

**Atlantic Climate Adaptation Solutions Association**  
*Solutions d'adaptation aux changements climatiques pour l'Atlantique*

**Developing Climate Change Capacity at the Municipal Level in Nova Scotia**

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This report is also available for download from the ACASA website at: [www.atlanticadaptation.ca](http://www.atlanticadaptation.ca)

## Executive Summary

Service Nova Scotia and Municipal Relations (SNSMR) undertook a suite of projects under ACAS to enhance the capacity of Nova Scotia municipalities to address climate change adaptation, in particular by assisting them in being able to develop their *Municipal Climate Change Action Plans* (MCCAPs).

The first project was the development of a *Municipal Climate Change Action Plan Guidebook*. This document provides municipalities with a vital step-by-step guide to the development of their MCCAPs. Such guidance is important, since every municipality in the province, by December 2012, is required to develop an MCCAP, which will form an amendment to their Integrated Community Sustainability Plan (ICSP).

The second element was the *Municipal Mentor Project*, which engaged three “mentors” to assist a similar number of ACAS partner municipalities through initial steps in the process of development of their MCCAP. This project provided an opportunity to facilitate the integration of some of the tools and products from the ACAS program into MCCAPs, while at the same time do an initial “test drive” of the MCCAP Guidebook to identify gaps and challenges faced by municipalities as they undertake their adaptation planning.

The third was the *Municipal Learnings Project*, undertaken to pull together information from three main ACAS sources: key information learned from the three Municipal Mentor project reports; more detailed information about ACAS and other products/deliverables useful to municipal adaptation planning; and pertinent information from the ACAS conference. This project generated the “MCCAP Assistant”, a document suitable for virtually all Nova Scotia municipalities, that complements the MCCAP Guidebook.

The final project was the *Municipal Participation – ACAS Conference Project*. This undertaking enabled a greater number and broader spectrum of municipal officials from ACAS partner municipalities to attend the Nova Scotia ACAS Conference in March 2012, to hear and learn first-hand about the various projects undertaken through the ACAS program.

SNSMR is pleased with the outcome of each of these projects and believes they have added significantly to the capacity of municipalities to carry out climate change action planning and, in particular, be more fruitful in the development of their MCCAPs. As well, many of these projects highlighted areas in which additional efforts can further assist municipalities carry out their climate change adaptation planning and action.

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## 1. Introduction

Municipalities are recognized as key players in climate change adaptation action. Those involved in climate change matters at the provincial government level, including SNSMR, as well as many municipalities and the organization that represents them, the Union of Nova Scotia Municipalities (UNSM), already recognize this. The Climate Change MOU between the Province and the UNSM identifies a number of actions to move municipalities forward with climate change adaptation. A key one of these was amendment of the Canada-Nova Scotia Gas Tax Agreement (GTA) to require municipalities to develop climate change strategies for inclusion in their Integrated Community Sustainability Plans (ICSPs). The GTA has been amended and municipalities will be required to develop these Municipal Climate Change Action Plans (MCCAPs) by the end of 2013. SNSMR is working to assist municipalities with their capacity to develop these MCCAPs. An initial step has been the development of a MCCAP guidance document for municipalities, However, it was recognized that this, in and of itself, would not be adequate to enhance municipalities' ability to develop their MCCAPs. Hence, SNSMR has developed a suite of ACAS projects to assist municipalities develop their capacity to address climate change adaptation, as follows:

- **Municipal Climate Change Action Plan Guidebook Project,**
- **Municipal Mentor Project,**
- **Municipal Learnings Project, and**
- **Municipal Participation – ACAS Conference Project.**

## 2. Approach

### **Municipal Climate Change Action Plan Guidebook Project**

To go along with the requirement that all municipalities had to prepare a Municipal Climate Change Action Plan (MCCAP), SNSMR recognized that it needed to provide some direction as to how to undertake this and what would be expected of such documents. Hence, the department decided to prepare the *Municipal Climate Change Action Plan Guidebook* (Guidebook) to assist in this regard. The majority of work on the Guidebook was done within SNSMR, with consultation of climate change experts, for example within the Nova Scotia Department of Environment – Climate Change Directorate (CCD). ACAS funding was to assist with the development of a professional and accessible publication, as well as make it possible to disseminate the document in hard copy form to all municipalities and other related parties.

