



# **CLIMATE RESILIENT EXPRESS (CRE)**

## **Municipal Adaptation Planning Tools Webinar**

Dr. Richard Boyd

Friday 4<sup>th</sup> May, 2018



# What is the CRE?

What we heard:

- ➡ Simple, quick, non-resource intensive process that gets immediate results
- ➡ More support for smaller communities
- ➡ Business case to justify devoting time to resilience planning

# What is the CRE?

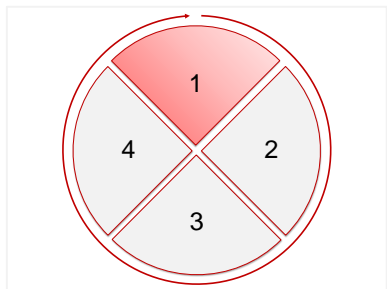
## What we heard:

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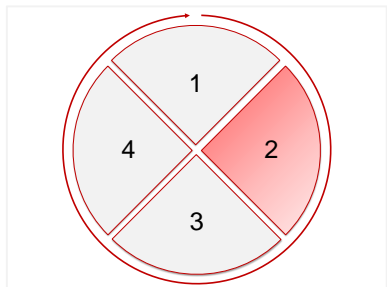
## How the CRE helps:

- ➔ Streamlined (“express”) process for adaptation planning, based around 1-day workshop
- ➔ Climate Resilience Express Action Kit (the “Action Kit”)
- ➔ Unit 2 of Action Kit: Make the Case – the Adaptation Imperative

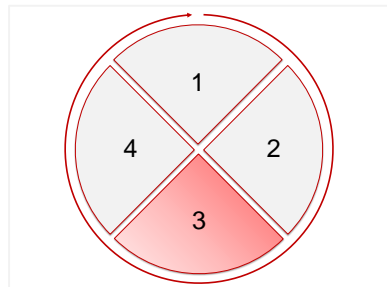
# CRE adaptation process



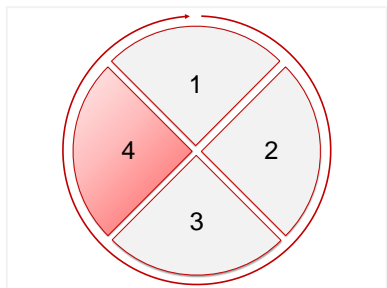
- Make the case
- Define study scope, stakeholders
- Compile relevant climate information



