

**OPERATIONAL GUIDELINES  
LOWER THAMES VALLEY CONSERVATION AUTHORITY**

**DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATION TO  
SHORELINES AND WATERCOURSES REGULATION**

**ONTARIO REGULATION 152/06 (UNDER O.R. 97/04)**

Staff will use these operational guidelines in reviewing applications under the Conservation Authority's Regulation. If the application complies with the Operational Guideline then it can be recommended that the General Manager or Water Management Supervisor approve the application. If the application cannot be approved as submitted, the owner shall be contacted and informed that the project cannot be recommended for approval. The applicant can then amend the application to meet the Regulation requirements, or if the proponent wants to proceed with the application as submitted, can appeal to the Authority's Hearing Board. If the Authority's Hearing Board denies the application the applicant can either amend the application to comply with the Regulations, or subsequently appeal to the Mining and Lands Commissioner. The Mining and Lands Commissioner of Ontario is appointed by the Minister of Natural Resources.

Non compliance with a Permit under the Regulation is considered a Provincial Offense.

Permits are in force for up to a maximum of 24 months or for a maximum of 60 months from the time of issuance. No extensions beyond the above time limits will be allowed. Projects approved for 60 months must first be reviewed by the Authority or its Executive Committee to determine that the project submission cannot be completed within the 24 month time-frame, or where approvals from other regulatory bodies cannot be obtained within 24 months from the day permission is granted.

Under the Conservation Authorities Act of Ontario, the Conservation Authority has certain regulations whose objectives are;

- to prevent the loss of life and property due to flooding and erosion,
- to prevent pollution, and
- to conserve and enhance natural resources

The Generic Regulation regulates the following items;

- development within a regulated area
- interference & alterations to watercourses
- interference & alterations to wetlands
- interference & alterations to shorelines

Development is defined in the Conservation Authorities Act as;

- construction & reconstruction

- erection or placing of a building
- any change to a building or structure that has the effect of:
  - changing its use
  - increasing its size
  - increasing the number of dwelling units
- site grading
- placing of or removal of fill

For the purposes of implementing these operational guidelines the following development items are treated as a group;

- construction & reconstruction
- erection or placing of a building
- any change to a building or structure that has the effect of:
  - changing its use
  - increasing its size
  - increasing the number of dwelling units

These items are treated separately as these components will require the issuance of a building permit from the building inspector.

The other components of development are site grading and the placing of, or removal of fill which probably do not require a building permit.

#### Fill Placement/Removal or Site Grading

In regard to site grading and the placing of or removal of fill in the case of ***a watercourse or valley related zone***, the following guidelines are to be used in the review of applications.

- any fill placement in river or creek valleys shall be considered a development project. As such engineered or landscaped drawings are required to be prepared before the proposed project and final drawings are to be prepared after the project. The design of the project shall comply with the remaining guidelines in this section.
- any fill placement/removal or site grading must not result in a more unstable slope.
- any fill placed shall only be comprised of earth, sand, filter fabric, rock, concrete or, in the case of the installation of a steel breakwall, steel piling. The Department of Fisheries and Oceans no longer approves the installation of new steel piling or concrete adjacent to shorelines other than replacement and repair of existing walls. If materials other than these items are used, staff will inform the Spills Action Centre or appropriate MOE staff.
- any fill placement/removal or site grading must not impact flood levels upstream or downstream of the proposed fill placement, movement or site grading.

The guideline in this application is;

- i) that the stage-storage characteristics be at least maintained at 0.3 metre intervals
- ii) that flood flows are not impeded

- iii) that the fill placement/removal or site grading be a volume for volume replacement (1 cubic metre removed from floodplain and 1 cubic metre placed in floodplain at the same cross sectional location)
  - iv) that the fill placement/removal or site grading is to return road surfaces (including entranceways) to original grade and condition
- any fill placement/removal or site grading must not impact erosion levels upstream or downstream of the fill placement/removal or site grading location.
  - any fill placement/removal or site grading placed must not interfere with local drainage.
  - any fill placement must be nominal in the sense that the Authority will not approve projects where a significant amount of fill is proposed due to the natural likelihood that the fill will subside and future land uses could be affected by that subsidence.

For policies regarding the Lake Erie shoreline in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019. For Elgin County, please see below.

In regard to site grading and the placing of or removal of fill in the case of *Lake St. Clair* the following guidelines are to be used in the review of applications.

