



February 14th, 2020

Memo to Board of Directors for February 20th, 2020 Board Meeting

RE: Minor and Major Edits to the Watershed Planning and Regulations Policy Manual

The CVCA Watershed Planning and Regulations Manual (hereby known as the Manual) is a living document that requires updates from time to time. Generally, these updates are modest in that they do not change the overall intent of the manual or our current practices in the planning and regulations program. The following updates range from re-numbering a section to adding in policy clarification and wording to reflect a practice we currently employ. This memo will first review the proposed *major* updates to the policy manual and provide rationale as to why the update is recommended. Next, in Appendix A, all policy changes are provided in table format, including *minor* proposed changes.

A policy update is considered *major* if there are additions to text. Additional text included in this round of updates is intended to provide further clarity, information, or to amend existing policies.

Minor edits, including grammar, typographical errors and administrative changes (i.e.: re-numbering, small wording changes) will be included in Appendix A, along with the entirety of the proposed policy manual updates.

Updated or new wording is indicated in *blue* text.

Proposed Edits to the Policy Manual – February 2020

1. Section: Table of Contents, page 6

Proposed Change: Addition of text.

Cataraqui Region Conservation Authority: Guidelines for Implementing Ontario Regulation 148/06: Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses

Rationale for Change:

Page 6 of the Manual lists the reference documents used in the creation of the CVCA Watershed Planning and Regulations Manual. Staff have referenced the Cataraqui Region Conservation Authority's (CRCA) manual for the 2020 CVCA policy updates.

2. Section: 4.1.3 – Regulation Allowances, page 38

Proposed Change: Addition of text.

The CVCA will not support development and/or site alteration on lands susceptible to an erosion hazard except as identified in Chapter 5.

3. Rationale for Change:

This sentence provides a link between the policies contained in Chapter 4.0 – River or Stream Valleys and Chapter 5 – Hazardous Lands.

4. Section: 4.2 – Policies for River or Stream Systems, page 38

Proposed Change – Addition of text.

“For lakes that do not have a known flood hazard, section 3.8 and the policies contained within this section apply. Development will not be permitted within a 15 metre setback from the shoreline with the exception of properties with existing development in the setback. In those instances, dwellings and structures may be replaced on the same footprint and no part shall encroach any closer to the shoreline. Additions to existing structures may be permitted provided a site assessment reveals there are site specific factors that would indicate there is no risk of impact to or from a natural hazard. Waste water and sewage systems will be permitted to be replaced within the 15 metre setback provided the system cannot be relocated elsewhere, will not negatively impact the environment and is servicing an existing dwelling.

As part of the review of the application, the CVCA may request an Environmental Impact Study (EIS) to address development within erosion and flooding hazards in order to assess pollution and/or conservation of land.”

Rationale for Change:

For lakes and rivers with no known flood hazard, we do not permit development within 15 metres of the shoreline on vacant land and do not permit development to encroach closer to the shoreline on developed land. Although these setbacks are mentioned in the Quick Reference Guide, there is no text in the document that explicitly states this. As such, Section 4.2 should be updated to reflect the existing Quick Reference Table on page 119 of the Manual.

5. Section: 5.3.5.1 – New On-Shore Boathouses, page 62

Proposed Change: Reduce the size of new on-shore boat houses.

Currently our policy allows for the establishment of new on-shore boathouses with a footprint of up to 80 square metres (861.1 square feet). Staff propose to reduce the size of new new on-shore boathouses to:

46.5 square metres (500 square feet).

Rationale for Change:

Staff recommend reducing the allowable footprint of new boathouses from 80 square metres (861.1 square feet) to *46.5 square metres (500 square feet)* in order to be consistent with other applicable policies within the Manual, such as policy 5.3.4 – Accessory Buildings and Structures within the Flood Hazard and policy 5.7.2 – Accessory Buildings or Structures within the Erosion Hazard, both of which have a 46.5 square metre size restriction for accessory structures located within the flood or erosion hazard.

