

This package includes consolidated local policies with "FLOODWAY" & "FILL" amendments approved by the RVCA Board of Directors dated respectively February 18 and November 25, 2010.

Staff Report

To: RVCA Board of Directors
From: Don Maciver, MCIP RPP Director of Planning
Subject: Transition Provisions
Adoption of Generic Regulation (O. Reg. 97/04 – a development, interference with wetlands and alterations to shorelines and watercourses regulation)
Date: April 18, 2006

Recommendation:

In anticipation of the Minister's Approval of the Rideau Valley Conservation Authority's Regulation related to "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" (Ontario Regulation 97 /04) regulation on or prior to May 01, 2006 be it resolved that:

- 1) The Board of Directors approves the attached document titled "Transitional Procedures and Guidelines for Permission pursuant to Section 28 of the Conservation Authorities Act" (April 2006) and
 - 2) Pending completion in the near future of revised local policies, the existing "Policies Regarding Development including the Construction of Buildings and Structures, Placing of Fill, and Alterations to Waterways" (current to February 21, 2002) remain in effect except where these policies are silent on a development issue (eg. Wetlands) or where standards in the Provincial Policy Statement (2005) exceed the minimum standards in the local policy in which case the Provincial Policy shall prevail.
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The Rideau Valley Conservation Authority's submission to the Minister of Natural Resources for approval of the Generic Regulation approved by the Board on November 24, 2005 was completed in early March. It is currently proceeding through the Ministerial approval process.

In anticipation of the Minister's approval and assignment of a Ministerial reference number on or before May 01, 2006 some administrative measures are necessary. One will include a sign off by the Chair and General Manager providing for rescinding of the old regulation and, in turn, adoption of the new regulation approved by the Minister. Other matters relate to administrative details as referenced in (1) above.

In addition it is also necessary that the Conservation Authority adopt new local implementation policies for administration of the "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" regulation. The current document ("Policies Regarding Development including The Construction of Buildings and Structures, Placing of Fill, and Alterations to Waterways") approved by the Board as recently as February 2002 is silent on wetland issues and need to be updated with respect to some other matters associated with the wording of the regulation itself as well as changes in Provincial Policy related to Natural Hazards. It is being suggested (# 2 above) that in all cases where the existing local policy is silent or deficient the Provincial Policy will prevail.

Under “Implementation” Section 4.2 of the Provincial Policy Statement indicates that:

“In accordance with Section 3 of the *Planning Act*, as amended by the *Strong Communities (Planning Amendment) Act, 2004*, a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter, “*shall be consistent with*” this Provincial Policy Statement.

Comments, submissions or advice that affect a planning matter that are provided by the council of a municipality, a local board, a planning board, a minister or ministry, board, commission or agency of the government “*shall be consistent with*” this Provincial Policy Statement.”

Section 4.6 also states:

“The policies of this Provincial Policy Statement represent minimum standards. This Provincial Policy Statement does not prevent planning authorities and decision-makers from going beyond the minimum standards established in specific policies, unless doing so would conflict with any policy of this Provincial Policy Statement.”

Both internal and external consultation will be required prior to adoption of an amended local implementation policy. This consultation has commenced. It is anticipated that a new policy can be brought to the Board of Directors by mid year 2006.



Transitional Procedures and Guidelines
for permission pursuant to
Section 28 of the Conservation Authorities Act.

**Changeover from Ontario Regulation 166 –
A “Fill, Construction and Alteration to Waterways” Regulation to
implementation of Ontario Regulation 97/04,
the “Development, Interference with Wetlands and Alterations to
Shorelines and Watercourses” Regulation**

April 2006

1.0 **Background**

The Conservation Authority's existing "Fill, Construction and Alteration to Waterways" Regulation provided each CA with the power to regulate:

- (a) placing or dumping of fill in a regulated area,
- (b) construction of buildings and structures in any area susceptible to flooding during a regional storm, and
- (c) straightening, changing, diverting or interfering in any way with a waterway.

On May 1st, 2004, the Generic Regulation (Ontario Regulation 97/04) was approved by the province under subsection 28(1) of the Conservation Authorities Act. The "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" regulation broadened the scope of the Authority's powers and established new criteria for a regulation made by an Authority under subsection 28(1) of the Conservation Authorities Act. There was a two year implementation 'window'.

A principal mandate of Conservation Authorities is to prevent the loss of life and property damage due to flooding and erosion, and to conserve and enhance natural resources. The "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation is a key tool in fulfilling this mandate because it gives the CAs the power to regulate development (as defined), interference with wetlands, and alterations to shorelines and watercourses in areas where the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land may be affected by development.

The transitional policies and procedures are important in the implementation of the new regulations. It is anticipated that the Minister will approve the new regulations on or before May 1st, 2006. In the event the regulations are approved prior to this date, the transitional policies and procedures will become effective as of that date.

1.1 **Purpose**

Due to the changes brought about by the new regulation, a set of guidelines is necessary to ensure permissions issued and new applications submitted for development are subjected to the appropriate procedures and guidelines depending on their date of submission. Therefore, the purpose of this document is to establish a set of procedures that will guide staff of the Authority through the transition from the current "Fill, Construction and Alteration to Watercourses" Regulation to allow implementation of the new "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation.

1.2 **Permit Applications**

1.2.1 **Applications Submitted Under the CA Act before May 1st, 2006**

Applications for permission that are submitted to the Authority prior to May 1st, 2006 (or the date of approval by the Minister) will be subject to the procedures for the administration of the existing "Fill, Construction and Alteration to

Watercourses" Regulation provided that the application is complete and all fees are paid to the satisfaction of the Authority.

Applications that are deemed by the Authority to be incomplete, and are within an area regulated under the new "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation, as of May 1st, 2006 (or the date of approval by the Minister) will be subject to the procedures under the new regulation, and the proponent must re-submit a new application under the new regulation. The appeal provisions of Section 28(12) of the Act may be invoked by the applicant.

If the subject application for the proposed works is not within an area regulated under the new regulation, then the applicant will be advised that written permission pursuant to the regulation is not required for the proposed works, and an Inquiry form or clearance letter will be issued by staff following payment of the appropriate fee.

1.2.3 Applications Submitted after May 1st, 2006

All applications for permission to develop within an area regulated under the new "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation that are received after May 1st, 2006 (or the date of approval by the Minister) will be subject to the provisions under the new regulation.

1.2.4 Building Code Approvals issued before May 1st, 2006

The Conservation Authorities Act is "*other applicable law*" under the Ontario Building Code Act. As such CA approval, where required, is necessary prior to issuance of the Building Permit.

Where municipal building permits have been issued prior to May 01, 2006 for development on lands not previously regulated by the Authority pursuant to the regulation then these permits may be deemed to be valid for up to two years from date of issue; where failure to act on the Building Code Act approval occurs CA approval will be required after May 01, 2008.

In the rare case where a municipal building permit may have been issued on lands on which the CA had jurisdiction under the previous "Fill, Construction and Alterations to Waterways" regulation then that Building Code approval will be deemed invalid and an application to the Authority will be required failing which enforcement action will be taken.