- Risk and opportunity assessment



- Action planning



- Prepare CRE Action Plan
- Communities to implement, review and update

**Before  
workshop**



**At  
workshop**

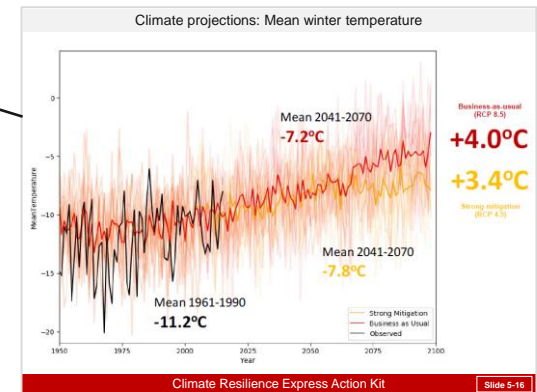
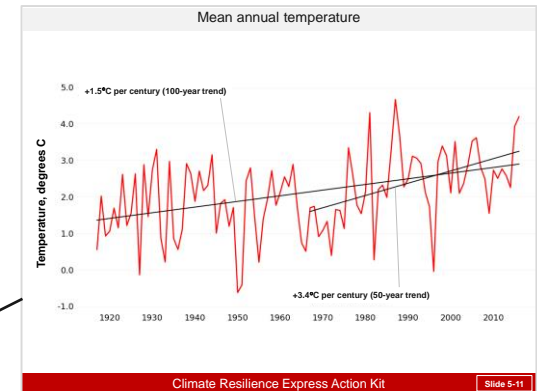
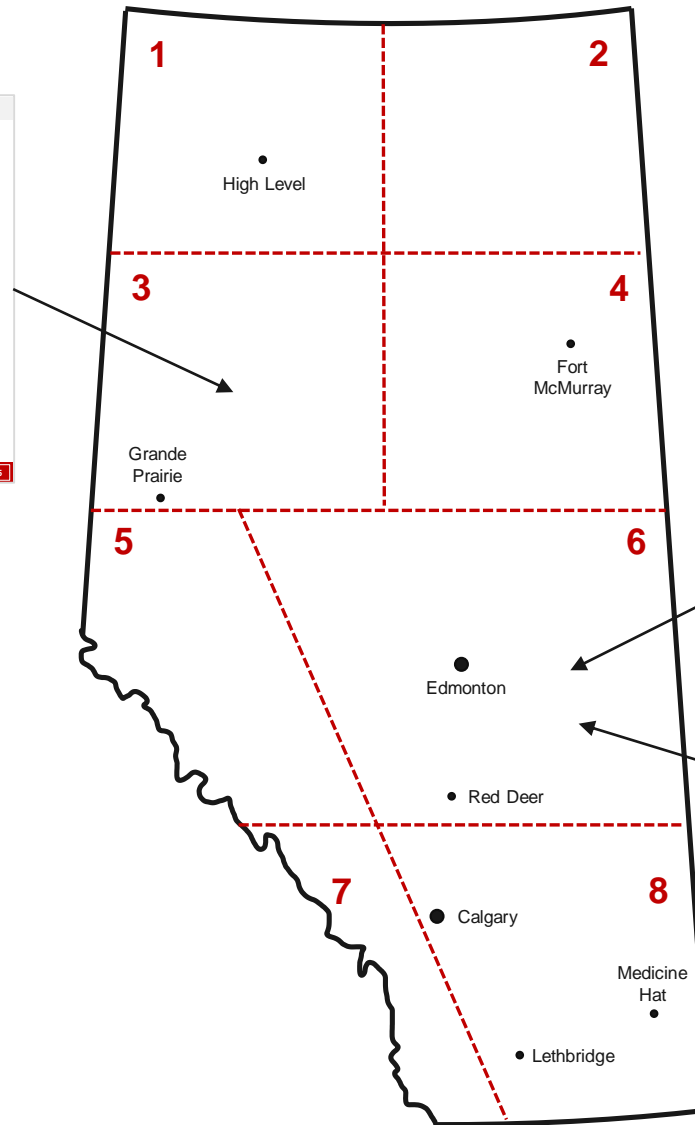
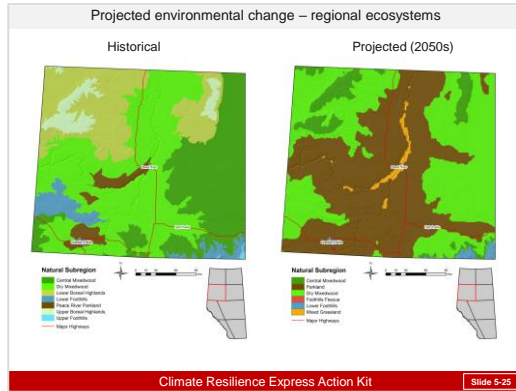


**After  
workshop**

# The CRE 1-day workshop

Time	Activity
9:30-9:50	<b>Session 1:</b> Exploring local weather and impacts
9:50-10:50	<b>Session 2:</b> Introduction to climate science and impacts
10:50-11:00	Break
11:00-12:00	<b>Session 3:</b> Identifying future climate impacts
12:00-12:30	<b>Session 4:</b> Prioritizing climate risks and opportunities
12:30-1:30	Lunch
1:30-2:00	<b>Session 4:</b> Prioritizing climate risks & opportunities (continued)
2:00-2:45	<b>Session 5:</b> Action Planning
2:45-3:00	Break
3:00-3:45	<b>Session 5:</b> Action Planning (continued)
3:45-4:00	Summary, next steps and closing