The Guidebook is intended to provide some background on the issue of climate change, and the impacts and challenges it may pose, though the major component of the document is to provide a planning framework process to assist municipalities in the development of their MCCAP.

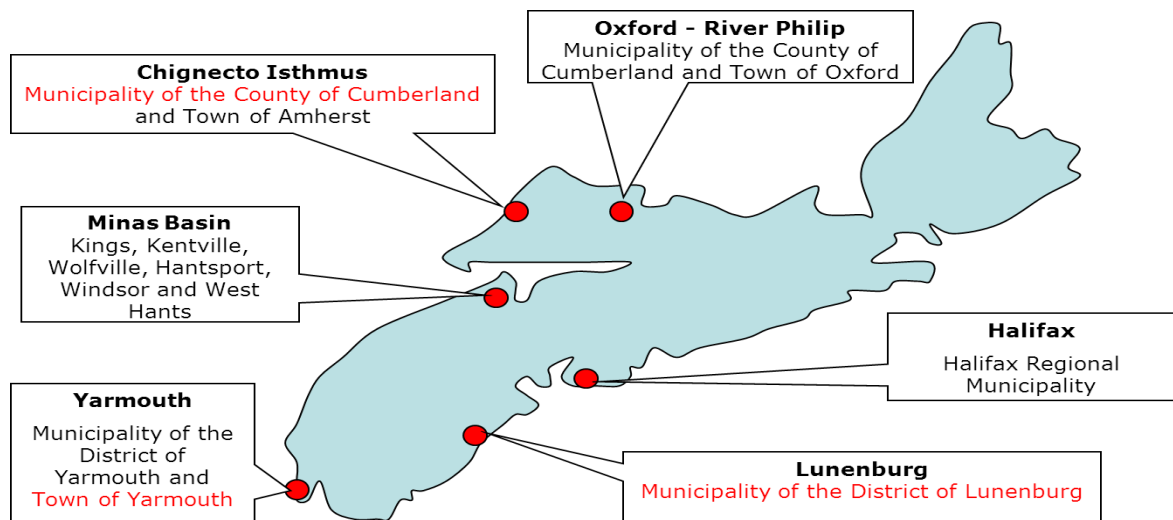
## **Municipal Mentorship Project**

SNSMR, as a way of providing additional assistance to municipalities in the development of their MCCAP, undertook the Municipal Mentor Project (MMP). This project involved an initial “test drive” of the MCCAP Guidebook with participating municipalities. A key objective of this undertaking was to facilitate the integration of the tools and deliverables from the ACAS program into municipal adaptation planning, as well as identify gaps and challenges faced by municipalities in the preparation of their MCCAPs.

This project involved the engagement of three mentors (consultants/academics), each of whom was to work with an ACAS partner municipality. Three municipalities out of the 13 participating in the six pilot areas indicated their interest in participating in the mentor project. The municipalities participating in the Mentor project, although not required to make a direct financial contribution, were expected to have a strong commitment to the project and assign staff to work directly with the mentor.

The municipalities that participated in the mentor project were the following:

- Municipality of the District of Lunenburg,
- Municipality of the County of Cumberland, and
- Town of Yarmouth.