6. Section: 5.5 – Defining the Erosion Hazard and Regulated Area, page 70-73

Proposed Change: Substantial rewording of section 5.5 – Defining the Erosion Hazard and Associated Regulated Area (see Appendix B). Addition of a new policy section, Section 5.5.1 - How the Erosion Hazard is Applied.

5.5.1 – How the Erosion Hazard is Applied.

Rationale for Change:

While the rewording of this section is substantial, it in no way changes the intent of the existing policy section. Rather, it clarifies and further describes how the CVCA defines the Erosion Hazard within our jurisdiction. The suggested replacement text has been copied (with permission) directly from Otonabee Region’s Watershed Planning & Regulations Policy Manual (2015). For the sake of simplicity, the entire update is included within Appendix B of this memo.

7. Section: Figure 9- The Erosion Hazard for an Apparent River or Stream Valley with an Unstable Slope and Active Toe Erosion

Proposed change: A new figure, Figure 9, has been added to the manual.

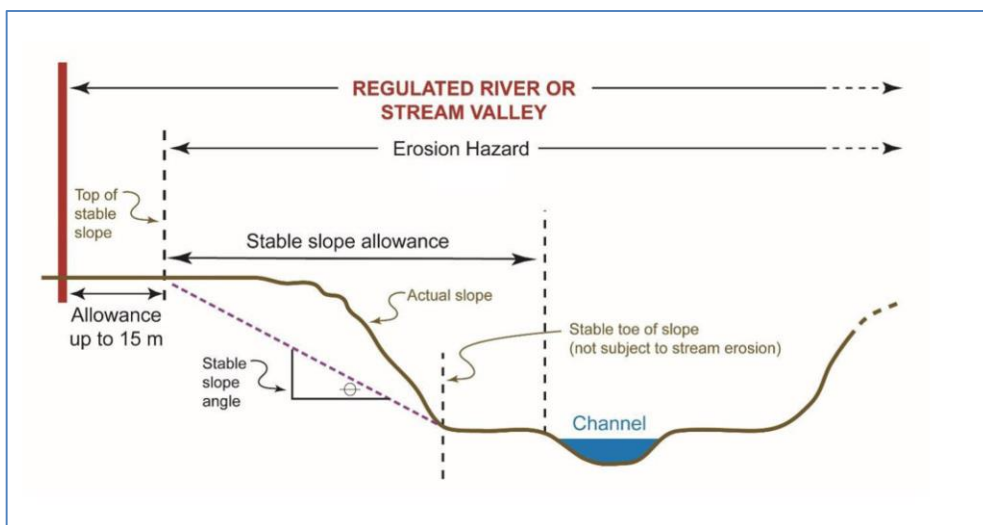


Figure 9: The Erosion Hazard for an Apparent River or Stream Valley with an Unstable Slope and Active Toe Erosion

Rationale for Change:

This figure visualizes CVCA's delineation of the Erosion Hazard. The figure was adopted from Cataraqui Region Conservation Authority's (CRCA) policy manual.

8. Section: Policy 5.6.12 - Development associated with uses that by their nature are located within the erosion hazard (i.e. stairs to shoreline)

Proposed Change: Addition of a permitted activity within the erosion hazard.

Boathouses

Rationale for Change:

This policy section identifies and permits types of development that, by their nature are located within the erosion hazard (e.g. stairs and stabilization works to protect existing development). Staff recommend that *boathouses* be included in the list of permitted development activities located within an erosion hazard as they are, by their nature, located within standard erosion hazard development setbacks. Note that applicable policies within the Manual assure that any works proposed within the erosion hazard will not affect the control of flooding, erosion, pollution or the conservation of land.

9. Policy Section 5.8 – Development Within the Allowance of the Erosion Hazard, page 80

Proposed Change: Addition of text.