- a) any fill placement/removal or site grading must not result in a more unstable slope.
- b) any fill placed shall only be comprised of sand, earth, concrete, rock, filter fabric or, in the case of the installation of a steel breakwall or jetty, steel piling. The Department of Fisheries and Oceans no longer approves the installation of new steel piling or concrete adjacent to shorelines other than replacement and repair of existing walls. If materials other than these items are used, staff will inform the Spills Action Centre or appropriate MOE staff.
- c) any fill placement/removal or site grading must not impact erosion levels on adjacent properties.
- d) any fill placement/removal or site grading placed must not interfere with local drainage.
- e) if the proposed fill placement/removal or site grading is proposed to be done beneath the water’s surface the MNR and DFO shall be informed.
- f) any fill placement must be nominal in the sense that the Authority will not approve projects where a significant amount of fill is proposed due to the natural likelihood that the fill will subside and future land uses could be affected by that subsidence.
- g) if the proposed shoreline protection is required in order to permit the construction of the residence then the shoreline protection shall be designed and approved by a qualified engineer. The shoreline protection will be required to be constructed prior to the issuance of a permit for the residence.
- h) Shoreline protection will be required to provide for flankage.
- i) Reshaping of the bluff to stabilize or terrace will require an approved engineering plan and a signed notification form from each adjacent neighbour stating that they have no objections to the proposed works.

### **Construction, Reconstruction, Erection or Placing of a Building or Changing a Building**

These components of development require the issuance of a building permit and therefore the proponent may be directed to the Conservation Authority prior to the issuance of a building permit.

### **Flood Prone Areas**

The regulation requires that all construction related development be floodproofed. To this end we attempt to insure that municipalities have floodproofing elevations in their Zoning Bylaws and Official Plans. If the municipality does not want the floodproofing elevations in these planning documents then the Authority may request that all building permit applications in flood prone areas be directed to the Authority prior to issuance.

Municipalities should be encouraged to direct proponents within floodprone areas to the Conservation Authority in order to insure that an appropriate floodproofing elevation can be obtained.

In order to protect a residence from riverine flooding it shall be constructed such that there is no opening to habitable space below the Regulatory Flood Datum (RFD). This elevation is determined by adding a freeboard elevation of 0.3 metres to the Regulatory Flood level. The area around the house shall be filled to an elevation not lower than RFD for a distance of 2 metres beyond the exterior walls of the house.

In order to protect a residence from lake related flooding it shall not only be required to be floodproofed to the RFD but in order to protect the house from wave uprush and other water related hazards it is required to be setback 15 metres from the 1:100 year flood line on the Lake Erie and Lake St. Clair shoreline. On Rondeau Bay this setback is 7.5 metres from the 1:100 year flood line. If there is a breakwall in front of the home the 1:100 year flood line shall be considered to be at the breakwall.

In rural areas it is recommended that homes be floodproofed for local area flooding. It is recommended that if the proposed home is located at the downstream portion of the farm lot that the home be constructed with no minimum opening below 0.3 metres above the elevation of the finished road in front. In all other areas it is recommended that there be no minimum opening below 0.5 metres above the pre-construction ground elevation.

If the existing home or structure is not floodproofed and an addition is proposed, the addition can be approved at the existing floor elevation of the home provided the addition has a floor area less than 25% of the existing home.

For residences, the acceptable floodproofing standard is;

- that there be no minimum openings to habitable space below the RFD (Regulatory Flood Datum)
- that the area around the residence be filled to an elevation not lower than RFD for a distance of 2 metres beyond the exterior walls of the residence

For other structures the acceptable floodproofing standard is;

- that there be no building materials susceptible to flood damage below the RFD

- that there be no mechanical, electrical or heating equipment located below the RFD
- that consideration be given to raising moveable items above the RFD in the event of a flood above the floor of the structure

## **Erosion Prone Areas**

### **Thames River**

The Thames River is largely a valley situation. The ‘critical’ regulated area is equal to the sum of the erosion allowance plus the stable slope allowance. The regulation provides for an additional 15 metre allowance but the Authority does not normally consider this allowance ‘critical’. These allowances are measured from the toe of the slope of the valley. On the outside of a river bend the 100 year erosion allowance is 20 metres. If it is on a straight section of the river the 100 year erosion allowance is 15 metres and on the inside bend of the river the 100 year erosion allowance is 10 metres. The stable slope allowance for the river is a 3 to 1 slope.

If a new lot is proposed and a suitable building envelope does not exist with the above allowances the applicant will be given the option of seeking relief from the stable slope allowance. In order to obtain this relief we would require that the applicant provide an engineers report supporting a reduced stable slope allowance.

### **Other Watercourses**

If it is a valley situation essentially the same method shall be used as that of the Thames River, other than the 100 year erosion rate on the outside bend will be assumed to be 10 metres.

