

October 20, 2016

Land Use Planning Review
Ministry of Municipal Affairs
Ontario Growth Secretariat
777 Bay Street, Suite 425 (4th floor)
Toronto, ON M5G 2E5

Dear Sir or Madam

Re: OSSGA Comments on the Provincial Plan Review

Introduction

OSSGA is a not-for-profit association representing over 280 sand, gravel and crushed stone producers and suppliers of valuable industry products and services. Collectively, our members supply the majority of the 164 million tonnes of aggregate consumed, on average, annually in the province to build and maintain Ontario's infrastructure needs. OSSGA works in partnership with government and the public to promote a safe and competitive aggregate industry contributing to the creation of complete communities in the province.

We appreciate the opportunity to provide comments on these Provincial Plans and look forward to the opportunity to meet in person with officials as appropriate to discuss and elaborate on the issues we have raised in our Brief. In addition to the concerns with the proposed changes to the Provincial Plans, we particularly stress that any changes impacting aggregates should not precede the updated *Aggregate Resources Act* and its associated regulations, which is currently before the Ontario Legislature. It is essential that the impact of the *ARA* framework in its final form inform any changes to aggregates policy in the Provincial Plans. Until the updated legislative and regulatory framework for aggregates in Ontario is finalized and in place, there is a high risk of unintended consequences and contradictions that may significantly undermine the aggregate sector in Ontario. We realize that completing these exercises will take time and we encourage the Province to move slowly and carefully as it goes through its consultation process.

Because of the size of our submission, it is being made available for download until November 30th at: ftp://ossgasubmission:fjKP2385\$@ftp.mhbcplan.com

Summary of Key Points

The proposed changes to Provincial Plans introduce significant new prohibitions for new and expanded mineral aggregate operations and apply a new policy regime to a much larger geographic area (e.g. Growth Plan area). OSSGA is deeply concerned that these additional restrictions will create an environment whereby Ontario will be unable to meet its aggregate requirements and commitments for infrastructure and private sector construction. This will make it next to impossible for the Ontario government to fulfill its ambitious infrastructure plan without greatly exceeding the budgeted costs, as

significant aggregate volumes will need to be sourced far from market at a much higher cost to taxpayers.

These proposed changes will have the effect of creating unnecessary and unsustainable burdens on vital aggregate extraction in the Greater Golden Horseshoe (GGH). The GGH is an essential aggregate supply area for the Province. In 2015 alone, the GGH produced over half of Ontario's total aggregate production. The current Provincial Plans already include a rigorous planning regime for licensing new or expanded mineral aggregate operations, and these plans afford a high level of protection for agricultural, natural heritage and water resources.

The Province has identified that over the next 25 years, 2.5 billion tonnes of aggregate will be required in the Greater Golden Horseshoe, of which 1.5 billion tonnes is needed in the GTA alone. There is a documented shortage of high quality aggregate located within close proximity to the consumer and licensing new reserves within the GGH is not keeping up with production levels. Currently, the average haul distance to supply aggregate in the GTA is 35 km, and under the current policy regime, this average will continue to rise.

Due to the shortage of high quality aggregate, the Province should be making strategic policy decisions to ensure that the projected growth and the Province's infrastructure plan can be supplied using close to market sources of aggregate to reduce the environmental and economic impacts of transporting aggregate further from market. OSSGA encourages the government to carefully consider the strategic and economic imperatives when contemplating additional changes pertaining to aggregate operations in the Greater Golden Horseshoe.

Tab B of our submission is a detailed science-based set of revised policies to the Provincial Plans that will continue to provide a high level of protection for agricultural, natural heritage and water resources, while enabling close to market aggregate supplies to be used. However, OSSGA recommends that any changes to the Provincial Plans be coordinated with the updated *Aggregate Resources Act* and corresponding regulations, which is currently before the Legislature. Proceeding with changes to any of the Provincial Plans before this updated legislative and regulatory framework is in place may have unintended consequences with detrimental impacts for the aggregate sector. These important issues are interrelated and their combined impact must be considered and measured before proceeding with either one in isolation.

It is important that the Province approach any final changes with a clear understanding of the state of the aggregate sector in the GGH and the direct impact these changes will have on provincial priorities. Aggregate operations within the Provincial Plan areas represent a small footprint while providing an essential resource to meet the Province's growth and infrastructure needs. For example:

- Within the NEP, ORMCP and Greenbelt Plan, only 1.5% of the land is licenced for extraction and just 0.6% is subject to active extraction. These sites provide 35% of the GGH's total aggregate needs.
- Only 0.7% of prime agricultural land in Southern Ontario contains a licenced aggregate operation and many of these sites are being rehabilitated back to agricultural.
- The existing policy regime within the NEP, ORMCP and Greenbelt Plan already creates a very high standard for new or expanded operations. Since the enactment of these plans, only 0.1%

of the total area of these Plans have been licenced for new or expanded aggregate operations (22 licences).

- Since the 1990s, the Province has increased its focus on rehabilitation through the Aggregate Resources Act and polices within the Greenbelt, ORMCP and NEP. Since that time, over 3000 ha (100+ licences) have been surrendered within the Greenbelt, ORMCP and NEP and these sites have been returned to other uses including natural heritage areas, publicly accessible green space and agricultural land.
- Forcing supply outside of the GGH and Provincial Plan areas is contrary to the Province's focus
 on climate change. As per the analysis completed in The State of the Aggregate Resource Study
 (2010), replacing only 35 million tonnes of close to market aggregate supply by long haul
 trucking would add over 35 million tonnes of greenhouse gases. This is comparable to losing the
 air quality benefits that almost 100,000 ha of forest provide annually.

Without replacement of licensed aggregate reserves within close proximity to the consumer, the transportation distance from source to market will significantly increase causing an undesirable increase in the cost of aggregate and greenhouses gas emissions, all of which are contrary to Provincial objectives and will directly impact the projected costs of Ontario's infrastructure plan.

In addition to this cover letter, our submission includes the following:

Tab A – Summary of OSSGA's significant concerns with the Provincial Plan review, June 2016 (previously submitted to the Province).

Tab B – A chart with recommended revisions to the Provincial Plans, October 3, 2016.

Tab C – Provincial Plan Review, NEP Mapping Updates Discussion Paper, October 3, 2016.

Tab D – Summary of NEP Mapping Issues with illustrations, September 2016.

Tab E – The Future of Ontario's Close to Market Aggregate Supply, The 2015 Provincial Plan Review – Summary, April 30, 2016 (previously submitted to the Province).

OSSGA looks forward to the opportunity to discuss these issues in greater detail with ministry officials and other stakeholders and look forward to ensuring access to this important resource while still protecting agricultural, natural heritage and water resources.

Respectfully Submitted,

Ontario Stone, Sand & Gravel Association (OSSGA)

Norman Cheesman Executive Director

cc. Hon. Bill Mauro, Minister of Municipal Affairs
Hon. Kathryn McGarry, Minister of Natural Resources



Coordinated Provincial Plan Review

Submission presented by

Ontario Stone, Sand & Gravel Association



October 2016

Tab A



Coordinated Provincial Plan Review

Initial Comments

Ontario Stone, Sand & Gravel Association



June 2016



The Coordinated Provincial Plan Review – Initial Comments

Introduction

OSSGA has been participating in the Provincial Plan Review and has previously provided the Province a background paper and proposed recommendations for mineral aggregate resources in April 2015 (www.ossga.com/FutureofCloseToMarket). OSSGA is in the process of completing a review of the four Provincial Plans but has already identified some proposed revisions that will significantly impact the licensing of new aggregate reserves within the GGH.

The Province has identified that over the next 25 years, 2.5 billion tonnes of aggregate will be required in the Greater Golden Horseshoe (GGH), of which 1.5 billion tonnes is needed in the GTA alone. There is a documented shortage of high quality aggregate located within close proximity to the consumer and licensing new reserves within the GGH is not keeping up with production levels. Currently, the average haul distance to supply aggregate in the GTA is 35 km. In 2009, the Province examined the available supply of high quality crushed stone aggregates from different distances from the Vaughan Corporate Centre. The study concluded there was only 103 million tonnes of high quality crushed stone approved for extraction within 50 km. Since the completion of the study, within this area there has been another 50 million tonnes of high quality crushed stone extracted with no replacement licences established.

The current Provincial Plans pose a challenging planning regime for licensing new mineral aggregate operations and at the same time afford protection to agricultural, natural heritage and water resources. Without replacement of licensed aggregate reserves within close proximity to the consumer, the transportation distance from source to market will significantly increase causing an undesirable increase in the cost of aggregate and greenhouse gas emissions, all of which are contrary to Provincial objectives. Furthermore, additional infrastructure will be needed to transport aggregate further from market. The GGH is an essential aggregate supply area for the Province and in 2015 the GGH produced over half of Ontario's total aggregate production.

Issues of Concern to OSSGA

The following is a summary of the significant concerns we have identified to date:

- 1. Within the GGH, the Province is proposing to expand the provincial natural heritage system beyond the Greenbelt Plan, Oak Ridges Moraine Conservation Plan and Niagara Escarpment Plan. Within this area the Province is proposing a policy regime that is much more restrictive for mineral aggregate resources than the current Provincial Policy Statement which already provides significant protection for agricultural, natural heritage and water resources. Examples include:
 - Prohibiting new mineral aggregate within significant woodlands without consideration of the "no negative impact" test. This revision is also being proposed within the Niagara Escarpment Plan. This proposed change does not account for the ability of aggregate producers to replace woodlands through progressive rehabilitation consistent with the PPS whereby a net environmental gain is provided.



- Prohibiting new mineral aggregate operations within endangered and threatened species habitat without consideration of the provisions of the Endangered Species Act. This revision is also being proposed within the Greenbelt Plan and Oak Ridges Moraine Conservation Plan. The new Provincial Policy Statement was updated to permit development within habitat if the application results in an overall benefit to the species and the same approach should apply to all Provincial Plans. OSSGA and our members have worked closely with Ministry of Natural Resources & Forestry to ensure that species at risk are protected and managed in accordance with the Endangered Species Act.
- Requiring immediate compensation for any habitat that would be lost from a site with
 equivalent habitat on another part of the site or on adjacent lands even if the habitat
 doesn't qualify as a key natural heritage or key hydrologic feature.
- 2. The Province is proposing to discourage extraction within prime agricultural areas and require that operations be rehabilitated back to agriculture. This will prohibit below water extraction within these areas of the GGH. Under current Provincial Policy, extraction is permitted within prime agricultural areas and rehabilitation back to agricultural is not required if certain tests are met. Maintaining access to these areas is essential, particularly taking into consideration the restrictive policy framework for natural heritage features and water resources. In areas of the GGH, significant amounts of aggregate resources are located below water. If extraction were prohibited in these areas, additional surface area would have to be disturbed to replace the lost aggregate located below water and this area may not be available due to development constraints and the availability of appropriate geologic conditions.
- 3. The NEC is recommending mapping and policy changes to the Niagara Escarpment Plan that will significantly restrict where new aggregate operations may be considered. Currently new aggregate operations may only be considered within the Escarpment Rural Area. The NEC is proposing to reduce the Escarpment Rural Area by 35 %. The NEC indicate the mapping changes are based on the existing designation criteria using updated mapping. However, a review of the proposed changes to the Niagara Escarpment Plan indicates that the NEC has in fact changed the designation criteria that are being applied for Escarpment Natural Area and Escarpment Protection Area which causes significant increase in these two designations. It is misleading to suggest the designation criteria have not been changed when in fact they have. Upon review of the mapping, the NEC does not indicate which designation criteria resulted in the change and based on a review of a few sites that include an identified aggregate resource, there does not appear to be any rationale for the change. The NEC is also proposing to add 45,000 ha of land to the NEP that would then be subject to the prohibition / restrictive policies of the Niagara Escarpment Plan.



4. The Province is also proposing that the new policies will apply retroactively to existing applications where a decision has not been made. Due to the timelines required to make a final decision on aggregate applications, the proposed policy revisions could significantly impact existing applications that have been designed to comply with existing Provincial Policy and where significant financial investments have been made based on these existing policies. These policy revisions could require a significant redesign of a proposed operation, require additional land to be acquired for compensation, significantly reduce the proposed extraction area and in some cases make the application no longer viable.

Conclusion

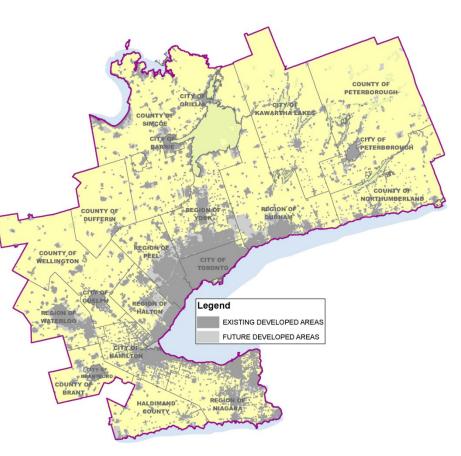
Along with this brief, we are including a pdf document summarizing the main concerns with the proposed plans, supplemented with maps and charts, and we will continue to review these plans and provide additional comments in the weeks ahead. In the interim, OSSGA looks forward to having an opportunity to discuss these issues in greater detail with ministry officials and other stakeholders and look forward to ensuring access to this important resource while still protecting agricultural, natural heritage and water resources.

OSSGA is a not-for-profit association representing over 280 sand, gravel and crushed stone producers and suppliers of valuable industry products and services. Collectively, our members supply the majority of the 164 million tonnes of aggregate consumed, on average, annually in the province to build and maintain Ontario's infrastructure needs. OSSGA works in partnership with government and the public to promote a safe and competitive aggregate industry contributing to the creation of complete communities in the province.

The Future of Ontario's Close to Market Aggregate Supply Proposed Plan Revisions Threaten Future Supply within GGH

- 70% of Ontario's population is located within the GGH (9.1 million people).
- 4.4 million additional people to be added to the GGH by 2041 for a total population of 13.5 million.
- Requires more than 90-100 million tonnes of aggregate per year (more than half of Ontario's total aggregate consumption). This is equivalent to over 5.7 million truck trips per year (35 tonne trucks/two way travel)
- 2.5 billion tonnes of aggregate is needed over the next 25 years.

Greater Golden Horseshoe (GGH)



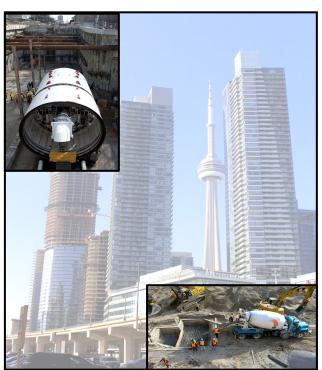
- Replacement of licenced aggregate reserves is not keeping up with consumption rates in the GGH.
- There is a documented shortage of high quality close to market aggregate reserves.
- As the GGH intensifies, higher quality aggregates are needed to meet specification requirements.
- The proposed revisions to the Growth Plan, Greenbelt Plan, NEP and ORMCP threaten future supply within the GGH.



Proposed Revisions to the Provincial Plans Threaten the Future Supply of Close to Market Aggregates

Proposed Provincial Plan Revisions:

- Introduce **new prohibitions** to where new aggregate operations may be considered.
- Apply a more restrictive policy framework to a much larger geographic area.
- Elevates the importance and protection of other rural resources (e.g. agriculture, natural features and cultural heritage within the GGH) which reduces the protection of aggregates.
- Apply the new policies to existing applications where a decision has not been made.



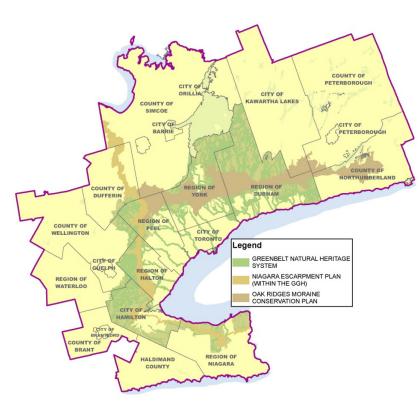
Collectively, these changes:

- Are contrary to the longstanding Provincial Policy requiring that as much aggregate as possible be located as close to market as possible.
- Will significantly restrict where new operations may be located within the GGH.
- Force new supply further from market (there is a lack of infrastructure to transport aggregate long distances). Adding trucks on lower capacity roads from distant sources will only exacerbate traffic congestion, safety, economic and environmental impacts.
- Are contrary to the Provincial goal to address climate change by reducing greenhouse gases and reliance on fossil fuels.
- Force new supply further from market which has significant economic impacts due to the costs to transport the aggregate and upgrade transportation systems.
- As the public sector purchases over half of aggregates used in the GGH, increases in the price of aggregates would result in higher taxes and/or reduced infrastructure investment or supply of other government services.

