

***REPORT OF A SURVEY ON***

**HEADWATER HEALTH IN THE CREDIT WATERSHED**



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**A Report from the Credit Headwaters Steering Committee of**

  
**The Ontario Headwaters Institute**

**January 2022**

## 1. Introduction

In spite of the existence of a fairly robust series of laws, regulations, and policies to protect Ontario's environment, the Ontario Headwaters Institute (OHI) and many sister organizations are aware that the lower, more populated sections of most watersheds in South-central Ontario are in significantly degraded conditions, with reduced and fractured natural heritage and poor water quality.

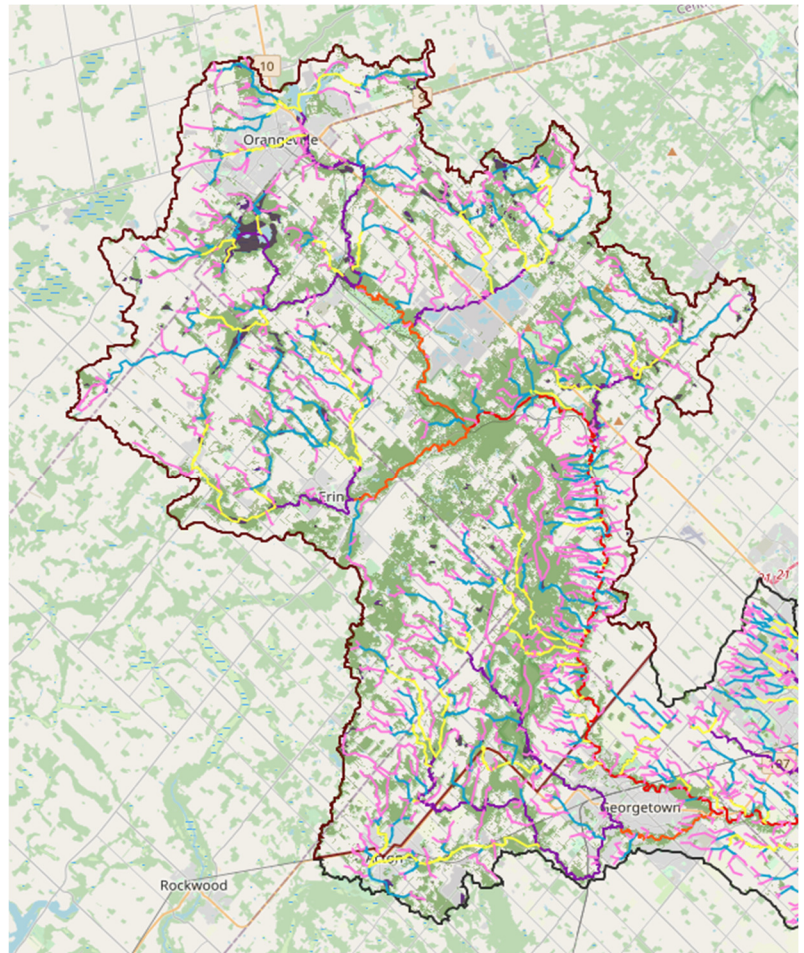
This has left many of the headwater areas of these watersheds as de facto reservoirs of regional forests, wetlands, and niche habitats for many species, as well as a source of both good water quality and quantity.

Unfortunately, these headwater areas now face three growing pressures: increasing development; a changing climate; and efforts to reduce environmental protection, management, and monitoring.

In the face of the existing conditions and growing pressures, the OHI believes that our upland headwater areas must be better protected going forward in order to ensure the on-going health of the full watershed.

To address these concerns, the OHI created a Headwaters Alliance Project, and is piloting efforts in the Credit with the help as a local steering committee, described overleaf.

We identify the upland headwater areas as those lands north of Highway 7 and Mayfield Road, shown as a brown line in the drawing to the right just west of the word Rockwood. The area includes Orangeville, Erin, and a portion of Caledon, with its southern border running through Acton and north of built-up areas in Georgetown and West Brampton.



This drawing is part of extensive set of GIS maps of the Credit that depicts headwater Characteristics, Places Worth a Visit, and Pressures, posted to [Headwater Alliances | Ontario Headwaters Institute](#).