If a new lot is proposed and a suitable building envelope does not exist with the above allowances the applicant will be given the option of seeking relief from the stable slope allowance. In order to obtain this relief we would require that the applicant provide an engineers report supporting a reduced stable slope allowance.

### **Lake Erie Bluff**

For policies regarding the Lake Erie Bluff in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019. For Elgin County, please see below.

In a bluff situation the ‘critical’ regulated area is equal to the 100 year erosion allowance plus the stable slope allowance based on a 3 to 1 slope. The regulation provides for an additional 15 metre allowance but the Authority does not normally consider this allowance ‘critical’. From Wheatley to Charing Cross Road the 100 year erosion allowance is 35 metres. From Lot 99 along Lake Erie in Howard to the Chatham-Kent-Elgin boundary line the 100 year erosion allowance is 44 metres. From the Chatham-Kent-Elgin line to Talbot Creek the 100 year erosion allowance is 100 m and from Talbot Creek to the Authority’s eastern boundary the 100 year erosion allowance is 160 metres.

If a new lot or a structure is proposed and a suitable building envelope does not exist with the above allowances the applicant will be given the option of seeking relief from the stable slope allowance. In order to obtain this relief we would require that the applicant provide an engineers report supporting a reduced stable slope allowance.

Permitted activities within the ‘critical’ regulated zone are;

- Exterior repairs and interior alterations
- Additions are permitted provided no more than 20% of existing floor area and the addition is located no closer to the hazard
- Unattached garages or other similarly sized, non-inhabitable, accessory structures provided they are located no closer to the hazard than the existing primary structure on the lot.
- Hardship re-buildings as a result of fire or similar calamity are permitted and are encouraged to locate farther from the hazard.
- Stair steps down to the beach would be approved provided they are removed and replaced on a yearly basis.
- Any part of an access ramp down the bluff is required to be at least 8 metres from a property line. Access ramps are required to be drained properly. If any part of an access ramp is within the 8 metres of a property line an engineered plan is required.
- Reshaping of the bluff to stabilize or terrace would be approved provided an engineering plan is undertaken.
- Mobile homes or mobile home communities provided at no time that a mobile home is within 30 metres of the top of the bank and that a mobile home is a structure as defined under the appropriate section of the Building Code of Ontario and that it the property is properly zoned for mobile homes.
- Relocation of an existing home to a location farther from the hazard provided the proposed location provides for 80 years of erosion protection and the stable slope allowance.

### **Detroit Drive in Romney**

For policies regarding the Detroit Drive in the former Township of Romney in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019.

### **Erie Beach**

For policies regarding Erie Beach in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019.

## **Flood and Erosion Prone Areas**

### **Erie Shore Drive**

For policies regarding Erie Shore Drive in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019.

### **Rondeau Bay**

For policies regarding Rondeau Bay in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019.

### **Lighthouse Cove**

On the lakeshore in this area the ‘critical’ regulated area is made up of the flood zone and wave uprush zone. The regulation provides for an additional 15 metre allowance but the Authority does not normally consider this allowance ‘critical’. If shore protection is in place the erosion rate is assumed to be zero. The wave uprush zone is considered to be 15 metres from the 100 year flood line.

We are unaware of any lots that have not been developed on the lakeshore. These homes are supplied by municipal water. The construction of shoreline protection works are considered to be economical and effective on the Lake St. Clair shoreline.

New construction will be required to be placed outside of the ‘critical’ regulated area. In order to ensure that erosion is not a factor in determining the ‘critical’ regulated area, shore protection will be required. Hardship re-buildings as a result of fire or similar calamity will be encouraged to be constructed at least 15 metres from the top of the bank.

Permitted activities within the ‘critical’ regulated zone on the lakeshore are;

- Exterior repairs and interior alterations
- Additions are permitted provided no more than 20% of existing floor area and the addition is located no closer to the hazard. Only one addition per 10 year period.
- Unattached garages or other similarly sized, non-inhabitable, accessory structures provided they are located no closer to the hazard than the existing structure.

In regard to the canal lots in Lighthouse Cove the primary issue is erosion and slope stability adjacent to the canals as most of the lots are made up of fill excavated from the canals. The ‘critical’ regulated area in relation to the canals is 7.6 metres from the top of the bank of the canal if the bank of the canal is suitably protected from erosion or 10 metres from the water’s edge if no erosion protection is present.

Permitted activities in the ‘critical’ regulated area adjacent to the canals are;

- Unattached garages or other similarly sized, non-inhabitable, accessory structures provided they are located no closer to the hazard than the existing home on the property.
- Swimming pools or spas provided that they are located not closer than 3 metres from the top of the bank of the canal if the bank of the canal is suitably protected from erosion or 6 metres from the water's edge if no erosion protection is present.
- Roof covered boat lifts provided that they are not enclosed and they are totally above the water in the canal.