1.3 Extension of Permits Issued under the Current Regulation

Any permission under Section 28 of the CA Act that was issued under the previous regulations with expiry dates beyond May 1st, 2006 will continue to be valid for the duration identified on the permit. Inspections and conditions

enforced under the "Fill, Construction and Alteration to Waterways" Regulation will continue until such time as the permit expires.

The old regulations will be revoked when the new regulations are approved. Therefore, a request for an extension of the existing permit must be received by the Authority prior to the date of expiry shown on the permit, and an extension will be issued under the new regulation. Extensions will not be required for development not located within an area regulated under the new regulation.

1.4 Review of Planning Applications

1.4.1 Planning Applications Submitted Before May 1st, 2006

All plan input and review will be conducted based on the provisions of the current "Fill, Construction and Alteration to Waterways" Regulation.

1.4.2 Planning Applications Submitted After May 1st, 2006

All plan input and review will be conducted in accordance with the provisions of the new "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation.

1.5 Violation Notices and Legal Actions Commenced Before May 1st, 2006

Violation Notices issued prior to May 1st, 2006 will continue to be addressed by enforcement staff in order to remedy/rectify the situation under the requirements of the "Fill, Construction and Alteration to Waterways" Regulation.

For those Violation Notices issued for works in an area not regulated under the new "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Regulation, upon satisfactory resolution of the matter, the proponent will be issued a letter advising that the works occurring in violation of the "Fill, Construction and Alteration to Waterways" Regulation have been satisfactorily remedied / rectified.

Legal actions that commenced prior to May 1st, 2006 will continue to proceed.

1.6 Other Agency Approvals

Issuance of a permit does not relieve the applicant from the responsibility of acquiring approval from other agencies, or relieve the applicant from compliance with any conditions that other agencies may impose on the work.

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and Housing**

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Ontario

05-00906

March 3, 2005

To: Heads of Council/Chairs of Planning Boards and Conservation Authorities

On February 21, 2005 the McGuinty government announced the new Provincial Policy Statement (PPS), the government's direction for land-use planning in Ontario.

In addition, the "shall be consistent with" standard, which applies to the making of decisions on, or giving of advice for planning matters, was proclaimed under the *Planning Act*. This new standard is in effect March 1, 2005, to coincide with the effective date of the new Provincial Policy Statement.

In order to assist municipalities with planning applications that are currently being processed, a Minister's Regulation (Ontario Regulation 63/05) has been filed. It outlines transition rules for the application of the "shall be consistent with" standard. A copy of Regulation 63/05 is attached. Additional copies may be downloaded from the Ministry website at <http://www.mah.gov.on.ca>.

The regulation provides for the following:

- Applications in process before March 1, 2005 will be dealt with under the "have regard to" standard, as stipulated in the *Planning Act*; and
- Applications submitted on or after March 1, 2005 will be subject to the "shall be consistent with" standard.

The government is committed to assisting municipalities and other decision-makers in implementing the new policies through its education and training initiatives and the development of support materials. The Ministry of Municipal Affairs and Housing, in co-ordination with other ministries with interests in land-use planning, is working on developing, updating and releasing "best practices" guides, info sheets and technical materials, to assist implementation of the PPS policies.

Regionally-based training workshops will commence later this month and continue into the spring.

I appreciate your participation in the planning reform initiatives that we have already undertaken and achieved. Your input will be valuable as we take the next steps in our planning reform agenda.

Sincerely,

John Gerretsen
Minister



Policies Regarding Development Including
the Construction / Reconstruction of Building
and Structures, Placing of Fill and Alterations
to Waterways Under Section 28 of the
Conservation Authorities Act of Ontario

02.18.2010

Adopted by RVCA Executive Committee
October 21, 1993

**RVCA Board of Directors
approved amendments:**

- August 19, 1999
- December 16 1999
- February 21, 2002
- April 18, 2006
- **February 18, 2010**
- **November 25, 2010**

These watershed policies are intended to guide the use of land in areas susceptible to natural hazards so as to ensure that the control of flooding erosion, pollution and the conservation of land are addressed in accordance with Section 28 of the *Conservation Authorities Act* (R.S.O. 1990, Chapter 27) and the "provincial interest."

This document is a consolidation of amendments approved by the RVCA Board of Directors current to December 2010 and is intended to assist with implementation of Ontario Regulation 174/06 under S. 28 of the Conservation Authorities Act (R.S.O. 1990, Chpt. 27).

Additional amendments will follow as the Conservation Authority continues work to update policies particularly as they relate to development and interference in river or stream valleys, interference with watercourses and development in and interference with wetlands.

Until such time as the review and approval process is complete, the adopted Transition Provisions dated April 18, 2006 remain in effect.

November 25th., 2010

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1.1 General Principles

The Authority's consideration of all applications for permission to construct buildings and structures (including additions to or renovations of existing buildings) and to place fill or undertake site grading or to alter a waterway will be guided by the following principles of flood plain and watershed management :

- (a) New development must result in no significant impact on expected flood levels or velocities, taking into consideration the direct and cumulative effects of the development on flood plain conveyance capacity and storage capacity.
- (b) New development involving capital investment in flood susceptible areas by the public and private sectors must be designed so that structures and their contents are protected against flood damage.
- (c) New development must not increase the risks to public safety which are expected to be present during the regulatory flood (or more frequent floods); in this regard the availability of access to and egress from the structure and the potential depths of water over access routes will be the primary consideration.
- (d) New development must not, in the opinion of the Authority, have the result of polluting or contributing to the pollution of the abutting watercourse nor will new development be permitted which will adversely affect the Authority's interests in terms of the conservation of land.
- (e) Development is to be set back a minimum distance of 30 metres from the normal high water mark of a water course. Additionally, where there is a defined bank, development shall be no closer than 15 metres from the top of the bank.

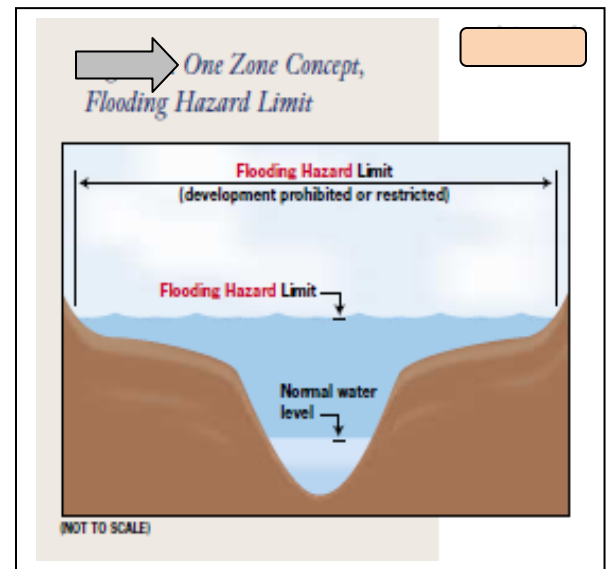
Exceptions will be considered only if specific measures are provided for in an approved watershed or sub-watershed plan.

Exceptions may also be considered in redevelopment situations where the use of the land remains the same and where lot sizes are restricted. Setbacks may, however, be no less than existing. Adverse effects on the Authority's interests in terms of the control of flooding, erosion, pollution or the conservation of land, including negative impacts on adjacent fish habitat, must be mitigated.