# Climate information in Action Kit



# Main workshop outcomes

Figure 8: Risk map for climate change impacts facing Mackenzie County

CONSEQUENCES	(5) Major				Wildfire	Higher priorities for action
	(4)		Reduced quality & supply of timber	Water supply shortage Windstorm	Transport & access disruption Crop & forage loss	
	(3) Moderate			Increased / deep frost penetration	Overland flooding Pest infestation	Freezing rain
	(2)			Reduced winter recreation Stress on wildlife	Blizzard / winter storm	
	(1) Negligible	Lower priorities for action				
		(1) Low	(2)	(3) Moderate	(4)	(5) High
LIKELIHOOD						

Impacts in the red and yellow zones are priorities for further investigation or management. Impacts in the red zone are the highest priorities for action. Impacts in the green zone represent broadly acceptable risks; no action is required now for these impacts beyond monitoring of the risk level as part of periodic reviews (see Section 6).

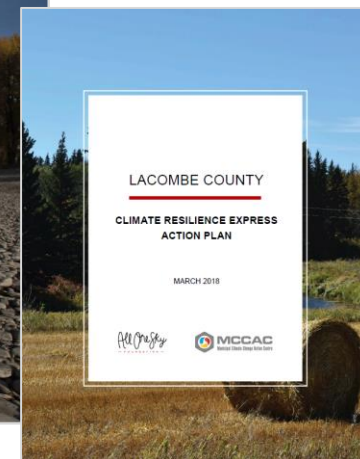
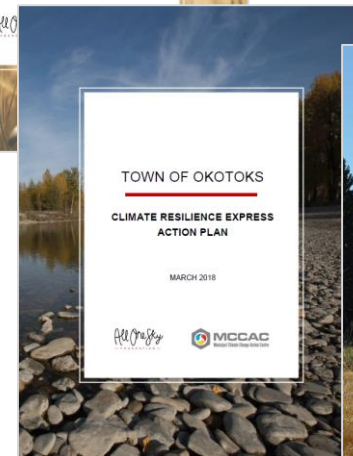
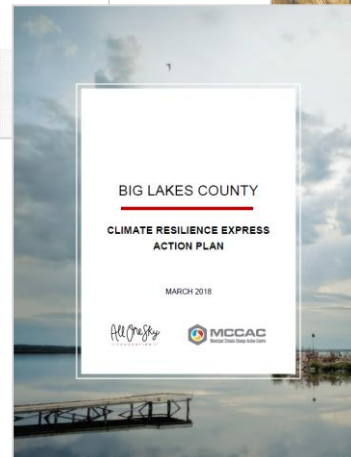
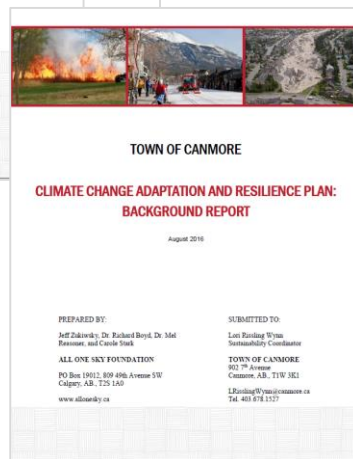
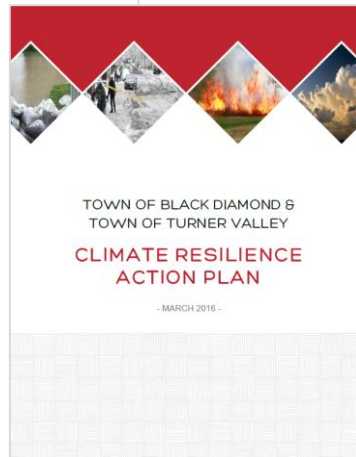
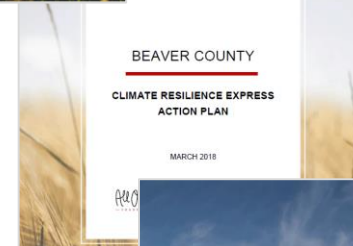
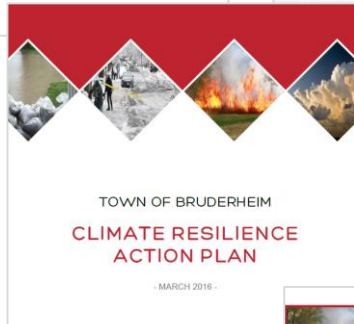
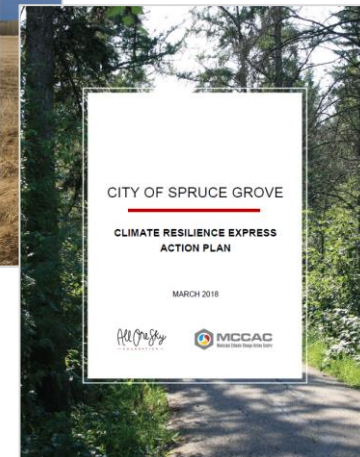
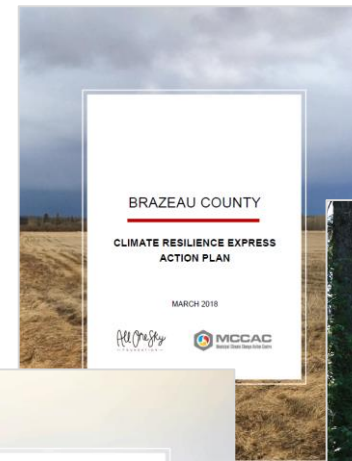
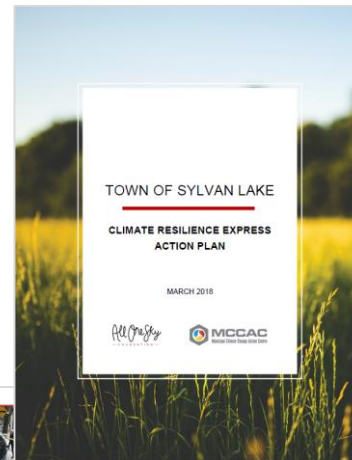
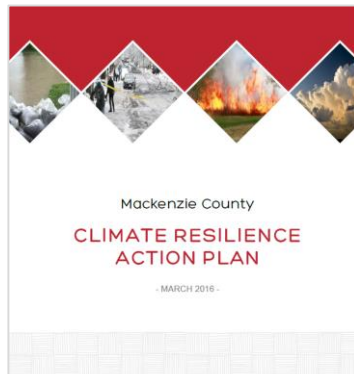
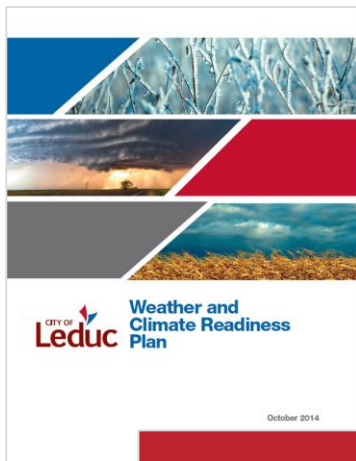
## WILDFIRE

