters dealt with in Section 6.

SECTION 1. FUNDAMENTAL PURPOSE OF RIGHT-OF-WAYS AND DRAINAGE SYSTEMS

(1) Examples of future transportation needs include constructing new highways; widening existing highways; constructing roadside ancillary facilities and roadway protective works; etc.

(2) Where a structure (culvert or bridge) of a provincial highway drainage system is located on the flow route of a catchment, the purpose of this structure includes also the conveyance of stormwater runoff from natural drainage tributary areas. However, it is not the purpose of highway drains which run parallel to the roadway to convey collected stormwater from non-Ministry lands.

SECTION 2. MINISTRY DRAINAGE MANAGEMENT APPROACH FOR NEW DRAINAGE SYSTEMS

(1) Planning and Design of Provincial Highway Drainage Systems

(a) Planning and design of a proposed highway drainage system should follow the drainage management practice prescribed in this directive and in the MTO Drainage Management Technical Guidelines.

(b) Should stormwater quality policy issues arise in a particular project, or in a proposal to share a drainage facility located in a highway right-of-way (see Section 2(3)), the Environmental Office should be informed. This office will provide advice in collaboration with the Highway Design Office (Drainage and Hydrology Section).

(c) If a Master Drainage Plan (MDP) encompassing the proposed highway drainage area has been endorsed by the Ministry, the proposed highway drainage system should be consistent with the MDP.

A drainage system in Sections 2(1) to 2(3) means all facilities used for conveying the stormwater through and from a drainage area to the point of final outlet. It does not mean an individual element or a component of the system.

(d) If an MDP exists and MTO has not reviewed it, MTO will suggest to review it. If an MDP has not been endorsed by the Ministry or the municipality does not anticipate to develop one in the meantime, the Ministry will consider drainage implications with all related agencies in its planning and design of the proposed highway drainage system.

If a municipality is proposing to develop an MDP, see Section 2 (2) for guidance on Ministry participation.
(e) The capacity of a proposed highway drainage system should be that required to meet the fundamental purpose (Section 1(2)), except when the Ministry has agreed to share the use of the system with a municipality. Guidance on shared use of drainage facilities is provided in Section 2 (3).

(f) If it is inevitable that a proposed highway drainage system needs an outlet into an existing drain of a municipality and the drain does not have capacity for this additional discharge, the Ministry will consider alternatives including an offer to enter into an agreement with the municipality to improve the capacity of the drain.

The Ministry will endeavour to avoid getting into such a situation by giving early consideration to master drainage planning (Section 2 (2)) and shared use of drainage systems (Section 2 (3)).

(g) The use of this directive and MTO Drainage Management Technical Guidelines should also be encouraged when the planning and design of a proposed highway drainage system is carried out under the Drainage Act.


(h) The planning and design of the drainage system should be documented and filed.

(2) **Ministry Participation in Master Drainage Plan Development**

(a) The Ministry will participate in the development of an MDP on the request of the sponsoring municipality if an existing or proposed provincial highway may be affected by the MDP. The Ministry's participation will normally involve the sharing of planning information and data, membership in project committees, provision of technical advisory services and review of the MDP. Guidelines for endorsement of an MDP are provided in Section 2 (4)(d).

The Ministry will be represented by the Regional Engineering and R.O.W. Office with assistance of the Highway Design Office if necessary.

(b) In addition to Section 2 (2)(a), the Regional Engineering and R.O.W. Office will consider contributing financially in MDP development if it is a practical option for the Ministry and the implementation timing of the highway project permits. Ministry financial contribution in the development of an MDP may be considered if the additional highway runoff produces a significant impact on the receiving stream or drainage system, and when:

(i) modern stormwater management is generally practised on the catchment; and
(ii) there is a major demonstrated concern in a receiving stream or drainage system.