“The CVCA will require all new development to be setback 6m from any natural hazard. For constrained lots, a reduction of the access setback from 6 metres to 4 metres may be considered where the adjacent slope is equal to or less than 3 metres in height as small equipment will be able to perform necessary maintenance if required”.

Rational for Change:

Currently, the following is stated:

“The CVCA will require all new development to be setback 6m from any natural hazard”. This requirement aligns with provincial guidelines, which recommend that a 6m erosion access allowance be applied..”

In the majority of circumstances, the above noted setback should be implemented. However, provincial guidance also recommends that, where municipalities and planning boards determine that the suggested 6m erosion access allowance is excessive, mechanisms should be incorporated into the planning process to provide flexibility. Further, staff have encountered circumstances where a 6m access setback is not technically feasible on a constrained lot.

Section: 6.4.4.5 - Erosion Protection, Shoreline/Bank Stabilization and Sediment Control, page 97-99

Proposed Change: Strengthen erosion protection and shoreline stabilization policies to prevent the hardening of shorelines.

Staff propose that the existing policy be modified and replaced with a similar, but strengthened shoreline erosion control policy (see below for the comparison of the existing and proposed policy). Of special note, is that staff are proposing a new policy, 6.4.4.5b, where the major repair/replacement of vertical erosion protection and shoreline/bank stabilization measures may be permitted, however, the proponent must first consider whether it is possible to replace the vertical wall with a stable slope and/or bio-engineering techniques. Currently, the CVCA allows proponents to replace like-for-like shoreline erosion control works (i.e. grandfathering).

Rationale:

During a CVCA Board Meeting on September 19th, 2019, the Board directed staff to strengthen policy 6.4.4.5 – Erosion Protection, Shoreline/Bank Stabilization and Sediment Control. Specifically, it was identified that the placement of armourstone immediately adjacent to the shoreline should be avoided unless *absolutely* necessary. The existing and proposed new policy is detailed below.

Existing Policy:

Erosion Protection, Shoreline/Bank Stabilization and Sediment Control

6.4.4.5 New and/or replacement of erosion protection and shoreline/bank stabilization measures may be permitted where there is a demonstrated erosion or bank instability problem resulting in property loss and/or risk to public safety subject to the following:

- impacts on hydrologic functions (e.g., water quality and quantity control) are minimized;*
- the works will not result in a shoreline that is higher or further out into the water than what is existing;*
- the works will result in a naturally stable slope;*
- the natural contours of the shoreline will be maintained;*
- erosion risk on adjacent, upstream and/or downstream properties is reduced or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate; and*
- shoreline/bank stabilization will employ best management practices that utilize natural materials that integrate with the existing natural features and processes (e.g. bio-engineering) rather than hardening;*

OR

- where it has been demonstrated that bioengineering solutions have been considered and are deemed inappropriate or insufficient, hardened surfaces (e.g., retaining walls) may be considered however, the shoreline/bank stabilization technique employed cannot result in an exclusively vertical structure.*

Armour stone or a similar type rock with a vertical face will not be permitted unless it is to replace existing armourstone or another vertical structure, or where it has been demonstrated that the creation of a stable slope using bioengineering techniques or an appropriate sized stone (rip rap) is not appropriate. It must be demonstrated that there will be no impacts to neighbouring properties.

Any armour stone wall two courses or higher must be designed by a qualified engineer.

