



Moving forward on adaptation

In Ausable Bayfield Watersheds

Information Session

London, Ontario

February 23, 2011



Background

- Watersheds are in transition zone with Carolinian Canada in southern half
- Lake Huron is western boundary
- Prime agricultural area
- Locally, we are seeing anecdotal increases in temperature and declines in precipitation that are – at the very least – weather changes, if not climate changes

Preparing for Change in Ausable Bayfield Watersheds



How do we communicate to the public that we are serious about this issue?

Created a position paper in 2007 that shows the ABCA's stand on how to play a future role in creating watersheds that are resilient in order to prepare for climate change.



Title: Preparing for Change

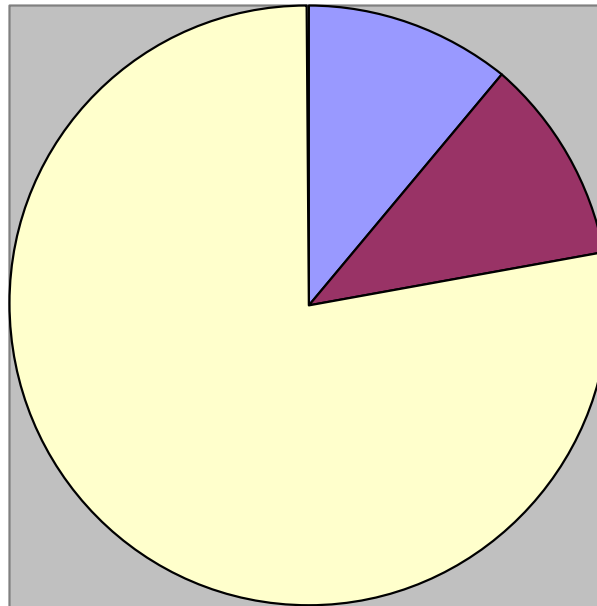
Building Resilient Watersheds to Prepare for Future Weather Extremes and Climate Change through Effective Watershed Resource Management, Planning and Programming

How did we create the position paper?

Discern board guidance and context through survey, include staff input from all departments.

Board Survey

How important is climate change to the work of the ABCA?



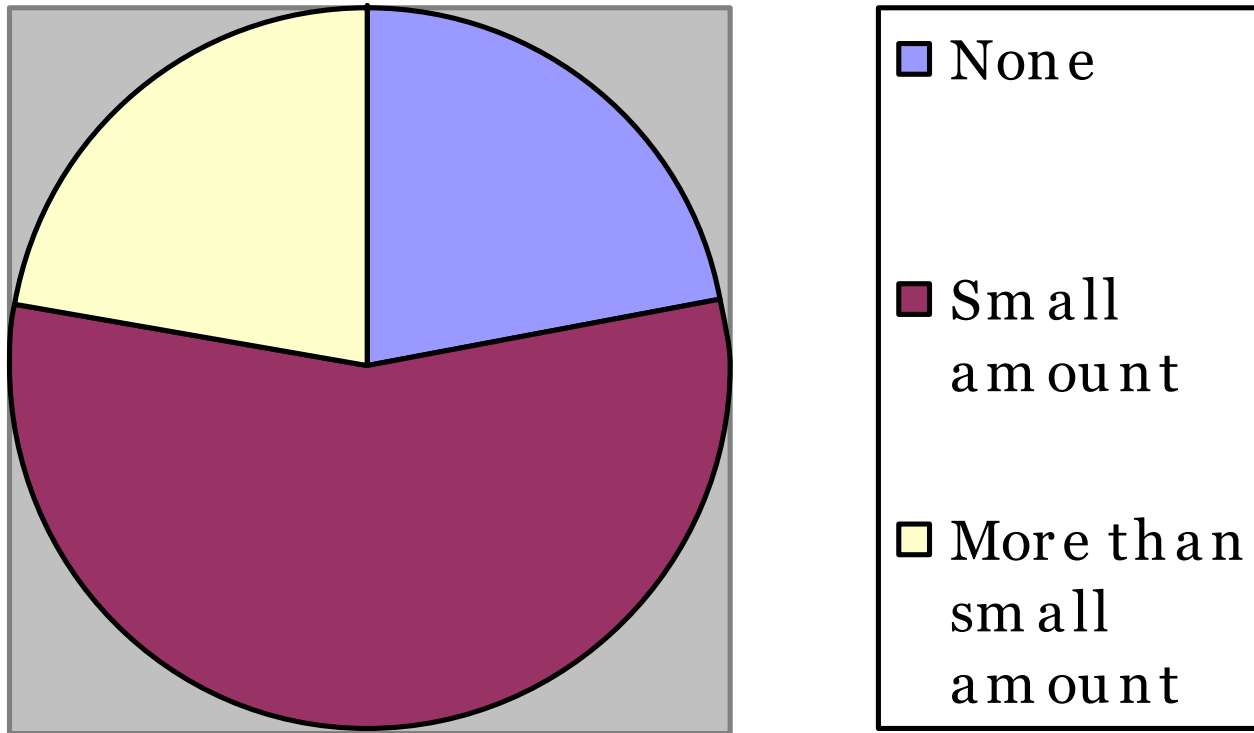
- Not at all important
- Not very important
- Important

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Resources

What resources should be devoted to climate change impacts?