The drawings as well as most of the work on the survey were done by Alexis del Mundo under a grant from Canada Summer Jobs, whom we thank. Alexis, a student at Ryerson, created the three Credit GIS drawings on our website, 5 more for Carruthers and Duffins Creeks, managed survey outreach and compiled the results, and more. Errors in this publication are those of the OHI.

*Credit for photo on cover page showing a headwater at Terra Cotta and for all graphics in this publication:  
Alexis del Mundo*

## 2. About the Headwaters Steering Committee and the OHI

Members of the Credit Headwaters Steering Committee include the Alton Grange Association, the Belfountain Community Organization, Gravel Watch Ontario, the OHI, Protect Our Water and Environmental Resources (POWER), Sierra Club (Peel), West Credit River Watch, and Whole Village Ecovillage. The role of the steering committee is to:

- 1) Provide input on website maps, including the proposed delineation of the Credit's upland headwater areas, and other information prepared by the OHI;
- 2) Identify a set of environmental concerns to be shared with the public (via this survey). These concerns included:
  - Conflicting and uneven protection for natural heritage and water across the watershed;
  - Lack of meaningful participation in land use planning;
  - Lack of meaningful participation in watershed planning;
  - Inadequate mandates and resources for the Credit Valley Conservation Authority;
  - Inadequate protection for local agriculture and local food security
  - Inadequate safeguards from the impacts of aggregate operations, as well as for early rehabilitation; and,
  - Too much development in the upland headwater areas, including for recreation and tourism, without a proper assessment of multiple stressors and their cumulative impacts;
- 3.) Advise on how to include these concerns in a survey seeking community input, and assist in distributing the survey.
- 4.) Review this report while developing recommendations and proposed next steps; and,
- 5.) Help disseminate this report and participate in educational activities, including webinars, to garner support for a healthier Credit.

Founded in 2002 to address the health of Ontario's headwaters, where our streams begin, the Ontario Headwaters Institute is a registered charity.

In response to the evolution of the province's policy frameworks toward a more integrated approach to environmental issues, and our engagement across them, we obtained amended letters patent in 2018 to address full watersheds, their natural heritage, and our receiving waters, such as Lake Simcoe and the Great Lakes.

Additional information is available on our website, at <https://ontarioheadwaters.ca>, including backgrounders, descriptions of projects, select submissions to agencies, self-guided excursions under Headwater Hikes, and access to our YouTube Channel.



*Heron on the Upper West Credit Photo by Ann Seymour*



### 3. Survey Results and Discussion

We received 88 responses to our survey over a two-week period, pleasantly above our target of 75.

Please note “other responses” show where participants preferred to provide a custom response over the choices offered, and that the responses shown and the other answers add up to 88.

Please also not that two questions, numbers 2 and 11, turned out to be poorly worded, as described below.

#### Part 1 - Tell us about yourself

##### 1. Do you live in the Credit Watershed?

- Yes: 44
- No: 44

##### 2. If you answered no above, do you live in a nearby watershed within the Greater Golden Horseshoe?

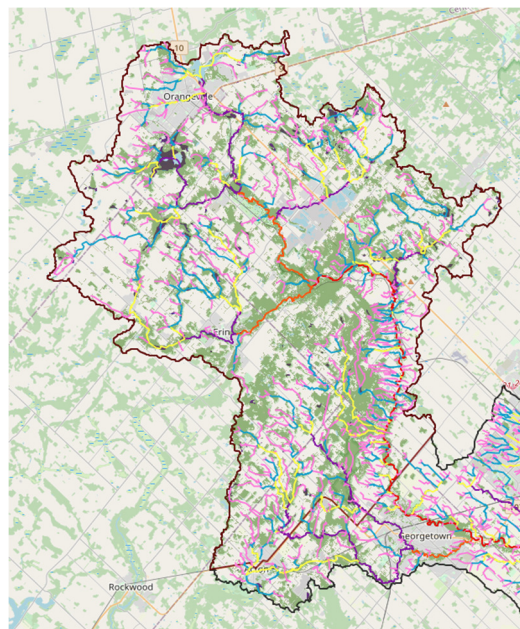
- Yes: 55
- No: 33

Some error is evident, as it is not possible for 55 of the 44 people who answered No to question 1 can be living in a nearby watershed.