The Ministry will contribute, under an agreement, its prorated costs based on all the anticipated developments in the MDP study area. Funding for the contribution will be considered as a capital cost item of the pertinent provincial highway project(s). Financial contribution requires approval of the Regional Director.

(3) Planned Shared Use of Drainage System

(a) "Planned shared use" means shared use that is planned and agreed to by both the Ministry and the municipality before the drainage system to be shared is built. Planned shared use may involve a drainage system of a provincial highway or a municipality. The drainage system may include a runoff detention facility. Ministry’s agreement to share use requires approval of the Regional Director.

If a proposal to use the right-of-way or the drainage system of a provincial highway is not a planned shared use, the proposal will be dealt with under Section 4.

(b) If a municipality proposes to share the use of a proposed drainage system of a provincial highway, the proposal would normally have been identified in an MDP endorsed by the Ministry. If the Ministry accepts the proposal after being satisfied that the proposal is in the Ministry’s best interests, the Ministry will enter into an agreement with the municipality for the shared use on the following conditions:

(i) Any proposal to discharge stormwater runoff from outside the right-of-way into a highway drainage system shall not be allowed if the runoff may potentially contravene Ministry of the Environment’s requirements for stormwater discharged into a watercourse. If MOE advises that contravention has occurred after approval, the source may be disconnected by MTO on written request of MOE.

(ii) The shared use is for the conveyance of the agreed rate of stormwater discharge only; the responsibility for regulating stormwater runoff from the municipality’s tributary areas remains with the municipality.

(iii) The municipality’s drainage works tributary to the shared facility shall not be deemed to be works constructed under the Public Transportation and Highway Improvement Act. The municipality shall obtain prior approvals from all pertinent regulatory agencies for the municipality’s drainage works to be connected to the shared drainage system and shall be responsible for compliance with the approval conditions. The approvals will include, but not necessarily
be limited to those required by the Municipal Water Resources Act and the Environmental Protection Act.

(iv) To facilitate application by the municipality for approvals of other agencies, MTO may, if it sees fit, give approval in principle of the shared use, provided always that:

- final MTO approval shall not take effect;

and

- an MTO/municipality agreement shall not be entered into,

until the municipality provides to MTO an official written confirmation that it has obtained all necessary written approvals from other agencies.

(v) If the municipality undertakes the construction of the shared facility, an Encroachment Permit will be required in addition to the agreement.

(vi) The drainage system to be shared, including the land on which it is situated, remains the property of the Ministry.

(vii) The Ministry will be responsible for the operation and maintenance of the drainage system.

(viii) Erosion and sediment control measures for the proposed development area should be in place prior to removal of soil cover. The municipality agrees to bear any costs associated with cleanout of sediments washed into the shared drainage system from construction sites in the municipality.

(ix) The municipality pays the agreed cost\(^1\) in proportion to shared use.

(c) When a municipality proposes drainage works outside the provincial highway right-of-way and it will be necessary or advantageous for the Ministry to share the use of the drainage works, the Ministry will offer to enter into an agreement with the municipality for shared use of the drainage works, provided the municipality will carry out an appropriate drainage study of the tributary area.

The Ministry, through the Regional Engineering and R.O.W. Office will, under the agreement, contribute to the cost of the drainage works in proportion to shared use.

(d) Ministry participation in municipal drainage projects involving the use of the Drainage Act is stated in Provincial Highways Directive B-65, "Drainage Act - MTO Policy and Procedures".

\(^1\) The cost includes those of planning, design, construction and, where applicable, land cost and operation and maintenance costs. The maintenance costs will also include waste management of the materials accumulated in drainage systems including detention ponds.
(a) Ministry's Review Approach

It is in the Ministry's interest to review four types of plans which involve drainage issues and are prepared by outside parties. These are Watershed Plans, Draft Official Plans and Secondary Plans, Master Drainage Plans and Stormwater Management Plans. It is also in the interest of outside parties to invite the Ministry to review their plans, as this interaction is an opportunity to ascertain Ministry requirements at an early stage.

