

UNIT THREE

A resource for
building climate
resilience in
Alberta

3

Prepare for workshop

What this unit will help you do

You have been directed to this unit because:

- ➔ You are looking to develop a complete Action Plan for your community through the workshop, either over the course of one day, two half days or several concurrent sessions.

This unit contains three sections to help you:

- Section 1:** Design the workshop program and customize it to meet your needs.
- Section 2:** Organize the workshop and address a number of practical and logistical considerations, including getting the right people in the room.
- Section 3:** Prepare for the workshop by making necessary decisions regarding scope, and content material and climate information to support delivery.

Section 1: Design the workshop

Within the Climate Resilience Express process, the primary method for educating and engaging municipal and community stakeholders in climate resilience action planning is a community-based workshop. The overall workshop design combines the presentation of climate science information, with analysis and evaluation of local impacts and effects, in a way that engages community members in building a portfolio of climate resilience strategies and actions. Outcomes from the workshop are used as the basis for drafting a community-specific Action Plan, following the guidance in Unit 8.

The workshop comprises four main sessions:

Session 1: **Set context and explore local weather and impacts**

In Session 1 you will, first, set the context and scope for developing a climate resilience action plan for your community, and second, explore the relationship between weather, climate and key aspects of your community in relation to past weather-related impacts.



Session 2: **Develop understanding of climate science and impacts**

In Session 2 you will learn about climate science, local climate trends and projections, environmental changes, and impacts on your region.



Session 3: **Assessing climate risks and opportunities**

In Session 3 you will identify, analyze and evaluate potential climate-related impacts facing your community to identify priority risks and opportunities for action planning in Session 4.



Session 4: **Action planning**

In Session 4 you will identify and select the most promising actions to manage the identified priority risks and opportunities, with a view to establishing priorities for your community's climate resilience action plan.

➔ Tailoring the workshop program

The workshop program can and should be customized for delivery in your community, depending on factors such as time and resources available, target audience, level of experience with the content, and the end results you expect.

The four main workshop sessions can be delivered at one full-day event, at two half-day events, or as single session events. Guidance is provided below on how to customize the workshop program to offer the most practical alternative for your community.

a. One-day workshop delivery option

The full workshop program can be delivered in one day, if this option suits your needs. This delivery offers the advantage of gathering your group of staff and stakeholders for a single event, thereby saving on the additional travel and venue costs for multiple events. As well, it provides a clear goal and end point for the group as they work together over the day to identify key climate resilience actions for your community. The chief disadvantages are the length and intensity of the day, and the demands this places on participants, and the need to work behind the scenes during the lunch hour to tally the results of a risk and opportunity analysis exercise in order to prepare for the afternoon activities.

The agenda in Table 1 outlines the timing and layout of the one-day workshop delivery option.

b. Two half-day workshop delivery option

The workshop program can be divided into two half-day workshop events, which is a recommended delivery version if you can afford to bring your staff and stakeholders together twice. This delivery option offers the advantage of allowing your group to focus their attention on less content over the event and maintain their energy and attention through the series of activities (as opposed to losing concentration during the low energy 'after lunch slump'). This option involves concluding the first half-day workshop following the risk and opportunity analysis exercise, which allows the workshop organizer(s) generous time between the two half-day workshops to analyze and process the outcomes from the exercise. The second half-day workshop starts with a discussion of these outcomes.

This workshop delivery option offers a more leisurely pace during the sessions and time can be added to the sample agendas shown in Table 2 and Table 3 to allow for more extensive dialogue and information sharing, taking advantage of the expertise of staff and stakeholders at the workshop.