##### 3. Do you live in the area that the OHI considers the Credit's upland headwater area, as per the map?

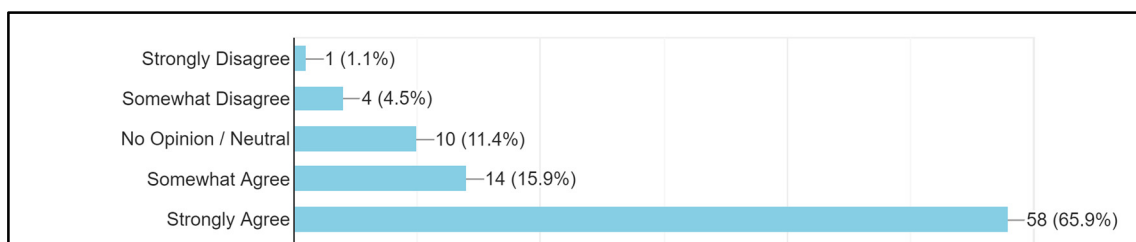
- Yes: 33
- No: 55

44 of the 88 respondents live in the Credit, and 33 of those live in the upland headwater areas.



##### 4. The map in the question above is useful in separating the developed downstream areas from the upstream areas with their proportion of lands in natural heritage or agriculture and could be a basis for areas that require increased protection in the future.

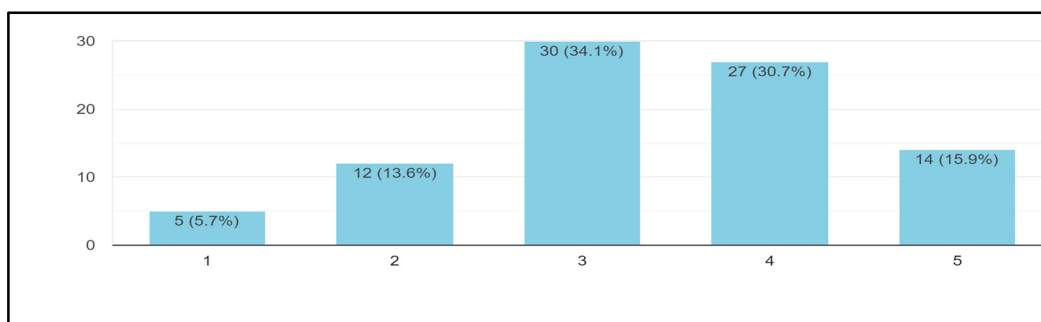
3 other responses



65.9% of respondents strongly agreed with our proposed boundary for the upland headwater areas of the Credit and that this area should benefit from increased protection.

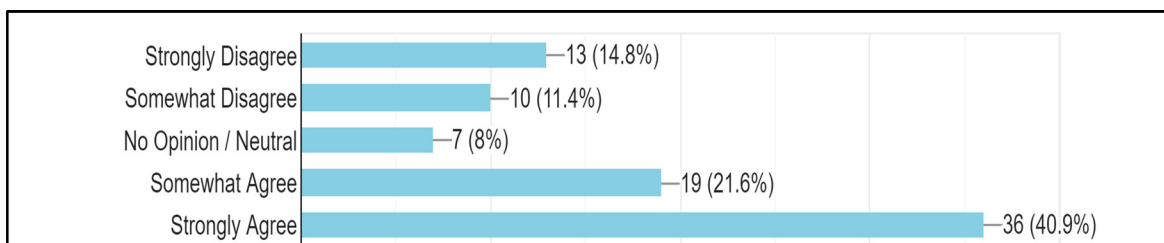
## Part 2 - General Knowledge

**5 My knowledge of land use planning, the Greenbelt Plan, the Oak Ridges Moraine Plan, the Niagara Escarpment Plan, and the Growth Plan is:** Low = 1 / High = 5



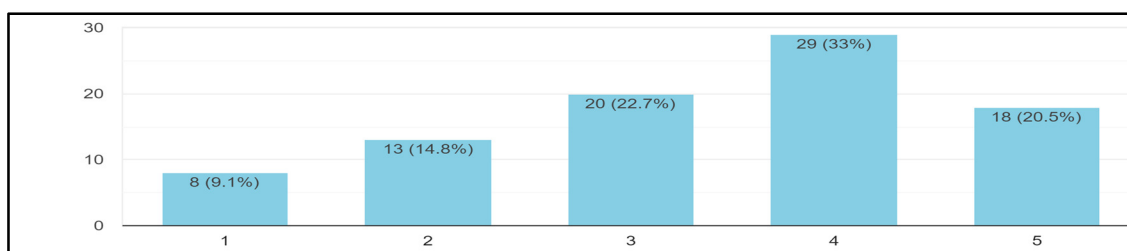
Most participants of the survey indicated a surprising good or better knowledge of land use planning, probably indicative of the groups to whom the survey was distributed.