The mentors engaged for this project and the municipality with which they worked are as follows:

- Municipality of the County of Cumberland – Stantec Consulting Ltd. (Kate Greene)
- Municipality of the District of Lunenburg – Elemental Sustainability Consulting (Anne Warburton)
- Town of Yarmouth – Dalhousie University – School of Planning (Patricia Manuel & Eric Rapaport)

The mentors worked from November 2011 until February 2012. The job of the mentors was to assist their assigned municipality with initial steps in the development of their MCCAP, while at the same time helping to evaluate and provide feedback on ACAS products/deliverables and the MCCAP Guidebook. The first step in the project was a briefing session hosted by SNSMR and involving the CCD

staff, the mentors, and key staff from the three participating municipalities. During the session the roles, responsibilities and deliverables of the project were clarified.

The objectives of the mentor project included:

- Working with and providing guidance to the municipality's MCCAP team
- Assisting the municipality through the steps of MCCAP Guidebook
- Identifying ACAS products/deliverables relevant to the municipality's MCCAP
- Facilitating integration of ACAS tools/deliverables into municipal adaptation planning
- Identifying gaps and challenges to be faced by the municipality in the preparation of MCCAPs
- Identifying the challenges for the municipality in working through the MCCAP Guidebook, including
  - staff resources and/or expertise
  - information/data availability, accessibility (eg e-format) and/or utility in preparing a MCCAP
- Identifying elements key to a successful MCCAP
- Identifying broader applicability of work to other NS municipalities
- Improving the linkage between municipal decision-makers and the numerous deliverables of the ACAS program.
- Providing greater awareness amongst ACAS municipalities on issues that require attention regarding policies, practices and regulation.
- Improving the ability of ACAS target municipalities to fulfill their commitments to the ACAS program, especially the preparation of community reports.

Each of the mentors was responsible for preparing a report that, among other things, documented their municipality's MCCAP development process to date, the gaps and challenges faced by the municipality in working through the process, and recommendations regarding what could be done to improve the MCCAP development process for other municipalities.

### **Municipal Learnings Project**

The ACAS program, and even more so the *Municipal Mentor Project*, dealt with a limited number of municipalities (only 13 and three respectively), yet there are 55 municipalities in Nova Scotia, all of which are responsible for developing MCCAPs. In light of this, it is important that all municipalities, as much as possible, be able to learn from the ACAS program and its products/deliverables, particularly as these relate to the development of their MCCAP. To aid in this regard SNSMR developed the *Municipal Learnings Project*. The objective of this project was to pull together information from various ACAS related initiatives and develop a product that would be useful to municipalities across the province.

This ACAS Municipal Learnings Project involved the engagement of a contractor to compile and extract relevant information for municipalities from three key existing sources:

- ACAS primary research projects in the six locations,

- Mentor project in the three municipalities, and
- ACAS Conference (March 2012),

and assemble it into a succinct and accessible resource document suitable for, and useful to all municipalities in Nova Scotia. This project was intended to bring together in one document what has been learned by way of the ACAS program and the mentor project and help municipalities move forward with their municipal climate change activities, particularly their Municipal Climate Change Action Plans (MCCAP). The document would assist municipalities find, or otherwise recognize, what information is appropriate and in some cases necessary, as well as what processes or procedures work. This project took place during February and March of 2012.

The key project tasks and deliverables were:

- research the products/deliverables/materials developed for three existing ACAS related activities/undertakings:
  - ACAS primary research projects in the six Nova Scotia project areas,
  - Mentor project for the three municipalities, and
  - ACAS Conference (March 5<sup>th</sup> & 6<sup>th</sup> 2012),
- identify from the research of those three ACAS activities/undertakings, key information and findings relevant to municipalities in undertaking municipal climate change adaptation and in particular in developing their MCCAPs,
- prepare the ACAS Municipal Learnings document, suitable for the full range of municipalities in Nova Scotia, that assembles the information and findings from these sources into a succinct, easily understandable document that (at a minimum) includes:
  - identification, classification and synopsis of the ACAS Nova Scotia products/deliverables appropriate to municipalities,
  - a general summary of findings/outcomes from the three mentor projects, in particular highlighting the “lessons learned”, and, where possible, identifying useful approaches or techniques for addressing issues raised, and
  - identification of those elements of the mentor projects that are recognized to have relevance to a broad range of municipalities, as well as those of particular applicability to specific municipalities, as they undertake their MCCAP development process.