Time	Activity
Session 1: Set context and explore local weather and impacts [guidance in Unit 4]	
10 mins	Opening remarks
10 mins	Introductions
10 mins	Overview of process, scope and agenda for the day
20 mins	Plenary discussion of how your community is currently affected by weather events, considering impacts on the local economy, property and infrastructure, the natural environment, and local health and well-being
Session 2: Introduction to climate science and impacts [go to Unit 5 for guidance]	
60 mins	Learn about climate science and key concepts, historic climate trends and future projections of climate change, and potential environmental changes and impacts for your area
10 mins	Health break
Session 3: Assess climate risks and opportunities [guidance in Unit 6]	
70 mins	Group exercise to identify how projected future climate for the region could impact key economic sectors, property and infrastructure, the natural environment and health and well-being in your community
35 mins	Individual exercise to assess the severity and likelihood of the climate impacts facing your community
45 mins	Lunch (tally results of individual exercise)
35 mins	Plenary discussion to review the outcomes of the individual exercise and to identify priority risks and opportunities that will be the focus for action planning
Session 4: Action Planning [guidance in Unit 7]	
40 mins	Group exercise to generate a list of actions to build resilience to the priority risks and to take advantage of opportunities
15 mins	Health break
60 mins	Group exercise followed by plenary discussion to identify and characterize the most promising actions to build resilience in your community
10 mins	Summary and closing

Table 1: Agenda with timings for one-day workshop

Time	Activity
Session 1: Set context and explore local weather and impacts [guidance in Unit 4]	
10 mins	Opening remarks
10 mins	Introductions
10 mins	Overview of process, scope and agenda for the day
20 mins	Plenary discussion of how your community is currently affected by weather events, considering impacts on the local economy, property and infrastructure, the natural environment, and local health and well-being
Session 2: Introduction to climate science and impacts [go to Unit 5 for guidance]	
60 mins	Learn about climate science and key concepts, past climate trends for the region, future projections of climate change, and potential environmental changes and impacts
10 mins	Health break
Session 3: Assess climate risks and opportunities [guidance in Unit 6]	
70 mins	Group exercise to identify how projected future climate for the region could impact key economic sectors, property and infrastructure, the natural environment and health and well-being in your community
35 mins	Individual exercise to assess the severity and likelihood of the climate impacts facing your community.
15 mins	Summary and closing of workshop Event One

Table 2: Agenda with timings for first half-day workshop event

Time	Activity
10 mins	Opening remarks
10 mins	Introductions (if new participants)
10 mins	Overview of process, scope and agenda for the day
35 mins	Plenary discussion to review the outcomes of the individual exercise from Event One and to identify priority risks and opportunities that will be the focus for action planning
Session 4: Action Planning [guidance in Unit 7]	
40 mins	Group exercise to generate a list of actions to build resilience to the priority risks and to take advantage of opportunities
15 mins	Health break
60 mins	Group exercise followed by plenary discussion to identify and characterize the most promising actions to build resilience in your community
10 mins	Summary and closing

Table 3: Agenda with timings for second half-day workshop event

c. Single session delivery option

A third option is to deliver single workshop sessions in your community. Single workshop sessions could be delivered either as stand-alone sessions, or part of a sequential series of sessions leading to a climate resilience action plan. The single session delivery option may be necessary if:

- ➔ Appropriate participants are unable to commit to the half-day or full-day options;
- ➔ You wish to do a more extensive community-wide planning process and require additional time in between sessions to prepare and research for each session;
- ➔ You wish to have more time at individual sessions—in particular, Session 3 and Session 4—to conduct a more fulsome investigation of climate risks and opportunities or resilience actions; or
- ➔ Your community has already completed similar sessions—for example, if your community has developed a robust understanding of projected climate and environmental changes for the region you may jump straight to Session 3.

If you intend to develop a climate resilience action plan using the single session delivery option, it is recommended that you conduct the sessions in close proximity to one another to maintain the knowledge, ideas and momentum generated at previous sessions.