**6 Meaningful participation in land use planning in municipalities and watersheds— including all aspects cited in the question above and with respect to Local Planning Appeal Tribunals, provides a level playing field for the general public.** 6 other responses



The highest number of responses (41%) stated that they strongly agree that the public has a level playing field for participation in land use planning. Comments included that several participants they agree that Local Planning Appeal Tribunals *should* provide a level playing field, but they are not sure that they do, and/or that the public voice is not given adequate opportunity where governments appear to be “captured” by powerful interests.

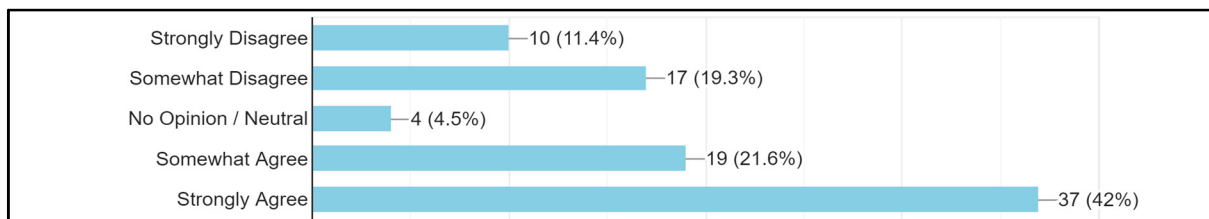
**7. My knowledge of watershed management - including the roles of the Province, the local conservation authority, and municipal government - is:** Low = 1 / High = 5



Those who answered a higher knowledge for question 5 on land use planning also tended to have a higher knowledge rating for question 7 on watershed management.

## 8. Meaningful participation in watershed management in the Credit provides a level playing field for the general public.

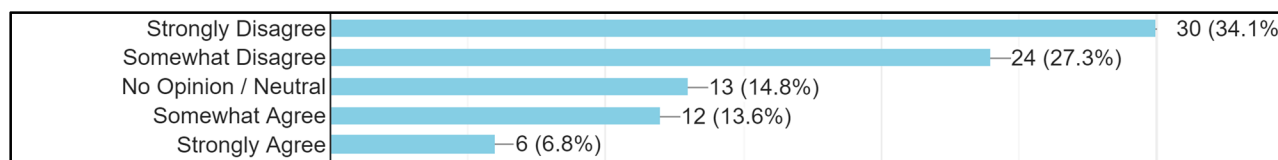
3 'Other' responses



Question 6 and 8 had similar results. Most participants agreed that the field is level for the public in terms of watershed management, or that it *should* be.

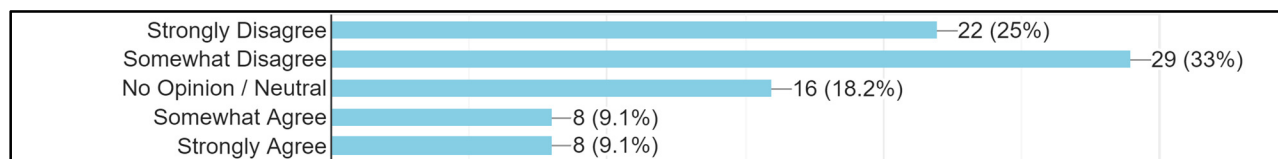
### Part 3 - Prioritizing Headwater Pressures

## 9. Natural heritage protection, free access to wild places, and the impact of climate change on terrestrial and aquatic integrity are being adequately pursued in the Credit. 11 other responses



70% of the responses for question 9 disagreed with the statement that natural heritage protection, free access to wild places, and the impact of climate change on terrestrial and aquatic integrity are being adequately pursued in the Credit. People expressed concern about the retention of natural heritage given developer interests to maximize profit and municipal interests in both increased taxes and reduced on-going costs.