The goal of each review is to ensure that modern drainage management practice is adopted in the plan and that the plan will not give rise to new drainage concerns, and will mitigate existing drainage concerns to provincial highways where feasible. Another goal is to make Ministry's concerns known to the planning sponsors and approval agencies.

The Ministry will take a one-window approach when communicating with planning sponsors and external agencies. Communication will be channelled through the Ministry office responsible for coordinating review or approval of the plans.

(b) Watershed Plan

Watershed Plans are prepared by the Ministry of Natural Resources and/or conservation authorities. They are broad-based and wide-ranging documents.

The Ministry will strongly encourage Watershed Plan sponsoring agencies to include MTO in their circulation of these plans for review. The Ministry's review will focus on matters pertinent to highway interests such as watershed flow targets, proposed flow control measures, and the rationale, planning and analysis processes used for deriving the targets.

Highway Design Office will coordinate the review of Watershed Plans.

(c) Draft Official Plan and Secondary Plan

The Transportation Corridor Management Office is responsible for coordinating Ministry's review of Draft Official Plans and Secondary Plans. Increased stormwater runoff from future land developments may impact provincial highways located downstream. Where relevant, the Ministry will recommend that stormwater management be stated in these plans as a general planning objective required of land development.

(d) Master Drainage Plan

Preparation of a Master Drainage Plan (MDP) is primarily a responsibility of the municipality that has jurisdiction over the planning area. MDP preparation is not mandatory, although a municipality has statutory and common law obligations for drainage management of its jurisdictional areas. The Ministry will encourage municipalities to include MTO in their circulation of MDP for review when existing or proposed provincial highways may be affected.

The Regional Engineering and Right-of-Way Office is responsible for review of MDP's located within its Regional boundaries. The Highway Design Office will provide assistance on request.
Should joint use of a proposed or existing highway drainage system or use of a highway right-of-way be proposed in the MDP and stormwater quality policy issues arise, the Environmental Office should be informed. This office will provide advice on the issues in collaboration with the Highway Design Office.

The MDP review should consider existing and proposed provincial highways, and other property of the Ministry. The following are appropriate actions subsequent to an MDP review:

(i) If an outside party proposes in the MDP to use the right-of-way or drainage system of a provincial highway, the proposal must satisfy the conditions stated in Section 4 or Section 2(3) as appropriate.

(ii) If provincial highways or other property of the Ministry may be affected by the MDP, the Ministry will indicate its concerns to the municipality. The concerns must be addressed to Ministry’s satisfaction before the Ministry will endorse the MDP.

(iii) If no provincial highways or other property of the Ministry will be affected by the MDP, the Ministry will so inform the municipality.

(e) Stormwater Management Plan

Land development plans which the Ministry receives for review purposes include both Plans of Subdivision and Site Plans under the Planning Act 1983. Plans are required by the Ministry for all developments adjacent to a provincial highway for the issuance of permits under the Public Transportation and Highway Improvement Act.

(f) Plan of Subdivision

The Transportation Corridor Management Office is responsible for coordinating Ministry review of Plans of Subdivision.

Any Ministry concern regarding drainage should be identified at this review stage and a request made to the plan approval agency that a satisfactory draft Stormwater Management Plan (SWMP) be required as a condition of approval. The submission of a detail SWMP should await the result of review of the draft SWMP. The Regional Engineering and R.O.W. Office will perform the review of SWMP. The Highway Design Office will provide assistance on request.

The following are criteria for determining whether the Ministry will ask to review the SWMP. Item 1 below is for cases involving the direct use of the right-of-way or the drainage system of a provincial highway. In items 2 to 5 below, direct use is not involved but the proposal may still affect a provincial highway.

