

# Unified Command



# Presentation Outline

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- 1. Overview of Unified Command**
- 2. Recent example of applied UC in Alberta**
- 3. Open Discussion**
- 4. Wildfire Hazard Season Forecast and Stats**

# Introduction to Unified Command

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- **What is Unified Command?**

- Involves applying ICS in incidents involving **multiple jurisdictions** or **multiple agencies**
- Allows agencies with different legal, geographic and functional responsibilities to coordinate, plan, and interact effectively.
- Incident Commanders within UC make joint decision and speak as one voice
- Five Primary Features of UC
  - A single integrated incident organization
  - Collocated (shared) facilities
  - Single set of objectives, planning process and IAP
  - Shared operations, planning, logistics and Fin/Admin
  - Coordinated process for resource ordering

# Advantages of Unified Command

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- One set of objectives is developed for the entire incident
- A collective approach is made to developing strategies to achieve incident goals
- Information flow and coordination is improved between all jurisdictions and agencies involved in the incident.
- All agencies with responsibility for the incident have an understanding of one another's priorities and restrictions.
- No agency's authority or legal requirements will be compromised or neglected.
- Each agency is fully aware of the plans, actions, and constraints of all others.
- The combined efforts of all agencies are optimized as they perform their respective assignments under a single IAP
- Duplicative efforts are reduced or eliminated, thus reducing costs and chances for frustration and conflict.

# Applying Unified Command

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- Collaborative team-effort process
- Agencies set common incident objectives that all subscribe to
- Accomplished without losing or abdicating agency authority, responsibility or accountability
- Valuable on Type 3 and 4 incidents, not just 1 and 2
- **Who Determines UC?**
  - The decision to enter into UC will be determined between the cooperating jurisdictional IC's and respective Agency Administrators.

# Alternatives to Using Unified Command

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- Divide the incident either geographically or functionally so that each jurisdiction or agency could establish its own ICS organization in a well-defined geographical or functional area of responsibility.
- The use of agency representatives in the ICP vs. UC is not recommended for the following reasons:
  - Potential for poor communication between both response organizations
  - Differing information potentially being delivered to public
  - Potential for poor resource allocation and resource management
  - Potential for evacuation triggers to be poorly developed
  - Potential for responder safety to be compromised

# Unified Command Best Practices

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- If an agency or organization with Jurisdictional Authority/Local Authority (LA) has the potential to be impacted, they should as a minimum have an agency representative in the ICP.
- If LA is going to experience an imminent impact they should be invited into UC.
- IF LA is looking at planning or implementing evacuation measure of communities or rural residents, they should be invited to UC.

# Unified Command Applied

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- Examples:
  - A wildfire ignites in one jurisdiction (provincial land) and burns into another jurisdiction (Parks Canada)
  - Hazardous materials incident in which the fire department or industry has responsibility for fire suppression and rescue, the police department has responsibility for evacuation and area security and the public health agencies and other have responsibility for site cleanup.
  - Incidents that impact several political and functional agencies
    - Earthquakes, floods, terrorist threats