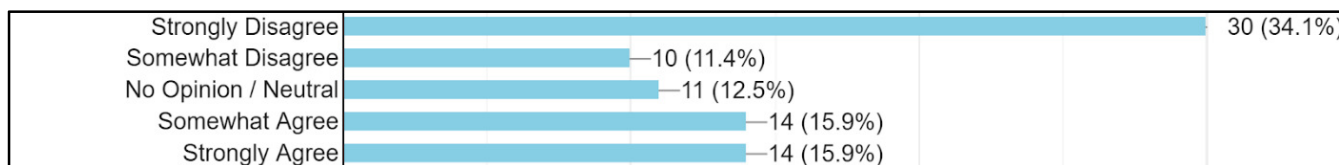
## 10. Private land stewardship, conservation easements, and the purchase of lands to remain in their natural state are being adequately supported in the Credit. 10 other responses



61% of responses disagreed with question 10 as well, while a large portion of participants were unsure or had little knowledge on this issue.

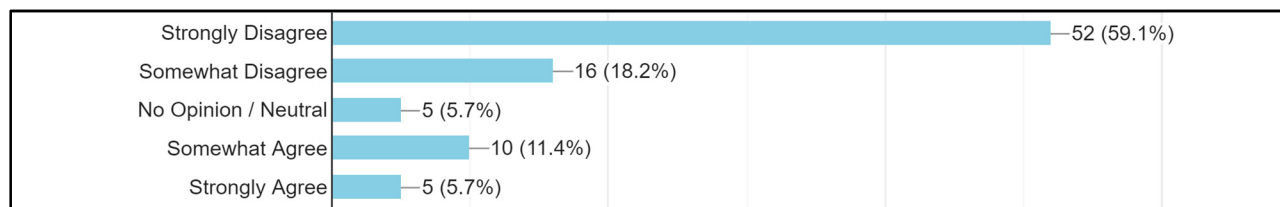
A number of individuals felt that stewardship and conservation should have more support but believed that development would probably remain a priority without high-level policy commitments.

**11. Changes to the mandates of conservation authorities will help protect the overall ecological integrity of the Credit.** 12 other responses



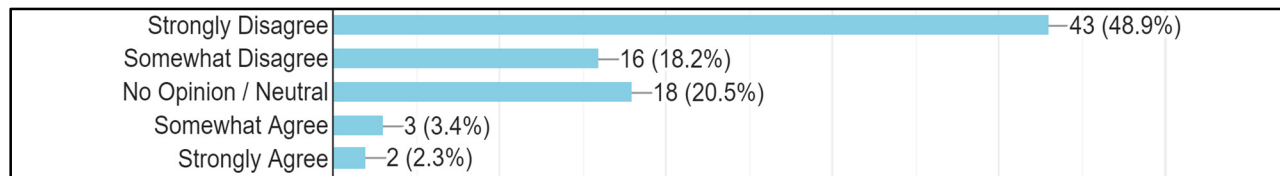
Results for question 11 show a wide variance in answers, with the highest majority strongly disagreeing (34%). Poor wording of the question resulted in participants stating that they would agree or disagree with the statement depending on the actual changes to the mandates; that erasing mandates for conservation authorities would not protect the ecological integrity of the Credit; and/or would be inclined to agree if changes were made to strengthen the mandate rather than the direction in which they are headed.

**12. The permitting and monitoring of aggregate operations provide adequate safeguards to protect nearby surface water, groundwater, and wildlife in the Credit.** 4 other responses



77% of respondents stated that they disagree with the statement, expressing concern about pits and quarries and the adequacy of the safeguards in place so that they do not affect water quality and wildlife are insufficient. Even those who were not knowledgeable on the topic were inclined to disagree with the adequacy of current safeguards.