1. Use of Right-of-Way or Drainage System Proposed

Any SWMP proposing the use of the right-of-way or the drainage system of a provincial highway is subject to Ministry approval in accordance with Section 4.
2. **MDP Endorsed by Ministry**

If the regulatory municipality agrees to ensure that the SWMP will be consistent with the MDP, the Ministry will not review the SWMP for developments outside the Ministry's permit control area.

3. **Provincial Highways Not Affected**

If the Ministry is satisfied that the stormwater runoff from the development area cannot reach provincial highways via drains or overland flow because of topography, the Ministry will not review the SWMP.

4. **MDP Not Previously Reviewed by Ministry**

The Ministry will suggest that the municipality involved may opt for either the MDP to be reviewed by the Ministry as the first step of the review of the SWMP or to use item 5 below. If the first option is taken, the need to review the SWMP subsequently depends on the status of the MDP after its review.

5. **MDP Not Endorsed by Ministry**

If the foregoing items are not applicable, the Ministry will request to review the SWMP. If drainage impacts are not presented in the SWMP or are not acceptable, the Ministry will inform the proponent.

(ii) **Site Plan**

The District Offices are responsible for review and approval of Site Plans. The Regional Engineering and R.O.W. Office and the Highway Design Office will provide assistance on request.

1. **Use of Right-of-Way or Drainage System Proposed**

The proponent is encouraged to do drainage planning in stages as explained in Section 2(4)(e)(d)(1). In any case, the drainage aspects of the Site Plan must satisfy the requirements of Section 4 before an approval will be given.

2. **No Use of R.O.W. or Drainage System but Within Permit Control Area**

Use similar approach as for review of Plan of Subdivision, i.e. items 2 to 5 of Section 2 (4)(e)(i) above.

(iii) **MTU Building and Land Use Permit**

The District Offices are responsible for review and approval of MTU Building and Land Use Permit applications. The Regional Engineering and R.O.W. Office and the Highway Design Office will provide assistance upon request. In addition to requirements such as setbacks
and access, drainage management requirements for any proposed commercial, industrial, institutional, and multiple family residential developments must also be reviewed at this time, and included as permit conditions.

The methodology to be followed in the review of drainage aspects for MTO Building and Land Use Permit applications is the same as for the review of Site Plans (Section 2(4)(a)(ii)).

SECTION 3. USE OF RIGHT-OF-WAY BY MTO FOR STORMWATER RUNOFF DETENTION

(1) Before an area within the right-of-way of a provincial highway is recommended for detention of stormwater runoff, the justification, merits and demerits of the proposal and alternatives must be thoroughly examined by the Regional Engineering and Right-of-Way Office. The analysis should be documented and filed.

(2) If there is any uncertainty in the future need of an existing vacant area within a right-of-way, it is prudent not to allocate the area for use as a stormwater detention facility in the interim period.

(3) If this use of the right-of-way involves an outside party, Section 4 or Section 2 (3) must be satisfied additionally prior to permission being granted.

(4) The Regional Director may give permission for the use of a right-of-way for stormwater detention purposes after being satisfied that all the relevant guidelines of the Principles are complied with and that this use is not expected to create unacceptable potential liabilities to the Ministry.

SECTION 4. USE OF RIGHT-OF-WAY BY OUTSIDE PARTIES

(1) Submission and Review of Stormwater Management Plan

(a) Section 4 applies whenever an outside party proposes to use the right-of-way or the drainage system of a provincial highway for drainage purposes, and the proposed use is not deemed to be planned shared use as defined in Section 2 (3)(a).

In case the proposal forms part of a Master Drainage Plan (MDP), read "MDP" for "SWMP" for all of Section 4.

(b) If the proposal is for use of a right-of-way for drainage works which will not be shared by the Ministry and the right-of-way is no longer needed for any purpose of the Ministry, the right-of-way area will be deemed as surplus. Its use and disposal will be dealt with as such. In this circumstance, the remainder of Sections 4(1) and 4(2) will not be applicable.