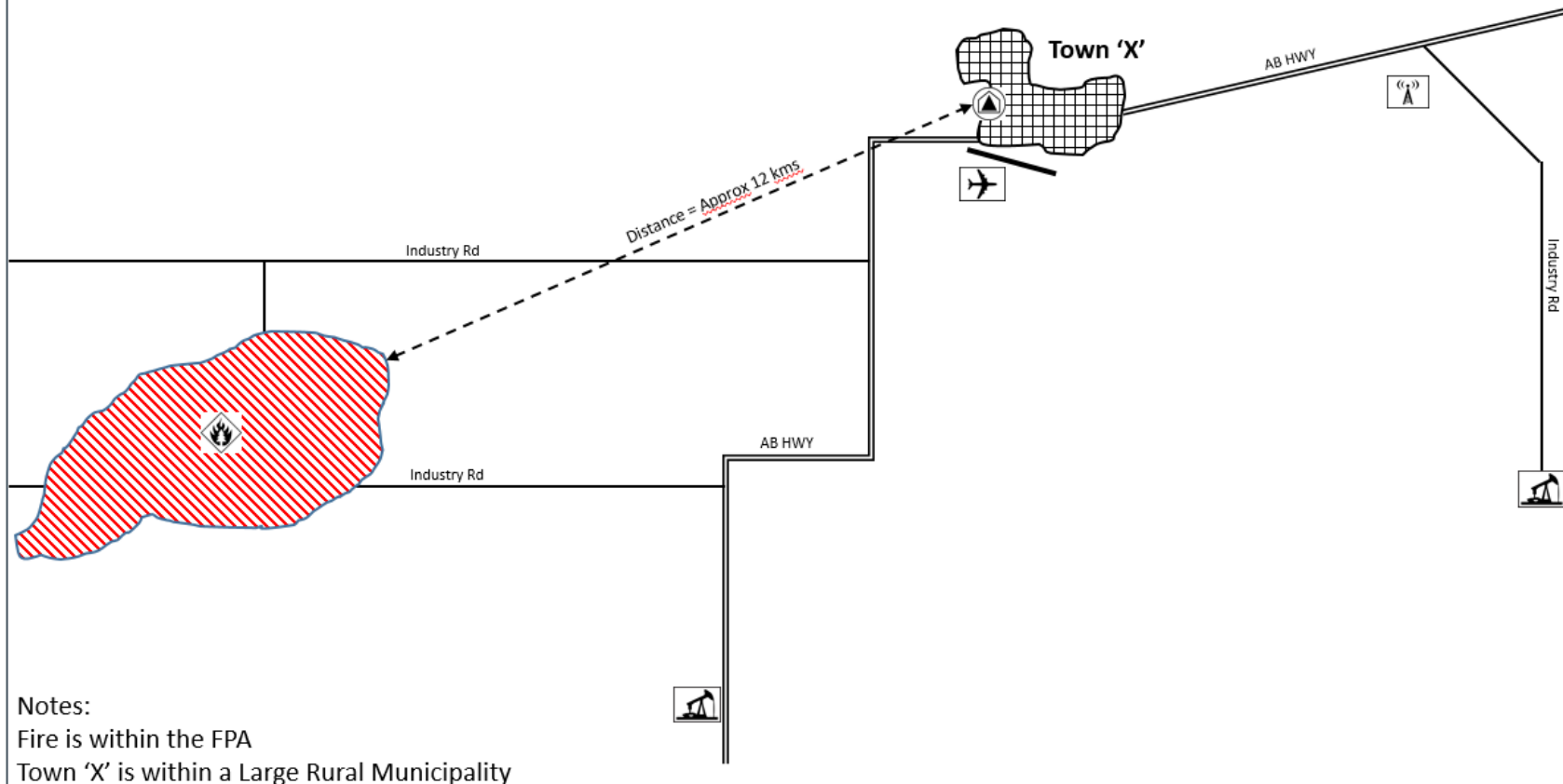
# Reasons to Establish an ECC in a WUI UC Context

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- Supports the needs of the UC Incident Management Team during the response to a complex multi operational period incident
- ESS function out of scope of the UC IMT
- Business continuity functions of an evacuated municipality
- Initiate re-entry planning
- Initiate recovery planning