The session best suited for stand-alone delivery is Session 2: Introduction to Climate Science and Impacts. At this session, content from Unit 5 of the Action Kit could be presented (either by someone in your community or an external expert) to an audience of staff, elected officials, or other community stakeholders who would have an interest in learning about climate science, trends, projections and potential impacts on your region. You could also deliver Session 2 as a pre-cursor to initiating a climate resilience planning effort. The intent would be to introduce important climate science information to key influencers in the community, to initiate discussion and garner political and community support to invest time and resources in climate resilience planning, as part of developing the overall business case.

Section 2: Organizing the workshop

In this section you will find advice to help you organize the workshop, along with practical tips relating to logistical considerations, including identifying appropriate workshop participants for a successful action planning process. We recognize that you and your colleagues will most likely have a range of experience in organizing meetings, workshops and events in your community; the guidance below is provided to stimulate your thinking around workshop planning, rather than give a comprehensive checklist for event organization.

➔ Participant identification

Select your target audience and potential workshop participants by identifying the people in your community with expertise and perspectives that are likely to be critical to effective climate resilience action plan development and implementation. Think initially of people within your corporate municipal organization, and across departments, who are responsible for managing services and infrastructure that might be affected by weather events. For example, you may want to engage:

- ➔ Public works staff given their operational knowledge of managing streets, sidewalks, parks and other infrastructure;
- ➔ Planning and development staff given their broad knowledge of existing and proposed development patterns in the community and how development is currently exposed to potential weather-related risks such as flooding and forest fires; and

- ➔ The fire chief and emergency management staff, who will be familiar with the capacity of your community to manage damaging weather-related events and emergencies such as forest fires, wind storms, blizzards or hail events.

Secondly, consider including community stakeholders who could be important to the dialogue and planning process given their organizational affiliation, expertise or knowledge. For example:

- ➔ Agricultural associations, advisory groups or researchers may have particular knowledge of how droughts and other weather-related events affect local farmers and agriculture in the area;
- ➔ Representatives from local and regional economic development organizations, such as Chambers of Commerce and Tourist Boards, will understand the challenges weather and climate present local businesses and economic sectors; and
- ➔ Local non-profit organizations or charities may have in-depth knowledge of locally vulnerable populations, or current environmental concerns which may be exacerbated by climate change.

To get a sense of the types of expertise and people that you may want to invite to the workshop, have a look at the participant lists from each of the four pilot communities; these are available in the Action Plans found at Appendix N.

The workshop process offers an opportunity for participants to learn together and participate in information sharing and discussion; building critical understanding and buy-in for the future implementation of climate resilience actions.

If you want to learn more about how to identify suitable workshop participants, look at:



- ✓ Bowron, B. and Davidson, G., 2011, *Climate Change Adaptation Planning: A Handbook for Small Canadian Communities*, Canadian Institute of Planners, Ottawa, Canada. [Pages 9-10.]
- ✓ ICLEI, *Changing Climate, Changing Communities: Guide and Workbook for Municipal Climate Adaptation* ICLEI Canada, Toronto, ON. [Pages 19-20 and Worksheet 1.]

➔ Invitation and program agenda

An invitation to participate in the workshop should be sent to all potential participants well in advance of the workshop—ideally, two to four weeks. An effective invitation document or leaflet includes a clear statement of the workshop intent and objectives or expected results, the benefits of participating, and the expected audience. It is advisable to include a basic draft agenda with timings to provide potential attendees with a sense of the time commitment and workshop content. Set a deadline for registration so if registration is low, more effort can be made to raise participation levels.

➔ Equipment and supplies

Make a list of all equipment you will need and check it off once you have acquired it for the workshop. Important pieces of equipment and supplies for the workshop include:

- ➔ Projector;
- ➔ Laptop or computer;
- ➔ Extension cable(s) with multiple plugs;
- ➔ One flip chart or white board for each small break-out group, with paper pads;
- ➔ Pens appropriate for flip chart or white board;
- ➔ Tape or sticky tack for posting paper on walls; and
- ➔ Materials (tape, index cards) for building a wall matrix.