The following pages illustrate some of OSSGA's concerns with the proposed Provincial Plan revisions. Detailed comments will be provided under a separate cover.

A More Restrictive Policy Framework for Mineral Aggregate Operations will be Applied to a Much Larger Geographic Area and Existing Applications

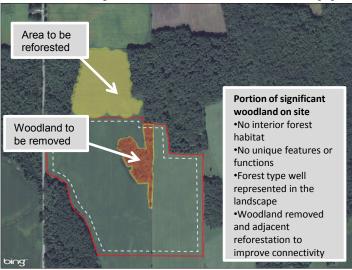
- **Currently licensing** new aggregate operations within the GGH is difficult and the proposed policy revisions will make it even more difficult to find suitable properties.
- The Province is proposing to expand the Greenbelt Natural Heritage System to cover the entire Greater Golden Horseshoe (excluding NEP and ORMCP which already have an NHS). Within the proposed **GGH** NHS, a more restrictive policy approach will be applied (e.g. similar to the existing Greenbelt Plan NHS policies).



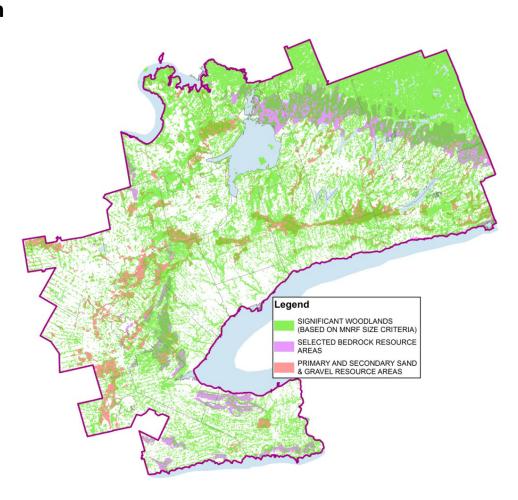
- Outside of the GGH NHS, a more restrictive policy approach will be applied (e.g. similar to existing Greenbelt Plan polices).
- The other Provincial Plans (NEP, Greenbelt Plan and ORMCP) also include **proposed revisions** that are more restrictive than current policy (e.g. extraction in prime agricultural areas).
- The Province is also proposing to apply the new policies to existing applications where a decision has not been made.
- It is unreasonable to change the rules in the middle of an application. The industry has made significant investment in applications based on the current policy framework.

New Mineral Aggregate Operations will be Prohibited within Significant Woodlands in the GGH

Current Policy Allows a Balanced Approach



- Currently within most of the lands in the GGH, new operations are not permitted within significant woodlands unless no negative impact is demonstrated. Assessing no negative impacts takes into consideration rehabilitation and replacement (see above photo).
- The proposed revisions to the Provincial Plan expand the prohibition for new mineral aggregate operations within significant woodlands (unless early successional habitat or young plantation) from the ORMCP and Greenbelt NHS to now also include the Growth Plan NHS and the NEP Escarpment Rural Areas.
- Within the GGH, over 30% of identified aggregate resource areas have overlapping significant woodlands. Other woodlands severely fragment remaining aggregate areas.



• Significant woodlands are **only 1 of more than 40** other social, environmental and agricultural constraints that must be considered when licencing a new mineral aggregate operation.

OSSGA

New Mineral Aggregate Operations will be Prohibited within Habitat of Endangered and Threatened Species within the Natural Heritage System of the GGH





Province has identified 104 endangered species and 57 threatened species.





OSSGA

 Most new aggregate sites are dealing with species at risk, and are permitted subject to the provisions of the Endangered Species Act. Any permitted development requires an overall benefit to the species.

• The proposed revisions to the Provincial Plans **prohibit new mineral aggregate operations within endangered and threatened species habitat** within the Greenbelt NHS, ORMCP linkage areas and Growth Plan NHS.

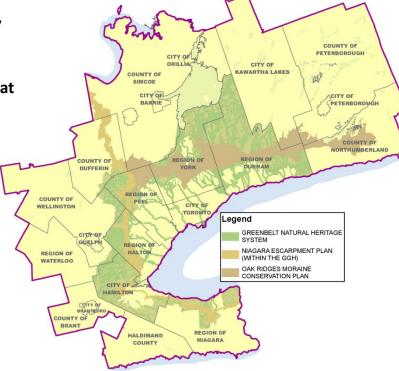
 This will eliminate overall benefit applications for species at risk and significantly impact availability of sites due to the number of species, transitory nature of species habitat and the expansive areas that are mapped as habitat, for example:

14 small wetlands with amphibian breeding habitat located in Halton Hills resulted in...



550 ha being mapped as endangered species habitat which is equivalent to the size of Downtown Toronto.

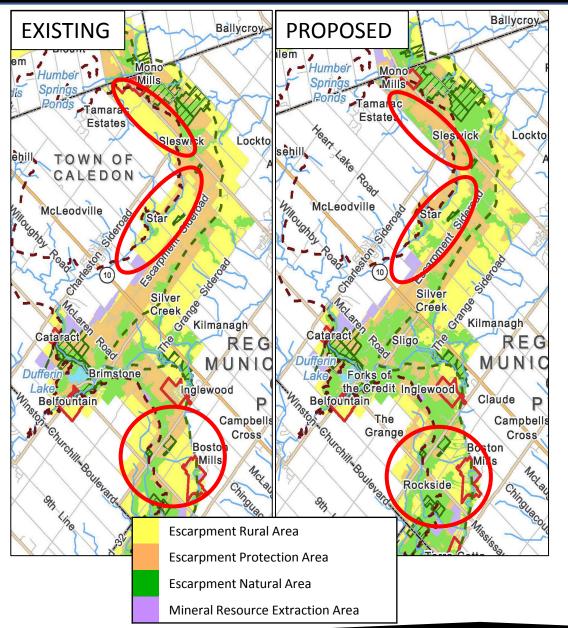




In addition, **species could be added** during the review process for a new aggregate operation and three years into a process a proposed extraction area could now become prohibited.

Niagara Escarpment Plan

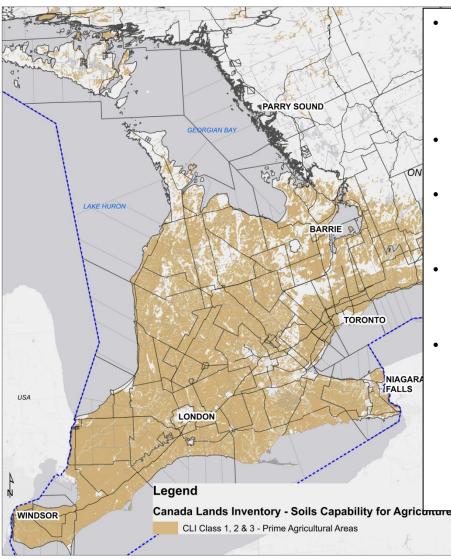
Restricting Close to Market Aggregate Supply through Updated and Expanded Mapping



- New aggregate operations are currently prohibited in the Escarpment Natural Area and Escarpment Protection Area which currently represent over 70% of the NEP.
- New aggregate operations may only be considered in Escarpment Rural Areas.
- The NEC is proposing to change Escarpment Rural Areas to Escarpment Natural Area or Escarpment Protection Area which reduces the Escarpment Rural Area by 35%. It is very misleading to suggest the designation criteria have not changed when in fact they have including new definitions related to the criteria.
- The NEC did not provide justification for these changes. Based on a review of some of the mapping changes, it is unclear why they are being proposed.
- In addition, the remaining Escarpment Rural Area will be **fragmented** by areas proposed to be designated Escarpment Natural Area and Escarpment Protection Area.
- Collectively, these mapping changes would make it difficult to find a large enough site designated Escarpment Rural Area that could support a new mineral aggregate operation particularly taking into account other policies in the NEP that must be addressed.
- The NEC also proposes to add over 45,000 ha of land to the NEP which subjects a significant amount of land to the prohibition/ restrictive policies of the NEP.

6

Proposed Revisions will Discourage Aggregate Extraction in Prime Agricultural Areas Where is Aggregate Extraction Encouraged?



- Proposed revisions to Provincial Plans:
 - Increase protection of prime agricultural areas
 - Discourages aggregate extraction within these areas including prohibiting below water extraction
- Southern Ontario contains 4.9 million ha of prime agricultural land.
- Currently, new mineral aggregate operations are permitted within prime agricultural areas based on 2014 PPS.
- Only 0.7% of prime agricultural land has a licensed mineral aggregate operation and many of these sites will be rehabilitated back to agriculture.
- All new mineral aggregate areas will either be located within an agricultural area or natural heritage system. Increasing protection to natural systems and now discouraging aggregate extraction in prime agricultural areas upends the current balance of provincial interests by elevating natural heritage and agriculture to the disadvantage of aggregate resource development.

Tab B

OSSGA's Comments on Provincial Plan Review

October 3, 2016

The following are OSSGA's comments on the proposed Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Growth Plan For the Greater Golden Horseshoe and the Niagara Escarpment Plan. The Province's proposed policies are provided in the Proposed Policies column, and new text is shown as green text and deleted text is shown as struck through red text. OSSGA's proposed revisions are provided in the middle column, and new text is shown as underlined black text highlighted in yellow and deleted text is shown as struck through black text highlighted in yellow. The rationale is in the right column.

		Greenbe	lt Plan
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
1.	3.1.3 Prime Agricultural Area Policies 3. Non-agricultural Other-uses may be permitted subject to the general policies of sections 4.2 to 4.6. These uses are generally discouraged in prime agricultural areas and may only be permitted after the completion of an agricultural impact assessment.	3. Non-agricultural Other uses may be permitted subject to the general policies of sections 4.2 to 4.6. Except for mineral aggregate operations. Fthese uses are generally discouraged in prime agricultural areas and may only be permitted after the completion of an agricultural impact assessment.	The proposed policy generally discourages non-agricultural uses, however Section 4.3.2 of the Greenbelt Plan and 2.5.4 of the PPS permits aggregate operations within prime agricultural areas. The policy should clarify that aggregate operations are not discouraged in these areas. These areas are important to provide access to the aggregate resource particularly taking into consideration natural heritage policies and protection. In addition, aggregate operations are not a major threat to agricultural areas. In southern Ontario only 0.7% of prime agricultural land contains an aggregate operation, and many of these sites are being rehabilitated back to agricultural land.
2.	4.3.2.3 a) No new mineral aggregate operation and no wayside pits and quarries, or any ancillary or accessory use thereto will shall be permitted in the following key natural heritage features and key hydrologic features: ii. Significant hHabitat of endangered species and threatened species; and	ii. Significant hHabitat of endangered species and threatened species except in accordance with the Endangered Species Act (2007).	This policy prohibits aggregate extraction within species at risk habitat for new operations. This is inconsistent with the ESA and PPS. As of June 2016, the Province had identified 104 Endangered Species and 57 Threatened Species. Due to the number of species, transitory nature of species habitat, and the expansive areas that are mapped as habitat, most new aggregate sites are dealing with species at risk. As currently drafted, a Butternut tree could prohibit the consideration of a new site. In addition, the species at risk list is constantly being updated and a new species could be added during the middle of the review process for a new site and this policy could have significant impacts on the application.

		Greenbe	ilt Plan
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
3.	iii. Significant woodlands unless the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry). In this case, the application must demonstrate that the specific provisions of policy policies 4.3.2. 6 5 (eb), (cd) and 4.3.2.6 7 (c) have been addressed, and that they will be met by the operation;	the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry). In this case, the application must demonstrate that the specific provisions of policy policies 4.3.2. 6.5 (cb), (cd) and 4.3.2.6.7 (c) have been addressed, and that they will be met by the operation;	This policy prohibits aggregate extraction within significant woodlands for new operations except in limited circumstances. Experience has found that there are very few woodlands that qualify as young plantation or early successional. Even if they existed at the time of the background studies, by the time the application process is finished, they no longer qualify as young plantation or early successional. Within the GGH, over 30% of the identified aggregate resource areas have overlapping significant woodlands. In addition, these significant woodlands severely fragment remaining aggregate areas, leaving them insufficient in size to be a viable operation. Significant woodlands are only 1 of more than 40 other social, environmental and agricultural constraints that must be considered when licensing a new mineral operation. Significant woodlands should be protected consistent with the policies of the PPS (No negative impact). See below illustration. Area to be reforested in the landscape "Portion of significant woodland removed and adjacent reforestation to improve connectivity." In addition, woodlands are a renewable resource, while aggregate is a non-renewable resource, and aggregate can only be extracted where it exists.

		Greenbelt Plan		
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale	
4.	4.3.2.3 c) Any application for a new mineral aggregate operation; or the expansion of an existing mineral aggregate operation shall be required to demonstrate: ii. How the operator could immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands; and	ii. How the operator could immediately replace any habitat key natural heritage features and key hydrologic features that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands;	This policy has been interpreted by government agencies including MNRF to mean replacement of non-significant features. If a site is not in agricultural use, the area typically includes non-significant features such as hedge rows, thickets, transitional habitat, grassland, etc. As a result, operators would need to purchase adjacent land to compensate for these features. This policy should be limited to key features or allow for the replacement of non-significant features to be done as part of rehabilitation of the site.	
5.	4.3.2.4. Where an application for a new mineral aggregate operation is proposed in prime agricultural areas, an agricultural impact assessment shall be undertaken. Where possible, proposals shall seek to maintain or improve connectivity of the Agricultural System.	Where possible, proposals shall seek to maintain or improve connectivity of the <i>Agricultural System</i> , except in accordance with Section 2.5.4 of the Provincial Policy Statement,	See rationale noted in number 1. The cross reference to section 2.5.4 of the PPS is to recognize that in certain circumstances, agricultural rehabilitation is not always mandatory.	

		Greenbe	lt Plan
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
6.	4.3.2.7. Final rehabilitation for new mineral aggregate operations in the Natural Heritage System willshall meet these additional provisions policies: a) Where there is no underwater extraction, an amount of land equal to that under natural vegetated cover prior to extraction, and no less than 35% of the land subject to each license in the Natural Heritage System, is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict;	a) For areas outside of prime agricultural areas, wwhere there is no underwater extraction, an amount of land equal to that under natural vegetated cover prior to extraction, and no less than 35% of the land extraction area subject to each license in the Natural Heritage System, is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict;	Within the Natural heritage System, you can still have areas that are identified as prime agricultural areas. As a result, the Province should clarify that this policy does not apply within prime agricultural areas where agricultural rehabilitation is being undertaken. If this is not clarified, the policies conflict since one policy requires complete agricultural rehabilitation while this policy requires 35% of the property to be reforested. The policy should also be revised to the extraction area and not the licensed area. The 35% should only apply to areas that are being actively disturbed by extraction.
7.		b)) For areas outside of prime agricultural areas, wwhere there is underwater extraction, no less than 35% of the non-aquatic portion of the extraction area lands of subject to each license in the Natural Heritage System is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict; and	The Province should clarify that this policy does not apply to prime agricultural areas where agricultural rehabilitation is being undertaken since the PPS requires that in non-aquatic areas efforts are made to maximize agricultural rehabilitation. Also see rationale noted in number 6.

	Greenbelt Plan		
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
8.	4.3.2.10. Where a municipality has undertaken a comprehensive aggregate resource management study and implemented the results into its official plan prior to December 16, 2004establishment of this Plan, such policies shall be	4.3.2.10. Where a municipality has undertaken a comprehensive aggregate resource management study and implemented the results into its official plan prior to December 16, 2004establishment of this Plan, such policies shall be	Since 2004, there have been several policy updates including the 2005 and 2014 PPS, the new ESA, 2005 Greenbelt Plan, 2006 Growth Plan and the 2005 NEP. As a result of all of these changes in policy and legislation, municipalities should be required to update their plans to conform to the current provincial requirements.
	deemed to conform with to this Plan.	deemed to conform with to this Plan.	