Action	Cost	Timeframe	Lead
Hold additional table top exercises with all agencies to plan for large-scale wildfire	Low	Near-term	Municipalities
Update the Land Use Bylaw with FireSmart planning principles such as vegetation management and construction materials	Moderate	Ongoing	County
Improve vegetation management in high risk fire areas	Very high	Near-term	County, agriculture and forestry sectors
Purchase additional firefighting equipment specific to wildland firefighting	Very high	Short-term	Municipalities
Upgrade local airport runways to facilitate landing of larger fixed-wing aircraft for water bombing	Very high	Long-term	Municipalities, County, Government of Alberta
Enhance the Regional Municipal Emergency Plan to deal with increasing wildfire risk	Moderate	Ongoing	Municipalities

## TRANSPORT & ACCESS DISRUPTION

Action	Cost	Timeframe	Lead
Purchase new and better products for road maintenance and de-icing	High	Ongoing	County public works
Improve ferry infrastructure and cross-river access	Very high	Long-term	Alberta Transport, County public works
Obtain remote monitoring technology to increase awareness of potential transport and access disruptions	High	Short-term	County with private contractors, Alberta Transport, industry
Improve local medical facilities, to avoid patients being stranded by transportation and access disruptions	Very high	Long-term	Alberta health services

# Municipalities that have used the CRE

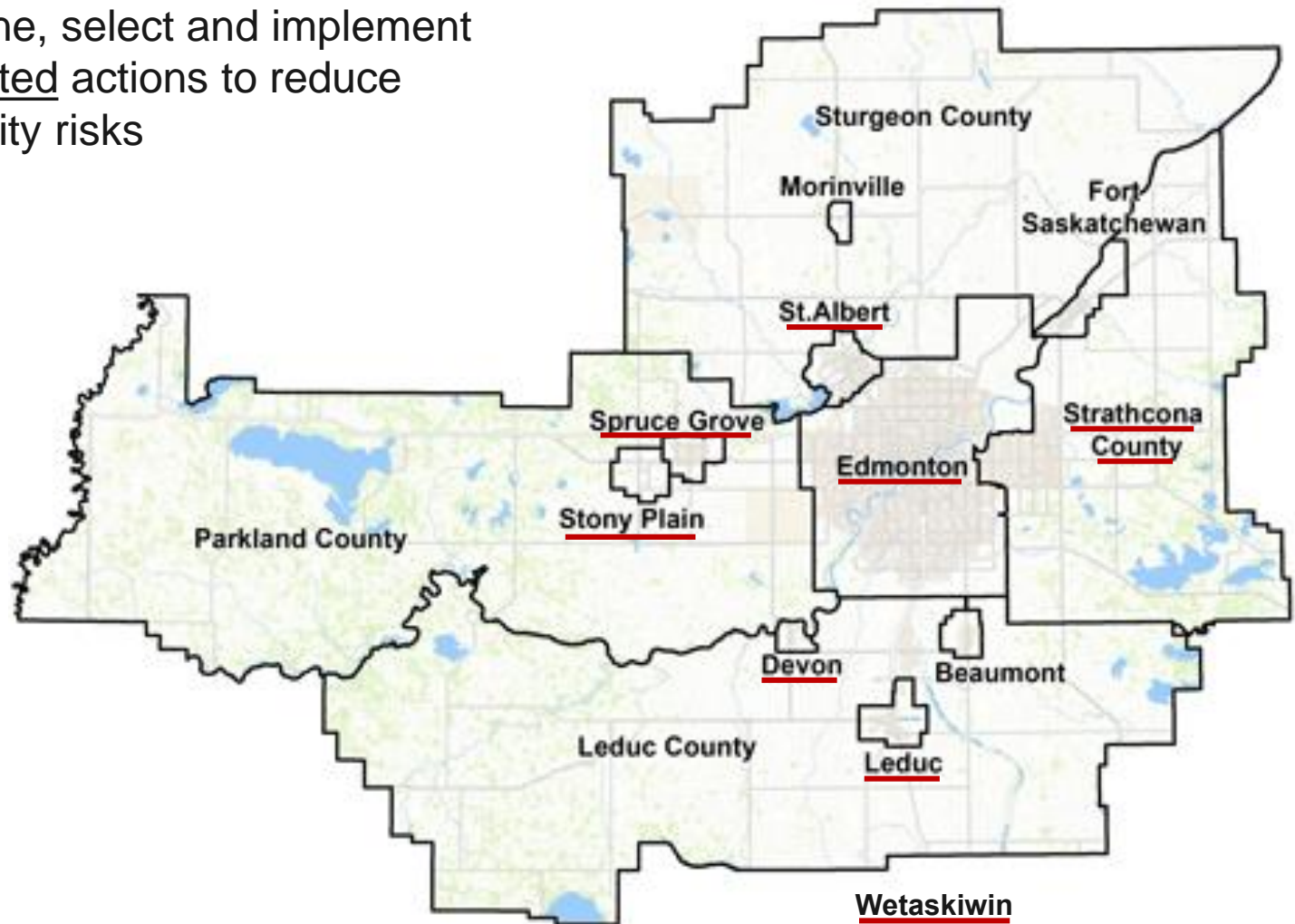


All One Sky



# Climate Resilience Exchange

Goal: To define, select and implement four coordinated actions to reduce regional priority risks



All One Sky

— F O U N D A T I O N —

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