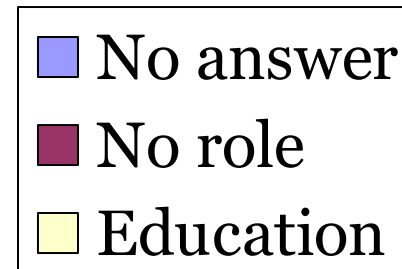
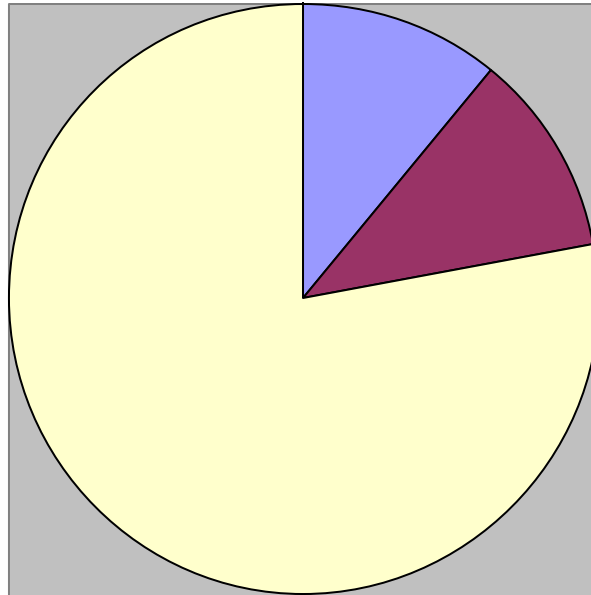


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Our Role

What is role for the ABCA
on climate change?

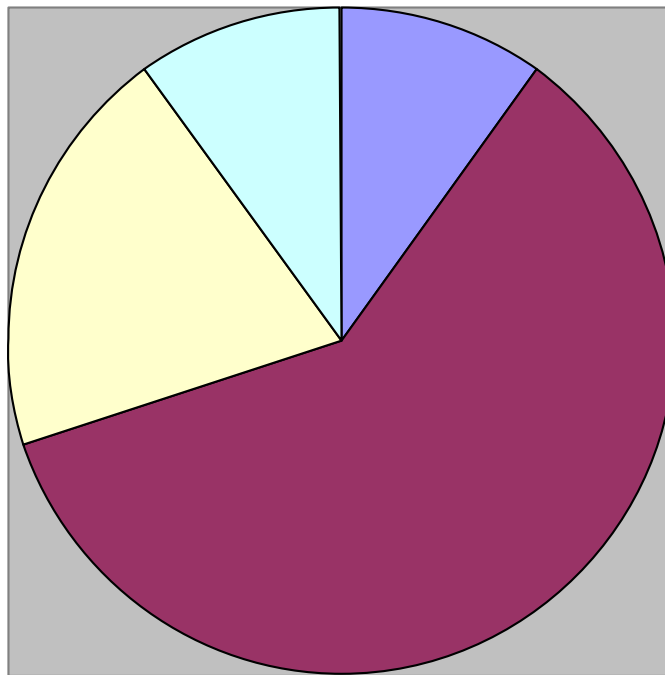


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Top climate change priority

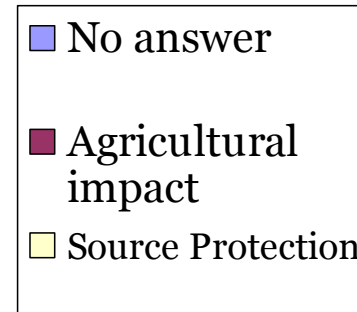
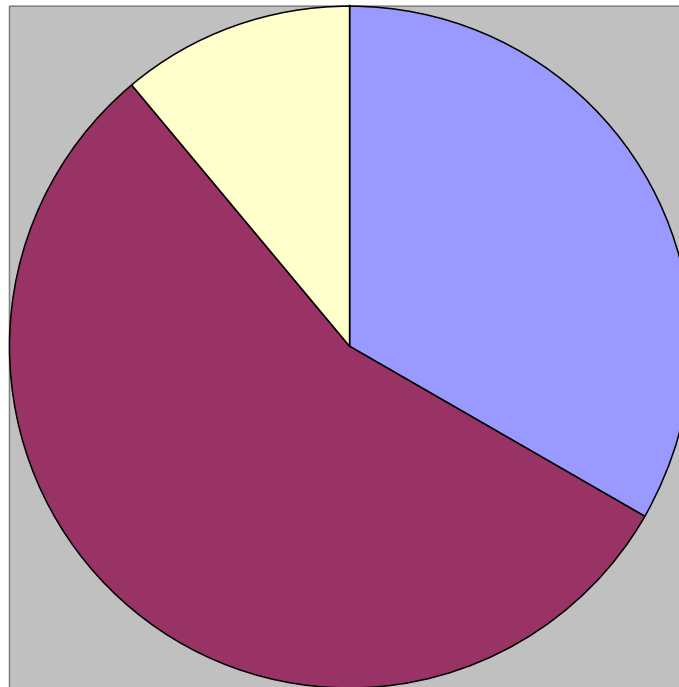
What is the ABCA's top priority in terms of climate impacts?