		Oak Ridges Moraine	Conservation Plan
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
9.	Section 11.3 does not permit aggregate extraction within the Natural Core area. The Plan review and Amendment section of the ORMCP included the following policy that the Province is proposing to now delete. Plan Review and Amendment (e) A 10 year review may also include an examination of the Plan's policies on mineral aggregate extraction in Natural Core Areas, recognizing that mineral aggregates are a non-renewable resource that are particularly desirable this close to markets. The review may consider in particular whether to change the policies of this Plan to permit new mineral aggregate operations and wayside pits to be established and existing ones to expand in Natural Core Areas, where the ecological integrity of those Areas can be maintained or improved. For any such policy change to be considered, studies shall: — identify specific areas such as agricultural area, young	In accordance with Implementation Section of the ORMCP "Plan Review and Amendment" subsection e), the province should complete this assessment.	The Natural Core Area contains a significant amount of area that has been identified as a primary or secondary aggregate resource area by the Province and includes areas that do not contain any natural features and rehabilitation could improve the long term natural heritage value of the site. See below illustration. When the ORMCP was approved in 2002, there was a commitment by the Province to OSSGA to re-examine this issue as part of the next review. The Province is currently proposing to delete the policy and OSSGA is not aware of the examination being completed. Prior to the approval of the new Plan, this study should be completed. OSSGA and its members would be pleased to participate and provide data to assist.

	Oak Ridges Moraine Conservation Plan		
Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale	
plantations, or early successional habitats where extraction could occur without long term or permanent loss of ecological integrity;			
 demonstrate that where any natural self-sustaining vegetation needs to be removed for extraction, it shall be rehabilitated to natural self-sustaining vegetation of equal or 			
 greater ecological value; demonstrate that any non-agricultural area extracted shall be rehabilitated to natural self sustaining vegetation; 			
 demonstrate that the connectivity of key natural heritage features and hydrological features shall be maintained, or improved or restored where possible, during and after extraction; identify operational practices that will minimize possible negative impacts, such as: phasing extraction to 			
phasing extraction to minimize the extent of soil exposed at any one time,			

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	 encouraging rapid extraction and rehabilitation, especially adjacent to key natural heritage features and limiting activities on site to extraction and rehabilitation only and carrying out other activities such as processing, washing and stockpiling on sites demonstrate the successful performance of mineral aggregate operations and their rehabilitation in maintaining and improving ecological integrity in Natural Core Areas, Natural Linkage Areas and Countryside Areas since the Plan came into effect. 		
10.		See changes proposed to Section 3	35 (4) of the ORMCP.

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	7. Significant wildlife habitat. 8. Sand barrens, savannahs and tallgrass prairies.		
	22. (2) All development and site alteration with respect to land within a key natural heritage feature or the related minimum vegetation protection zone is prohibited, except the following:		
11	Hydrologically sensitive features Key Hydrologic Features 26. (1) The following are key hydrologic features: 1. Permanent and intermittent streams. 2. Wetlands. 3. Kettle lakes. 4. Seepage areas and springs. (2) All development and site alteration with respect to land within a hydrologically sensitive key hydrologic feature or the related minimum vegetation protection zone is prohibited, except the following:	See changes proposed to Section 35 ((4) of the ORMCP.

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12.	Mineral aggregate operations and wayside pits 35. (1) An application for a	(i) in the case of land in a prime agricultural area, by returning substantially all the land to a condition in which the soil	In southern Ontario only 0.7% of prime agricultural land contains an aggregate operation, and many of these sites are being rehabilitated back to agricultural land.
	mineral aggregate operation or wayside pit shall not be approved unless the applicant demonstrates,	capacity for agriculture is on average the same as it was before the mineral aggregate operation or wayside pit began operating, and except in	The cross reference to section 2.5.4 of the PPS is to recognize that in certain circumstances, agricultural rehabilitation is not always mandatory and if there is sufficient quantity of aggregate located below the water table, consideration to access the aggregate resource should not automatically be prohibited.
	(b) that as much of the site as possible will be rehabilitated,	accordance with Section 2.5.4 of Provincial Policy Statement (2014), and	By restricting below water extraction in prime agricultural areas, aggregate operations will not be able to optimize the amount of
	(i) in the case of land in a prime agricultural area, by restoring the land so that it can be used for agriculture, and		aggregate to be extracted on site and as a result there will need to be more applications and more surface area disturbed to recover the same amount of aggregate.
	(i) in the case of land in a prime agricultural area, by returning substantially all the land to a condition in which the soil capacity for agriculture is on average the same as it was before the mineral aggregate		These areas are important to provide consideration to allow for the recovery of the aggregate below the water table, particularly taking into consideration the natural heritage policies and protections of the ORMCP. As noted above, aggregate operations are not a major threat to agricultural areas.
	operation or wayside pit began operating, and		

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13.	35. (2) An application for a mineral aggregate operation or wayside pit with respect to land in a Natural Linkage Area shall not be approved unless the applicant demonstrates, (b) that there will be no extraction within 1.5 metres of the water table;	(b) that there will be no extraction within 1.5 metres of the water table;	There is no technical rationale for this restriction. Below water extraction could provide additional biodiversity as part of final rehabilitation and improve ecological conditions in Linkage Areas (e.g. wetland restoration and aquatic based habitat). By restricting below water extraction in Linkage areas, aggregate operations will not be able to optimize the amount of aggregate to be extracted on site and as a result there will need to be more applications and more surface area disturbed to recover the same amount of aggregate.
			These areas are important to provide consideration to allow for the recovery of the aggregate below the water table, particularly taking into consideration the natural heritage policies and protections of the ORMCP.
14.	35. (4) Despite subsection 22 (2), an application for a mineral aggregate operation or wayside pit with respect to land in a key natural heritage feature may be approved if, (a) the key natural heritage feature is a significant woodland	35. (4) Despite subsection 22 (2) and 26 (2), an application for a mineral aggregate operation or wayside pit with respect to land in a key natural heritage feature and hydrologically sensitive features may be approved if, (a) the key natural heritage feature is a significant woodland	As per the existing and proposed revisions to the ORMCP, all natural heritage and hydrologically sensitive features and the vegetation protection zones (VPZ) listed in subsection 22 (1) and 26 (1) would be a prohibition for aggregate extraction. The existing ORMCP provided an exemption if any of the features listed in 22 (2) were either young plantation or early successional. The proposed revision to the Plan now limits this exemption to just significant woodlands.
	and it is occupied by young plantations or early successional habitat; and	and it is occupied by young plantations or early successional habitat; and (a) the applicant demonstrates: i) no negative impacts on natural features or their ecological function; or	OSSGA is proposing that these features be subject to the natural heritage and water resources policies of the PPS. These policies provide for a high level of protection for features and in certain circumstances allow for minor impacts that can be mitigated for by site design and rehabilitation. Due to the importance of the close to market aggregate resource and consideration that aggregate operations are an interim land use where rehabilitation restores and enhances long term functions, an automatic

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	ii) that provincial and federal requirements for fish habitat, endangered species and threatened species have been met; or iii) hydrologically sensitive features will be protected, improved or restored.	 prohibition in all of these features and their VPZs should not be applied within the Linkage and Countryside Areas. For example: intermittent streams can include agricultural ditches; seepage and springs are common in aggregate areas due to the geology; wetlands can be as small as 0.01 ha and have limited to no ecological functions; and proposed ORMCP 22 (2) 5 prohibits aggregate operations in ESA habitat in the Linkage Areas. As a result, a single Butternut tree could sterilize the resource. 	
		These features should not result in automatic prohibitions in the Linkage and Countryside Areas. Also, see rationale noted in numbers 2 and 3.	

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15.	1 Introduction 1.2.2 Legislative Authority This Plan foris issued under the GGH derives its authority fromof section 7 of the Places to Grow Act, 2005. This Plan islt was approved through an Order- in-Council made by the Lieutenant Governor in Council under that Act and came into effect on [placeholder for effective date]. This Plan replaces the Growth Plan, 2006 that initially took effect on June 16, 2006 and was amended by Amendment 1 (January 19, 2012) and Amendment 2 (June 17, 2013). This Plan applies to the GGH lands area designated by Ontario Regulation 416/05. All decisions made on or after [placeholder for effective date] in respect of the exercise of any authority that affects a planning matter will conform with this Plan, subject to any legislative or regulatory provisions providing otherwise.	This Plan applies to the GGH lands area designated by Ontario Regulation 416/05. All decisions on applications submitted made on or after [placeholder for effective date] in respect of the exercise of any authority that affects a planning matter will conform with this Plan, subject to any legislative or regulatory provisions providing otherwise.	The Growth Plan introduces significant policy changes including new prohibitions for aggregates that do not currently exist. Since processing aggregate applications can take up to ten years, applying these policies retroactively could have a significant impact on existing applications. For example, if the draft policies are maintained that prohibit extraction within endangered or threatened species habitat or prohibit below water extraction within prime agricultural areas, some applications that are currently in progress could no longer be viable. In preparing these applications, the industry has relied upon the existing policy framework, and it should be the policies at the time of submission that should remain applicable. This is a very serious concern because the new policies in the Growth Plan essentially replicate the policies of the Greenbelt Plan and apply these new policies to the following areas: • Region of Niagara; • City of Hamilton; • Haldimand County; • City of Brantford; • County of Brant; • Region of Waterloo; • City of Guelph; • County of Wellington; • Region of Peel; • County of Dufferin; • Region of York; • City of Toronto; • County of Simcoe; • City of Barrie; • City of Orillia;

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			 Region of Durham; City of Kawartha Lakes; County of Peterborough; City of Peterborough; County of Northumberland. 	
16.	4.2.2 Natural Heritage Systems 2. Official plans will incorporate a natural heritage system as mapped by the Province and will apply appropriate designations and policies to maintain, restore or improve the diversity and connectivity of the system and the long-term ecological or hydrologic functions of the features and areas as set out in the policies in this subsection and the policies in subsections 4.2.3 and 4.2.4.	See proposed changes to Section 4.2.8.	The new Natural Heritage System has not been mapped, however, it is assumed that it will cover a substantial portion of the GGH (similar to the Greenbelt Plan). Section 4.2.8 introduces new aggregate policies that will apply to the new Natural Heritage System. It is OSSGA's position that setting policies for an area that is not yet mapped is premature. Prior to setting policies, the Province should clearly understand the implications on aggregate availability and supply.	
17.	4.2.8 Mineral Aggregate Resources 4.2.8 .1. Through sub area assessment, the Ministers of Infrastructure and Natural Resources The Province will work with municipalities, producers of mineral aggregate resources, and other stakeholders to identify significant deposits of mineral aggregate resources for in the GGH, and to develop a long-term strategy for approach to	This mapping should be completed in conjunction with the NHS and agricultural mapping to ensure that all rural resources are considered in a comprehensive manner.	Since 2005, the Province has committed to complete this work and it has not yet commenced. Any mapping of rural resources (e.g. Natural Heritage Systems and prime agricultural areas) should be completed in a comprehensive manner taking into account all rural resources. By establishing a new Natural Heritage System and introducing new natural heritage and agricultural policies that further restrict aggregate availability in the absence of completing the aggregate mapping and developing an aggregate strategy to ensure the continued availability of the resource is not responsible or wise resource management.	

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	ensuring the wise use, conservation, availability and management of mineral aggregate these resources-in, including the GGH, as well as identifying identification of opportunities for resource recovery and for co-ordinated approaches to rehabilitation where feasible.			
18.	4.2.8.3. Notwithstanding the policies of subsections 4.2.2, 4.2.3 and 4.2.4, within the natural heritage system identified in accordance with policy 4.2.2.2, mineral aggregate operations and wayside pits and quarries are subject to the following: a. no new mineral aggregate operation and no wayside pit and quarry, or any ancillary or accessory use thereto will be permitted in the following key natural heritage features and key hydrologicfeatures: ii. habitat of endangered species	ii. habitat of endangered species and threatened species; and except in accordance with the Endangered Species Act (2007)	See rationale noted in number 2.	
19.	and threatened species iii. significant woodlands unless the woodland is occupied by young plantation or early successional habitat, as defined	iii. significant woodlands unless the woodland is occupied by young plantation or early successional habitat, as defined	See rationale noted in number 3.	

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	by the Province, in which case, the application must demonstrate that policies 4.2.8.5 b) and c) and 4.2.8.6 c) have been addressed and that they will be met by the operation;	by the Province, in which case, the application must demonstrate that policies 4.2.8.5 b) and c) and 4.2.8.6 c) have been addressed and that they will be met by the operation;	
20.		ii. How the operator could immediately replace any habitat key natural heritage features and key hydrologic features that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands; and	See rationale noted in number 4.
21.	d. an application to expand an existing mineral aggregate operation may be approved in the natural heritage system, including key hydrologic features and key natural heritage features, and in any associated vegetation protection zone only if the related decision is consistent with the PPS, 2014 and satisfies the rehabilitation requirements of this section.	d. an application for a new mineral aggregate operation or to expand an existing mineral aggregate operation may be approved in the natural heritage system, including key hydrologic features and key natural heritage features, and in any associated vegetation protection zone only if the related decision is consistent with the PPS, 2014 and satisfies the rehabilitation requirements of this section.	This policy should also focus on new operations and not just expansions. There is no technical rationale to introduce a policy framework that favours expansions within such a large geographic area.
22.	4. In prime agricultural areas, applications for new mineral aggregate operations will be supported by an agricultural	where possible, will seek to maintain or improve connectivity of the agricultural system:, except in accordance	See rationale noted in number 5.

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	impact assessment and, where possible, will seek to maintain or improve connectivity of the agricultural system.	with Section 2.5.4 of the Provincial Policy Statement,	
23	5. When operators are undertaking rehabilitation of mineral aggregate operation sites, the following apply: d. outside the <i>natural heritage system</i> , and except as provided in policies 4.2.8.5 a), b) and c), final rehabilitation will appropriately reflect the longterm land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies. In <i>prime agricultural areas</i> , on prime agricultural lands, the site will be rehabilitated back to an agricultural condition, in accordance with policy 2.5.4 of the PPS, 2014.	In prime agricultural areas, on prime agricultural lands, the site will be rehabilitated back to an agricultural condition, except in accordance with policy 2.5.4 of the PPS, 2014.	See rationale noted in number 5.

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24.	•	a. For areas outside of prime agricultural areas, where there is no underwater extraction, an amount of land equal to that under natural vegetated cover prior to extraction, and no less than 35 per cent of the land subject to each licence extraction area in the natural heritage system, is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict;	See rationale noted in number 6.	
25.	b. where there is underwater extraction, no less than 35 per cent of the non-aquatic portion of the land subject to each license in the <i>natural heritage</i> system is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict; and	b. For areas outside of prime agricultural areas, where there is underwater extraction, no less than 35 per cent of the non-aquatic portion of the land subject to each licence extraction area in the natural heritage system is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict; and	See rationale noted in number 7.	

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26.	3. In evaluating applications for amendments to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters, in addition to any other policies of the Plan, will be considered: a) Protection of the Escarpment environment, namely: i. key natural heritage features and other natural features in accordance with Part 2.7	i. key natural heritage features and other natural features in accordance with Part 2.97	Section 2.9 of the NEP includes the applicable natural heritage policies related to aggregates. As currently drafted the NEP is confusing. This policy refers the reader to Part 2.7. Then Policy 2.7.3 f) refers the reader back to 2.9. To avoid confusion, the Plan should clearly state the applicable natural heritage policies are found in Part 2.9. This is similar to the approach in the Greenbelt Plan.	
27.	ii. key hydrologic features and areas in accordance with Part 2.6	ii. key hydrologic features and areas in accordance with Part 2.96	Section 2.9 of the NEP should include the applicable water resource policies related to aggregates. The policies of 2.6 include policies that should not apply to aggregates. Aggregate extraction is already prohibited in over 70% of the NEP (prior to proposed mapping changes) and in the remaining Escarpment Rural Areas aggregate extraction should not be prohibited in: Intermittent streams which can include agricultural ditches. Seepage areas and springs which are common in aggregate areas due to the geology. All wetlands which can be as small as 0.01 ha and have limited to no ecological function.	

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			Furthermore, other policies in this section such as "changes to the natural drainage should be avoided" should not be applied to an aggregate application.
			Incorporating the applicable policies into Section 2.9 would allow for a clear understanding of which policies apply to aggregate applications. This is similar to the approach in the Greenbelt Plan.
28.	vi. adjacent <i>Escarpment Related Landforms</i> , and	See comment on `Escarpment Related Landform definition'.	See comment on `Escarpment Related Landform definition'.
29.	c) The protection of prime agricultural areas and specialty crop areas and the capability of the land for agricultural uses and its potential for rehabilitation for agricultural uses; and	c) The protection of prime agricultural areas and specialty crop areas and the capability of the land for agricultural uses and its potential for rehabilitation for agricultural uses in accordance with Section 2.5.4 of the Provincial Policy Statement; and	See rationale noted in Number 1.
30.	Niagara Escarpment designation criteria for Escarpment Natural Area and Escarpment Protection Area.	See Tab C and D for suggested revisions.	The NEC has stated that they are utilizing the existing designation criteria and just using updated data to refine their maps. This is not accurate. The NEC has changed the designation criteria, applied data layers incorrectly and misinterpreted the foundation for the development of the original designations which has resulted in substantial changes to the Niagara Escarpment plan maps. See Tab C and D for suggested revisions.

