

Overview of CA Climate Change Initiatives

Charley Worte

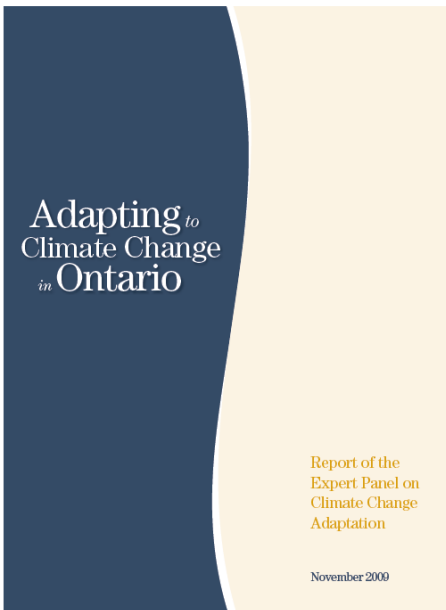


Outline

- Expert Panel Report
- CA Climate Change Strategies
- Mitigation
- Science and Monitoring
- CA programs
 - Watershed planning
 - Source water protection
 - Flood control
 - Natural heritage
 - Stewardship
- Integrated approaches



Report of the Expert Panel on Climate Change Adaptation



- 25 of the Expert Panel's 59 recommendations dealt with water and water related issues
- These recommendations provide advice to 9 provincial agencies, municipalities, conservation authorities and others
- Recommends a more integrated watershed-based approach to managing Ontario's water resources

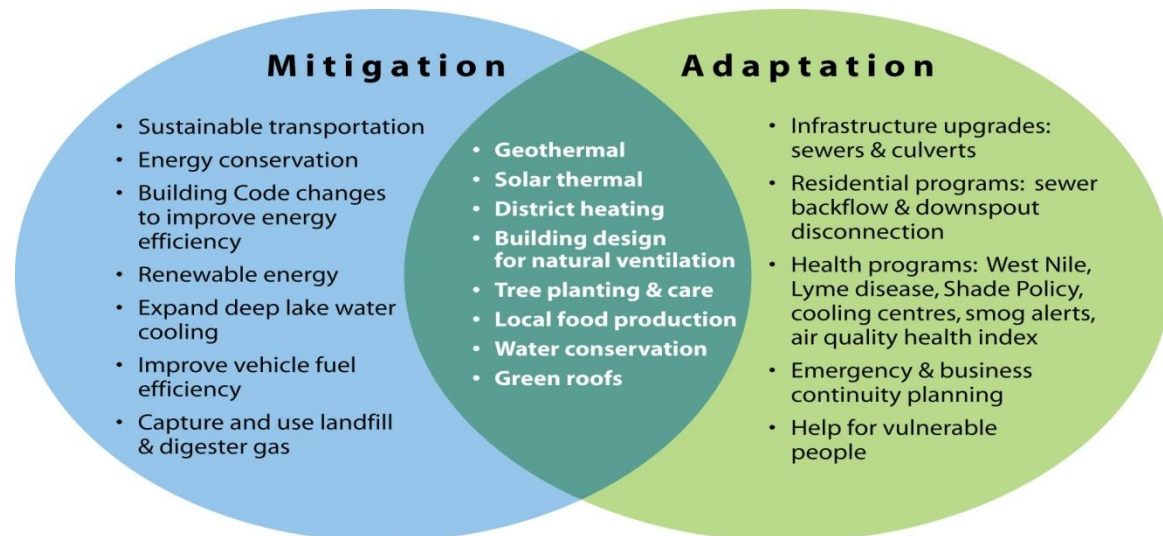
Report Recommendations Dealing with Water Issues

- 10. Physical Infrastructure
- 14. Stormwater Management
- 15. Flood Hazards
- 19. Great Lakes Resiliency
- 22. Ecosystem Biodiversity
- 29. Water Quality and Quantity Legislation
- 30. Water Conservation
- 31. Water Budgets and Permits to Take Water
- 32. Low Water Response Program
- 34. Lake Simcoe Protection Plan
- 38. Conservation Authority Role and Capacity
- 39. Provincial Policy Statement
- 44. Environmental Assessment Act
- 51. Information Access and Monitoring Programs