- (f) It is the intent of the Authority that these policies shall be in conformity with and complement the Ontario government's "Provincial Policy Statement" made under the authority of Section 3 of the Planning Act (as approved by the Lieutenant Governor in Council) as well as their attendant Implementation Guidelines.

1.2 Development within a One-Zone Regulatory Floodplain of a River or Stream Valley

- 1) *Development* within the 1:100 year regulatory floodplain shall not be permitted except as allowed by specific policies elsewhere in this document. This includes:
 - i) new buildings and structures;
 - ii) major additions;
 - iii) site grading and filling;
 - iv) development associated with flood hazard protection and bank stabilization works to allow for future / proposed development or an increase in development envelope or area within the 1:100 year regulatory floodplain;
 - v) *development* associated with new and / or existing trailer parks / campgrounds;
 - vi) *development* associated with stormwater management facilities;
 - vii) new development on vacant lots of record;
 - viii) underground parking; and
 - ix) development on high points of land outside the floodway but within the regulatory limits of the regulation where safe access is not available.
- 2) Further to Section 1.1, development shall be prohibited within the 1:100 year floodplain including within areas of *reduced flood risk* (flood fringe) where the use is:
 - a) an institutional use associated with hospitals, nursing homes preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick the elderly, persons with disabilities or the young during an emergency as a result of flooding and/or failure of floodproofing measures or protection works; or
 - b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of flooding, the failure of floodproofing measures and/or protection works; or
 - c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.
- 3) Notwithstanding Section 1.2 (1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various utilities (e.g. pipelines) shall generally not be permitted within the 1:100 year regulatory floodplain except where the development has been approved through a satisfactory Environmental Assessment process clearly demonstrating that there is no viable alternative and / or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the conservation of land will not be affected.



- 4) Notwithstanding Section 1.2 (1), development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the 1:100 year regulatory floodplain if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the conservation of land will not be affected and emergency measures for evacuation and restricted access during a hazard emergency are documented.
- 5) Notwithstanding Section 1.2(1) stream, bank, slope, and valley stabilization to protect development in existing communities and conservation or restoration projects may be permitted within the 1:100 year regulatory floodplain subject to the activity being approved through a satisfactory Environmental Assessment process clearly demonstrating that there is no viable alternative and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the conservation of land will not be affected.

Minor Works

- 6) Notwithstanding Section 1.2 (1), development associated with existing uses located within the 1:100 year regulatory floodplain such as minor additions, small non-habitable detached accessory buildings, pools, landscaping, retaining walls, grading, small decks, etc., may be permitted if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the conservation of land will not be affected and the proposal is undertaken in accordance with the specific policies outlined elsewhere in this document. The submitted plans shall clearly demonstrate that:
 - a) there is no feasible alternative site outside of the regulatory floodplain for the proposed development or, in the event that there is no feasible alternative site, that the proposed minor development is located in an area of least (and acceptable) risk;
 - b) the proposed works do not create new hazards or aggravate flooding on adjacent or other properties and there are no negative upstream and downstream hydraulic impacts;
 - c) the development is protected from the flood hazard in accordance with the use and established floodproofing and protection techniques;
 - d) the proposed development will not prevent access for emergency works, maintenance, and evacuation and safe access standards are respected;
 - e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion, sediment control and site stabilization / restoration plans;
 - f) natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion hazards have been adequately addressed;

- g) minimum setback distances from water as expressed in this document are respected;
- h) there is no conflict with other policies in this document.

More detailed policies are contained in subsequent sections of this document.

Minor development involving site grading

- 7) In known or identified flood hazard areas, RVCA may approve development involving minor site alteration such as the minor removal or placement of fill but only in limited circumstances as outlined in Section 2.0 of this document.

Surface Parking

- 8) Notwithstanding Section 1.2 (1), development associated with the provision of surface parking for commercial or institutional uses may be permitted within the 1:100 year regulatory floodplain in accordance with Policy 1.2.7 (“Minor removal or placement of fill”) if it has been demonstrated to the satisfaction of the Conservation Authority that:
 - (a) there is no viable alternative outside of the regulated area,
 - (b) other policies in this document are respected,
 - (c) the control of flooding, erosion, pollution or the conservation of land will not be affected,
 - (d) flood depths on site do not exceed 0.3 metres,
 - (e) adequate provision is made through an emergency plan for clearing the lot of vehicles during times of flood threat, and
 - (f) safe pedestrian and vehicular access is achieved as defined in Section 1.4.4.

Agricultural Buildings

- 9) Agricultural buildings and facilities may be permitted where it can be demonstrated that:
 - (a) there is no feasible alternative site outside the 1:100 year flood hazard;
 - (b) the risk of property damage is minimized through site design and flood emergency plans;
 - (c) there is no residential occupancy;
 - (d) the development is not utilized for continuous livestock management or habitation;
 - (e) pollution risks or hazards are appropriately addressed;
 - (f) floodproofing is undertaken to the extent practical, where floodproofing to the elevation of the *regulatory 1:100 year flood* is not technically feasible and
 - (g) a *net gain* in environmental quality is achieved.

Marinas

- 10) A **marina** may be permitted in accordance with other policies in this document where it can be demonstrated that:
- (a) there is no loss of flood plain storage;
 - (b) there is no associated residential occupancy in the flood plain;
 - (c) infrastructure associated with boat mooring, docking and launching is designed to take advantage of existing impacted or open areas on the channel bank, wherever possible, and there are no harmful alterations to or loss of fish habitat;
 - (d) there is no loss of provincially significant wetland;
 - (e) development in the adjacent lands to a *provincially significant* wetland (PSW) is undertaken only after an Environmental Impact Statement (EIS) has been undertaken to the satisfaction of the RVCA and constraints identified in the EIS are addressed to the satisfaction of the RVCA;
 - (f) where unavoidable, intrusions on locally significant natural features and on hydrologic or ecological functions are minimized including appropriate design of site, facility and/or landscape design and appropriate remedial measures are planned and implemented so as to adequately restore and enhance features and functions and achieve a net gain consistent with the Conservation Authority's "conservation of land" interests and objectives;
 - (g) the risk of property damage is minimized through site and facility design and the preparation of flood emergency plans; and
 - (h) all other federal and provincial statutory requirements are met.

Golf Courses or Golf Course Expansions

- 11) A **Golf Courses or Golf Course Expansion** may be permitted in accordance with other policies in this document, and where it can be demonstrated that:
- (a) all associated permanent, closed structures including clubhouses, washrooms, septic systems and maintenance buildings are located outside of the 1:100 year flood plain;
 - (b) there is no loss of flood plain storage capacity associated with the proposed development and particularly as this relates to site grading;
 - (c) minor site grading and fill placement provisions elsewhere in this document are respected;
 - (d) there is no loss of provincially significant wetland;
 - (e) development in the adjacent lands to a *provincially significant* wetland (PSW) is undertaken only after an environmental impact study (EIS) has been undertaken to the satisfaction of the RVCA and constraints identified in the EIS are addressed to the satisfaction of the RVCA;

- (f) watercourse crossings are minimized and designed in accordance with the Alteration to Watercourses policies elsewhere in this document;
- (g) a *net gain* in environmental quality is achieved;
- (h) the risk of property damage is minimized through site and facility design and flood emergency plans, *and*
- (i) the risk of pollution from the application of fertilizers, herbicides, pesticides or insecticides or other chemical or organic compounds shall be minimized and addressed in a turf management plan prepared by a qualified professional.