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31.	1.9 Mineral Resource Extraction Area 1.9.3 Permitted Uses Subject to conformity with Part 2, Development Criteria, and official plans and where applicable, zoning by-laws that are not in conflict with the Niagara Escarpment Plan, the following uses may be permitted: 9.10. Accessory buildings and accessory uses, including accessory facilities normally associated with the mineral extraction aggregate operation, such as small scale temporary offices serving the subject site, signage, or crushing and washing facilities. Asphalt plants, concrete plants, brick manufacturing plants and other similar manufacturing uses shall not be permitted;	10. Accessory buildings and accessory uses, including accessory facilities normally associated with the mineral extraction aggregate operation, such as small scale temporary offices serving the subject site, signage, or crushing and washing facilities. Asphalt plants, concrete plants, brick manufacturing plants and other similar manufacturing uses shall not be permitted.;	The policy should not state that the uses on site can only be temporary. This could be interpreted to not allow permanent facilities that are in place for the duration of the mineral aggregate operation. The NEP was revised to include the definition of mineral aggregate operation from the PPS which OSSGA supports. This definition permits the production of asphalt, concrete and bricks as an accessory use to the mineral aggregate operation. The last sentence is recommended for deletion due to the conflict with the definition.

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32.	2. 119Mineral Aggregate Resources 1. No new mineral aggregate operation and no wayside pits and quarries, or any accessory use thereto, will be permitted in the following key natural heritage features and any vegetation protection zone associated therewith: a) wetlands; and	a) <u>Significant</u> wetlands; and	Currently Part 1.5 of the Niagara Escarpment Plan includes policies for mineral aggregate operations that require the protection of PSWs. In certain applications, the NEC has interpreted their general policies that prohibit development within all wetlands to apply to aggregate operations. Due to the geology of the NEP (bedrock) it is common that small wetlands are located within low areas in a field and these features are identified during site specific studies. Small wetlands located in the Escarpment Rural Area that do not contain significant ecological attributes should not prohibit consideration of a site for aggregate extraction. Wetlands can be as small as 0.01 ha located in the middle of a farmer's field and should not sterilize access to the highest quality aggregate resource in the Province.
33.	b) significant woodlands, unless the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry).	b) significant woodlands, unless the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry).	See rationale noted in Number 1. In addition, based on the land use designations and policies of the Plan, all significant woodlands located in the Escarpment Natural and Protection Areas are protected from aggregate extraction.
34.	2. No new mineral aggregate operation and no wayside pits and quarries, or any accessory use thereto will be permitted in the any other key natural heritage feature, natural feature or key hydrologic feature, or any vegetation protection zone	2. No new mineral aggregate operation and no wayside pits and quarries, or any accessory use thereto will be permitted in the any other key natural heritage feature, natural feature or key hydrologic feature, or any vegetation protection zone	There is only a limited area within the NEP that can be considered for aggregate extraction. All features within the Escarpment Natural and Protection Areas will be protected and extraction is prohibited. Within the Escarpment Rural Areas natural features and water resources should be protected in accordance with policies of the PPS. These policies apply a high degree of protection for these features.
	associated therewith, unless it has been demonstrated that there will be no <i>negative impacts</i> on the feature or its functions or the <i>Escarpment environment</i> .	associated therewith, unless it has been demonstrated that there will be no negative impacts on the feature or its functions or the Escarpment environment.	The concern with the policy drafted in the NEP is the "no negative impact" test applies to features that are not considered significant in the PPS and the NEC does not interpret its policies to allow for replacement/compensation for small non-significant features. As a result, small non-significant features could sterilize

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		An application for a new mineral aggregate operation or to expand an existing mineral aggregate operation may be permitted in key hydrologic features and key natural heritage features, and in any associated vegetation protection zone only if the related decision is consistent with the PPS, 2014 and satisfies the rehabilitation requirements of this Plan.	access to the highest quality aggregate in the Province in a rural area.
35.	1.3. Extractive operations including wayside pits and quarries and haul routes shall not conflict with the following criteria be required to: a) The protection of sensitive ecological, geological, historic and archaeological sites or areas. a) demonstrate how all other natural heritage features and functions will be protected or enhanced before, during and after extraction;	a) demonstrate how all other natural heritage features and functions will be protected or enhanced before, during and after extraction;	This policy requires the protection or enhancement or other natural features. This includes all features that are not considered key natural heritage features. These features should not require protection. Since extraction is already prohibited in most of the Plan and key features are also being protected. Low order features should not sterilize access to this important non-renewable resource.
36.	c) The demonstrate how the Escarpment's scenic resources and open landscape character will be maintained or enhanced, before, during and after the extraction;	c) The demonstrate how the Escarpment's scenic resources and open landscape character will be maintained or enhanced, before, during and after the extraction, taking in to account	Maintenance of the "open landscape character" has been a major issue in the implementation of the NEP. Even though aggregate operations are a permitted use, some staff at the NEC state no aggregate operations can maintain the open landscape character. This policy has now been expanded to include "scenic resources". Implementation of this policy would be significantly improved by

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		policies to screen the operation during extraction and recognition that the rehabilitated landform will result in a new landform.	including the proposed sentence at the end of the policy.
37.	d) demonstrate how key hydrological features will be protected or enhanced before, during and after extraction, including the maintenance of agricultural areas, especially the groundwater and surface water quantity and quality;	d) demonstrate how key hydrological features will be protected or enhanced before, during and after extraction, including the maintenance of agricultural areas, especially the groundwater and surface water quantity and quality; To demonstrate how the water resource system will be protected or enhanced;	Extraction should not be prohibited in all key hydrological features. The proposed change would make this policy consistent with the Greenbelt Plan.
	g) Minimize negative impacts of mineral aggregate operations and their accessory uses on surrounding land uses;	g) Minimize negative impacts of mineral aggregate operations and their accessory uses on surrounding land uses; Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts;	The negative impact test is not the appropriate test. This policy should be revised to be consistent with the PPS which requires impacts to be minimized.
39.	i) The minimization within the licensed area but outside of the adverse impactarea of extractive extraction, protect the Escarpment environment during periods of extraction and	i) The minimization within the licensed area but outside of the adverse impactarea of extractive extraction, minimize impacts to protect the Escarpment environment during	The test should be to minimize impacts consistent with the policy direction of the PPS.

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	accessory rehabilitation; and	periods of extraction and accessory-rehabilitation; and	
40.	j) minimize negative impacts of mineral aggregate operations and their accessory uses on parks, open space and the existing and optimum routes of the Bruce Trail.	j) minimize negative impacts of mineral aggregate operations and their accessory uses on parks, open space and the existing and optimum routes of the Bruce Trail.	Negative impact as defined in the Niagara Escarpment Plan is not the proper test for parks, open space and trails.
41.	3. 5. As a condition of the licence the extractive The mineral aggregate operation shall be screened while it is in progress and, where possible, prior to extraction in a manner compatible with the surrounding visual Escarpment environment.	3. 5. As a condition of the licence the extractive The mineral aggregate operation shall be screened while it is in progress and, where possible, prior to extraction in a manner compatible with the surrounding visual Escarpment environment.	The screening of proposed mineral aggregate operations should be related to visual, and not the escarpment environment which is broadly defined in the NEP to include the physical and natural heritage features and cultural heritage and scenic resources associated with the Escarpment landscape.
42.	4. 6. Screening shall incorporate the following: a) Overburden overburden material in the form of a berm with varied heights and widths so that it appears as a natural extension of the existing landform, supplemented with native tree and, shrub and vegetative plantings should be utilized for screening purposes.;	4.6. Screening shall incorporate the following: a) Overburden overburden material in the form of a berm with varied heights and widths so that it appears as a natural extension of the existing landform, supplemented with native tree and, shrub and vegetative plantings should be utilized for screening purposes.;	It is unclear how "natural extension of the existing landform" will be implemented. In addition in some cases, the land is flat agricultural land and berming is required to screen the operation. In this instance, it is unclear how the NEC would implement a policy that requires it to appear "as a natural extension of the existing landform".
43.	5. 7. Wherever possible, rehabilitation shall be progressive as the extraction proceeds. Progressive	7. Wherever possible, rehabilitation shall be progressive as the extraction proceeds. Progressive	Limiting the amount of fill that may be permitted for rehabilitation may compromise the quality of the final landform that could be created. The cross reference to 2.9.8 and 2.9.9 ensures that fill will be utilized to improve the ecological diversity

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	rehabilitation may include the use of off-site material, where on-site material is not available, minimal. Minimal amounts of off-site material that may be required to stabilize and revegetate disturbed areas, but shall not include any major regrading toward a planned after-use with the deposition of off-site material.	rehabilitation may include the use of off-site material, where on-site material is not sufficient available, minimal. Minimal amounts of off-site material that may be subject to 2.9.8. and 2.9.9.required to stabilize and revegetate disturbed areas, but shall not include any major regrading toward a planned after use with the deposition of off-site material.	of the site and criteria in the NEP (e.g. clean fill, not a commercial fill operation, etc).
44.	9.11. Rehabilitation shall incorporate the following: a) Excess natural heritage and hydrologic features and functions shall be restored or enhanced;	a) Excess key natural heritage and key hydrologic features and functions shall be restored or enhanced;	This policy should be clarified so it relates to the key features.
45.	j) in areas below water table extraction, mineral aggregate operations requiring perpetual water management after rehabilitation is complete should be avoided except where it can be demonstrated that such actions would support other public water management needs.	j) in areas below water table extraction, mineral aggregate operations requiring perpetual water management after rehabilitation is complete should be avoided except where it can be demonstrated that such actions would support other public water management needs or the public authorities requested such management to support surrounding natural heritage features. This policy does not apply to expansion to	Some existing aggregate operations within the Niagara Escarpment Plan already require perpetual pumping. Expansion to these operations should not be limited by this policy. In addition, there are circumstances where public authorities have requested long term water management to provide additional water to surrounding natural heritage features and this scenario should not be avoided since it can provide ecological benefits.

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		existing operations that already require perpetual water management following rehabilitation.	
46.	The objective is to inventory, interpret, evaluate, maintain and conserve the Escarpment's cultural heritage features of the Niagara Escarpment Plan Area. 1. Care should be taken to discover unknown and to preserve known resources, including significant built heritage resources, cultural heritage landscapes, and archaeological sites (especially native burial sites) and areas where such sites might reasonably be expected to exist resources. 2. Existing heritage features, areas and properties should be retained and reused. To	The objective is to inventory, interpret, evaluate, maintain and conserve the Escarpment's cultural heritage features of the Niagara Escarpment Plan Area. 1. Care should be taken to discover unknown and to preserve known resources, including significant built heritage resources, significant cultural heritage landscapes, and significant archaeological sites (especially native burial sites) and areas where such sites might reasonably be expected to exist resources.	Conservation should only be required for significant features consistent with the PPS.
	determine whether such actions are feasible, consideration shall be given to both economic and social benefits and costs.		
47.	2. Where proposed development is likely to impact cultural heritage resources or areas of	2. Where proposed development is likely to impact cultural heritage resources or areas of	The policy should be revised to be consistent with the PPS. The term heritage attributes only applies to protected heritage properties and not all cultural heritage resources.

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	archaeological potential, the approval authority will require the proponent to undertake a heritage impact assessment and/or archaeological assessment. The proponent must demonstrate that heritage attributes will be conserved through implementation of proposed mitigative measures and/or alternative development approaches.	archaeological potential, the approval authority will require the proponent to undertake a heritage impact assessment and/or archaeological assessment. The proponent must demonstrate that significant cultural heritage resources heritage attributes will be conserved through implementation of proposed mitigative measures and/or alternative development	
48.	2.13 Scenic Resources and Landform Conservation The objective is to ensure that development shall have minimal negative impact on the scenic resources of the Escarpment.	approaches. The objective is to ensure that development shall have minimal negative impact on the scenic resources of the Escarpment.	Definition of negative impact for visual impact is unclear and is not an appropriate test.
49.		d) notwithstanding mineral aggregate resources, minimizing the development footprint and changes to the existing topography and vegetation;	Pit and quarries require large development footprints and obvious changes to topography and vegetation. This policy should be clarified that it does not apply to mineral aggregate operators.
50.	f) where there is minimal existing	f) Except as provided for in 2.9	Policy 1.2.2.3a) iv) requires new or expanded mineral aggregate

	Niagara Escarpment Plan		
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
	screening or vegetation that cannot be retained, providing new planting (native species) to screen development;	(Mineral Resources), where there is minimal existing screening or vegetation that cannot be retained, providing new planting (native species) to screen development;	operations to comply with this policy. However, policy 2.9.6 of the NEP allows for the use of berms for visual screening. As a result, this policy should be clarified so it is clear that berms can be considered to screen mineral aggregate operations.
51.	Landform Conservation 5. Planning, design and construction practices shall ensure that Escarpment Related Landforms are maintained and enhanced, and that development is visually compatible with the natural scenery and open landscape character of the Niagara Escarpment.	5. Except as provided for in 2.9 (mineral resources), Pplanning, design and construction practices shall ensure that Escarpment Related Landforms are maintained and enhanced, and that development is visually compatible with the natural scenery and open landscape character of the Niagara Escarpment.	This policy is very broad and it is unclear how it will be implemented for mineral aggregate operations. The policy should reference Section 2.9 since there are additional policies that relate to visual screening.
52.	9. Any proposed cutting and land filling must be clearly shown on a proper grading and drainage plan. If imported fill is needed, a fill management plan, prepared and overseen by a professional geoscientist or professional engineer, may be required at the discretion of the implementing authority.	9. Any proposed cutting and land filling must be clearly shown on a proper grading and drainage plan and for mineral aggregate resources, the information must be shown on the Aggregate Resources Act site plans. If imported fill is needed, a fill management plan, prepared and overseen by a professional geoscientist or professional engineer, may be required at the discretion of the <i>implementing authority</i> .	Aggregate applications do not require submission of grading and drainage plans. It should be clarified that for mineral aggregate applications, the ARA Site Plans are sufficient to illustrate final grading and contouring.