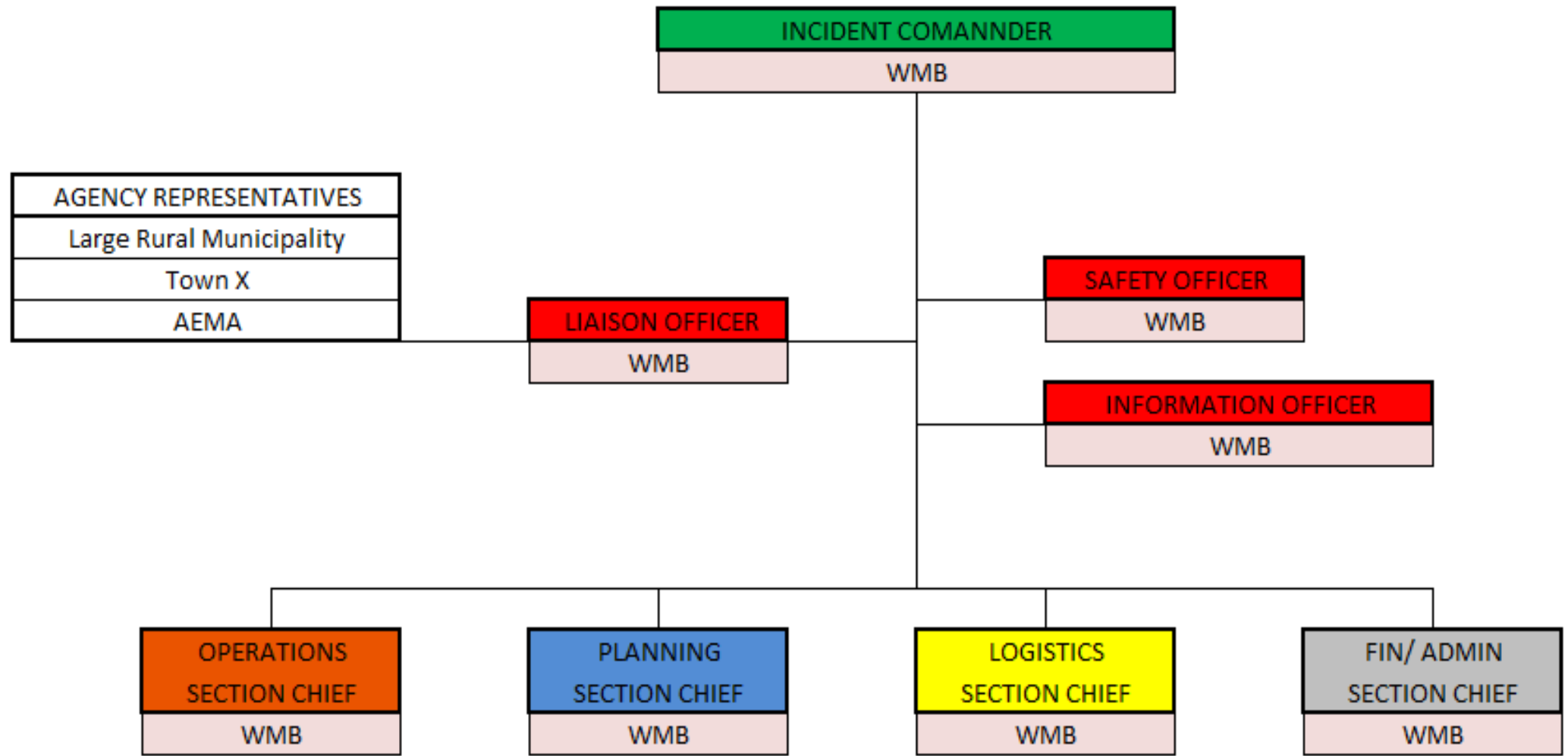
# Scenario 1 – WUI Wildfire

## Scenario 1



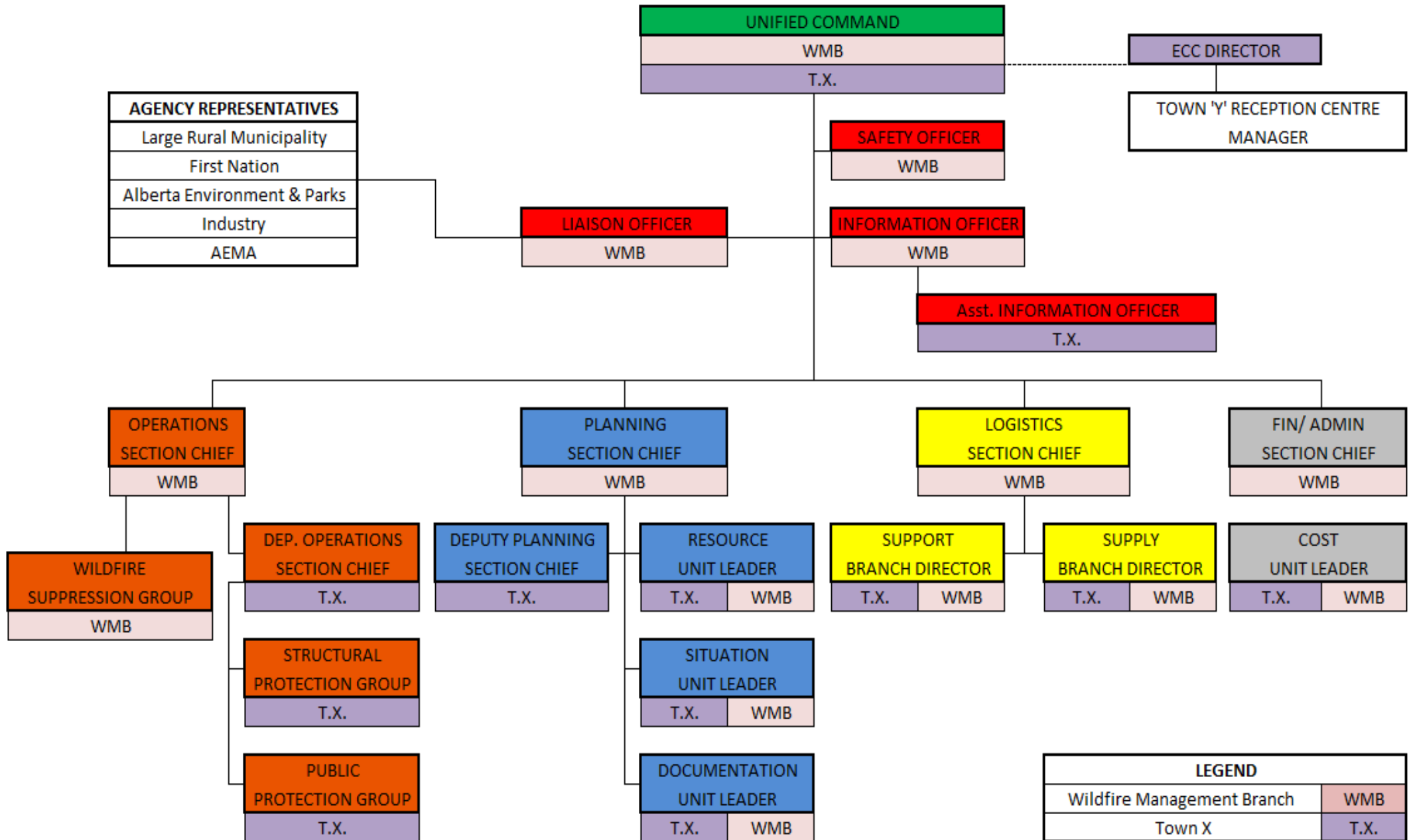
- 24-48 hours no direct threat to community
- -Day three – winds shift and wildfire makes a run towards community
- Treaty Territory, industry operations and Alberta Parks may be affected

# SCENARIO 1 - Stage 1 Initial Response



LEGEND	
Wildfire Management Branch	WMB
Town X	T.X.