Above or Below Ground Swimming Pools

(12) Small above or below ground swimming pools are considered under the development provisions of these policies and may be permitted associated with a single family residential land use where the effects of placement of either types of pool can be mitigated by adherence to the following requirements:

- (a) floodproofing of electrical facilities to the elevation of the regulatory flood is undertaken generally in accordance with Section 1.4 (Floodproofing) of this document,
- (b) the pool and areas ancillary to it are situated outside the 1:20 year flood plain;
- (c) fill placement and hard site landscaping will be strictly limited such that any associated grade changes are negligible so as to result in no adverse effects with respect to the control of flooding, erosion, pollution or the conservation of land;
- (d) all surplus or excess fill is removed from the 1:100 year flood plain;
- (e) on site groundwater interference issues are addressed;
- (f) water setback considerations for development contained in this document are addressed and ecological and water quality impacts compensated for including consideration for a *net gain* in environmental quality.

1.3 RECONSTRUCTION / RELOCATION / REPAIRS AND RENOVATIONS

- 1) Notwithstanding Section 1.2 (1), development may be permitted associated with the **reconstruction or relocation** of a building located on an existing lot of record within the 1:100 regulatory floodplain, provided that it has not been destroyed by flooding and if is demonstrated, to the satisfaction of the Conservation Authority, that the control of flooding, erosion, pollution, or conservation of land will not be affected by its reconstruction. Consideration must be given to reducing the risk of flooding and property damage through relocation of the building.

For the **reconstruction or relocation** of a building within the 1:100 regulatory floodplain the submitted plans shall clearly demonstrate that the building:

- (a) can not be relocated to an area outside the flood hazard and if there is no feasible alternative site, that it is located in an area of least (and acceptable) risk; and
- (b) will be protected from the flood hazard through incorporation of appropriate flood proofing measures as outlined in Section 1.4 (Floodproofing);
- (c) the building would previously have been considered habitable; and
- (d) will not exceed the original habitable floor area or the original footprint area of the previous structure.

Permission will generally be refused for the reconstruction of derelict or abandoned buildings in the floodway.

1.3.1 Repairs / Renovations

Any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure requires Conservation Authority approval pursuant to the regulation.

Repairs and renovations to an existing dwelling or structure within the existing roofline and exterior walls and above the existing foundation that do not alter the use or potential use do not generally require the permission of the Authority. Repairs and modifications that involve any change to the existing roofline will be assessed on a case by case basis to ensure no change of use may occur.

If the repair or renovation involves the proposed building becoming larger than the existing building, the policies respecting additions to existing buildings (Section 1.3.3) shall be applied to determine if the proposed enlargement conforms to these policies.

Modification or reconstruction of foundations supporting existing buildings are deemed to be regulated, given the possible implications of such works on the potential for flood damage and change of the use or potential use. See Section 1.4 (Floodproofing) following.

1.3.2 Foundation Reconstruction

A new foundation for an existing building or dwelling must provide a level of protection from flooding equal to or greater than that of the existing foundation. Where feasible, proponents are strongly encouraged to design for protection to the 1:100 year level in accordance with the requirements of Section 1.4 Floodproofing.

A new foundation involving a dry floodproofed full basement, where one did not exist before, will be considered under the "Addition" policies of this document.

Foundation reconstruction undertaken in accordance with a building demolition will be considered as new construction and floodproofing will be required in accordance with the floodproofing provisions (Section. 1.4) of this document.

1.3.3 Minor Additions to Existing Structures and Reconstruction of Existing Structures

Additions ¹

Public safety risks are a function of the occupancy of structures and the flood susceptibility of access routes to those structures, and will be controlled by limiting the size (and thereby limiting the occupancy) of additions in dangerous or inaccessible portions of the flood- plain.

The objective of the Authority in regulating the construction of additions to existing buildings or their entire reconstruction is:

To allow for continuance of the existing use only of buildings in flood susceptible areas, while ensuring that the risk of flood damages to buildings and their contents and the risks to public safety, emergency officials and responders are not increased.

The risk of damage to buildings and their contents will be controlled by the incorporation of flood-proofing measures into building design.

The construction of additions to existing residential buildings, including changes to the roofline and / or an increase in the gross floor area of the building, whether on one or more storeys, and including the enclosure of decks and porches may be permitted provided:

¹ The first RVCA written policies for this program came into effect on October 21, 1993. Policies related to additions came into effect in 1999. Insofar as this policy is concerned retroactivity in consideration of future additions is effective as of October 21, 1993 meaning that if a property has already had an addition future additions may not be permitted based on the policies in this document.

- the development meets the policies set out below;
- the fill policies are respected;
- any addition meets the definition of “minor” as outlined in this section;
- water setback considerations are addressed

Access considerations for both vehicular and pedestrian passage will be used to determine the size of the addition which may be permitted.

1.3.3 (1) Type I Additions

Small additions may be permitted in the floodway if all of the following considerations are addressed:

- (a) the size of the addition does not exceed 20% of the gross floor area of the existing building or 20 square metres (215 square feet), whichever is the lesser;
- (b) the addition is not more vulnerable to flooding than the existing building (where possible protection to the 1:100 year flood level should be provided);
- (c) the proposal will not alter the use or have the potential to alter the use of the building or structure [the number of bedrooms both existing and proposed and the number of fixture units for bathroom(s) and kitchen will be key elements in the consideration as will the configuration of the interior space (taking into account its ability to subsequently be altered to affect the use)];
- (d) no application resulting in the cumulative exceedence of 20% of the gross floor area or 20 square metres, whichever is the lesser or, where the property fronts on a maintained municipal road, a maximum gross floor area of 93.0 square metres (1000ft²) for the existing building and the addition together¹ will be considered under this section.

1.3.3 (2) Type II Additions (Residential)

Somewhat larger additions resulting in increases of between 20% and 50% but not exceeding a maximum of 50 square metres (538 square feet) may be permitted in the floodway provided all of the following provisions are met:

- (i) the addition meets the floodproofing provisions outlined in Section 1.4; and
- (ii) the addition does not alter the use or the potential use of the building or structure; and
- (iii) access is safe as per Section 1.2.6 (Safe Access / Egress).

No application resulting in the cumulative exceedence of 50% of the gross floor area or 50 square metres (538 square feet), whichever is the lesser, shall be permitted in the floodway.

1.3.3 (3) Additions peripheral to a residential use

For both Type I and Type II additions a further addition that is peripheral in nature to the primary use such as an open deck may be permitted if:

- (i) it is small as described in 1.3.3 (1)(a) above;
- (ii) it is fully open and the overhang of the adjoining roof does not cover the deck to a significant extent (less than 10%);
- (iii) it is properly anchored to prevent flotation, will not be subject to major damage by flooding, and flood flows and water storage are not impeded.
- (iv) Water setback requirements are met in conjunction with policies contained elsewhere in this document.