		Niagara Escarpment Plan		
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale	
	Definitions			
53.	Compatible where: Where the building, structure, activity or use blends, conforms or is	Compatible where: Where the building, structure, activity or use blends, conforms or is	Some policies in the NEP allow for impacts on the escarpment environment. If a building, structure, or activity is in conformity with the policies, it should be deemed compatible with the Plan.	
	harmonious with the	harmonious with the		
	Escarpment's ecological,	Escarpment's ecological,		
	physical, visual or cultural	physical, visual or cultural		
	Escarpment environment.	Escarpment environment taking		
		in to consideration the policy		
		requirements of this plan.		
54.	Cultural heritage value or	Cultural heritage value or	The definition of cultural heritage resources of interest should	
	interest: A property may be	interest: A <i>property</i> may be	reflect consistent terminology and definitions of the PPS to	
	determined to have cultural	determined to have cultural	ensure a consistent approach to the conservation of significant	
	heritage value or interest if it	heritage value or interest if it	cultural heritage resources.	
	meets one or more of the criteria	meets one or more of the criteria		
	found in Ontario Regulation 9/06	found in Ontario Regulation 9/06		
	under the <i>Ontario Heritage Act</i> . A	<mark>under the <i>Ontario Heritage</i> Act. A</mark>		
	property may be determined to	property may be determined to		
	have cultural heritage value or	have <i>cultural heritage value</i> or		
	interest of provincial significance	interest of provincial significance		
	if it meets one or more of the	if it meets one or more of the		
	criteria found in Ontario	criteria found in Ontario		
	Regulation 10/06 under the	Regulation 10/06 under the		
	Ontario Heritage Act.	Ontario Heritage Act.		
55.	Escarpment Related	Escarpment Related	This term has been added to the designation criteria for	
	Landforms the: The physical	Landforms —the: The physical	Escarpment Natural Area and Escarpment Protection Area. It	
	features of the land associated	features of the land associated	should be removed from the designation criteria and also	
	with the Escarpment and created	with the Escarpment and created	'outliers' should not be added to the definition. The addition of	
	by erosion, sedimentation and	by erosion, sedimentation and	this definition to the designation criteria and the addition of	
	glaciation, often including such	glaciation, often including such	'outlier' has resulted in a large area of Escarpment Rural Area	
	features as outliers, moraines,	features as outliers, moraines,	being designated Escarpment Natural Area and Protection. See	

		Niagara Escar	pment Plan
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale
	<i>lakes</i> , river valleys, beach ridges, drumlins and kames.	<i>lakes</i> , river valleys, beach ridges, drumlins and kames.	Tab C and D for additional information.
56.	Existing Use theuse: The legal use of any land, building or structure legally for a purpose that is not otherwise listed as a permitted use provided under the applicable designation in the Niagara Escarpment Plan, and that was:	i) a) Existing existing on the day of approval of the Niagara Escarpment Plan, i.e. June 12, 1985. For mineral aggregate operations, uses that existed or were permitted on the day of approval of the Niagara Escarpment Plan, June 12, 1985; or	In the past, the NEC has taken the position that even though a use was approved on a Site Plan, but was not yet built, it was not considered an existing use. The definition should be revised to recognize existing permitted uses.
	i) a) Existingexisting on the day of approval of the Niagara Escarpment Plan, i.e. June 12, 1985; or		
	ii) b) Approvedapproved in accordance with the provisions of the Niagara Escarpment Plan since June 12, 1985 but prior to the date of any amendment to the Plan that prohibited theunder which the use ceased to be a permitted use; or		
	iii) c) Existing, or approved existing, in an area added to the Niagara Escarpment Plan at the date of the approval of the amendment to the Plan adding that added the lands to the Plan; or		

	Niagara Escarpment Plan						
	Proposed Policies	OSSGA Proposed Revisions	OSSGA Rationale				
	d) provided that the existing use has continued legally and without interruption after the effective date as set out under a), b), and c).						
57.	Negative impact: Means d. in regard to scenic resources, a degradation to the quality of the visual impact; and e. in regard to cultural heritage	d. in regard to scenic resources, a degradation to the quality of the visual impact; and e. in regard to cultural heritage	Subsections d) and e) should be deleted since no negative impact is not the appropriate test for visual and cultural heritage. The test for visual impacts should be "minimize" and the test for significant cultural heritage resources should be "conserved". This is consistent with the PPS.				
	resources, degradation or destruction of built heritage resources, cultural heritage landscapes, archaeological resources, including a visual impact, when heritage attributes include the visual setting of a cultural heritage resource and other features of significant cultural heritage value or interest, including heritage and archaeological sites of critical importance to Aboriginal peoples.	e. In regard to cultural neritage resources, degradation or destruction of built heritage resources, cultural heritage landscapes, archaeological resources, including a visual impact, when heritage attributes include the visual setting of a cultural heritage resource and other features of significant cultural heritage value or interest, including heritage and archaeological sites of critical importance to Aboriginal peoples.	This is consistent with the PPS.				
58.	Visual impact assessment: Means a study in accordance with the NEC Visual Assessment Guidelines.	Visual impact assessment: Means a study in accordance with the NEC Visual Assessment Guidelines.	This definition is too vague and open ended. Section 2.13 of the Niagara Escarpment Plan already states what a visual impact assessment shall include. This definition should be removed. Guidelines can be approved by the NEC without any formal approval process.				

Other NEP Issues:

- Requirement for NEC Development Permits for changes to ARA Site Plan: Currently the NEPA requires a development permit for any change to an ARA Site Plan approved after 1975. This can include changes as small as relocating a stockpile location on a quarry floor. Once a site is approved, it should be regulated by MNRF in accordance with the Aggregate Resources Act and the NEC can provide comments on the proposed amendment. It is a duplicate and unnecessary process and the NEC development permit process is an appealable process which can result in frivolous appeals before the ERT and can cause significant delays in implementing minor but needed changes to a mineral aggregate operation.
- **Protection of Existing Aggregate Operations:** The PPS protects existing aggregate operations to continue or expand without the need for additional approvals under the Planning Act. The NEC requires a Niagara Escarpment Plan Amendment to utilize any portion of an existing aggregate operation as part of an expansion to that operation. Even though this is an efficient use of infrastructure and minimizes impact to the surrounding community (processing below grade, existing entrance/exit etc.) the NEC discourages the use of existing operations and makes the amendment process very difficult. The plan should be clarified that NEP amendments are not required provided the site is operated as an integrated operation.

Tab C

PROVINCIAL PLAN REVIEW Niagara Escarpment Plan Mapping Updates October 3, 2016

MHBC Planning

SUMMARY

The proposed Niagara Escarpment Plan (NEP) includes revised mapping schedules. These schedules designate lands so that the appropriate policies and levels of protection are applied.

The documents published for consultation state that the Ministry of Natural Resources and Forestry (MNRF) is proposing to update the maps based on the existing Plan's Land Use Designation Criteria and updated data to more accurately reflect current conditions on the ground (it is understood that MNRF has been given this advice from the Niagara Escarpment Commission (NEC)).

The representation that this is an update based on existing designation criteria is misleading. As demonstrated in this review, the new mapping for the NEP is not simply an application of existing designation criteria based on updated data. There are significant changes to the designation criteria proposed. New approaches being applied to the definition and implementation of the designation criteria. The mapping has been redone, not updated. This leads to considerable differences going well beyond those that are attributable to changing conditions on the ground.

There are significant changes to the proposed mapping. For example, the NEC proposes to reduce the Escarpment Rural Area by 35% while increase the most restrictive designation, Escarpment Natural Area, by over 53%. This would result in almost half of the Plan Area being designated Escarpment Natural Area.

There is a lack of transparency and clear information about what changes are proposed and why. A review of the proposed mapping and NEC Discussion Papers as well as meetings with MNRF and NEC still leave questions about what designations have changed and why.

Based on reviews to date, the following areas of concern have been identified:

• The designation criteria for escarpment slopes have been revised to add escarpment related features including outliers. This is a major change to the designation criteria and a

reinvention of how the criteria was previously applied. This results in significant increases in Escarpment Natural and Protection Area and reductions in Rural Area.

- The NEC has based the updated mapping on the wrong escarpment. The geological interpretation of the escarpment (brow and toe) used by the NEC is not the escarpment that the NEP is based on. The use of this incorrect historical mapping of the brow and toe leads to inaccurate redesignations based on the forested escarpment slope designation criteria. As a result, unwarranted areas are being designated Escarpment Natural Area. There could be other incorrect expansions of the Escarpment Natural and Protection Areas.
- Designating based on Provincially Significant Wetlands and other wetlands >5ha is a significant change from the original size only based criteria (>20ha). This will result in more wetland areas being designated Escarpment Natural Area.
- New stream valleys are included as Escarpment Natural Area indicating that the mapping criteria have been changed. It is unlikely that stream valleys have changed on the ground.
- There have been fundamental changes in how municipal and Conservation Authority environmental areas are defined and mapped in the past 40 years so applying the original criteria based on current practice leads to substantially different results. In addition, the NEC may be relying on environmental layers that have no formal or official status and may not warrant designation as new Escarpment Protection Area.
- No explanation or documentation has been provided that would explain revisions to the
 mapping that may have been made based on subjective visual criteria. There is no new
 data available and any changes based on visual criteria should not be made. This was a
 contentious part of the original NEP mapping and subject to Hearings. The NEC should
 not reinterpret this information and update the mapping that was subject to thorough
 agency, public and Hearings Officer review.
- New designation criteria are proposed for the Rural Area. The provided rationale is unclear and based on incorrect information. The need for new criteria is doubtful given that the Rural Areas are the remnant areas after other designations have been determined. The designation criteria are not actually used to define these areas.
- Notwithstanding that the proposed new mapping was released for a presumably final consultation process, the NEC continues to revise the mapping. Notice has not been provided directly to landowners who would be impacted by the proposed changes that affect over 30,000 ha of the NEP.

• Included in this paper are recommended approaches to correct the NEP maps and ensure that this mapping exercise is an update using existing designation criteria.

INTRODUCTION AND PURPOSE

NEC and MNRF represent the proposed mapping as an update: "Existing Designation Criteria and Updated Data". In order to evaluate this representation it is necessary to have an understanding of how the existing development criteria were developed, defined and applied.

The following discussion includes an account of how the NEP designation criteria were defined and implemented and how they are proposed to be changed and updated as part of the current Provincial Plan Review. The historical information is derived from NEC documentation and staff evidence at the Proposed Plan and Plan Review Hearings.

This review has been prepared by MHBC Planning on behalf of OSSGA and several clients with concerns about the proposed mapping. At the time of preparation there was limited documentation available on what is proposed as revised mapping for the NEP. Some of what is proposed can be surmised based on 2013 - 2015 NEC Discussion Papers and examination of the proposed mapping. MHBC met with MNRF and NEC staff in July 2016 in order to inform this review and confirm many of the concerns.

The Appendix contains a summary table of the mapping issues based on this review.

DETERMINATION OF THE PLAN AREA (provided for general context)

In 1972, the Inter-Ministerial Task Force developed a Pits and Quarries Restrictive Zone which was eventually adopted through the Government Policy of 1973 (Development Planning in Ontario: The Niagara Escarpment). The Zone was said to be delineated on the basis of prominent topographic features associated with the Escarpment, unique and scenic areas and recreational sites.

The mapping of these features and areas, eventually making up the Pits and Quarries Restrictive Zone, was an office exercise (undertaken by the Niagara Escarpment Task Force) based on topographic mapping and individual Task Force Member's knowledge of the Niagara Escarpment and vicinity lands. This exercise took a couple of days over a period of two or three meetings. The Pits and Quarries Restrictive Zone was an interim measure and was meant to be reviewed as part of the development of the Niagara Escarpment Plan.

In 1975, the Niagara Escarpment Commission (NEC) established a Development Control Area. The main basis for the Development Control Boundary was the boundaries of the Pits and

Quarries Restrictive Zone. In addition, areas of recent and planned land acquisition were included.

The 1977 Preliminary Proposals for a Niagara Escarpment Plan covered the entire Planning Area (63% larger than the current Plan Area). The Preliminary Proposals Planning Area were viewed as covering too large an area and the proposals contained therein were too complex. As a result, the NEC reduced the Plan Area to an area which approximates the 1975 Development Control Area.

In summary, the Plan Area boundary was essentially based on the Development Control boundary which was in turn based on the Pits and Quarries Restrictive Zone. The Pits and Quarries Restrictive Zone was based on a broad mapping exercise that was meant as an interim step until more detailed investigations could be completed.

Once the Plan Area was reduced, NEC staff established proposed land use designations within the Plan Area. Criteria were used to establish the Escarpment Natural Area and Escarpment Protection Areas. The remaining remnant areas, between the Escarpment Natural and Protection designations and the boundary of the Plan Area were designated Escarpment Rural Area.

In some cases, the designation criteria that appear in the Plan today are not the same as were originally used to develop the Plan. The original wording is provided in this review in order to provide a clearer understanding of the process used to determine Plan Area designations.

REVIEW OF PROPOSED MAPPING AND DESIGNATION CRITERIA

The fundamental problem is that the mapping has been redone by NEC staff using a "clean slate" (based on the original designation criteria). The difficulty is that many parts of the original mapping exercise are not replicable based on a plain wording of the designation criteria. The original exercise involved considerable judgement and discretion. It is not possible to do a legitimate update to reflect current conditions by starting over from square one. Taking this approach will invariably lead to a different result.

The following sections compare the designation criteria for the Escarpment Natural, Protection and Rural Areas from the introduction of the NEP in 1985 to the proposed Plan in 2016. An analysis of what has changed and significant implications is provided. Recommendations are provided as to how the proposed mapping might be redone in order to meet the stated objective as an update to reflect current conditions.

ESCARPMENT NATURAL AREA CRITERION 1

Escarpment Slopes and Related Landforms

Original Criteria (pre-1985 NEP Approval)

"The least disturbed escarpment slopes based on land forms associated with the underlying bedrock".

1985 NEP

"The least disturbed Escarpment slopes and related landforms associated with the underlying bedrock."

Existing NEP

"Escarpment slopes and related landforms associated with the underlying bedrock which are in a relatively natural state".

<u>"Escarpment Related Landforms</u>: the physical features of the land associated with the Escarpment and created by erosion, sedimentation and glaciation, often including such features as moraines, lakes, river valleys, beach ridges, drumlins and kames."

Implementation of the Original Criteria

The landform that is designated based on this criterion is the forested escarpment slope. There are no "non-slope" escarpment related landforms included in Escarpment Natural Area. The "related landforms" referred to in the 1985 version of the definition are landforms related to escarpment slopes which really means they are landforms that are on the slope.

There is no definitive mapping of the escarpment as it is defined and interpreted for the purposes of the NEP. The "escarpment" protected by the Natural and Protection Area designations is a cobbled together representation of bedrock geology and surface topography that was developed in the late 1970's when the designations were originally being applied. It was developed to provide a continuous feature even though the surface expression of the escarpment itself is not continuous. Users of the Plan understand that the escarpment slope is within the Natural or Protection Areas but the exact location of the brow and toe is not determined in the Plan.

The escarpment slope is the area between the brow and the toe. These are defined in the NEP. However, the definition, delineation and mapping of the escarpment are not always a straightforward proposition. This was examined by the Hearing Officers in the original Proposed Plan Hearings (1983 Hearing Officer's Report Chapter 3: "What is the Escarpment").

The conclusion was that there was no consensus on what the definition should be or where the escarpment was located. The general understanding is that there are two escarpments – the visible rock scarp and a buried escarpment.

During the Proposed Plan Hearings several years after the designations protecting the escarpment slope were determined, a geologist from the Province provided mapping of the bedrock scarp which is buried in many locations (the mapping was done by Telford based on Hewitt's definitions). The convention based on the escarpment brow definition in the NEP is that where the escarpment is buried, the brow and toe are represented by the surface topography break in slope associated with the underlying bedrock. This is not the same brow as shown on the Telford/Hewitt maps.

The criterion references to "least disturbed" and "natural state" means the lands were forested. Some regenerating areas were included and there was generalization to fill in small pockets and round off edges.

Draft 2016 NEP

"Escarpment slopes and <u>Escarpment Related Landforms</u> associated with the underlying bedrock that are in a relatively natural state".

Revised definition - <u>Escarpment Related Landforms:</u> the physical features of the land associated with the Escarpment and created by erosion, sedimentation and glaciation, often including such features as <u>outliers</u>, moraines, lakes, river valleys, beach ridges, drumlins and kames.

Assessment & Discussion

NEC is proposing a significant change to this designation criterion. The extent of the Escarpment Natural Area would be substantially larger if escarpment related landforms were to be included. This would be a new approach to designating Escarpment Natural Areas which was previously limited to the escarpment slope and landforms on the slope.

In the NEC Discussion Papers, staff stated that outliers, as bedrock features created by erosion with the same stratigraphy as the main face of the Escarpment, should be interpreted to be considered "Escarpment features". In 2013, the NEC decided that outliers should be included in the Escarpment Natural and Protection Areas depending upon the level of disturbance. Where the outlier lands are considered to be in relatively natural state, that portion of the outlier would be considered Escarpment Natural Area.

The Discussion Papers outlined an alternative of <u>revising</u> the designation criteria to add "outliers" to Criterion 1 with a new definition of outliers in the NEP. This was not carried forward in the proposed Plan but the same effect is achieved by adding escarpment related

landforms as a designation criterion and "outliers" to the definition of escarpment related landform.

Accordingly, the proposal is to change the designation criteria and reinvent how the criteria are applied. The resulting changes would extend the designation to non-slope escarpment features including outliers. Significant new areas have been designated Escarpment Natural or Protection Area as a result. This is a fundamental change rather than an update.

A second area of concern relates to the escarpment brow and toe mapping that has been used as the basis for this "update". The brow and toe in turn define the escarpment slope which can have a direct bearing on the application of designation criteria for Escarpment Natural and Protection Area.

There is no escarpment mapping to be updated as part of the Plan review exercise. The location of the escarpment is the same as it was when the Plan was developed and there is no reason to attempt to remap the escarpment particularly where the brow is buried.

While the NEC Discussion Papers explain that the basis for the new delineation are a combination of historical sources and current topographical information, it would appear that the proposed delineation is largely derived from the 1981 Telford/Hewitt mapping. The difficulty is that this mapping does not necessarily delineate the escarpment as defined or treated in the NEP, particularly where the escarpment is buried. The Telford/Hewitt mapping is a geologically-derived interpretation of the edge of the bedrock formation that corresponds with the escarpment where the rock is exposed. Where the rock scarp is buried, the escarpment brow and toe are defined based on topographic breaks in slope rather that the buried brow as mapped by Telford/Hewitt.