The exact supplies required for each of the exercises conducted at the workshop are provided within each unit of the Action Kit.

➔ Participant list

Make available a participant list and accompanying sign-up sheet at the workshop, to enable each participant to add or correct their contact details. A list of participants, along with contact information will allow you to easily follow-up with participants for review and comments on workshop outcomes and the draft climate resilience action plan.

➔ Participant handouts

At workshop sign in, all participants should receive a package of handouts or activity sheets to be used throughout the course of the workshop. Distributing material at the start of each session can distract participants from the session introductions. Participant packages should include:

- ➔ An up-to-date workshop agenda;
- ➔ A summary of projected climate and environmental changes specific to your community (see Section 3 below and Unit 5);

- ➔ A copy of the consequence and likelihood assessment scales that you will develop and agree on prior to the workshop, and use at Session 3 to assess climate risks and opportunities facing your community (see Section 3 below and Unit 6);
- ➔ A copy of the qualitative scale and worksheet for characterizing climate resilience actions identified at workshop Session 4 (see Unit 7).

➔ Name tags and name cards

Provide a name tag for each workshop participant, especially in the situation where stakeholders and community members external to the municipality will be in attendance. If tables are arranged in a formation that allows, name cards can be placed on all the tables.

➔ Venue and room set up

Once the workshop dates and number of participants are known, the venue and room need to be booked and the room set-up specified. The arrangement of the room can strongly influence the effectiveness of the workshop and the level of engagement by, and communication amongst, participants.

Room arrangements that foster participation include U-shaped and round table formations; cinema, classroom and boardroom arrangements are less effective (see Figure 1). Round table formations also provide for small group work without needing to move tables and chairs, or requiring additional break-out rooms.

Section 3: Preparing for the workshop

In this section guidance is provided to help you:

- ➔ Define the scope of the climate resilience planning project;
- ➔ Compile relevant climate and impact data in advance of the workshop; and
- ➔ Define the scales to be used at the workshop to analyze climate risks and opportunities.