1.3.3 (4) Site Servicing

- (a) In all areas served by private on-site services, certification from the applicable approval authority or a Professional Engineer that the septic system is adequate to sustain the proposed use and in good working order will be required.

Systems shall be designed such that replacement systems have the bottom of the gravel layer no lower than the 1:20 year flood elevation. Advanced technology in the form of tertiary treatment systems affording a higher level of treatment and approvable for use under the Ontario Building Code may be required so as to reduce and limit the amount of fill being placed.

- (b) Where the water supply is from a drilled well, confirmation will be required that the well is floodproofed in accordance with the requirements in Section 1.4 (Floodproofing) of this document.

1.3.3 (5) Auxiliary Buildings

Conventionally designed non-residential *auxiliary buildings* smaller than 50 square metres (538 ft.²) may be permitted provided:

- they are single storey;
- where there is opportunity to locate these buildings on the property outside the floodplain this shall be done;
- where no opportunity exists to situate the building outside the flood plain the building shall be placed above the 1:20 year flood elevation;
- fill shall be minimized by removing from the property (or the floodplain) a volume of fill equal to the volume required to construct the floor of the building (meaning no or minimal grade change);
- where permitted the building must be designed and constructed to withstand the effects of flooding to regulatory flood level without structural damage;

- the development shall not affect the flood susceptibility of other properties; and
- development setback provisions as expressed in this document are respected.

The Authority will require, as a condition of permission, that goods stored in such structures must not be susceptible to damage or loss due to flooding or must be capable of being removed from the flood plain given sufficient warning of anticipated flood conditions.

Single stand alone storage buildings of less than 9.3 square metres (100 ft.²) built at existing or original grade are exempt from C.A. approval except where there are other such buildings already on the property in which case the cumulative area shall be taken into account in accordance with the Auxilliary Buildings provisions immediately preceding. Setback provisions from water as expressed in this document are also to be respected by these smaller buildings.

1.3.3 (6) **Additions** - Commercial / Industrial / Institutional Buildings

(1) Notwithstanding Section 1.2 (1) **additions** to existing commercial / industrial / institutional buildings or structures may be permitted where it can be demonstrated that:

- (a) the addition is 50 percent or less of the original ground floor area of the building or structure to a maximum of 100 square metres (1,076 ft. ²), or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original ground floor area of the building or structure to a maximum footprint of 100 square metres (1,076 ft. ²), *and*
- (b) no basement is proposed and any crawl space is designed in conformity with the floodproofings requirements in Section 1.4 ;
- (c) the use is not prohibited as outlined in Section 1.2 (2) above;
- (d) the servicing provisions of this document (S. 1.3.3(4)) are respected; and
- (e) development setback provisions as expressed in this document are addressed.

(2) **Accessory Buildings or Structures** associated with commercial / industrial/ institutional uses may be permitted where it can be demonstrated that:

- (a) the building or structure is greater than 9.3 square metres (100 ft. ²) but less than or equal to 100 square metres (1076 ft ²) or in the case of additions, the combined area of the existing building or structure and any proposed addition is equal to or less than 100 square metres (1,076 ft. ²);
- (b) the building or structure is securely anchored such that it does not obstruct downstream culverts during a flood event where applicable;
- (c) the cumulative impact of multiple accessory buildings or structures on the subject property is negligible; *and*

- (d) no basement is proposed and any crawl space is designed to facilitate services only;
- (e) the servicing provisions of this document (S. 1.3.3(4)) are respected and
- (f) development setback provisions as expressed in this document are respected.

1.4 FLOODPROOFING

Floodproofing includes or incorporates a combination of structural changes and / or adjustments to be included in the basic design and/or construction or alteration of individual buildings, structures or properties subject to flooding so as to reduce or mitigate the potential for flood damages.

1.4.1 General

- (a) Buildings or additions to buildings which are permitted under the Regulations shall be floodproofed to the satisfaction of the Authority.
- (b) "Floodproofing" encompasses all measures required to ensure that a structure and its contents will not sustain flood damages and to provide for the continued occupancy of the structure throughout a flood event of regulatory flood magnitude.
- (c) In many situations, floodproofing involves non-conventional design of the structural, drainage and electrical / mechanical systems of the building. Accordingly, for certain applications, the services of a licensed Professional Engineer, at the expense of the applicant, will be a requirement.
- (d) Where buildings can be approved but the services of a licensed Professional Engineer are required by this policy the designer shall produce a summary or "owner's manual" for the owner (and for subsequent owners) such that measures to be taken prior to, during and following a flood event are defined to ensure the building's suitability for ongoing human habitation and to outline ongoing maintenance responsibilities and requirements.

1.4.2 FLOODPROOFING METHODS

The following sections describe the basic options available for floodproofing typical structures and the policies of the Authority in circumstances where development may be permitted. It should be recognized that for some situations one or more of the following options may prove to be technically or economically impractical.

(a) Slab-on-Grade Construction, On Fill

- underside of slab shall be set at least 300 mm. above the 1:100 year flood level;
- structural details of foundation elements and specifications for fill materials and compaction procedures must be prepared or approved by a qualified Professional Engineer at the applicant's expense and the responsible Professional Engineer shall certify in writing that the design has taken into account regulatory flood (velocity and depth) and site (soil type, bearing capacity etc.) conditions encountered at the specific location of the development and, further, the responsible Professional Engineer must identify maintenance requirements that might be required over the design life of the structure;
- fill aspects of proposal will be governed by policies regarding the placing of fill;
- a notice to prospective purchasers be registered at the applicant's expense (see Section 1.4.5.);
- there are no effects on the control of flooding, erosion, pollution or the conservation of land associated with the development.

(b) Building Supported by Piers or Columns

- underside of main floor shall be at least 300 mm. above the 1:100 year flood level;
- structural details of foundation elements and specifications for fill materials and compaction procedures must be prepared or approved by a qualified Professional Engineer at the applicant's expense;
- the responsible Professional Engineer shall certify in writing that the design has taken into account regulatory flood (velocity and depth of flow, potential ice impact pressures) and site (soil type, bearing capacity etc.) conditions encountered at the specific location of the development and, further, the responsible Professional Engineer must identify maintenance requirements that might be required over the design life of the structure; and
- a notice to prospective purchasers shall be registered at the applicant's expense (see Section 1.4.5.).

(c) Wet Floodproofing (Floodable Crawl Space)

- underside of main floor shall be at least 300 mm above 1:100 year flood level;
- drawings must clearly indicate the means by which hydrostatic pressure is to be equalized on either side of the foundation walls and slab;

- at least two openable windows shall be provided on opposite sides of building;
- top of window sills to be not less than 150 mm below finished exterior grade (to allow flood waters into the structure relieving hydrostatic pressure as soon as flooding of the surrounding land commences);
- areas below the first floor are to remain unfinished and contain no habitable space or utilities and all mechanical and electrical equipment, heating/cooling units and ductwork are all to be located above 1:100 year flood level;
- sump pump is required (to facilitate clean-up);
- a notice to prospective purchasers be registered at the applicant's expense (see Section 1.4.5);
- the vertical height within the enclosed space under the building between the underside of the floor assembly and the ground cover directly below shall be no greater than 1800 mm.