Furthermore, implementation experience with the NEP has demonstrated that the mapping of the brow is no easy task and there are often disputes about the location of the brow (particularly where the brow is buried and interpretation of surface topography is required). There are well documented disagreements between applicants, NEC staff and the Commission itself. Accordingly, the advisability of including the brow and toe on the NEP map is questionable and there is no real definitive location that can be accurately mapped.

Based on a review of selected areas and discussion with NEC staff, it would appear that new areas have been redesignated to Escarpment Natural Area because they are forested and located on the newly defined slope. However, since the brow and toe mapping is the wrong escarpment then some of these new designations are not correct. It is not fully clear how else the NEC has or intends to use this brow/toe/slope information in the application of designation criteria. Depending on how these are delineated, there could be significant discrepancies as compared to the original designation criteria.

Recommended Approach

The existing designation criteria and definitions should be maintained consistent with the purpose of the NEP Review that the mapping would be updated based on existing criteria. Escarpment related landforms and outliers should not be added as new designation criteria.

The escarpment should not be remapped. The escarpment location has not changed and there is no map to be updated.

The Telford/Hewitt brow and toe maps should not be used to redefine the escarpment. The brow and toe should not be shown on the Plan maps.

It would be a legitimate update to revise designations where forested areas on the Escarpment slopes have changed (removed or grown in). The proper method would be to compare aerial photos for the forested areas that are in Escarpment Natural and Protection Areas that were previously designated based on the slope criteria. Escarpment Rural Area cannot be designated Natural Area based on this criterion as Rural Areas are not prominent escarpment slopes.

ESCARPMENT NATURAL AREA CRITERION 2

Forested lands abutting Escarpment

Original Criteria (pre-1985 NEP Approval)

"Where forest lands abut the escarpment, the designation extends 200 metres back from the brow of the escarpment slope (e.g. Bruce Peninsula)".

1985 NEP

"Where forest lands abut the Escarpment, the designation extends 300 metres (1,000 feet) back from the brow of the Escarpment slope (e.g. Bruce Peninsula)".

Existing NEP

"Where forest lands abut the Escarpment, the designation includes the forested lands 300 metres (1,000 feet) back from the brow of the Escarpment slope (e.g. Bruce Peninsula)".

Implementation of the Original Criteria

The topographic brow is used for application of this criterion which means where the brow is buried the unmapped break in surface slope is the basis for the designation and not the buried bedrock brow (in fact, the Telford mapping did not exist at the time the designations

were originally developed). There was some rounding or squaring off where a road or landform feature was seen to be a logical boundary. It may be that where the brow was buried or indistinct, this criterion was never actually applied.

Draft 2016 NEP

"Where forested lands abut the Escarpment, the designation includes the forested lands 300 metres (1,000 feet) back from the brow of the Escarpment slopes".

Assessment & Discussion

NEC staff stated that there was no strong rationale to explore alternatives to the current threshold of 300 m. The discussion papers suggest that the new mapping of the brow was used to identify all forested area that abuts the Escarpment. According to staff, contiguous forested areas beyond 300 m were excluded from the analysis.

Where there are new forested areas within 300 m of the brow, this would be a legitimate update. NEC should be able to provide documentation in the form of maps showing where new forest has been identified leading to additional Natural Area designations.

The main issue with what is presently proposed is if the NEC has used wrong brow mapping for the purposes of applying this criterion. Where the escarpment is buried, it is the incorrect brow. The result is that proposed mapping may incorrectly designate new Escarpment Natural Areas where there are forested areas close to the buried brow.

Recommended Approach

Start with the maps of where this designation criterion was originally applied and add or subtract areas based on current forest area mapping.

ESCARPMENT NATURAL AREA CRITERION 3

Areas of Natural and Scientific Interest (ANSIs)

Original Criteria (pre-1985 NEP Approval)

"Provincially- Significant Natural Areas".

1985 NEP

"The most significant Areas of Natural and Scientific Interest (Life Science)".

Existing NEP

"The most significant Areas of Natural and Scientific Interest (Life Science)".

Implementation of the Original Criteria

ANSIs were derived from a 1976 MNRF report. At that time ANSI boundaries were generous and it was acknowledged that additional work would be required to more accurately define boundaries.

Draft 2016 NEP

"Provincially significant Areas of Natural and Scientific Interest (Life Science)".

Assessment & Discussion

Staff stated the original intent was to include what have become the most Provincially Significant Life Science ANSIs. Staff interpret the "most significant" to be "Provincially significant".

MNRF provided mapping for Provincially Significant Life Science ANSIs. There is no doubt that this mapping will have changed as ANSI boundaries have been reviewed and refined over the years (often reduced in comparison to the early broad-brush areas that existed at the time the NEP was developed).

This would be a legitimate update. The NEC should be able to provide clear mapping showing where ANSI boundaries have changed and resulted in expanded or reduced areas. It should be confirmed that the mapping process not only adds ANSIs but also removes it where the ANSI has been reduced in size.

ESCARPMENT NATURAL AREA CRITERION 4

Valleylands and Wetlands

<u>Original Criteria</u> (pre-1985 NEP Approval)

"The most significant stream valleys and wetlands associated with the escarpment".

1985 NEP

"The most significant stream valleys and wetlands associated with the Escarpment".

Existing NEP

"The most significant steam valleys and wetlands associated with the Escarpment".

Implementation of the Original Criteria

Stream valleys and wetlands were designated based on size and degree of disturbance. The NEP predates development of the Ontario Wetland Evaluation System. Wetlands greater than 20 ha were included and these were likely delineated based on aerial photography. For stream valleys, well defined valleys with natural vegetation were included.

Draft 2016 NEP

"Significant valleylands and Provincially Significant and locally significant wetlands".

Assessment & Discussion

The NEC Discussion Papers explain that significant valleylands have now been identified using a GIS model based on methods for classifying landforms (Hammond). Staff stated this automated approach allowed for the quick identification of valleylands and was considered to be sufficient. Staff stated the valleylands mapping exercise produced similar results to existing mapped significant stream valleys in the NEP. This should be confirmed.

Valleylands have not changed since the NEP was developed so any change in designations based on valleylands is a change in the implementation of the criteria being used to define the feature.

The original criterion is wetlands greater than 20 ha in size. The NEC has now added Provincially Significant Wetlands (PSW) and a definition of "locally significant wetlands" which means "a wetland greater than 5 hectares in size". This is a change from the original designation criteria that will result in more wetland areas being designated Escarpment Natural Area.

Recommend Approach

Valleys and wetlands are well protected through provincial, municipal and conservation authority policies and regulations.

Valleylands have not changed so an update should not be required. If there are new valleylands where the NEC proposes Escarpment Natural Area, maps of the specific areas being redesignated should be produced including the rationale and method for consultation with municipalities and affected landowners.

It is understandable that wetlands should be updated to reflect current conditions. However, reducing the size criteria to 5 ha is a change that has not been properly assessed. It may be more appropriate to include PSWs and other wetlands >20 ha as the criteria.

ESCARPMENT PROTECTION AREA CRITERION 1

Escarpment Slopes and Related Landforms

Original Criteria (pre-1985 NEP Approval)

"Escarpment land form where, existing land uses have significantly altered the natural environment".

1985 NEP

"Escarpment slopes and related landforms where existing land uses have significantly altered the natural environment (e.g. agricultural lands or residential development)".

Existing NEP

"Escarpment slopes and related landforms where existing land uses have significantly altered the natural environment (e.g. agricultural lands or residential development)".

Implementation of the Original Criteria

The landform that is designated based on this criterion is the non forested escarpment slope. There are no "non-slope" escarpment related landforms included. The "related landforms" referred to in the 1985 version of the definition are landforms related to escarpment slopes which really means they are landforms that are on the slope.

The escarpment slope is the area between the brow and the toe. The previous discussion would equally apply (Escarpment Natural Area Criterion 1).

Draft 2016 NEP

"Escarpment slopes and <u>Escarpment related landforms</u> where existing land uses have significantly altered the natural environment (e.g. agricultural lands or residential development)".

Assessment & Discussion

The same concerns identified for Escarpment Natural Area Criterion 1 also apply. This is a significant change to the designation criteria and the related definitions.

NEC staff stated that entire outliers should be recognized as Escarpment features and included in the Natural or Protection designations, depending on the level of disturbance. Staff later stated that mapping of Escarpment outliers was undertaken for the purpose of applying <u>revised</u> Protection Area Designation Criterion 1.

Recommended Approach

As previously recommended, the escarpment has not moved so updates or remapping are not required. There could be some changes to Escarpment Natural and Protection Areas where forested areas on the slope have clearly changed since 1985.

ESCARPMENT PROTECTION AREA CRITERION 2

Visual Landscapes in Proximity to Escarpment

Original Criteria (pre-1985 NEP Approval)

"Areas in close proximity to escarpment land forms which visually are part of the landscape unit".

1985 NEP

"Areas in close proximity to Escarpment slopes which visually are part of the landscape unit".

Existing NEP

"Areas in close proximity to Escarpment slopes which visually are part of the landscape unit".

Implementation of the Original Criteria

These areas are delineated to provide a visual or physical buffer to prominent escarpment slopes. In large part the land designated based on this criterion protects views of the escarpment from below the escarpment and takes into account the prominence of the escarpment and vantage points for views such as public roads.

Draft 2016 NEP

"Areas in close proximity of Escarpment slopes that are visually part of the landscape unit".

Assessment & Discussion

NEC staff noted that mapping of this criterion was undertaken with "less certainty" than the mapping of other designation criteria. Mapping of visual buffers is difficult and "introduces a degree of subjectivity into the delineation of the boundaries". This historically has been acknowledged as a challenge faced by the NEC.

It is unclear what changes or updates were made based on this criterion. Staff referenced the Landscape Evaluation Study as an information source but it is not clear that this was the basis for the original designation criteria. This should be carefully scrutinized given the agreed upon subjectivity and lack of clarity around how the designation was originally applied.

Recommended Approach

The recommended approach is not to update based on subjective visual criteria. If updates are proposed based on visual criteria, NEC should make specific proposals for new Escarpment Protection Areas where they can demonstrate that there have been significant changes in scenic quality. Given the protections in place and since the topography of the land has not changed, it is unlikely that there have been substantial changes to warrant many updates.

ESCARPMENT PROTECTION AREA CRITERION 3

Areas of Natural and Scientific Interest (Life Science ANSIs) or Designated Environmentally Sensitive Areas

Original Criteria (pre-1985 NEP Approval)

"Natural areas which are ecologically important".

1985 NEP

"Regionally Significant Areas of Natural and Scientific Interest (Life Science)".

Existing NEP

"Regionally Significant Areas of Natural and Scientific Interest (Life Science) or areas designated as environmentally sensitive by municipalities or conservation authorities".

Implementation of the Original Criteria

The majority of these areas were documented in four reports including MNR Life Science ANSI's (1976) and three Environmentally Sensitive Area (ESA) reports for Halton (1978), Hamilton Wentworth (1976) and the Credit River Watershed (1979). Other areas from municipal official plans were selectively included.

Based on common practice at the time, it would be reasonable to expect that these are high quality natural features and areas that are distinct and well defined taking into account on the ground field assessments.

Draft 2016 NEP

"Areas of Natural and Scientific Interest (Life Science) or environmentally sensitive or environmentally significant areas designated by municipalities or conservation authorities".

Assessment & Discussion

The approach to definition and delineation of municipally designated environmental areas has substantially changed since the 1970's. NEC staff stated these areas generally contain significant natural, ecological, hydrological or geological features or functions which warrant long-term protection, and they are often core areas for protection within a natural heritage system.

However, more features are now considered as environmental or natural heritage features and a systems approach means that natural areas are lumped together often including lands in between features that are in agricultural use or otherwise not features themselves. As such, depending on what data is being used, applying this criteria based on current municipal mapping could be a dramatic change as compared to the original exercise.

The NEC stated that they applied "ESA data layers" from municipalities and conservation authorities. There is no clear documentation on what was actually used or whether it represents areas designated by municipalities or conservation authorities as required by the criteria. The NEC Discussion Papers on this point reference several conservation authority ESA layers which often go beyond features that are recognized in the Provincial Policy Statement (PPS) or designated in municipal official plans. It is also apparent from the Discussion Papers that there is not consistent information available for the breadth of the NEP Area. This raises concerns about what information is being used to designate new Escarpment Protection Areas.

NEC staff stated in the Discussion Papers that over 2,300 ha of environmentally sensitive areas are located outside the Natural and Protection designations without overlapping natural features. This is a significant amount of land which may have been added to Escarpment Protection Area.

Recognizing the broad-brush approach to defining and mapping natural areas in Official Plans, consistency with the PPS is achieved by allowing a range of uses within these areas including aggregate extraction (usually subject to certain restrictions and requirements). In some of these cases the NEC was involved and agreed to the policies and mapping. Using this criteria to designate new Escarpment Protection Areas may conflict with previous agreements and settlements.

Recommended Approach

Given the multiple layers of policy and protection that now apply to natural heritage features, there is no need or benefit to updating the NEP based on this criteria. An appropriate level of protection is being provided to these conservation authority and municipally designated ESA through other policy regimes.

Any updates based on this criterion should be carefully reviewed and evaluated in terms of clearly identifying the source and veracity of the information used and an evaluation of the level of protection already assigned to those features in approved Official Plans. The NEC should be required to provide this information and undertake proper consultation with municipalities and other stakeholders.

ESCARPMENT RURAL AREA CRITERIA

1985 NEP

"Minor Escarpment slopes and landforms".

"Lands in the vicinity of the Escarpment necessary to provide and open landscape, and/or of ecological importance to the environment of the Escarpment".

Existing NEP

"Minor Escarpment slopes and landforms".

"Lands in the vicinity of the Escarpment necessary to provide an open landscape, and/or are of ecological importance to the environment of the Escarpment".

Implementation of the Original Criteria

These designation criteria were not actually applied or mapped by the NEC. As noted above the Escarpment Rural Area is the remnant areas left over in the Plan Area after the Natural and Protection designations were delineated. The Escarpment Rural Area designation criteria are accordingly vague and incapable of being mapped in any replicable or definitive way.

Draft 2016 NEP

- "1. Minor Escarpment slopes and Escarpment related landforms.
- 2. Lands in the vicinity of the Escarpment necessary to provide an open landscape character.
- 3. Lands in the vicinity of the Escarpment which are of ecological importance to the Escarpment environment.

4. Lands that have potential for enhanced ecological values through natural succession processes or due their proximity to other ecologically or hydrologically significant lands, areas or features".

Assessment & Discussion

The designation criteria for Escarpment Rural Area are proposed to be expanded to include lands that have potential for enhanced ecological values. Staff recommended this criterion to specifically apply to rehabilitated aggregate sites. Staff stated rehabilitated sites are most often redesignated to Escarpment Rural however in some cases, these sites do not meet the criteria of either Escarpment Rural, Protection or Natural.

In fact, the Escarpment Rural designation was applied to only 10 of 25 recent redesignations for former aggregate sites (the majority are now designated Escarpment Protection and/or Natural). Over 1,000 ha of former pits and quarries have been redesignated from Mineral Resource Extraction Area to Escarpment Rural, Protection and Natural many of which the redesignations were justified by NEC staff based on the presence of significant natural features and/or functions.

Since these designation criteria do not actually determine the extent of the Rural Area there is no apparent direct mapping implication of the proposed new criteria. There is however potential for misunderstanding and confusion if new criteria are added.

Recommended Approach

There should be no changes to the Rural Area designation criteria.

MINERAL RESOURCE EXTRACTION AREA CRITERIA

Existing NEP

"Existing licensed areas".

Draft 2016 NEP

"Existing licensed areas".

Assessment & Discussion

This designation is intended to include licensed pits and quarries and areas where mineral resource extraction may be permitted.

Licensed pits or quarries producing less than 20,000 tonnes (Class B) are permitted within Escarpment Rural Area or Mineral Resource Extraction Area while sites producing more than

20,000 tonnes (Class A) require an amendment in the Escarpment Rural Area to Mineral Resource Extraction Area.

An inconsistent approach has been applied to designating Class B operations. In some cases, sites are designated Mineral Resource Extraction Area while others are designated Escarpment Rural Area. This is confusing to the public and municipalities when determining where existing pits and quarries may be located.

This has also proven to be problematic with the proposed mapping changes in the draft NEP. There are several examples where licensed Class B operations are proposed to be redesignated from Escarpment Rural Area to other designations where extraction is not permitted despite existing approvals.