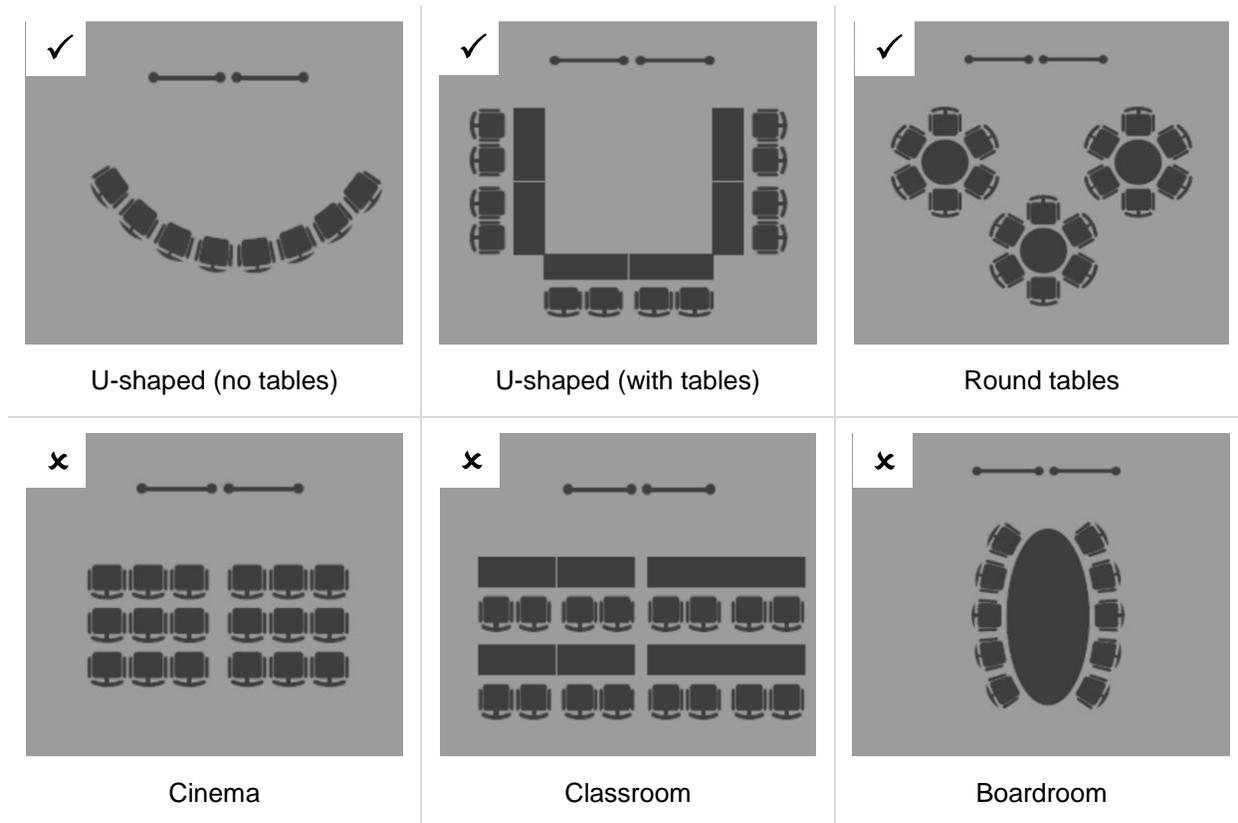


Figure 1: Room formations that effectively foster participation and engagement at workshops

➔ Defining the scope

Prior to the workshop the scope for climate resilience action planning in your community must be established. This involves:

Establishing the spatial scope

You will need to determine the spatial or geographic scope of the climate resilience action plan. For instance, the spatial scope could be limited to the municipal (jurisdictional) boundaries of your community, in which case only *direct impacts* on people, infrastructure, assets, businesses, etc. within those boundaries are considered.

Consideration could also be given to including important *indirect impacts* on your community. That is, impacts to key resources, infrastructure or lifelines that are physically located outside

the municipal boundaries, but which are essential to life within the community, such as a water source or transport network.

In either case, the scope could be expanded to include, for example, collaboration with other municipalities or land owners in your area, or the natural watershed within which your community exists.

Establishing the operational scope

It is also necessary to determine the operational scope of the planning process, and sectors to be covered in the Action Plan. There are three main options with respect to setting the operational scope, each encompassing an increasingly wider perspective of the community (see Figure 2):

- 1: Focus on a specific sector (e.g., water resources, transportation, the environment) or a specific corporate department (e.g., engineering, facilities, or planning);
- 2: Focus on impacts across the corporation, including all municipal services, facilities and infrastructure; or
- 3: Take a community-wide approach considering all potential impacts to municipal infrastructure, property and services, as well as impacts to private property, the local economy, the health and lifestyle of residents, and the natural environment.

Pilot communities in the Climate Resilience Express worked with a community-wide scope.