(d) Dry Flood Proofing (Full Basement)

- underside of main floor shall be at least 300 mm. above the 1:100 year flood level;
- structural details of foundation elements and specifications for fill materials and compaction procedures must be prepared or approved by a qualified Professional Engineer at the applicant's expense;
- the responsible Professional Engineer shall certify in writing that the design has taken into account regulatory flood (velocity and depth of flow) and site (soil type, bearing capacity etc.) conditions encountered at the specific location of the development; and
- the Professional Engineer's certificate must confirm that the foundation and building are designed to withstand hydrostatic pressures and / or impact loading that would develop under water levels equivalent to the design storm [1:100 year flood level plus (minimum) 0.3 metres of freeboard];
- the responsible Professional Engineer must also identify all operation and maintenance requirements to be met in order to ensure the effective performance of the floodproofing measures over the design life of the structure; and
- a notice to prospective purchasers shall be registered on title at the applicant's expense (see Section 1.4.5).

(e) Wet Flood Proofed Full Basement

Wet flood proofed full height basements are not permitted.

1.4.3 FLOODPROOFING - Site Servicing ²

- (1) Notwithstanding Section 1.2 (1), the replacement of sewage disposal systems on existing lots of record may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of the Conservation Authority that locating the system outside the flood plain is not possible and, if so, that the control of flooding, erosion, pollution or the conservation of land will not be affected by the system placement.

Systems shall be designed such that replacement systems have the bottom of the gravel layer no lower than the 1:20 year flood elevation.

Where the vertical separation distance from the bottom of the gravel layer to the high ground water table is determined by test pits or auger holes, at no time shall it be less than the 1:2 year flood elevation. The elevation of the leaching bed will be the minimum of the highest elevation as determined by the bottom of the gravel layer to the flood elevation or the vertical separation distance from the bottom of the gravel layer to the high ground water table.²

Advanced technology in the form of tertiary treatment systems affording a higher level of treatment and approvable for use under the Ontario Building Code may be required so as to reduce and limit the amount of fill being placed.

- (2) Notwithstanding Section 1.2(1), any new well must be located no closer than a minimum of 15 metres from the water's edge. A drilled well must be capped no less than the 1:100 year flood elevation + 0.3 metres and installed and grouted fully in accordance with Ontario Regulation 903.

1.4.4 FLOODPROOFING - Safe Access / Egress

The following principles related to the facility of access / egress and associated with overall public safety and the provision of emergency services will apply:

For vehicular and pedestrian access routes (municipal roadways and private rights-of-way) safe access will be considered to be available if the depth of flooding at regulatory (1:100 year) flood level along the full length of the travelled surface of the access roadway or right-of-way is no greater than 0.3 metres.

Access / egress shall remain dry at all times for institutional buildings servicing the sick, the elderly, the disabled or the young and in buildings utilized for public safety (ie. police, fire, ambulance and other emergency measures) purposes.

² This provision relates to implementing S. 8.7.2.1. "General Requirements" of the OBC wherein a requirement is established such that: (1) "A leaching bed shall not be located (c) in or on an area that is subject to flooding that may be expected to cause damage to the leaching bed or impair the operation of the leaching bed" and compliments the CA flood control interests.

1.4.5 NOTICE TO PROSPECTIVE PURCHASERS (Easement Agreement)

- (a) The long term effectiveness of floodproofing measures will rely on there being no inappropriate modifications made to the floodproofing system (consisting of structural elements, piers, drainage systems, backfill, and waterproof membranes and/or seals) and no inappropriate uses made of flood susceptible portions of the structure. For applications involving such floodproofing techniques, the Authority will require that an **easement agreement** be prepared according to the standard form and registered on title at the applicant's expense giving the Authority the right of access to the property only and thus providing notice of the owner's obligations and the Authority's "*interest*" in the lands and structure erected thereon.
- (b) The agreement, in wording satisfactory to the Authority, will generally provide information respecting the Authority's objects, jurisdiction under legislation, right of entry on the property for inspection purposes, and the owner's obligations and rights.

1.5 AREAS OF REDUCED FLOOD RISK / FLOOD FRINGE

In specific areas which have been identified as "areas of reduced flood risk" (i.e. areas protected by flood control works including dykes and pump stations) or "flood fringe" new buildings and structures on existing lots of record only and additions will be permitted provided:

- a. *development and site alteration* and site servicing is carried out in accordance with *floodproofing standards, protection works standards, and access standards*;
- b. the use of the land remains the same in accordance with the underlying municipal land use designation (meaning that intensification will not be supported);
- c. vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies including the possible failure of flood control works;
- d. new hazards are not created and existing hazards are not aggravated; and
- e. no adverse environmental impacts will result.

Areas of reduced flood risk at the time of approval of these policies include:

- Brewer Park (old City of Ottawa)
- Windsor Park (old City of Ottawa)
- Kingsview Park (old City of Vanier)

1.6 DEVELOPMENT WITHIN THE ALLOWANCE OF THE REGULATORY FLOODPLAIN OF RIVER OR STREAM VALLEYS

Development may be permitted between the 1:100 year regulatory flood elevation and the “*regulation limit*” where it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected. To address these matters the submitted plans shall demonstrate that:

- (a) the *development* does not aggravate the flood hazard or create a new flood risk including ensuring that drainage connections for the foundation are arranged so that surcharging of the sump pump discharge or connections to the storm sewer do not result in flooding of the lower levels of the building and changes to site grading shall not result in appreciable lowering of lands adjacent to the building;
- (b) the *development* does not impede access for emergency works, maintenance and evacuation;
- (c) the potential for surficial erosion has been addressed through proper drainage, plans addressing erosion and sediment control in accordance with established practice have been prepared and the plans incorporate acceptable site stabilization/ restoration planning;
- (d) the natural features and/or ecological functions associated with the Conservation Authority’s interests related to the conservation of land are protected, pollution is prevented and erosion hazards are adequately addressed; and
- (e) there is no conflict with any other provisions of this policy.

2.0 Policies Regarding the Placing of Fill

The definition of *development* in Section 28(25) of the CA Act includes:

- (a) site grading, or
- (b) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere;

In the “Areas of Reduced Flood Risk” described in Section 1.5 and in the *flood fringe* (determined in accordance with the PPS provisions and MNR guidelines with respect to the two zone concept) development involving site grading or fill placement or removal may be permitted provided it will not have an adverse effect on the control of flooding, erosion, pollution or the conservation of land.

Within the allowance of the regulatory floodplain described in Section 1.6 site grading or fill placement or removal may be permitted provided it will not have an adverse effect on the control of flooding, erosion, pollution or the conservation of land.

Development involving site grading or fill placement or removal within the stable slope allowance adjacent to steep slopes or on unstable soils such as may be encountered in and adjacent to wetlands regulated pursuant to the regulation may be permitted provided it will not have an adverse effect on the control of flooding, erosion, pollution or the conservation of land and, in the case of wetlands, the hydrologic function of the wetland. New hazards shall not be created and existing hazards shall not be aggravated. Requirements contained in Section 2.6 of this document shall be followed.

Development involving site grading or fill placement or removal within the floodway is generally not permitted; exceptions may be considered, however, subject to the provisions of Section 2.1 (Minor removal or placement of fill / minor site grading in the floodplain) below.