- No answer
- Educate public
- Research effects
- Reduce environmental footprint

Local issue

What is most important local issue related to climate change impacts?



Preparing for Change in Ausable Bayfield Watersheds



The foundation to proceed

The ABCA Board of Directors identified two key areas of emphasis for our approach to the projected impacts of climate change:

1. Education
2. Importance to Agriculture

Preparing for Change in Ausable Bayfield Watersheds



Contents of position paper

The position paper, *Preparing for Change in Ausable Bayfield Watersheds*, includes:

Ten 'Action Items'

1. Emphasis on the positive role we can play building watershed resiliency to best equip our watershed for all future weather extremes
2. ABCA role, Forestry/Land Stewardship, Soil Quality and Quantity, Water Quality and Quantity, Summary, Glossary, Bibliography, Mitigation and Adaptation Table in Development, Key Points


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10 Action Items


1. Integrate into the ABCA's conservation education programs, the important role afforestation and other environmental actions can play in building watershed resiliency to mitigate against future extremes in weather and climate.




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2. Communicate to farmers and other landowners, especially through stewardship and communications means, the important role they can play in building more watershed resiliency for the future and educate them on some of the projected future impacts of weather and climate extremes.




3. Reduce our energy footprint through self-assessment of internal practices – investigating ways to reduce energy consumption in ABCA buildings and vehicles and reducing the waste that enters and leaves the building.



4. Continue to support staff training on issues of climate change and effective stakeholder engagement in building watershed resiliency.




5. Consult with different levels of governments, agencies and organizations to help define the positive role the ABCA can play in their climate change and watershed resiliency initiatives.




6. Hold a staff training day to learn more about climate change and consider its impacts in the context of established job descriptions.




7. Hold a public event educating landowners about their role in adaption and mitigation.



8. Produce a factsheet for landowners letting them know about the projects they can initiate or the changes they can make in order to prepare for climate change.



9. Continue watershed monitoring programs such as Watershed Report Cards, Provincial Groundwater Monitoring Program, surface water monitoring and temperature and precipitation – in order to be able to track changes which may occur within our watershed area.



10. Incorporate climate change and climate variability impacts, where possible, as considerations in future watershed planning documents.



2010

- The Green Classroom Teacher Workshops and School Presentations – *Climate change and conservation – Actions for change in the Ausable Bayfield Watersheds*
- More info on the Education page of www.abca.on.ca



Moving Forward on Adaptation to Climate Change

In Ausable Bayfield Watersheds



ABCA participated in an MOE-CO exercise

- Evaluate watershed sensitivities to climate change
- Evaluate monitoring capabilities (existing)



Watershed sensitivities

- Water Use
- Low water conditions
- Baseflow
- Water quality
- Shallow wells

Rated as **High, Moderate, Low**



RESULTS

Watershed sensitivities

- **HIGH – Parkhill Creek**
- **Moderately HIGH – Upper Ausable River**
- **Moderate – 5 subwatersheds**
- **Low - None**



Monitoring Networks

- PWQMN
- PGMN
- CA

Data record, frequency, parameters



RESULTS

Monitoring Networks

- **PWQMN** – limited by frequency (8X/yr)
- **PGMN** – limited by location, data record (<10yrs)
- **CA** – limited by location, data record

No integrated monitoring capabilities !!!



NEXT STEPS

Monitoring Networks

Parkhill Creek selected as site for integrated monitoring capabilities

- Very poor water quality, esp P
- Clay till plains
- Heavy runoff, low infiltration
- Agriculture, mostly cash crop
- Conventional tillage



NEXT STEPS

Parkhill Creek - Enhancements

(proposed)

- Streamflow – existing HYDAT station
- Water quality – automated sampling capabilities added
- Groundwater – new well drilled
- Climate – more parameters
- Soil moisture





Thank you.