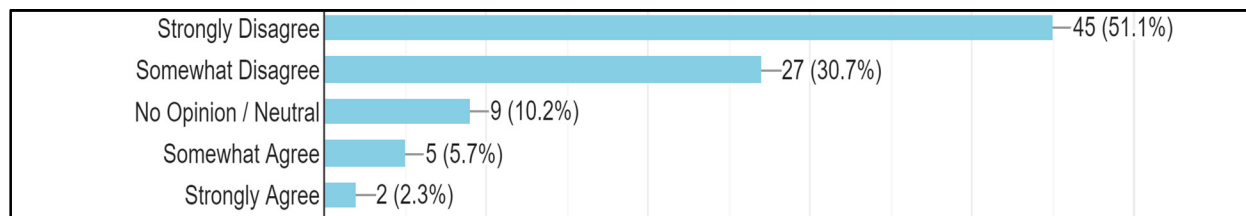
**13. Aggregate operations pay their fair share for road maintenance in the Credit and pursue pit rehabilitation in a responsible and timely manner.** 8 other responses



Reinforcing responses to question 12, 67% of participants expressed concerns that aggregate operations are not paying their fair share of maintenance and are not pursuing pit rehabilitation in a timely and responsible manner.

**14. Current efforts to maintain a robust and economically viable agricultural system in the Credit - protected from development, embracing sustainable practices, and encouraging farm succession - are adequate.**

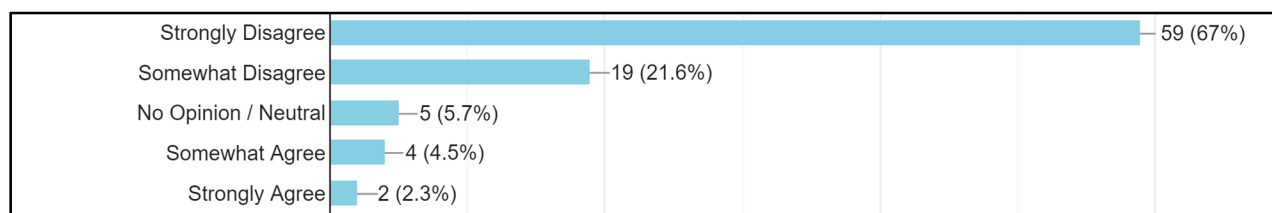
6 other responses



84% of respondents feel that agriculture is being adequately supported while written comments suggesting that not enough attention is being paid to sustainable agriculture.

**15. Current safeguards to protect water quality, quantity, and temperature are well thought out and will prevent significant negative outcomes.**

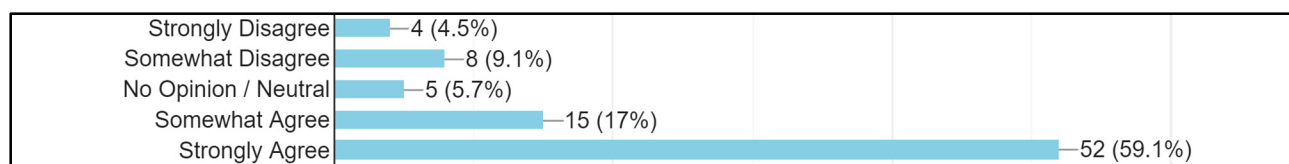
4 other responses



Almost 90% of respondents are concerned about water quality and quantity in the Credit.

**16. Future development in the upland headwater areas of the Credit needs to be directed through integrated watershed management delivered by the CAs.**

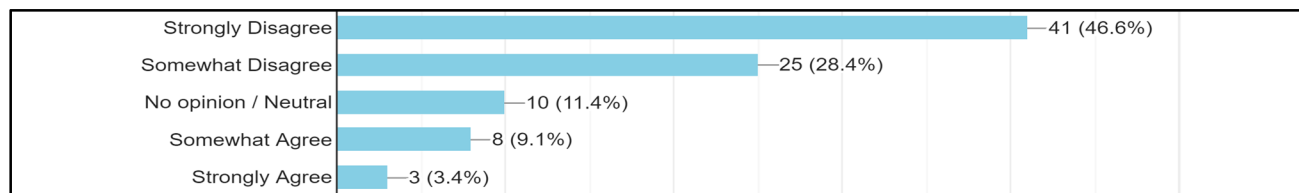
8 other responses



Most respondents (80%) agreed to a certain extent that development should be directed through integrated watershed management, with some participants noting that they do not believe that conservation authorities have the power or tools to pursue this adequately.