### **Municipal Participation – ACAS Conference Project**

The Nova Scotia ACAS – “Climate Change: Getting Ready” conference, held in Halifax March 5-6, 2012, provided an excellent opportunity for sharing of knowledge among the numerous stakeholders and players. This was certainly the case with the 13 municipalities that were 'partners' in the NS ACAS program. All of them to a varying degree, were the beneficiary of climate change related research and resources, and the conference provided a unique opportunity for municipal representatives to more fully understand the ACAS products/deliverables, and to have a networking opportunity. However, it is recognized that municipalities often have very limited budgets and hence in many cases participation in the conference would not be possible. In light of the perceived



importance of attendance at the conference, SNSMR made funding available to each of these municipalities to attend this event.

### **3. Results and Discussion**

#### **Municipal Climate Change Action Plan Guidebook (MCCAP) Project**

The *Municipal Climate Change Action Plan Guidebook* was completed late in 2011. The Guidebook provides a general introduction to the issue of climate change and the importance of and benefits to municipalities in planning for climate change, as well as some adaption tools and resources. The major part of the document is dedicated to a six step planning framework process, which goes from establishing a team to develop the MCCAP, to identifying priorities for adaptive action.

Copies of the MCCAP Guidebook were forwarded to all municipalities in the province in early 2012. As well, an electronic version of the document is available on the Canada – Nova Scotia Infrastructure Secretariat website.

Municipal response to the Guidebook has been very positive.

The *Municipal Climate Change Action Plan Guidebook* forms Appendix 1 of this report.

#### **Municipal Mentor Project**

The three mentors engaged for the *Municipal Mentor Project* each prepared as the key deliverable for their individual municipality a final report that documented, among other things, the process in working with the MCCAP Guidebook, highlighted the ACAS and other products used in this process, and identified gaps and challenges for their municipality. These reports were submitted in February 2012.

All three municipalities that participated in this project indicated that they were very pleased to have been part of this project. They found that having a mentor was of considerable benefit in giving them a “head-start” in the development of their MCCAP, including beginning to integrate some of the ACAS research information into their MCCAP process. Still, it was noted that they would have liked the project to have had a longer time-frame and would have appreciated having a greater number of completed ACAS technical research projects at the time of the Mentor Project. The timing of the wrap-up of the ACAS program at the end of the March 2012, and the progress on those technical research projects meant this was not possible.

Some of the findings of these reports were particular to the municipality involved. For example, a lack of particular data/information relative to that particular municipality (sometimes this was due

to the status of other ACAS projects). Others were recommendations that had a broader application to all municipalities as they proceed through the MCCAP development process.

The findings and recommendations of the various mentor reports provided useful material for inclusion in the *Municipal Learnings Project*. As well they will help inform the development of more effective regional workshops with municipalities on MCCAP development, which are scheduled for the fall 2012.

The three Municipal Mentor reports form Appendices 2, 3 and 4 of this report.

### **Municipal Learnings Project**

A key objective of the *Municipal Learnings Project* was to develop a document that was informative, engaging and accessible, since the intent is that it serve a broad range of municipalities, including those with resource challenges and little experience in the area of climate change.

The contractor engaged for this project recognized this and developed a document that seems to fulfill this both in format and tone. This document has been developed to closely complement the MCCAP Guidebook, which is the key guidance document for municipalities. It was felt the most effective way to make clear the “learnings” from the ACAS projects, including the mentor project work, was to closely align it with the Guidebook. The document, for the most part, is organized to emulate the six step planning framework outlined in the Guidebook. It provides useful information for municipalities at each of these steps, much of which is gleaned from the ACAS program, although some from other sources as well. Consistent with this idea, the document has been entitled *The Municipal Climate Change Action Plan Assistant – Learning From Others* (MCCAP Assistant). One of the overarching themes is the value of collaboration and a regional approach, for example on emergency management.