Repair and Maintenance

6.4.4.6 Repair/maintenance of existing erosion protection and shoreline/bank stabilization structures will be permitted where the repair/maintenance will not result in an increase in footprint or height of the existing structure. When considering repair/maintenance, proponents are encouraged to replace existing hardened shoreline surfaces with bio-engineered solutions.*

- erosion risk on adjacent, upstream and/or downstream properties is reduced or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate;*
- intrusions on hydrologic functions (e.g., water quality and quantity control) are minimized, and it can be demonstrated that best management practices including site and structure; and,*
- design and appropriate remedial measures mitigate and/or compensate for disturbance features and functions.*

**Repair/maintenance involves using the existing material on site with a minimal amount of imported fill. Replacing existing protection with new or upgraded material along any part of the shoreline will be subject to Policy 6.4.4.5. Additionally, Policies 4.2.8 through 4.2.12 may apply and should be reviewed in conjunction with this section.*

Proposed New Policy:

Erosion Protection, Shoreline/Bank Stabilization and Sediment Control

6.4.4.5 The CVCA may permit the installation of erosion protection and bank stabilization measures provided they satisfy the policy 6.4.4.5 through to 6.4.4.6. Vertical faced erosion protection/bank stabilization works (e.g., armourstone) will not be permitted except in extenuating circumstances.

New Erosion Protection/Bank Stabilization Measures

6.4.4.5 a New erosion protection and shoreline/bank stabilization measures may be permitted where there is a demonstrated erosion or bank instability problem resulting in property loss and/or risk to public safety subject to the following:

- impacts on hydrologic functions (e.g., water quality and quantity control) are minimized;*
- the works will not result in a shoreline that is higher or further out into the water than what is existing;*
- the works will result in a naturally stable slope;*
- the natural contours of the shoreline will be maintained;*
- the works will not result in erosion risks or sedimentation on adjacent, upstream and/or downstream properties;*
- erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, if appropriate; and,*

- shoreline/bank stabilization will employ best management practices that utilize natural materials that integrate with the existing natural features and processes (e.g. bio-engineering);

OR

- where it has been demonstrated that bioengineering solutions have been considered and are deemed inappropriate or insufficient, hardened surfaces (e.g., riprap/boulders) may be considered.

OR

- where it has been demonstrated that bioengineering solutions and appropriately sized hardened surfaces (e.g., riprap) have been considered and are deemed insufficient or not viable, vertical measures (e.g., armour stone, retaining walls) may be considered.

Major Repair/Replacement of Erosion Protection/Bank Stabilization Measures

6.4.4.5b Major repair/replacement of erosion protection and shoreline/bank stabilization measures may be permitted where there is a demonstrated erosion or bank instability problem resulting in property loss and/or risk to public safety subject to the following:

- shoreline/bank stabilization that utilizes natural materials that integrate with the existing natural features and processes (e.g. bio-engineering) should be explored;
- vertical shoreline/bank stabilization works (e.g., armourstone, retaining wall) are only permitted when replacing existing vertical works, or where it has been demonstrated that the creation of a stable slope using bioengineering techniques or an appropriate sized stone (rip rap) is not viable;
- impacts on hydrologic functions (e.g., water quality and quantity control) are minimized;
- the works will not result in a shoreline that is higher or further out into the water than what is existing;
- the works will result in a naturally stable slope;
- the natural contours of the shoreline will be maintained;
- the works will not result in erosion risks or sedimentation on adjacent, upstream and/or downstream properties; and
- erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, if appropriate.

Engineered designs may be required for any slope steeper than 3:1 with a vertical change of 1m (~3ft) or higher OR for any vertical wall.

Repair and Maintenance

6.4.4.6 Repair/maintenance* of existing erosion protection and shoreline/bank stabilization structures will be permitted where the repair/maintenance will not result in an increase in footprint or height of the existing structure. When considering repair/maintenance, proponents are encouraged to replace existing hardened shoreline surfaces with bio-engineered solutions.

- erosion risk on adjacent, upstream and/or downstream properties is reduced or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate;
- intrusions on hydrologic functions (e.g., water quality and quantity control) are minimized, and it can be demonstrated that best management practices including site and structure; and,

- *design and appropriate remedial measures mitigate and/or compensate for disturbance features and functions.*

**Repair/maintenance involves using the existing material on site with a minimal amount of imported fill. Replacing existing protection with new or upgraded material along any part of the shoreline will be subject to Policy 6.4.4.5. Additionally, Policies 4.2.8 through 4.2.12 may apply and should be reviewed in conjunction with this section.*

10. Section: Proposed new policy, Section 6.4.4.8 – Private Boat Launch, page 100

Proposed Change: New policy.