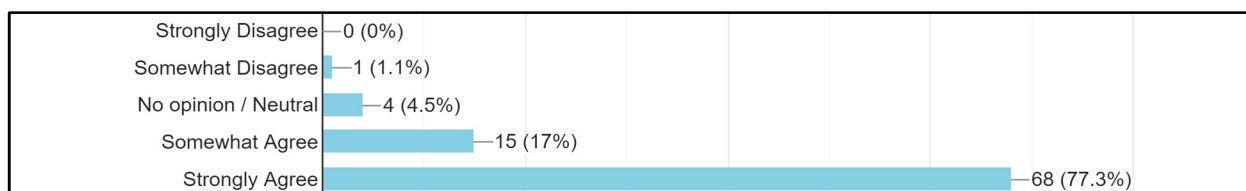


**17. Current environmental safeguards in land use planning for the upland headwater areas are well thought out and will prevent significant negative outcomes.** 3 other responses



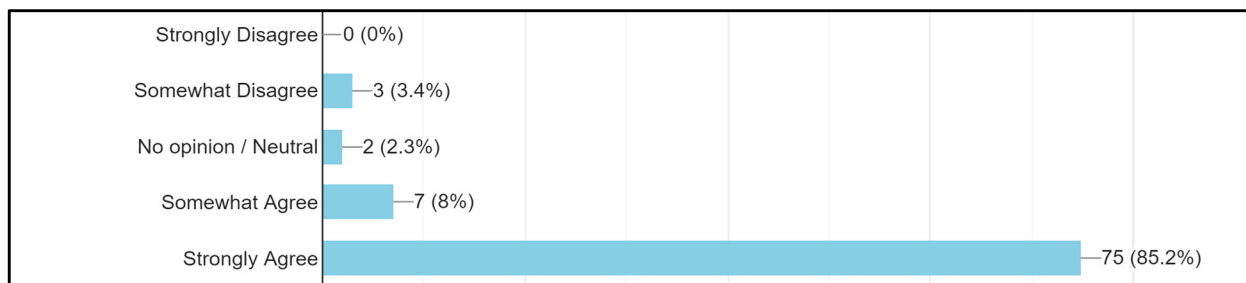
77% of survey participants generally do not agree that the current environmental safeguards in land use planning are well thought out and prevent of negative outcomes, especially in the upland headwater areas.

**18. Future development in the upland headwater areas of the Credit needs to be directed through a sustainability lens for land use planning.** 4 other responses



The flip side of question 17: 94% of participants agreed that the province needs to pursue a sustainability lens for land use planning.

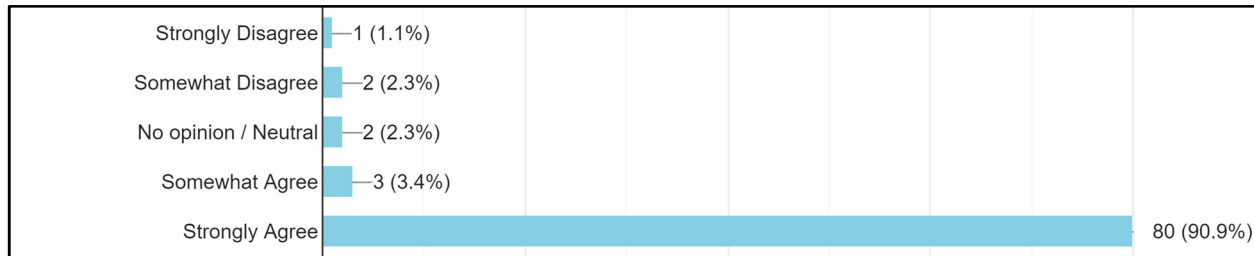
**19. I support the perception of the Credit Headwaters Steering Committee that the upland headwater areas of the watershed must be better protected than at present, including those areas in the Greenbelt Plan.** 1 other response



Similar to question 18, about 94% of respondents agree that the upland headwater areas of the Credit must be better protected than at present.

Part 4 - Stay Involved

**20. Do you agree that the Credit's upland headwater areas constitute an important reservoir of regional forests, wetlands, niche habitats, water quality and quantity, and that these qualities need to be better protected in the future, especially to buffer the impact of increasing downstream development and the emerging climate crisis?** 2 other responses



Over 90% of respondents agreed that upland headwater areas constitute important environmental foundations and need to be better protected to buffer the impacts of development and climate change.