(c) Before Ministry permission is given to an outside party to use the right-of-way or the drainage system of a provincial highway, the proponent must submit a Stormwater Management Plan (SWMP) to the Ministry for review. If the SWMP is approved, permission to use the right-of-way or the drainage system will be given on conditions outlined in Section 4(2).
(d) The SWMP shall satisfy the following requirements before Ministry approval is given:

(i) Any runoff from outside the right-of-way proposed to be discharged into a highway drainage system shall not be allowed if the runoff may potentially contravene Ministry of Environment's requirements for stormwater discharged to a watercourse. If MOE advises that contravention has occurred subsequent to approval, the source may be disconnected by MTO on written request of MOE.

(ii) The SWMP is prepared by a Professional Engineer and satisfies the requirements of this directive and MTO Drainage Management Technical Guidelines.

(iii) The SWMP is compatible with its parent MDP if the MDP has been endorsed by the Ministry. If such an MDP is not available, the proponent shall either make an arrangement with the municipality to develop an MDP concurrently or demonstrate that adequate provisions have been made in the SWMP to satisfy possible MDP considerations such as upstream, downstream and cumulative effects of development.

(iv) The proponent has demonstrated satisfactorily that there is no feasible alternative solution.

(v) The proposal is not harmful to Ministry's interests.

(vi) A proposal to use the right-of-way of a provincial highway for runoff detention will not be considered except in very special circumstances. The review must include the question of future relocation of the detention facility due to any possible highway improvements, and potential liabilities to the Ministry.

(e) It is the responsibility of proponents to familiarize themselves with Ministry requirements and to provide all information required by the Ministry for the evaluation of their proposals.

(f) In order to carry out an effective and efficient review process, it is advisable that proponents should initiate their proposals early and proceed with them in succeeding stages. For example, first investigate the feasibility of the proposal; next submit a draft SWMP; then await review results before submitting a detail SWMP.

The Ministry should be allowed at least 20 working days for each review.

(g) Those who investigate, develop and/or submit proposals to use the highway drainage systems or right-of-ways, do so at their own risk. The Ministry can accept no
responsibility for any expenditure incurred, both monetary and non-monetary losses whatsoever, in the event that the review of their applications are delayed or their applications are not approved.

(h) The Regional Engineering and R.O.W. Office is responsible for review and approval of the SWMP. The Highway Design Office will provide assistance on request. Note that use of a right-of-way for stormwater runoff detention requires the Regional Director's approval according to Section 3(4).

(i) The District Office is responsible for the review of the drainage aspects contained in a Site Plan and MTO Building and Land Use Permit applications. The Regional Engineering and R.O.W. Office and the Highway Design Office will provide assistance on request.

(2) **Conditions of Permission to Use**

(a) If the Ministry approves the SWMP, permission for use of the right-of-way or drainage system of a provincial highway will be granted only to the municipality which has jurisdiction over the development area. This would make it practical for the Ministry to enforce compliance with the conditions of permission, since the municipality is a statutory body rather than a private party. For a territory without municipal organization, follow Section 5.

(b) The Ministry's permission is for conveyance of stormwater runoff from the proposed development only. Responsibility for regulating stormwater runoff from the development area and the possible impact of the runoff to other areas remains with the municipality and other agencies. The following are conditions to be fulfilled by the proponent before Ministry permission is given.

(i) The proponent's drainage works tributary to a provincial highway drainage system or constructed in a highway right-of-way, shall not be deemed to be works constructed under the Public Transportation and Highway Improvement Act. The proponent shall be responsible for obtaining all necessary approvals from pertinent regulatory agencies for their drainage works. The approvals will include, but not necessarily be limited to, those required by the Ontario Water Resources Act and the Environmental Protection Act.