This document will be forwarded to all municipalities in the province with the intent that it be a companion document to the MCCAP Guidebook. The MCCAP Assistant will also be used to help inform future capacity building work with municipalities on the part of SNSMR, such as the regional workshops on MCCAP development that it will be carrying out this fall.

The Municipal Learnings Project deliverable, *The Municipal Climate Change Action Plan Assistant – Learning from Others*, appears as Appendix 5 to this report.

### **Municipal Participation – ACAS Conference Project**

All but one of the 13 ACAS municipal partners sent representatives to the ACAS conference this past March. The province assisted over 25 municipal participants, including many elected officials. In light of tight municipal budgets, without this ACAS financial assistance, fewer municipal officials would have been at the conference to hear and learn first-hand about all the ACAS work that has

been taking place. It was clear from the questions asked and the responses provided, that the conference was a valuable opportunity for municipal officials to learn more about climate change, the possible impacts, and the resources available to municipalities to help address these challenges.

## 4. Conclusions

Here are some key conclusions from the ACAS related work undertaken by Service Nova Scotia and Municipal Relations:

1. SNSMR & Municipalities - The ACAS program provided a welcome opportunity to amplify SNSMR's existing capacity building work with municipalities, a level of government which our department clearly recognizes has a crucial role to play in climate change adaptation action. In particular, it will enable us to make our efforts with municipalities in relation to their MCCAPs, more effective.
2. Knowledge – These projects provided direct opportunities for research scientists associated with ACAS to share climate change information/data with municipalities, though the technical nature of some of this meant it was difficult for “municipal audiences” to understand. They heightened our awareness of the range of, as well as the gaps in, municipal understanding of aspects of the technical climate change related data/information, and the critical role of such information as an initial first step in decision-making. At the same time, the timing of the delivery of some of the ACAS research projects meant that the integration of their products into the SNSMR projects could not be as fully realized nor their ultimate utility assessed.
3. Tools - The ACAS projects assisted in the understanding of the value of LiDAR mapping, GIS tools and modeling, and emphasized the importance of visual models (eg. sea level rise and storm surge) for understanding, particularly by non-experts, of climate change impacts.
4. Provincial Partners - Our municipal capacity building projects helped clarify that the work and expertise of other provincial government departments such as, NS Department of Transportation and Infrastructure Renewal (eg roads) and the Emergency Management Office (ie. emergency planning and response), is likely a valuable asset for municipalities as they move forward with their climate change action planning.
5. Future Efforts – These ACAS projects have provided the Province with some guidance regarding areas on which to focus further investigation and consider future support to municipalities in their climate change adaptation. Some of these might include:
  - assessment of priority areas for LiDAR mapping activities,
  - regional studies and assessments associated with climate change ,
  - clarifying linkages between climate change impacts and specific adaptation tools and measures, and
  - exploration of the particular information/data and other needs of non-ACAS communities.

6. Strategic Approach – With the development of these various guidance documents and now a clearer direction for municipalities as to what is required of them by way of climate change adaptation planning, a more strategic approach involving all levels of government may be beneficial.

## **5. References**

References with respect to individual projects within this municipal climate change capacity umbrella of projects can be found within the individual project documents, which appear in the Appendices of this report.

## **6. Appendices**

**Appendix 1: Municipal Climate Change Action Plan Guidebook**

**Appendix 2: Mentor’s Report for the Municipality of the County of Cumberland**

**Appendix 3: Mentor’s Report for the Municipality of the District of Lunenburg**

**Appendix 4: Mentor’s Report for the Town of Yarmouth**

**Appendix 5: Municipal Learnings Project**