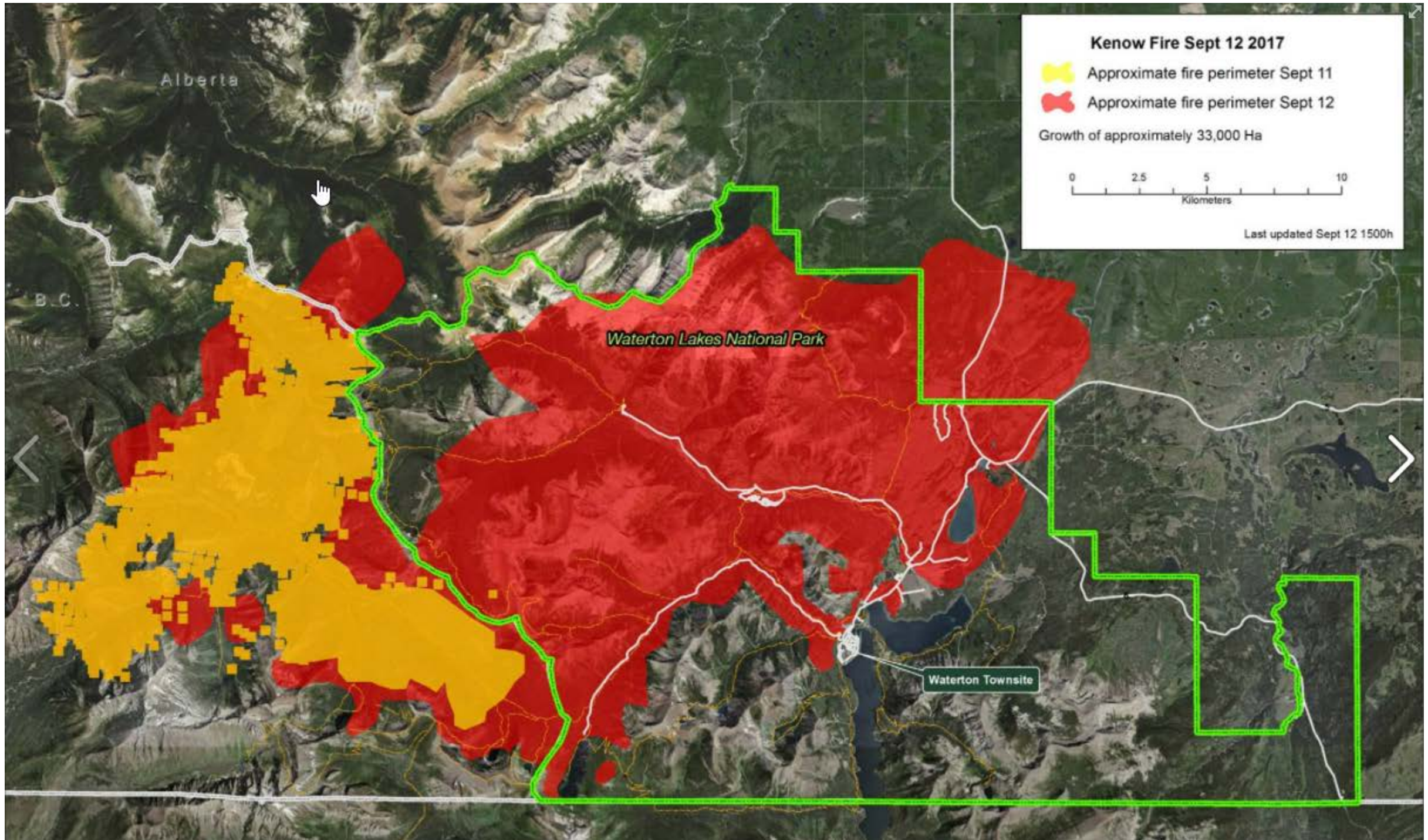
### SCENARIO 1 - Stage 2b



# 2017 Kenow Wildfire UC Implementation



<https://www.pc.gc.ca/>



# 2017 Kenow Wildfire Background

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- August 30, 2017 a lightning strike in southeast British Columbia ignited a wildfire in a remote mountainous area near the AB/BC border.
- Parks Canada was dealing with busy fire season, monitoring the fire
- Sept 1<sup>st</sup>, Concerns that the fire could reach Waterton townsite with forecasted weather
- Sept 3<sup>rd</sup>, Kenow wildfire reached Park Boundary - Parks Canada began communications with AB Wildfire, MD of Pincher Creek and Pincher Creek RCMP
- Sept 5<sup>th</sup>, Parks Canada puts Waterton residents on evacuation alert
- Sept 7<sup>th</sup>, Parks Canada issues mandatory evacuation of Waterton Park and townsite
- Sept 11<sup>th</sup>, strong late afternoon winds move the wildfire into the townsite.
- Sept 11<sup>th</sup>, by 2300 hours the fire moves into the MD of Pincher Creek and Cardston County
- The wildfire moved 26km over four hours, travelling 80-100m/minutes
- No lives lost, 12 structures and some infrastructure destroyed