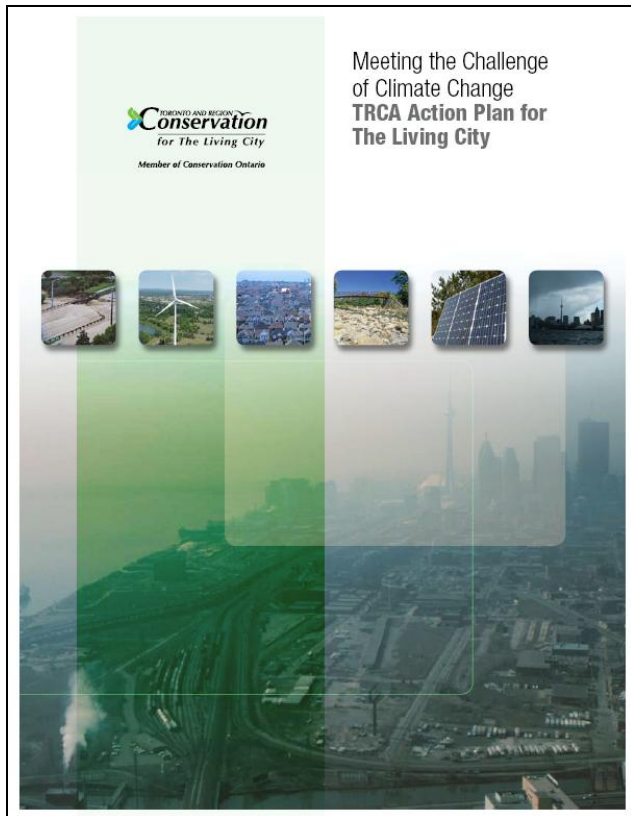


CA Climate Change Strategies

- Many CAs are beginning to incorporate Climate Change into their business
 - As formal climate change strategies
 - As a component of overall business plans
 - Informally at the program level



CA Climate Change Strategies



Meeting the Challenge of Climate Change: TRCA Action Plan for The Living City (April 2008)

- Reviews all areas of TRCA business in context of climate change
- A balanced response: adaptation AND mitigation
 - Increasing knowledge and understanding
 - Reducing risk to communities
 - Building a resilient natural system
 - Promoting a culture of conservation
 - Greening our own operations
 - Leadership through partnership

CA Climate Change Strategies

“...development and enhancement of existing Conservation Authority programs can better prepare our watersheds for the conditions we will face in the future...”

- Impact assessment
- Watershed planning
- Mitigation opportunities
- Program adaptation
- Communication

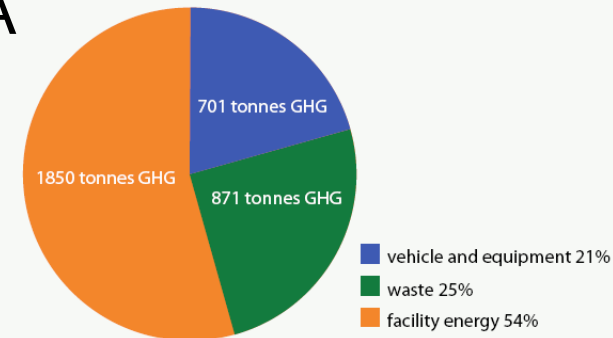


Preparing for Change
in Ausable Bayfield Watersheds



Mitigation

- GHG emission reduction – ABCA, TRCA, CVC
- Green Building technologies / building retrofits – CVC, TRCA
- LEEDs program – RVCA, TRCA, LSRCA
- Reforestation, carbon sequestration
- Education and outreach – CVC, ABCA, MVCA, MVC, TRCA