Applications for permission to undertake development including site grading or fill placement or removal in regulated areas shall include detailed plans of the subject property prepared by a Professional Engineer, drawn at an appropriate scale, clearly showing the boundaries of the area upon which fill is to be placed (with dimensions), the existing and proposed grading in plan view and in cross sectional detail. Grades provided shall be referred to geodetic datum on stamped plans; the source of the topographic information shall be clearly identified.

Minor removal or placement of fill / minor site grading in the floodplain

2.1 Exceptions may be considered for the minor removal or placement of fill / minor site grading / minor site alteration in the floodway where flood depths in the floodway are shallow, flow velocities are minimal and the proposed development or site alteration is considered to be minor in nature with no impact in terms of its effect on the control of flooding, pollution, erosion and the conservation of land such that:

- (i) The site alteration (cut and fill operation) is confined to lands toward the edge of the flood plain with ground elevations that are at present

no more than 0.3 metres lower than the estimated 1:100 year water surface elevation of the river or stream (public safety risks associated with lands that are flooded to depths of 0.3 metres or less may be considered as “minor”)

- (ii) The loss of flood plain storage volume within the 1:100 year flood plain which will result from the placement of fill shall be fully compensated for by a balanced cut (or excavation) to be carried out in close proximity to and concurrent with the placement of the fill in accordance with the following tolerances:
 - the volume of available flood plain storage capacity within the affected river or stream reach shall not be reduced; and
 - the minimum proposed ground elevation in the compensating excavation area shall not be lower than the minimum existing ground elevation in the proposed fill area (cutting below the normal high water mark will not be considered for calculation purposes and filling below the normal high water mark will not be permitted);
 - the proposed site grading (cut and fill) must be designed to result in no increase in upstream water surface elevations and no increase in flow velocities in the affected river cross-sections under a full range of potential flood discharge conditions (1:2 year to 1:100 year return periods); compliance with this requirement shall be demonstrated by means of hydraulic computations completed to the satisfaction of the RVCA.
- (iii) adequate overland flow routes in local drainage networks must be maintained;
- (iv) flood-proofing measures consistent with those described in this document (Section 1.4) are incorporated into the design of all proposed buildings or structures and safe access is available.

2.4 Where a subsequent Planning Act application is required the CA will **not** support such an application to modify the hazardous land until such time as any approved cut and fill is undertaken and completed in accordance with the policies contained herein to the Authority’s satisfaction.

Regulation limits shall be adjusted to reflect the cut and the fill; the Authority reserves the right to maintain the regulation limit for a period of time in the fill area after acceptance of as-built grades whereupon the policies of Section 1.6 (Development within the Allowance of the Regulatory Floodplain) shall apply.

2.5 The “General” and other provisions of this document are addressed.

2.6 Slope and Soil Instability

- (i) For regulated areas in which the placing of fill could have an effect on the conservation of the land by way of reduced slope stability or danger to development related to soil instability, geotechnical analysis shall be required consistent with *established standards and procedures*, at the discretion of the Authority and the expense of the applicant, to demonstrate that the proposed placement of fill or site alteration is acceptable from a geotechnical perspective.
- (ii) The “General” and other provisions of this document are addressed.

2.7 General Provisions

- (a) Associated with *pollution* concerns only clean fill may be utilized. For the purposes of this section, clean fill means material which is free of organic matter, refuse, garbage, animal waste, chemicals, toxic materials, hazardous substances, or any other substance which may be considered harmful to water quality or aquatic habitat in general. Confirmation may be required from a qualified professional that the material meets OMOE standards.
- (b) Consistent with *established standards and procedures* provision shall be made to address *pollution* related to the development by deploying and maintaining effective *erosion and sediment control* during all phases of development (including the pre- and post- construction periods) to prevent the entry of sediment to the natural environment generally and *fish habitat* in particular.
- (c) Matters related to the conservation of land shall be addressed such that a *net environmental gain* shall be achieved associated with on-site natural heritage features (wooded areas, riparian zones, wildlife habitat, etc.).
- (d) No permission in this section may result in the harmful alteration, destruction or disturbance to fish habitat without the approval of the Department of Fisheries and Oceans having first been obtained.
- (e) In conjunction with the review and approval process the proponent, or an agent acting on their behalf, shall submit **a performance deposit** of a monetary value established in accordance with the approved Schedule of Fees in effect at the time of the approval. The deposit shall be submitted prior to the commencement of any *development* on the subject site.
- (f) Where site alteration or slope stability works are permitted the proponent shall submit a final **as built grading plan** immediately upon completion of the approved works prepared by a Professional Engineer licensed to practice in the Province of Ontario indicating that grades achieved on the site conform to those indicated on the approved plan. Where grades are

satisfactory the amount of the deposit shall be refunded less a 10% administrative charge. Where the grades are not satisfactory the deposit is forfeited and the Authority will initiate appropriate action to remedy or address the matter.

- (g) The Authority may waive any of the above requirements for applications involving small quantities of fill (for landscaping purposes, etc.) and for which, in the opinion of the Authority, there will clearly be no detrimental effects on the control of flooding, erosion, pollution or the conservation of land.

3.0 Policies Regarding Alterations to Waterways Applications

The Conservation Authority's primary interest is the preservation of natural channels which perform natural functions and the restoration of such natural functions where degradation has occurred. Altering, straightening, changing, diverting or interfering with the channel of any natural watercourse in the Authority's area of jurisdiction must meet the following requirements.

3.1. Riverfront Erosion Protection

- (i) Shoreline protection/improvement projects must meet the following criteria:
- alignment must result in no significant effects on river hydraulics
 - transitions from proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur
 - design must incorporate adequate drainage features
 - where shoreline is in the vicinity of marginally stable or unstable slopes, professional geotechnical engineering input may be required, at the Authority's discretion and the applicant's expense.
- (ii) Shoreline alteration and disturbance related to the provision of water access or viewing points including docks, boathouses, boat launch ramps, boat lifts, mooring points, decks, gazebos etc. must not result in a cumulative disturbance of more than 25% of the width (river frontage) of the property to a maximum of 50 feet (15.24 metres) whichever is less. The balance of the lot frontage will be left undisturbed in a state of nature.
- For applications involving redevelopment on smaller lots (100 feet / 30 metres frontage or less) the applicant must demonstrate that a "*net environmental gain*" will be achieved.
- (iii) The Authority's review of riverfront protection / improvement applications shall be conducted in cooperation with the appropriate District / Area Office of the Ontario Ministry of Natural Resources, the Rideau Canal Office, and Fisheries and Oceans Canada.

3.2 Channel Realignment, Road Crossings, Diversions, Dams

- (i) Hydrotechnical analyses may be required, at the applicant's expense, demonstrating how the following considerations have been addressed:
- backwater effects and upstream water levels
 - local streamflow velocities and erosion protection measures
 - implications of lost channel and flood plain storage.

- (ii) *Natural channel design* principles shall be incorporated in all such proposals.
- (iii) Analytical requirements shall be identified for each application by the Authority's water management staff and the analyses shall be completed to the satisfaction of the Authority prior to the issuance of permission.