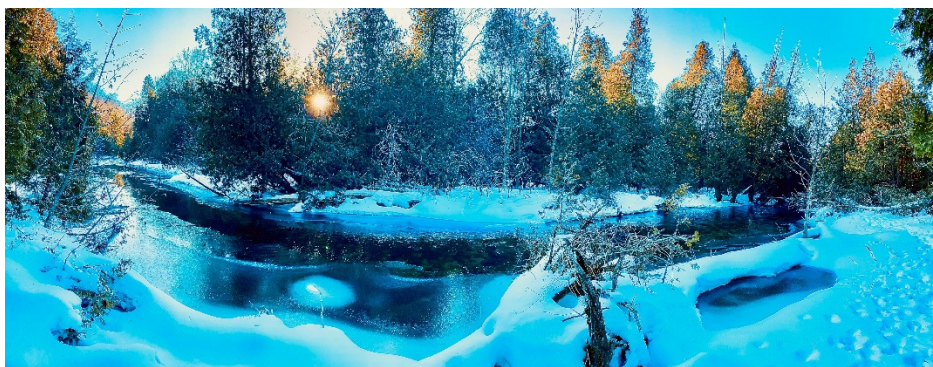
**21. Would you like to stay informed and consider becoming involved in the development of a community vision to help protect the Credit's upland headwater areas?**

- Yes: 61
- No: 27

Summary

Respondents may have a higher than average understanding compared to the general public on watershed management, water quality & quantity, natural heritage protection, land use planning, local agriculture, and the impact of aggregate operations on natural heritage and infrastructure.

Regardless, respondents support the delineation of an area of the Credit's upland headwater areas as needing extra protection than business as usual, a stronger mandate for watershed management, increased sustainability and democratic engagement in land use planning, increased oversight of aggregate operations, improved conservation and stewardship efforts, and the need to support sustainable agriculture.



*Upper West Credit River near Erin*

*Photo by Ann Seymore*

#### 4. Recommendations

1. **Make Watershed Management the Foundation of Land Use Planning:** Local, regional, and provincial planning authorities should make watershed management the basis of land use planning in the upland headwater areas of the Credit by implementing article 2.2 of the Provincial Polity Statement: that such authorities “*protect, improve or restore the quality and quantity of water by: a) using the watershed as the ecologically meaningful scale for integrated and long-term planning*”....
2. **Identify & Protect the Credit’s Upland Headwater Areas:** Local and regional planning authorities should begin work to formally identify and protect key ecological form and function within the Credit’s upland headwater areas. Existing assets that can inform this effort include the OHI inventories and mapping with respect to 1st, 2nd, and 3rd order streams, significant surface water contribution areas, wetlands, ground water, natural heritage systems, agricultural lands, and key source water protection areas. Long-term protection should consider climate change, biodiversity, and food security;
3. **Amend Zoning and Permitting Protocols for the Credit’s Upland Headwaters:** Given the existence of provincial plans (the Oak Ridges Moraine, Niagara Escarpment, and Greenbelt plans) across much of the Credit’s upland headwaters, local planning authorities should apply the one with the highest protections across the whole of the area identified in item 2 above;
4. **Address Aggregates and Agriculture in the Upland Headwater Areas:** Aggregate permitting should be tightened to address greater sustainability, extraction below the water table, cumulative monitoring, and progressive and/or early rehabilitation. For its part, agriculture needs to be protected from land speculation to thrive locally, especially to address food security in a changing climate. Agriculture also needs provincial and local support on range of issues such as with respect to farm succession and the transition to more sustainable practices;
5. **Public Education and Outreach:** Local and regional agencies, including public education, should articulate the importance of the watershed to ecological, social, and financial health, and should facilitate ways to engage the public and land owners in conservation and stewardship.

#### 5 Next Steps

- A. Share this report and its recommendations broadly, including with:
  - the membership of the groups in the Steering Committee and sister organizations;
  - the public via social media, webinars, and other means; and,
  - decision-makers and staff in agencies with a mandate for planning, natural heritage, and source water protection in the Credit watershed.
- B. Work with the groups above to gain support for our recommendations, and more specific actions, to better protect the Credit’s upland headwater areas, their ecological integrity & biodiversity, drinking water sources, and the full watershed in the face of the threats of increased development and climate change.

*Andrew McCammon*

Editor