(ii) To facilitate application by the proponent for approval of other agencies, MTO may, if it sees fit, give approval in principle to the proponent's proposal, provided always that:

- final approval shall not take effect; and

- an Encroachment Permit shall not be issued and an agreement shall not be entered into,

until the municipality officially confirms in writing to MTO that all necessary written
approvals from other agencies have been obtained, and that the municipality itself has given approval in principle.

(iii) The proponent agrees to put in place necessary erosion and sediment control measures for the proposed development area prior to removal of soil cover, so that sediment does not accumulate in the Ministry's drainage system. The proponent agrees also to bear any costs associated with cleanout of sediment within the provincial highway drainage system resulting from the construction of this development.

(iv) The proponent obtains a resolution from the municipality addressed to the Ministry stating that the municipality agrees to assume ownership and operation/maintenance of the proposed stormwater detention facilities in the development area, drainage connections to the highway drainage system, and related costs.

(c) Subject to fulfillment of Section 4(2)(b), Ministry permission for drainage works constructed within the right-of-way of a provincial highway will be granted if the municipality enters into an understanding with the Ministry as described below.

(i) An Encroachment Permit will be required. As conditions of an Encroachment Permit, the municipality agrees to:

- use the highway drainage system in accordance with the SWMP approved under Section 4(1)(d);

- fulfill the undertaking of ownership, operation and maintenance of drainage appurtenances (Section 4(2)(b)(iv)) no later than the completion of land transactions of the development; and

- fulfill Section 4(2)(c)(ii) if an agreement is required.

(ii) In addition to an Encroachment Permit, an agreement with the municipality will be required (except for works constructed under the Drainage Act), if the proposed drainage works are more than a simple drainage connection. The municipality shall be responsible for all the engineering and construction costs of the proposed works, all future replacement costs, and also any relocation costs as specified in the agreement. When replacement of the drainage works is required, the municipality shall be responsible for fulfilling Section 4(2)(b) prior to re-issuance of an Encroachment Permit for the replacement works. Due to safety and practical reasons, the Ministry will operate and maintain the permitted drainage works located within the highway right-of-way according to Ministry standards and practice.
The agreement must clearly define the permittee's responsibilities for maintenance, liabilities, relocation of the permitted drainage works whenever required by the Ministry, and compliance with requirements of other agencies including any SWMP and MDP under which the proposal is approved by the Ministry.

(d) If the proposal in the approved SWMP involves the construction of drainage works within the highway right-of-way by the proponent or the municipality, the Ministry may require additional conditions such as assurance of financial viability, proof of liability insurance, and conformity to the Ministry's engineering standards, in a manner similar to the procedures used in Provincial Highways Directive B-55, "Highway Improvements Associated with Land Development".

(e) The Ministry's policy with respect to proceedings under the Drainage Act is stated in Provincial Highways Directive B-63, "Drainage Act - MTC Policy and Procedures".

SECTION 5. TERRITORY WITHOUT MUNICIPAL ORGANIZATION

Since development in a territory without municipal organization is generally minimal, there usually is no need for the development of an MDP or an extensive SWMP. Where a provincial highway drainage system is proposed for use by a development in a territory without municipal organization, a basic plan showing how the drainage from the development will be conveyed should be shown. If permission to use a highway drainage system is given, it should be covered by an Encroachment Permit. Certain permit conditions stated in Section 4(2) may be waived at the discretion of the District Engineer according to local situations.

SECTION 6. MISCELLANEOUS DRAINAGE MATTERS

(1) Piped Drains from Agricultural Lands and Individual Residences

This directive is not applicable to piped drains from agricultural lands and individual private residences which discharge onto or cross provincial highways. Ministry policy on these matters is stated in Provincial Highways Directive B-217, "Private Piped Drains on the Highway Right-of-Way".

(2) Drainage Act

The provisions of the Drainage Act may be used to convey stormwater runoff from isolated pockets of development. The Ministry's policy with respect to proceedings under the Drainage Act is stated in Provincial Highways Directive B-63, "Drainage Act - MTC Policy and Procedures".
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