3.3 Erosion and Sediment Control:

Adequate provision, consistent with *established standards and procedures*, must be made for *erosion and sediment control* during all phases of the waterway alteration works, including pre- and post construction periods, to prevent *pollution* including the entry of sediment to the natural environment generally and *fish habitat* in particular.

3.4 Timing of Works

In or near water works may not be undertaken during the period generally between March 15 to July 01 of any given year or through any other period which the Ontario Minister of Natural Resources or the Minister of Fisheries and Oceans Canada may impose.

Only the Minister of Fisheries and Oceans for Canada may authorize any harmful alteration, destruction or disturbance of *fish habitat*.

4. - DEFINITIONS -

The Provincial "Policy Statement" under the Planning Act contains definitions of terms. The administration of "Fill, Construction, and Alteration to Waterways" Regulations by conservation authorities is intended to assist in the implementation of the Policy Statement. For the purpose of administering the regulation the following definitions from the Policy Statement and other sources form part of the Authority's policy document:

- **Auxiliary Building** means an accessory use that is normally, naturally and customarily subordinate and incidental to a principle use and an integral part of the normal operation of that principal use, typically a residence. Such buildings are single storey and utilized for purposes such as storing equipment including up to two automobiles or similar vehicles.
- **Bank** means a rising or steep acclivity or bordering slope on each side of a body of water or watercourse which confines the waters when they rise out of the bed or solid land on which vegetation appropriate to such land in the particular locality grows wherever the bank is not too steep to permit such growth. In Eastern Ontario often composed of marine clays which may be subject to instability.
- **Development** means:
 - (a) the construction, reconstruction, erection or placing of a building or structure of any kind,
 - (b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
 - (c) site grading, or
 - (d) the temporary or permanent placing, dumping or removal of any material originating on the site or elsewhere.
- **Erosion hazard** means the loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined using the 100 year erosion rate (the average annual rate of recession extended over a hundred year time span), an allowance for slope stability, and an erosion allowance.
- **Erosion and Sediment control** means human intervention to prevent environmental damage attributable to the detachment, transport and deposit of soil and related substances; related especially to water action associated with rainfall and surface runoff.
- **Flood Plain** means the area, usually low lands adjoining a watercourse, which has been or may be covered by flood water.
- **Floodproofing** means a combination of structural changes and/or adjustments incorporated into the basic design and/or construction or alteration of individual buildings, structures or properties subject to flooding so as to reduce or eliminate flood damages.
- **Floodway** means the channel of a watercourse and that inner portion of the flood plain where flood depths and velocities are generally higher than those experienced in the flood fringe. The floodway represents that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage.
- **Established standards and procedures** means technical approaches to the management of environmental problems and issues usually prepared by the Provincial or Federal government(s) or by recognized professional associations and that are consistent with professional practice in particular fields. For the purposes of flood plain and watershed management includes stormwater management, erosion and sediment control, flood plain definition, flood proofing, slope and soil stability analysis, erosion protection and the management of natural heritage features.
- **Fill, Construction, and Alteration to Waterways Regulation** means a regulation passed pursuant to Section 28 of the Conservation Authorities Act, R.S.O. 1980, or its successors, whereby a Conservation Authority may, among other matters, regulate:
 - the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse;
 - the construction of any building or structure in or on a pond or swamp or in any area susceptible to flooding; and
 - the placing or dumping of fill of any kind in any defined part of the area over which the Conservation Authority has jurisdiction in which, in the opinion of the Conservation Authority, the control of flooding or pollution or the conservation of land may be affected.
- **Fish habitat** includes spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly and indirectly to carry out their life processes.
- **Flood** means a temporary rise in the water level resulting in the inundation of areas adjacent to a watercourse not ordinarily covered by water.
- **Flood Fringe** means the outer portion of the flood plain between the floodway and the limit of the regulatory flood. Flood depths and velocities are generally less severe in the flood fringe than those experienced in the floodway.
- **Natural Channel Design** means an approach to management and design such that new or reconstructed stream channels and their associated flood plain riparian systems are designed to be naturally functional, stable, healthy, productive, and sustainable. Natural channel systems develop from the interaction of climatic and physical conditions within a watershed and the conveyance and storage of water and sediment.

• **Gross floor area**, when referring to a dwelling, means the total area of all floors of habitable space measured between the outside surfaces of exterior walls and includes a basement.

• **Hazardous Substances** means substances which individually, or in combination with other substances, are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide range of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological.

• **High water mark** means the mark made by the action of water under natural conditions on the shore or bank of a body of water, which action has been so common and usual and so long continued that it has created a difference between the character of the vegetation or soil on one side of the mark and the character of the vegetation or soil on the other side of the mark. Also refers to the controlled high water mark (summer navigation level) in the Rideau River and Canal.

• **Level of Protection** means a specified level, elevation and / or flow velocity to which new development must not be susceptible to flood related damage.

• **Local Conditions** means the physical and hydrologic characteristics of an area as they input to and may affect flood plain management.

• **Mitigation** means to make less severe, or alleviate or abate. It includes the protection of native woody vegetation in the near shore upland area as well as aquatic plants in the littoral zone. Where such vegetation is lacking, particularly on the upland, provision should be made for establishment of suitable riparian buffers. It also includes the design and maintenance of appropriate erosion and sediment control measures during the period that any development activity is being undertaken.

• **Regulatory Flood** means the approved standard(s) used in a particular watershed to define the limit of the flood plain for regulatory purposes. In the Rideau Valley watershed and all of Eastern Ontario the regulatory flood is the 1:100 year flood.

• **Two Zone Concept** means the approach whereby certain areas of the flood plain are considered to be less hazardous than others such that development potentially could safely occur. The flood fringe defines that portion of the flood plain where development may be permitted, subject to appropriate floodproofing. The floodway defines that portion of the flood plain wherein development is prohibited or restricted.

• **Watercourse** means an identifiable depression in the ground in which a flow of water regularly or continuously occurs.

• **Watershed** means all lands drained by a river or stream and its tributaries (Conservation Authorities Act, R.S.O. 1980).

- END -

Negative impacts means:

- a) in regard to fish habitat the harmful alteration, disruption or disturbance of fish habitat contrary to the Fisheries Act of Canada or
- (b) the loss of natural features or ecological functions for which an area is identified and
- (c) the creation of new hazards or the aggravation of existing hazards.

• **Net environmental gain** means an approach whereby selected negative impacts from previous development activities are compensated for or improved upon through redevelopment.

• **Observed Flood Event** means a flood actually experienced in a particular watershed or portion thereof.

Subject to Provincial policies and the availability of sufficient documentation, an observed flood event may be used for regulatory purposes as follows:

-to define flood plain limits for that specific area where ice jams have historically occurred;

or

-to define flood plain limits for an entire watershed by transposing or extending data derived from the observed flood event with reference to the physical and land use characteristics of the entire watershed. The transposing of data is considered acceptable where the evidence suggests that the flood event could have potentially occurred over the other portions of the watershed.

• **100 Year Flood** means that flood, based on analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a 1% chance of occurring or being exceeded in any given year.

• **One Zone Concept** means the approach whereby the entire flood plain, as defined by the regulatory flood, is treated as one unit and all development is prohibited or restricted.

• **Pollution** means any deleterious physical substance or other contaminant that has the potential to be generated by development.