These issues could be prevented if all licensed aggregate operations were designated Mineral Resource Extraction Area in accordance with the designation criterion.

This was acknowledged and discussed by the NEC. The NEC Discussion Papers recommended that existing Class B operations be designated Mineral Resource Extraction Area and included a map identifying these sites (November 20, 2014).

Recommended Approach

Designate all existing licensed areas as Mineral Resource Extraction Area.

MINERAL RESOURCE EXTRACTION AREA CRITERIA

Existing NEP

The NEC incorporates site-specific amendments in the NEP through regular housekeeping updates (site-specific amendments are approved by the Minister).

Draft 2016 NEP

The NEC has not incorporated recent site-specific amendments by redesignating lands where the appropriate designation had already been determined through the amendment process.

Assessment & Discussion

It is not clear why the NEC would propose updated mapping for sites that were subject to recent amendment processes. Site-specific amendments determine what is the most appropriate designation based on current, best available and site-specific information.

Amendments are comprehensively reviewed by the NEC with input from the public, municipalities and other review agencies.

It is questionable and concerning why site-specific amendments have not been incorporated in the draft NEP. This brings more doubt and uncertainty into the process of updating the mapping if agreed upon and approved amendments are not accurately reflected.

Recommended Approach

Respect and incorporate site-specific amendments to the NEP.

APPENDIX SUMMARY TABLE OF MAPPING ISSUES

The following table provides a summary of the mapping issues by designation criteria as well as our assessment and recommended approach.

Designation	Criteria	Original Implementation	Assessment	Recommended Approach
Escarpment Natural Area	Escarpment Slopes and Related Landforms	The Escarpment slope is the area between the brow and toe. However, there is no definitive mapping of the Escarpment.	NEC proposing a significant change by including escarpment related landforms including outliers (more Natural Area).	Maintain the existing criteria and definition. Do not remap the Escarpment. Do not add or redesignate outliers.
	Forested lands abutting Escarpment	Topographic brow was used to apply this criterion along with identifying forested lands on the Escarpment slope.	Proposed mapping may incorrectly designate new Natural Areas where there are forested lands close to the buried brow (wrong brow).	Use maps where this criterion was originally applied, and add or subtract areas based on current forest cover.
	Areas of Natural and Scientific Interest (ANSIs)	ANSIs were derived from 1976 MNRF Report. Was intended to apply to the "most significant".	Proposed mapping based on updated Provincially Significant Life Science ANSIs.	Provide clear mapping showing where ANSI boundaries have changed.
	Valleylands and Wetlands	Stream valleys and wetlands were designated based on size and degree of disturbance.	Valleylands have not changed so any redesignation is a change to the implementation of the criteria. More wetland areas have been designated Natural Area.	Valleylands update should not be required as they have not changed. Wetlands should be updated to reflect current conditions using original size criteria (20 ha).

Designation	Criteria	Original Implementation	Assessment	Recommended Approach
Escarpment Protection Area	Escarpment Slopes and Related Landforms	Landform that is designated is the non-forested Escarpment slope (area between toe and brow).	NEC proposing a significant change by including escarpment related landforms especially outliers. Use of the wrong brow and toe could also affect this criterion (more Protection Area).	Maintain the existing criteria and definition. Do not remap the Escarpment. Do not include outliers.
	Visual Landscapes in Proximity to Escarpment	Areas are designated to provide visual or physical buffer to prominent Escarpment slopes.	Mapping of visual buffers is difficult and subjective. Unclear what changes were made?	Do not update based on subjective visual criteria.
	Areas of Natural and Scientific Interest (ANSIs) and Environmentally Sensitive Areas	Based on specific ANSI and ESA reports from 1970s. Were considered high quality natural features and areas.	Approach to delineating ESAs has significantly changed. There is no clear documentation on what NEC used.	Any updates should clearly identify source and veracity of information, and an evaluation of level of protection already provided.
Escarpment Rural Area	Minor Escarpment Slopes and Landforms; and Lands in Vicinity of Escarpment	These criteria were not actually mapped. Rural Areas are remnant areas in NEP after Protection and Natural were identified.	Criteria proposed to be expanded by NEC to include lands with potential for enhancement.	To avoid confusion, maintain existing criteria.
Mineral Resource Extraction Area	Existing licensed areas	Intended to include all licensed pits and quarries.	Inconsistent approach to designating Class B sites (some Rural, some Extraction).	To avoid confusion, designate all existing licensed areas as Mineral Resource Extraction Area.
Site-Specific Amendments	N/A	Site-specific amendments have been approved based on current conditions and criteria.	NEC has not incorporated recently approved amendments.	Respect and incorporate amendments to the NEP.

Tab D

Provincial Plan Review- Niagara Escarpment Plan Mapping Issues

MHBC Planning- September 2016

Designations in the NEP were approved after 8 years of public consultation (1977-1985) including detailed examination at public hearings. Landowners have relied on this mapping for 30 years.

NEC has redone the mapping and proposes a 35% reduction in the Escarpment Rural Area.

	Approved Plan	Proposed Revision
Escarpment Natural Area	58, 250 Ha (30%)	89, 414 (46%)
Escarpment Protection Area	69, 267 Ha (35%)	58, 506 (30%)
Escarpment Rural Area	53, 659 Ha (28%)	34, 968 (18%)

There are thousands of revisions proposed and the correct or final draft has not been available for the public consultation period. Many landowners are not aware of changes proposed and no one will see the final maps until after they are approved.

The new designation mapping is said to be an update based on existing criteria to reflect current conditions.

Niagara Escarpment Plan Mapping

The existing Plan's Land Use Designation maps date back to 1985. The Ministry of Natural Resources and Forestry is proposing to update these maps using the existing Plan's Land Use Designation Criteria and updated data, to more accurately reflect the current conditions on the ground.

Explanatory Text

The proposed update may result in changes to the extent of the current Escarpment Natural Area, Protection Area and Rural Area Designations.

Source-Ontario.ca/landuseplanningreview

But this is not true.

The Designation criteria and/or the way they are being applied have been changed. The mapping has been redone rather than simply updated. The proposed changes go far beyond reflecting current conditions on the ground.

The following examples illustrate some of the problems with what has been produced by the NEC. Very little information about the proposed changes is being made available.

First, the changes to the proposed Plan include changes to the designation criteria.

Proposed Designation Criteria Approved Designation Criteria Existing NEP Draft 2016 NEP "Escarpment slopes and related landforms "Escarpment slopes and Escarpment Related associated with the underlying bedrock which **<u>Landforms</u>** associated with the underlying are in a relatively natural state". bedrock that are in a relatively natural state". "Escarpment Related Landforms: the physical Escarpment Related Landforms: the physical features of the land associated with the features of the land associated with the Escarpment created erosion, and Escarpment and created by sedimentation and glaciation, often including sedimentation and glaciation, often including such features as moraines, lakes, river valleys, such features **as <u>outliers</u>**, moraines, lakes, river beach ridges, drumlins and kames." valleys, beach ridges, drumlins and kames. (Escarpment Natural Area) (Escarpment Natural Area)

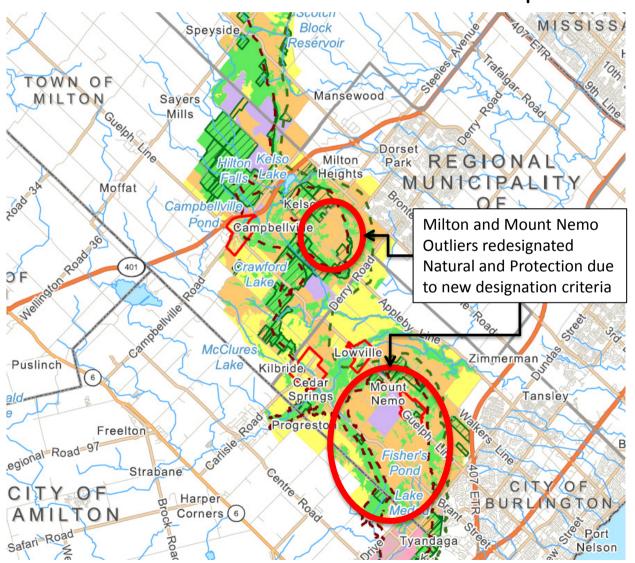
Under the current Plan, only slopes and related landforms on the slope are designated Natural Area. The proposed change adds Escarpment Related Landforms including outliers.

The inclusion of outliers is a change to the criteria that will result in thousands of properties being taken out of Escarpment Rural Area.

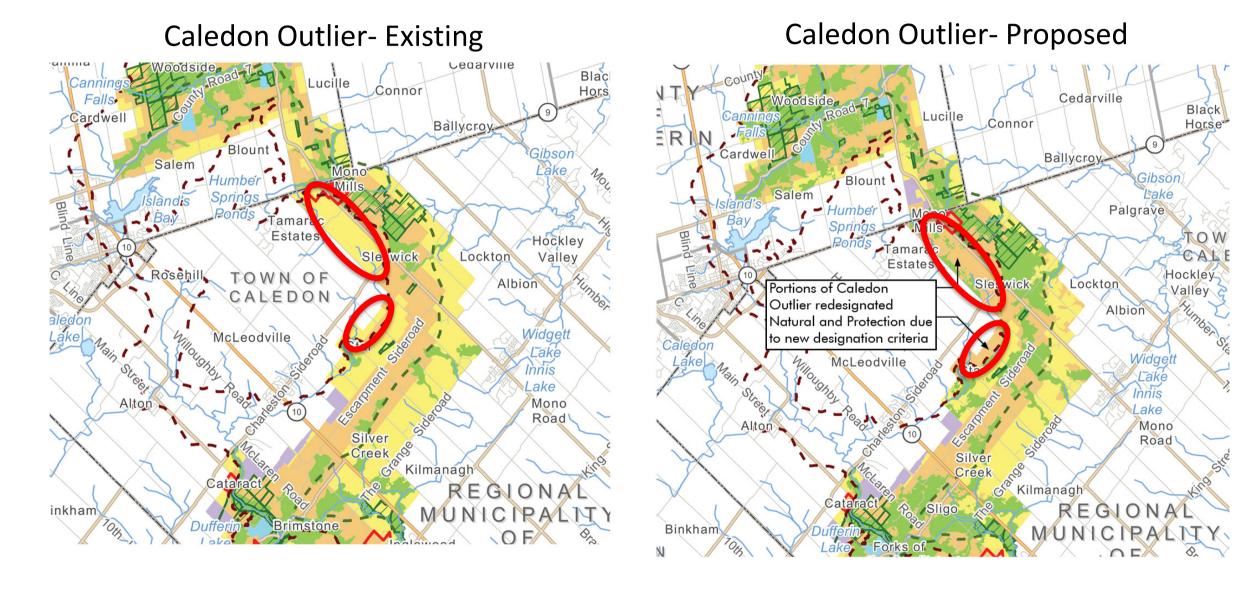
Milton and Mount Nemo Outliers- Existing

TOWN OF MILTON Mansewood Drumquin REGIONAL Pond MUNICIPALITY Moffat HALTON TOW OAK Zimmerman & Tansley Freelton Harper BURLINGTON Corners (6)

Milton and Mount Nemo Outliers- Proposed



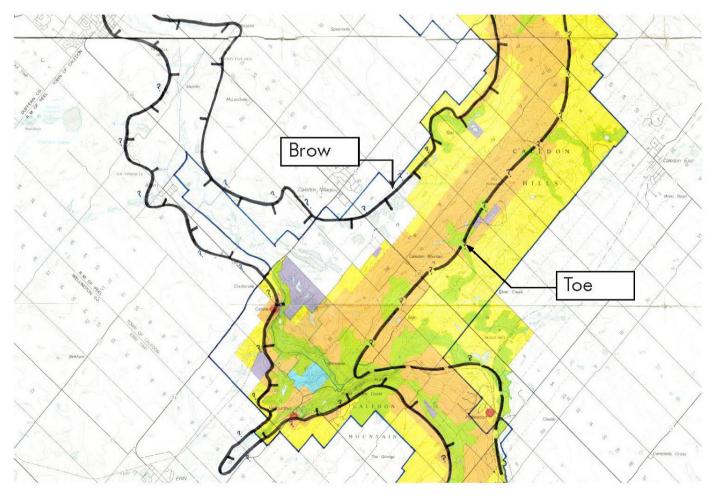
Caledon Outlier (note: this is a buried feature, not recognizable as an outlier)



(And there could be others.....)

NEC has used the wrong escarpment as the basis for the mapping

Another issue is that the NEC proposes to remap the escarpment itself and has used the wrong escarpment as the basis for the proposed mapping.



This is a reproduction (tracing) of a portion of the maps presented at the 1980-1981 Proposed Plan Hearings.

The maps were presented by Telford based on Hewitt's definitions. They show the brow and the toe. The area in between is the escarpment slope.

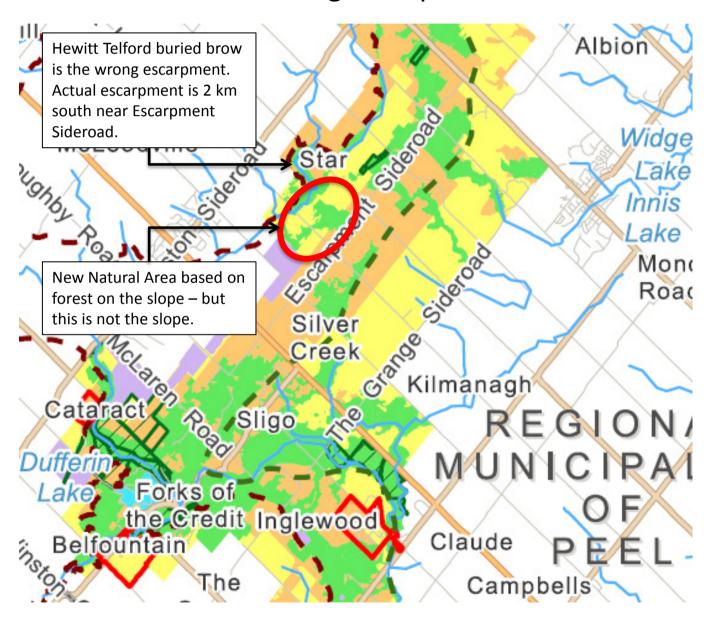
These maps were prepared <u>after</u> the Proposed Plan and were not the basis for the Plan designations.

The maps show the location of the buried escarpment (where it is buried). This is not always the topographical escarpment that is the basis of the NEP.

The question marks show locations where the exact location of the buried scarp is not known.

The Escarpment has not moved and there is no need to remap its location

Caledon Village- Proposed



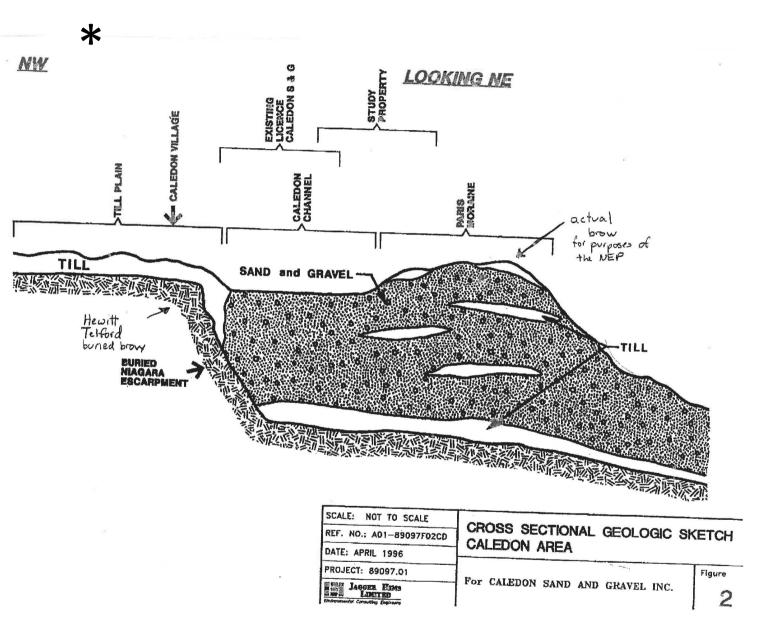
NEC staff have transferred the Telford/Hewitt brow and toe onto the NEP maps and used this as the basis for redoing NEP designations.

The question marks that were meant to indicate uncertainty in the location of the buried escarpment have been removed by NEC staff and there is no basis for doing this.