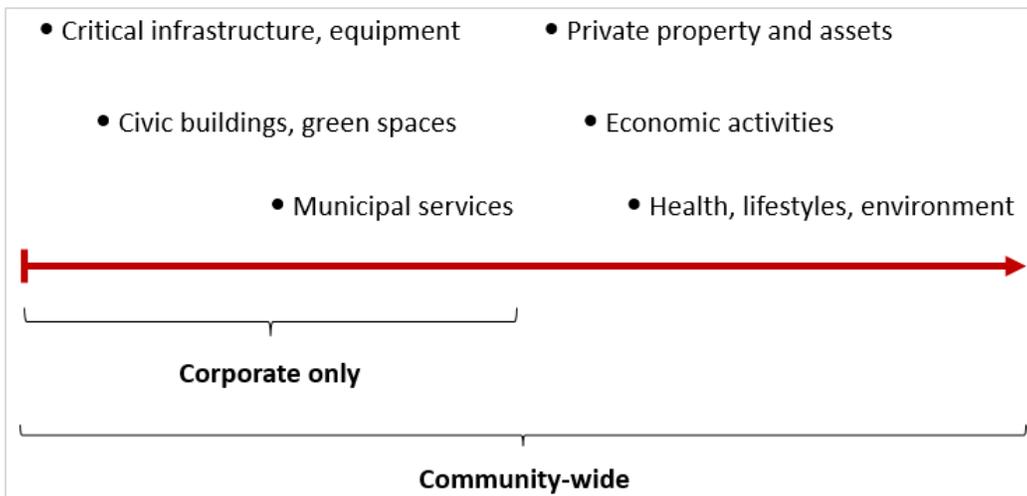


Figure 2: Community-wide versus corporate scope

Establishing the temporal scope

Determining what timeframe the analysis should cover is another important scope issue that needs to be resolved before the workshop. Potential timeframes for climate resilience planning are dictated largely by the availability of climate projections, which are typically presented for three specific time steps: the 2020s (2010-2039); the 2050s (2040-2069); and the 2080s (2070-2099).

A timeframe that considers impacts arising from projected climate and associated environmental changes out to the 2050s is recommended. This timeframe looks ahead to the types of changes and challenges that decision-makers and residents will face within their lifetimes. It also reflects a planning horizon that, although long in political terms and longer than traditional community planning horizons, lies within the productive life of key public infrastructure investments and strategic land-use planning and development decisions. The four pilot communities adopted this timeframe for their risk and opportunity assessment.

➔ Compiling climate and impact information

Historic weather data and future climate projections for the chosen timeframe, need to be compiled and analyzed for your community.

At present within the Action Kit, information on historic climate trends, future climate projections, and associated projected environmental changes is available for the four areas of Alberta shown in Figure 3; each corresponding to one of the four pilot communities. Climate projections are currently available for the 2050s time step only.

Climate and environmental change information for each of the four areas in Figure 3 is available as PowerPoint presentations in the following appendices of the Action Kit:

✓ Area 1	→	Appendix C
✓ Area 2	→	Appendix D
✓ Area 3	→	Appendix E
✓ Area 4	→	Appendix F

In practice, to enhance the meaningfulness of climate change information for workshop participants, it is useful to supplement the bare ‘factual’ data with a ‘word picture’ describing the future conditions that would prevail in your community. The last slide in each appendix thus provides a written summary of projected climate and environmental change for the area.

Detailed instructions on how to interpret and present this information at the workshop is the focus of Unit 5.