Staff recommend the creation of a new policy in order to directly address the development of a new private boat launch. The recommended policy is below.

Rationale for Change: The CVCA policy Manual does not address the establishment of new private boat launches. Additional text will clarify when the CVCA permits a new private boat launch, and when the CVCA cannot permit a new private boat launch.

Proposed New Policy:

Private Boat Launch

6.4.4.8 Installation of a private individual boat launch will be permitted for an existing waterfront lot provided it can be demonstrated that:

- *no excavation of the shoreline or bank is required for the installation;*
- *stable non-erodible material (e.g. natural stone) is used;*
- *the access point is located in such a manner to take advantage of existing impacted or open areas along the shoreline, wherever possible;*
- *the maximum width of the launch does not exceed 4 metres;*
- *maintenance requirements are minimized; and,*
- *where there is an associated boathouse or dock, the launch shall be situated adjacent to the boathouse or dock, wherever feasible.*

11. Section: 7.4.1.5a- Passive Low-Intensity Recreational Development Within a Wetland, page 107

Proposed Change: A Policy update that allows CVCA Regulations Staff to exercise discretion when determining if an EIS will be required for the establishment of new passive low-intensity recreation uses (e.g. boardwalks in wetlands). The existing policy requires an EIS for all new passive low-intensity recreational development.

“an EIS will be requested at the discretion of the CVCA”

Rationale for Change:

This is to recognize that in some cases the requirement for an EIS to support passive low-intensity recreational development within a wetland may be excessive.

12. Section: Appendix D – Hearing Procedures, page 170

Proposed Change & Rationale for Change: If an applicant wishes to appeal the hearing decision of the CVCA Watershed Advisory Board, the appeal is now made to the Mining and Lands Tribunal (as opposed to the Minister of Natural Resources and Forestry). The new address has been updated.

Through Order in Council 332/2018 the responsibility for hearing the appeal has been transferred to the Mining and Lands Tribunal.

And

*Office of the Mining and Lands Tribunal
700 Bay Street, 24th Floor, Box 2400
Toronto, Ontario, M5G 1Z6*

Appendix A: Notice of Changes to the Watershed Regulations Policy Manual - February 2020

Minor edits: grammar, clerical, administrative changes (e.g. re-numbering policies, small wording changes)

Major edits: additions to text to provide clarity and or/ new measures to achieve policy intent/direction