The brow and toe shown on this map is the buried escarpment. This is not the feature that is protected in the NEP and it is not the basis for the NEP designations.

This is an example. The same method will result in similar errors across much of the Plan Area.

Use of the buried escarpment results in a much larger slope area

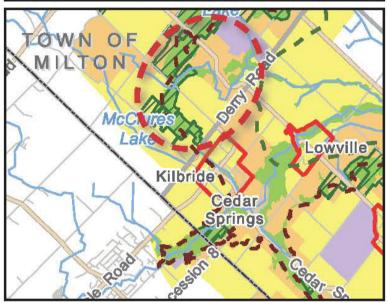


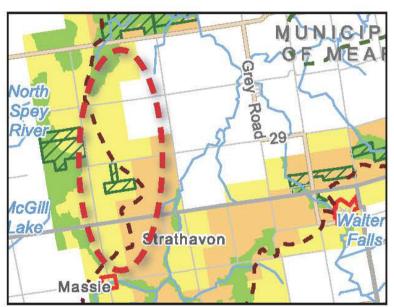
The "right" escarpment brow in the area south of Caledon Village is about 2 km further south in the Escarpment Protection Area near Escarpment Side Road (this was determined by the NEC through previous Plan Amendment processes).

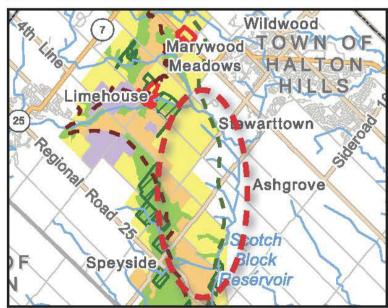
New Natural Area designations have been added based on forested slope criteria- but this is not the Escarpment slope.

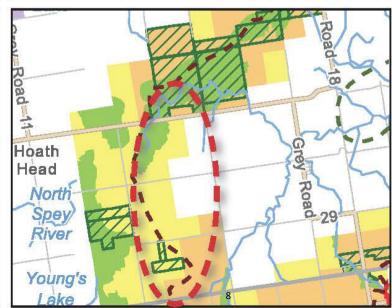


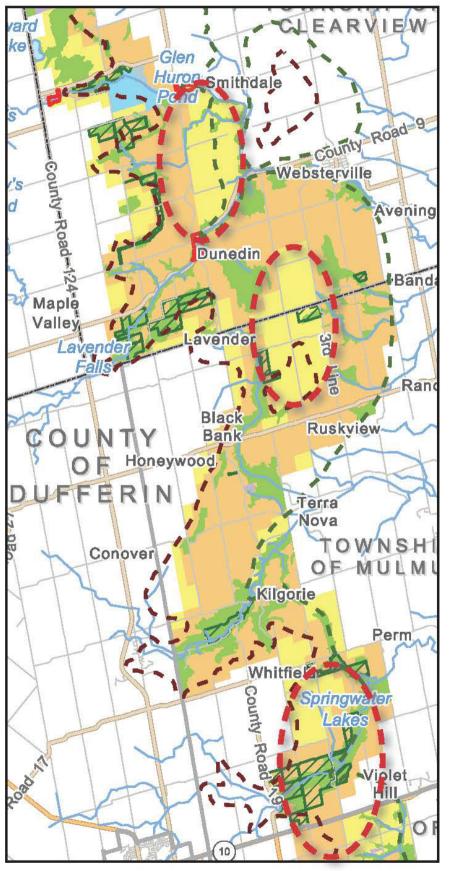
These are some other areas where using the wrong brow and toe interpretation may be causing mistakes in application of the designation criteria (Escarpment Rural Areas are not escarpment slope).











Municipalities Concerned with Proposed Mapping Changes

"The methodology and process for the Niagara Escarpment Commission to propose and make amendments to their mapping needs to be revisited... The Niagara Region has a number of concerns about how these scenarios were created, and would like to avoid repercussions associated with increasing the amount of land under restrictive Plan designations...

The use of outdated data, as well as conceptual mapping of potential features is highly concerning especially if this inaccurate data is being used to justify more restrictive land use designations."

Niagara Region, May 2015

"...the consultation process to date has not provided enough information for municipalities and landowners to comment on the proposed changes and to fully understand the potential impacts that could result from the proposed changes...

...the proposed changes and the proposed expansion to the Niagara Escarpment Plan will have a negative economic impact to municipalities."

Grey County & Dufferin County, September 2016

"HAPPs' previous submission recommended that the NEP be brought up-to-date by incorporating advances in science and planning into the Plan. Although updated mapping, based on current and rigorously tested data, is supported, it is not immediately clear how the maps were updated (i.e., updates were not only based on current designation criteria but it also included a change to the definition of "Escarpment related landforms"). In addition, it is not clear what sources or scales of data were used to inform the mapping changes. As a result, there is insufficient information for HAPP to comment on the proposed mapping changes, and consultation with municipalities and the public is needed to better understand the potential implications of the changes. Municipal mapping may also need to be amended as a result of changes to the NEP. Municipalities and other public agencies may have better and more detailed data to support mapping changes."

Halton Area Planning Partnership (Halton Region, Burlington, Oakville, Milton and Halton Hills), September 2016

"The consultation process to date has not provided enough information for municipalities and landowners to comment on the proposed changes or the proposed expansion to the Niagara Escarpment Plan and to fully understand the potential impacts that could result if approved....

The Escarpment Natural Area in Grey County is proposed to increase by over 11,000 hectares. The Escarpment Protection Area is also proposed to increase significantly. It is not clear how the Escarpment Natural Area and Escarpment Protection Area mapping was derived. There appears to be discrepancies between the proposed land use designation criteria and the proposed land use designation mapping which needs to be addressed".

Municipality of Grey Highlands, August 29, 2016

Other Issues

The wetlands criteria has been changed to add more smaller wetlands as Escarpment Natural Area.

New stream valleys are added to Escarpment Natural Area (Stream Valleys have not changed so the criteria or the way they are applied must have been revised).

Areas are redesignated based on visual criteria without any proper explanation or public background study.

Redesignation based on municipal ESA has not been explained. Using the existing criteria based on current municipal practice would lead to substantially different results.

Summary Table of Mapping Issues

Designation	Criteria	Original Implementation	Assessment	Recommended Approach
Escarpment Natural Area	Escarpment Slopes and Related Landforms	The Escarpment slope is the area between the brow and toe. However, there is no definitive mapping of the Escarpment.	NEC proposing a significant change by including escarpment related landforms including outliers (more Natural Area).	Maintain the existing criteria and definition. Do not remap the Escarpment. Do not add or redesignate outliers.
	Forested lands abutting Escarpment	Topographic brow was used to apply this criterion along with identifying forested lands on the Escarpment slope.	Proposed mapping may incorrectly designate new Natural Areas where there are forested lands close to the buried brow (wrong brow).	Use maps where this criterion was originally applied, and add or subtract areas based on current forest cover.
	Areas of Natural and Scientific Interest (ANSIs)	ANSIs were derived from 1976 MNRF Report. Was intended to apply to the "most significant".	Proposed mapping based on updated Provincially Significant Life Science ANSIs.	Provide clear mapping showing where ANSI boundaries have changed.
	Valleylands and Wetlands	Stream valleys and wetlands were designated based on size and degree of disturbance.	Valleylands have not changed so any redesignation is a change to the implementation of the criteria. More wetland areas have been designated Natural Area.	Valleylands update should not be required as they have not changed. Wetlands should be updated to reflect current conditions using original size criteria (20 ha).

Summary Table of Mapping Issues

Designation	Criteria	Original Implementation	Assessment	Recommended Approach
Escarpment Protection Area	Escarpment Slopes and Related Landforms	Landform that is designated is the non-forested Escarpment slope (area between toe and brow).	NEC proposing a significant change by including escarpment related landforms especially outliers. Use of the wrong brow and toe could also affect this criterion (more Protection Area).	Maintain the existing criteria and definition. Do not remap the Escarpment. Do not include outliers.
	Visual Landscapes in Proximity to Escarpment	Areas are designated to provide visual or physical buffer to prominent Escarpment slopes.	Mapping of visual buffers is difficult and subjective. Unclear what changes were made?	Do not update based on subjective visual criteria.
	Areas of Natural and Scientific Interest (ANSIs) and Environmentally Sensitive Areas	Based on specific ANSI and ESA reports from 1970s. Were considered high quality natural features and areas.	Approach to delineating ESAs has significantly changed. There is no clear documentation on what NEC used.	Any updates should clearly identify source and veracity of information, and an evaluation of level of protection already provided.
Escarpment Rural Area	Minor Escarpment Slopes and Landforms; and Lands in Vicinity of Escarpment	These criteria were not actually mapped. Rural Areas are remnant areas in NEP after Protection and Natural were identified.	Criteria proposed to be expanded by NEC to include lands with potential for enhancement.	To avoid confusion, maintain existing criteria.
Mineral Resource Extraction Area	Existing licensed areas	Intended to include all licensed pits and quarries.	Inconsistent approach to designating Class B operations (some Rural, some Extraction).	To avoid confusion, designate all existing licensed areas as Mineral Resource Extraction Area.
Site-Specific Amendments	N/A	Site-specific amendments have been approved based on current conditions and criteria.	NEC has not incorporated recently approved amendments.	Respect and incorporate amendments to the NEP.

Tab E

Under current Provincial Plans, only environmentally acceptable sites that contribute to long term ecological integrity or agricultural production can be approved.

Within the Provincial Plan Areas, there is strong protection for significant environmental features. Locations where extraction may be considered are limited. Stringent tests have to be met before new extraction can proceed. The rehabilitation bar is set high.

Key Recommendations for Provincial Plan Review

- 1. New prohibitions on aggregate extraction should not be considered.
- 2. The public interest in close to market aggregate supply can only be achieved if Provincial Plans contain reasonable policies to make aggregate available.
- 3. The need for revisions should be based on implementation experiences with operations approved since each of the Plans came into effect.
- 4. Changes to land use designations and expansions of Provincial Plans can have major impacts on availability of close to market resources. Decisions to expand or increase areas and designations must consider impacts on resource availability.
- 5. To improve implementation, the Provincial Plans should have consistent policies related to natural heritage, agriculture, water and aggregate resources.
- 6. The Greenbelt Plan is the newest Provincial Plan and creates an appropriate balance between environmental, agricultural, water and aggregate resources. The strong fundamentals which recognize the Provincial interest in aggregate resources must be maintained and upheld.
- 7. Aggregate extraction is a prohibited use in some areas of the Provincial Plans. However, some of these areas do not contain environmental features. A review of the policies within these areas should be considered since rehabilitation could enhance the lands.
- 8. In environmental areas, a higher standard for rehabilitation could be required to promote biodiversity.
- 9. Municipal official plans should defer to the policies of the Provincial Plans to protect the provincial interest in aggregate resources and to avoid conflicting policies.
- 10. Provincial Plans should contain policies to promote aggregate recycling.



The statistics in this brief are based on published Government sources and data provided by MNRF. For these sources and additional details, please refer to the "2015 Provincial Plan Review, Aggregate Industry Discussion Paper, April 30, 2015".

Construction of Eglinton

Crosstown LRT

www.ossga.com/FutureOfCloseToMarket

THE FUTURE OF ONTARIO'S CLOSE TO MARKET AGGREGATE SUPPLY: The 2015 Provincial Plan Review

The Provincial Plans must ensure the availability of close to market aggregate. Why is this important?

- There are significant environmental and economic benefits due to reduced transportation costs and greenhouse gas emissions.
- Greater Golden Horseshoe (GGH) requires over 2 billion tonnes of aggregate to sustain growth and build infrastructure.
- Provincial Plan Areas supply 35% of GGH's total aggregate needs.
- Provincial Plan Areas contain high quality aggregate resources.
- Only 0.6% of the Plan Areas are under active extraction.
- The Provincial Plans protect the environment. Allowing extraction creates opportunities for public greenspace and agricultural after uses.



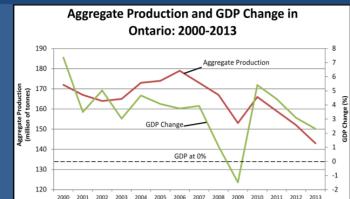




www.ossga.com/FutureOfCloseToMarket

Making aggregate resources available within the Provincial Plan Areas is required to meet the high quality aggregate demands of the GGH, replace diminishing supplies and reduce environmental and economic impacts of importing aggregate further from market.

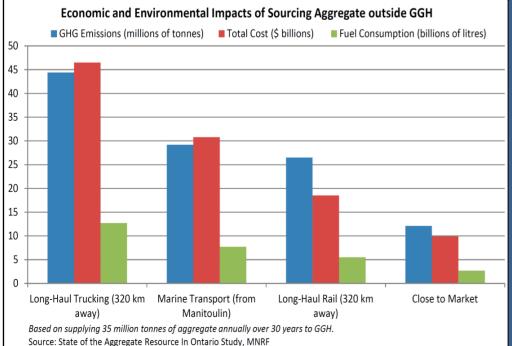
- The GGH has a major infrastructure deficit. The Province is investing more than \$130 billion in public infrastructure over 10 years.
- GGH requires over 2 billion tonnes of aggregate over the next 25 years to build and maintain required infrastructure.
 - 90-100 million tonnes of aggregate per year (more than half of Ontario's total consumption).
- · High quality aggregate resources are needed to build higher density developments and the infrastructure required by the Growth Plan.
- Geologically, the Niagara Escarpment, Oak Ridges Moraine and Greenbelt contain very high quality deposits of limestone and sand and gravel, critical to the construction of high quality infrastructure in the GGH.
 - These Plan Areas supply 35% of GGH's total aggregate needs.
- Replacement of licenced reserves is not keeping up with depletion rates in the GGH. Provincial studies anticipate the need for new supply.



Aggregate production is closely tied to economic conditions and the GDP. A sustainable economy requires the availability of close to market aggregate.



Just like locally sourced food, using close to market aggregates significantly reduces environmental and economic impacts.



"Extracting aggregate resources close to where they are being utilized can also be considered the most environmentally sensitive alternative. Trucking resources long distances increases greenhouse gas emissions, which is one of the top environmental concerns in the world today" (MNRF).

Adding 15 million tonnes of greenhouse gases is comparable to losing the air quality benefits that a 42,700 ha forest provides annually (almost three times the size of Downtown Toronto).

Saving 5 billion litres of fuel is enough fuel to provide electricity to 1.6 million homes for one year.

The aggregate industry's footprint is small and rehabilitation is contributing to the goals of the Provincial Plans.

Did you know?

- The Provincial Plan Areas cover 805,000 ha. Only 1.5% of this land area is licenced for extraction and just 0.6% is subject to active extraction (i.e. disturbed area).
- Of the 4.9 million ha of prime agricultural land in southern Ontario, only 0.7% contains a licenced aggregate operation. Many of these sites are being rehabilitated back to agriculture.
- Aggregate extraction is an interim use. The amount of rehabilitated land in surrendered licences exceeds what has been added by new licences.
- Since 1990, over 3,000 ha (100+ licences) have been surrendered and returned to other uses within the Plan Areas. After uses include natural heritage areas, publicly accessible greenspace and agricultural land.
- Since approval of the Provincial Plans, only 0.1% of the Plan Areas have been licenced for aggregate operations (22 licences).

Conservation Management Rehabilitation at Dufferin Milton Quarry

Public Recreation Rehabilitation at Aecon Pinchin Pit, Town of Caledon

Specialty Crop Rehabilitation at

Lafarge Fonthill Pit, Town of Pelham





Sman footprint, infilmat risk and important source.					
	Niagara Escarpment Plan	Oak Ridges Moraine Conservation Plan	Greenbelt Plan		
Size (Plan Area)	195,184 ha	190,354 ha	420,000 ha		
Licenced for Extraction	2,909 ha (1.5%)	5,040 ha (2.6%)	4,290 ha (1%)		
Under Active Extraction	1,397 ha (0.7%)	1,597 ha (0.8%)	1,509 ha (0.4%)		
Surrendered Licences (since 1990)	20 (444 ha or 0.2%)	38 (1,174 ha or 0.6%)	50 (1,402 ha or 0.3%)		
Approved Licences (since Plan enactment)	12 (552 ha or 0.3%)	7 (174 ha or 0.1%)	3 (149 ha or 0.04%)		
Pending Applications	1 (35 ha or 0.02%)	5 (149 ha or 0.08%)	10 (526 ha or 0.1%)		
2013 Production	9.7 million tonnes	8.1 million tonnes	10.5 million tonnes		
% of GGH Consumption (2013)	12%	10%	13%		