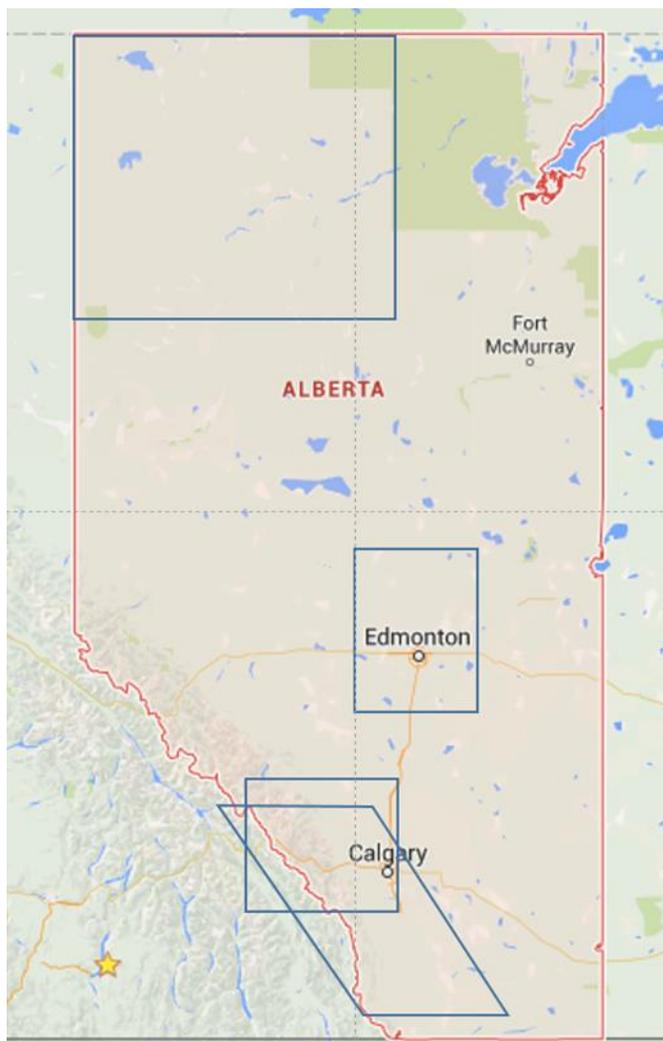


Figure 3: Areas of Alberta for which climate and environmental change information is currently available in the Action Kit

➔ Defining assessment scales

During the risk and opportunity assessment session of the workshop (Session 3), participants use qualitative assessment scales to assign an ‘importance’ score to all identified climate-related impacts, based on local perceptions of the magnitude of potential consequences for the community (e.g., negligible, [...], major) and the likelihood of those consequences occurring (e.g., low, [...], high). Without a means for comparison—like an ‘importance’ score—it is simply not possible to contrast and prioritize risks and opportunities across the community.

Three specific assessment scales need to be defined and agreed to by key stakeholders prior to the workshop:

- 1: A scale for rating the consequences of risks;
- 2: A scale for rating the consequences of opportunities;
- 3: A scale for rating the likelihood of consequences.

These scales comprise scoring levels and definitions that foster consistent interpretation and application by different participants. The more descriptive the scales, the more consistent will be their interpretation by participants. The trick is to strike the best balance between simplicity and comprehensiveness. At the four pilot workshops a variety of different scales were tested for their robustness and ease of use by participants; the scales found to work the best are included in the following appendices of the Action Kit:

✓ Scale for scoring the consequences of risks	→	Appendix H
✓ Scale for scoring the consequences of opportunities	→	Appendix I
✓ Scale for scoring the likelihood of consequences	→	Appendix J

Guidance on how to use the scales during the workshop process is provided in Unit 6



If your community has an existing risk management framework, with definitions for the severity of local consequences and the likelihood of those consequences, it is important to ensure the scales used for climate resilience planning are consistent with your existing risk management framework. This is necessary to facilitate an equivalent comparison of climate-related risks with other, non-climate-related risks facing your community.

If the descriptions of consequence levels in the assessment scales provided do not fit with your community context, they can be modified. When making modifications, start by defining the worst case scenario (a “major” consequence), then the best case scenario (a “negligible” consequence), and lastly complete the middle consequences.

If you want to learn more about defining and using assessment scales for climate resilience planning, see:



- ✓ Alberta Sustainable Resource Development, 2010, Climate Change Adaptation Framework Manual, Edmonton, AB. [Pages 23-26.]
 - ✓ Black, R., et al, 2010, Adapting to Climate Change: A Risk-based Guide for Local Governments, Volume 1. [Page 10-17.]
 - ✓ Bowron, B. and Davidson, G., 2011, Climate Change Adaptation Planning: A Handbook for Small Canadian Communities, Canadian Institute of Planners, Ottawa, Canada. [Page 17-32.]
 - ✓ ICLEI, Changing Climate, Changing Communities: Guide and Workbook for Municipal Climate Adaptation ICLEI Canada, Toronto, ON. [Page 37-42 and Worksheets 6(b), 7 and 8.]
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You now know what you need to do to prepare for the workshop. Once you have completed these tasks, you are ready to host the workshop. Go to Unit 4.

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