Type of Edit	Policy Manual Section	Policy Manual Page No.	Description of Change
minor	Entire Manual		Adjusted document margins and assured consistency of font and bullet points.
major	Table of Contents	6	Addition of text: added CRCA to list of manuals that we used in the development of our policies.
minor	Table of Contents	3-6	Adjusted numbering within Table of Contents to be Consistent with new updates.
major	4.1.3 - Regulation Allowances	38	Addition of text: CVCA will not support development and/or site alteration on lands susceptible to an erosion hazard except as identified in Chapter 5.
major	4.2 - Policies for River or Stream Valleys	39	Addition of text: clarification of text in section 4.2 <i>Policies for River or Stream Valleys</i> in order to be consistent with <i>Quick Reference Guide</i> (p. 113). Additional text clarifies that no new development will be permitted within 15 metres of a watercourse (i.e. Lake).
major	4.2 - Policies for River or Stream Valleys	39	Addition of text from CRCA manual (p. 27): As part of the review of the application, the CVCA may request an environmental impact study (EIS) to address development within erosion hazards.
minor	4.2.7	42	Addition of text: clarification of text and referral to new policy numbers.
minor	5.3.1.5	50	Corrected grammatical typo.
minor	5.3.4.1; 7.4.4.7,	59	Corrected typo: 'Shoreline development areas'.
major	5.3.5.1 - New On-Shore Boathouses	62	Edited existing text: reduced the allowable footprint of new boat houses from 80 square meters to 46.5 square meters in order to be consistent with existing CVCA policies, such as the 46.5 square meter size limit for accessory structures (existing policy 5.3.1.5).
minor	5.4 - Defining the Erosion Hazard	69	Corrected typo: "flooding" turned into flood hazard .
major	5.5 - Defining the Erosion Hazard	70-73	Substantial rewording of section 5.5 for increased clarity. Incorporated text from Otonabee Region Conservation Authority's policy manual (with permission).
major	5.5.1 - How the Erosion Hazard is Applied	71-73	New section: how the Erosion Hazard is Applied. This further clarifies our interpretation of the erosion hazard. This section was copied, verbatim, from ORCAs manual (p. 75).
minor	5.5.1 - How the Erosion Hazard is Applied	73	Updated numbering. 5.8
major	5.5.1 - How the Erosion Hazard is Applied	72	Addition of a Figure: " Figure 9: Regulated River or Stream Valley".
minor	5.6.12 - General Erosion Hazard Policies	75	Added "boathouses" to list of permitted activities occurring within the erosion hazard.
major	5.7.6.1 & 5.7.6.2	79, 80	Updated numbering.
major	5.8 - Development within the Allowance of an Erosion Hazard	80	New policy clause: for constrained lots, a reduction of the access setback from 6 metres to 4 metres may be considered where the adjacent slope is equal to or less than 3 metres in height as small equipment will be able to perform necessary maintenance if required.
major	6.4.4.5 - Erosion Protection, Shoreline/Bank Stabilization and Sediment Control	97-99	Update shoreline erosion control policy in order to satisfy board request that the CVCA strengthen our Shoreline and Erosion Control polices.
major	6.4.4.8 - New Private Boat Launch	100	Private Boat Launches - Installation of a private individual boat launch will be permitted for an existing waterfront lot provided the control of flooding, erosion, pollution and the conservation of land will not be affected.
minor	7.3.1a, b, c, d	104	Edited text to clarify existing wetland development setbacks as they apply to Provincially Significant Wetlands, Wetlands great than 2ha and Wetlands less than 2ha. Removed the terms "evaluated" and "unevaluated".
major	7.4.1.5a - Passive Low-Intensity Recreational Uses/Development	107	Removal of policy text that requires an EIS for <i>all</i> new development related to passive low-intensity recreational uses associated with public uses. Addition of policy text "An EIS will be requested at the discretion of the CVCA."
minor	New Development within Adjacent Lands of a Wetland	111	Clarification: removed "where the principle of development has been established" and replaced with "where the current zoning is appropriate to the nature of development".
major	Appendix D	170	Amendment to Appendix D "Notice of Decision - Model" to incorporate the revised contact information for the appeal of a Board Hearing decision.

Appendix B: Section 5.5 - Defining the Erosion Hazard and Associated Regulated Area

River and stream systems (including all watercourses, rivers, streams and small inland lakes) are by their nature dynamic, constantly changing landforms mainly due to erosive forces or flowing water and the relative stability of surrounding slopes. The degree and frequency with which the morphological or physical change will occur in these systems depends on the interaction of a number of interrelated factors including the hydraulic flow, channel configuration, sediment load in the system, and the stability of the banks, bed and adjacent slopes. The constant shaping and re-shaping of river and stream systems by the physical processes associated with flooding, erosion and slope instability can result in the creation of hazardous conditions that pose a threat to human lives and cause property damage.