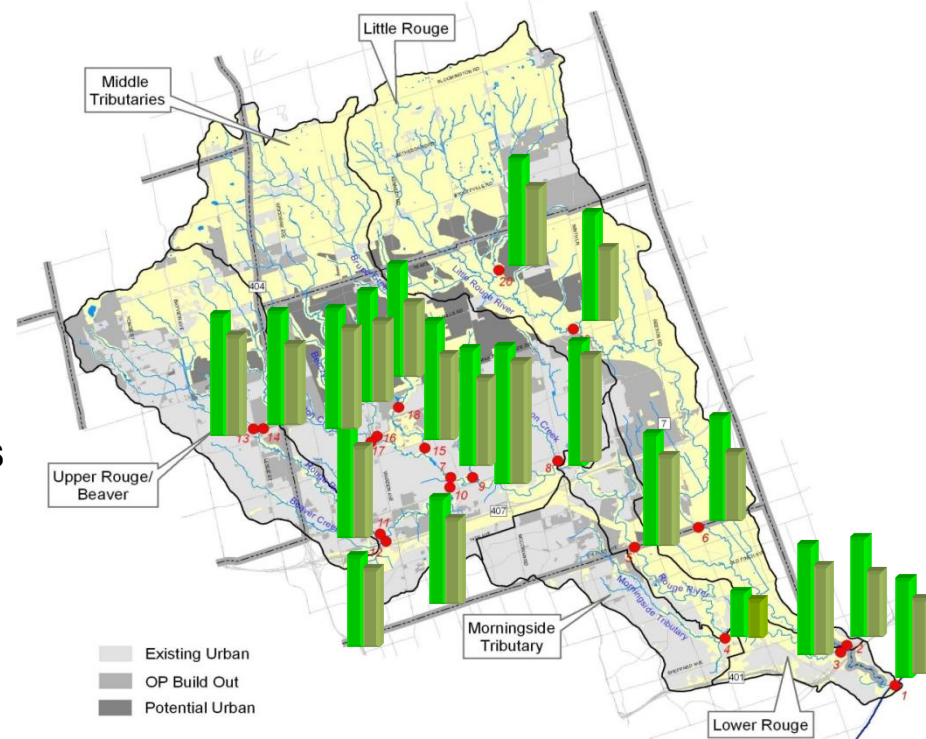
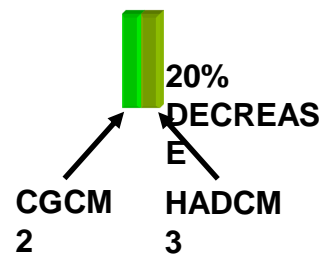
Science and Monitoring

- Watershed monitoring programs – ABCA, CVC, TRCA
 - Water quantity, quality, environmental monitoring
- Watershed modeling with climate change - CVC, CLOCA, TRCA, GRCA, MVC
- Regional Climate Modeling – GRCA, TRCA
- PWQMN/ PGMN COA Climate Change Project – MOE, CO



Watershed Planning

- Incorporating climate prediction scenarios into watershed planning initiatives – TRCA, CLOCA, CVC, GRCA



Climate Change and Source Protection

- Clean Water Act Regulations requires an assessment of the implications of climate change to the protection of drinking water sources in Assessment Reports
- Climate Change Training for SPAs and SPCs (RAC Project)
- Information includes:
 - Summary of research to date on the watershed or region
 - Assessment of potential impacts on Water Quantity
 - Assessment of potential impacts on Water Quality
 - Potential Impacts to Vulnerable Areas
 - Information gaps and considerations for monitoring and future work related to climate change

Flood Hazard Management

- Upgrading forecasting systems
 - GRCA, TRCA, CVC
- Updating Regional IDF curves
 - GTA CA's
- Update Floodline Mapping
 - HCA, CVC
- Flood Risk Vulnerability Analysis
 - CVC



Other Water Management Initiatives

- Land use planning -CVC, TRCA
 - Stormwater management, low impact development, green infrastructure, urban retrofits
- Water Management Infrastructure –MVC, GRCA
 - Flow management and reservoir operation
 - impacts on water control structures and reservoir operating policies
- Low Water Response -GRCA



Natural Heritage

- Natural heritage risk assessment – TRCA
- Natural heritage strategies – CVC, TRCA
- Fisheries assessment and adaptation – MVC, CVC
- Wetland restoration strategy – GRCA, CVC
- Greenlands securement –CVC



Stewardship and Outreach

- Conservation Education Programs – ABCA
- Communication and stewardship for private land – ABCA
- Public education and outreach – ABCA, MVC, CVC
- Agricultural / Rural Water Quality Programs – CVC, MVCA, GRCA
- Reforestation Programs
- Greening Corporate Grounds Program – CVC, TRCA



Consultation and Partnerships

- Participation in municipal initiatives – ABCA, CVC, GanRCA, CLOCA, TRCA, HCA
- Maitland Watershed Partnership - MVCA
- Gateway Project –MNR, MOE, CAs
 - Weather and Water Information access
- Canadian Climate Impacts and Adaptation Project
 - UTRCA, GRCA, TRCA, EnCan
- Ontario Regional Action Plan
 - NRCan, MOE, MNR, TRCA
- Joint Workshops
 - Municipal, Provincial, CA, Academic



Moving Forward

“The significant problems we face can not be solved at the same level of thinking we were at when we created them.”

Albert Einstein

- Need to move beyond sector or single issue based approaches to deal with climate change
- Plan in collaboration with others and find solutions that are complementary rather than conflicting or duplicating
- More effectively assess and balance ecological, social and economic interests



Integrated Watershed Management

IWM is the continuous process of managing human activities and their impact on natural resources on a watershed basis

Navigating Ontario's Future

- Joint project of CO, DFO, MNR and MOE
- Reviews IWM in Ontario and other jurisdictions and makes recommendations to advance IWM

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