## **Dynamic Beach Areas**

### **Erieau and Bates Drive in Harwich and Howard**

For policies regarding Erieau and Bates Drive in the former Townships of Harwich and Howard in the Municipality of Chatham-Kent, please see the document entitled, “Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent” which was approved by the LTVCA Board of Directors on 17 October 2019 and came into full effect on 18 October 2019.

## **Alteration of Watercourses**

The alteration of waterways portion of the regulation applies to all waterways within the jurisdiction of the Authority. We consider the circulation of Drainage Reports under the Drainage Act to be the member municipality’s request for alteration for those waterways. In reviewing works proposed to be constructed under the Drainage Act, staff will use the Ontario Ministry of Agriculture and Food “Design and Construction Guidelines for work under the Drainage Act” dated December 1979 and the Thames River Implementation Committee’s “Practical Guide for Municipal Drains” dated Spring 1982. The following guidelines are to be used in the review of applications to alter, change or divert all other natural watercourses in the Authority.

- a) any alteration must not result in a more unstable stream bank slope.
- b) any alteration must not impact flood levels upstream or downstream of the altered location.
- c) any alteration must not impact erosion levels upstream or downstream of the altered location.

All applicants who apply to alter a natural watercourse shall be informed that “Our review has not covered fish, wildlife and Ontario Crown land management legislation administered by the Ministry of Natural Resources. You may require their authorization before commencing your project. For further information in these areas please contact your local MNR Field Office prior to undertaking the proposed work.”

## **Interference With Wetlands**

Provincially Significant Wetlands (PSW) and Wetlands defined as such under the Conservation Authorities Act are affected by this regulation. The lands adjacent to these areas may be regulated by the Minister of Natural Resources via the “other lands” designation. In the case of PSW’s the regulated adjacent land is 120 metres from the PSW and in the case of wetlands defined under the Conservation Authorities Act the regulated adjacent land is 30 metres from the wetland.

New development and site alterations are not permitted in Provincially Significant Wetlands. The following uses may be permitted provided that they are supported by an EIS or an Environmental Assessment.

- Conservation uses or activities such as wildlife or fisheries management, forestry or passive recreation;
- flood and/or erosion control structures;
- facilities which by their nature must locate near water or traverse water;

- ancillary facilities of an adjacent land use which are of a passive, non-structural nature and do not adversely affect the natural hazard or natural heritage feature or function; and
- municipal infrastructure including roads and utilities/servicing (i.e. sewer lines, gas pipelines, hydro facilities.)
- The establishment of restricted uses must be supported by an EIS or an Environmental Assessment.

If the development is proposed **within** a wetland as defined under the Conservation Authorities Act (but is not a PSW) then we shall work with the applicant to encourage conservation of as many of the wetland features as possible. In either case proponents will first be encouraged to place any development outside of the wetland.

If the development is proposed within an area adjacent to either of the above wetlands, the following guide will be used,

- If the development is a plan of subdivision, or an OP, OPA, ZB or ZBA to allow construction of 3 or more homes the proponent will be required to undertake the preparation of a Environmental Impact Study.
- If the development is an OP, OPA, ZB or ZBA to allow the creation of 2 or fewer lots, the proponent will be required to develop a site plan for each of the lots, which contains methods that will be used to reduce the effect that the development has on the wetland.
- If the development is the construction of structures on established lots;
  - the Authority will work with the landowner to achieve a satisfactory placement of structures away from sensitive areas where possible,
  - the Authority will consider prior studies undertaken by the proponent, such as a Nutrient Management Plan or an Environmental Farm Plan, in its site evaluation process, and
  - only where the situation warrants will an Environmental Study be requested

### **Provincial Ministries, Federal Departments and Crown Agencies**

The *Conservation Authorities Act* does not contain a subsection that specifically “binds the Crown”. Therefore activities of Provincial Ministries, Federal Departments and Crown Agencies or “Crown Corporations” are not bound by the Act and these entities are not legally required to obtain permission under the *Conservation Authorities Act*. Voluntary compliance with the technical review process is encouraged with the Crown and their Agencies.

### **Summary**

Staff will use the above operational guidelines in reviewing applications and either recommend approval or denial. The General Manager or Water Management Supervisor can approve any application. If staff recommend denial of the application the owner shall be contacted and informed that the project cannot be recommended for approval. The owner is then told that they are eligible to have a hearing before the Authority’s Board of Directors. If a hearing is held the “Hearing Guidelines” that were circulated by the ACAO in 2005 shall be used.