Erosion and slope stability are two different processes that are often associated together and can pose a threat to life and property through the loss of land due to human or naturally occurring processes. Erosion is the continued loss of earth material (i.e., soil or sediment) over time as a result of the influence of water or wind action. The erosion process affects the soil surface at the particle level, by gradually dislodging and removing (transporting) the soil particles from the parent mass. Slope stability, usually described in terms of the potential for slope failure, refers to a mass movement of earth material, or soil, sliding down a bank or slope face as a result of a single event in time. Slope movement can occur in many ways but is generally the result of:

- Changes in slope configurations, such as steepness or inclination;
- Increases in loading on or near the slope, such as structures or filling;
- Changes in ground water conditions or drainage of the soil (i.e. heavy rainfall or spring melt, drainage blocked by filling, or broken watermains);
- Loss of vegetation cover and root systems;and/or,
- Erosion of the toe of slope.

The *erosion hazard* associated with river and stream systems is that area of a river or stream bank and lands adjacent to watercourses where erosion is actively occurring and/or where development could create slope stability issues. The erosion hazard component of the actual river and stream systems is intended to address both erosion potential of the actual river and stream bank as well as erosion or potential slope stability issues related to valley walls.

Slopes steeper than a 3:1 (horizontal:vertical) with a height of at least 3 metres are generally considered potentially unstable. Slopes in sandy soil areas may be unstable if the slope is steeper than a 5:1 (horizontal:vertical).

5.5.1 How the Erosion Hazard is Applied

The application of the erosion hazard limit will depend on whether the watercourse flows through a well-defined valley system and is confined with a valley corridor or whether it flows through landscapes that are relatively flat, and is not confined or bounded by valley walls. In accordance with Provincial Guidelines, CVCA considers two basic types of river and stream systems (including small inland lakes) when determining the extent of an erosion hazard:

- Confined systems, and,
- Unconfined systems

The extent of the hazard varies based on the characteristics of the bedrock and soils which comprise the valley slope, degree to which the valley slope is stable or unstable, and whether or not the valley slope is subject to active erosion.

What are confined river and stream systems?

Confined river and stream systems are ones in which the physical presence of a *valley* corridor containing a *river* or *stream* channel (which may or may not contain flowing water) is visibly evident – that is, the *valley* walls are clearly definable from the surrounding landscape, either by field investigations, aerial photography or map interpretation. The location of the *river* or *stream* channel may be at the base of the *valley* slope, in close proximity to the *valley* slope, or removed from the *valley*. The *river* or *stream* channels can contain either perennial (i.e., year round) or ephemeral (i.e., seasonal or intermittent) flow and may range in channel configuration from seepage and natural springs to detectable channels.

The *erosion hazard limit* in *confined systems* is defined by: toe erosion allowance, plus stable slope allowance, plus *erosion access allowance*. In general, where there is an apparent watercourse valley (including lakes, rivers and streams), the *erosion hazard* will consist of a toe *erosion* allowance plus a stable slope allowance. The toe *erosion* allowance is determined. For more detailed information, see the MNRF “Technical Guide – River and Stream Systems: Erosion Hazard Limit” (2002, see Figure 9, below).

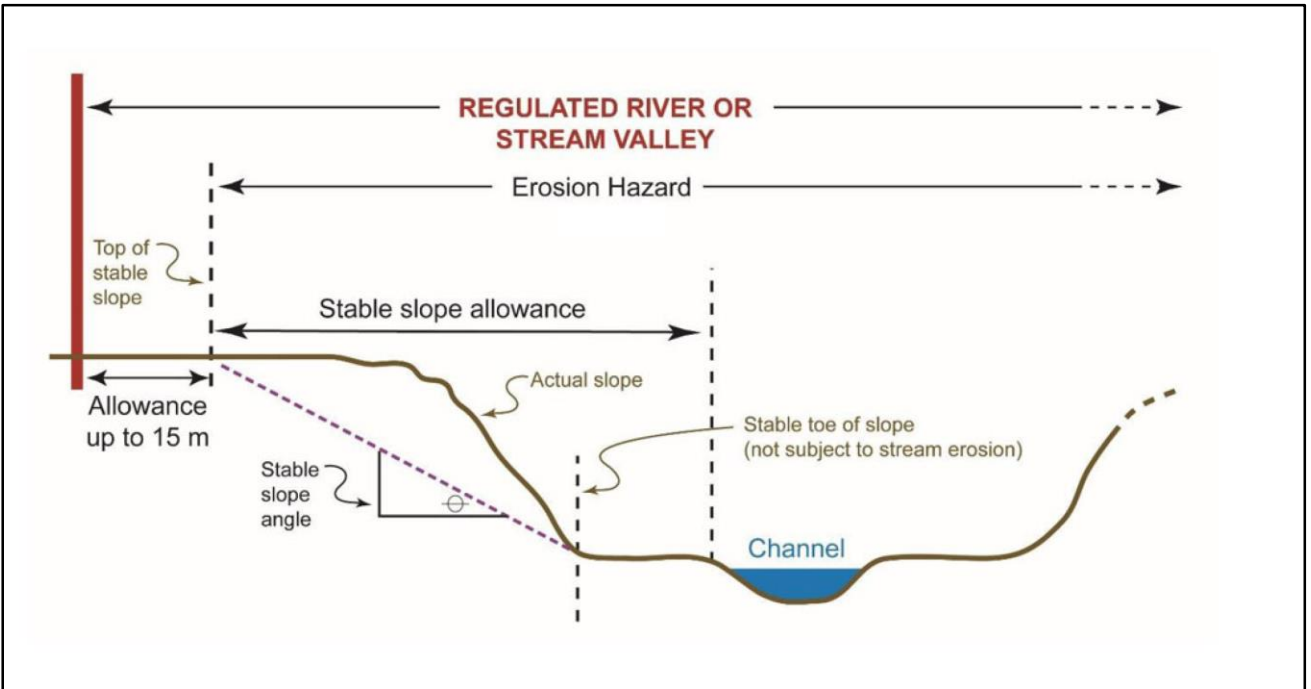


Figure 1: The Erosion Hazard Limit, Apparent River or Stream Valley with an Unstable Slope and Active Toe Erosion

Unconfined river and stream systems:

Unconfined river and stream systems are ones in which the river or stream is present but there is no identifiable valley slope or bank that can be detected from the surrounding landscape, either by field investigations, aerial photography or map interpretation. Generally, these features are found in flatter or gently rolling landscapes and may be located within the headwater areas of drainage basins. The river or stream channels can contain either perennial (i.e., year-round) or ephemeral (i.e., seasonal or intermittent) flow and may range in channel configuration from seepage and natural springs to detectable channels.

The *erosion hazard* limit in *unconfined systems* is defined by: the *flooding hazard* limit or *meander belt allowance*, plus *erosion access allowance*. For more detailed information, see the MNRF “Technical Guide – River and Stream Systems: Erosion Hazard Limit” (2002).

Note: Geotechnical studies, as required by CVCA, must provide an analysis based on the natural state of the slope and be completed in accordance with the criteria set out in the MNRF “Technical Guide – River & Stream Systems: Erosion Hazard Limit (2002).

CVCA relies on the Ministry of Natural Resources Technical Guide – River & Stream Systems: Erosion Hazard Limit (2002) to determine the erosion hazard. Due to this, CVCA considers an erosion access allowance of 6 metres adjacent to the stable top of slope and/or meander belt width when evaluating development proposals in relation to erosion hazards. An erosion access allowance is meant to provide access for emergencies, unforeseen circumstances, maintenance and construction activities. As such, development within the erosion access allowance is considered to be encroaching on the associated hazardous

lands and would be subject to the policies contained in Section 5.8, Development Within the Allowance of an Erosion Hazard.

According to the MNRF and CO Guidelines for Developing Scheduled Areas (2005), the erosion hazard applies to all watercourses and lake systems in the CVCA watershed.

Any development within an erosion hazard requires permission from CVCA.