# 2017 Kenow Wildfire – UC Learnings

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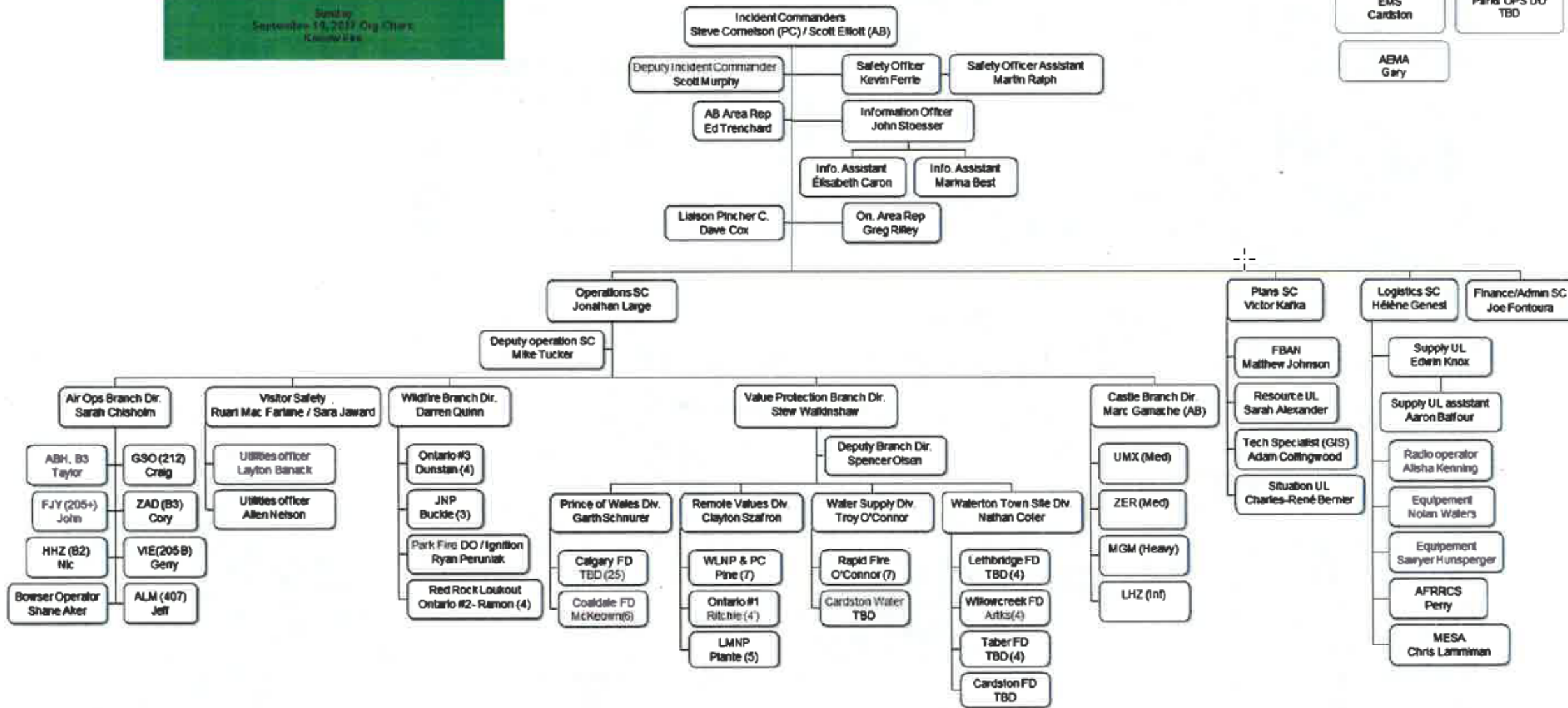
- Agencies in Unified Command
  - Parks Canada, Alberta Agriculture and Forestry, MD of Pincher Creek – Sept 11 (also represented County of Cardston and Blood Tribe)
- Not all agencies were represented – County of Cardson should have been included on the 11th
- Initial issues with trying to integrate two Type 1 teams – relationship between Parks and AF IC's made it work
- Priorities were established by UC – However challenges with establishing incident objectives were noted early on in the UC structure.
- Priorities changed when the when fire left that park
  - Waterton Lake townsite
  - MD of Pincher Creek and Country of Cardston ranches
  - Castle ski hill site and residents, Beaver mines residents

Sunday  
September 19, 2011 / Org Chart  
Kosow Fire

EMS  
Cardston

Parla OPS DO  
TBD

AEMA  
Gary



# 2017 Kenow Wildfire – UC Notes

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- UC was located in a joint office in another building away from IMT – allowed for discussion of items away from IMT environment
- Resource ordering
  - Initially resources working within their jurisdiction considered first, i.e. Parks wildfire resources and AF wildfire resources
  - MD did not have resources for wildfire fighting – leaned on mutual aid outside of UC
  - Parks had insufficient resources – backfilled through resource order through Alberta Wildfire
  - Resource were assigned by priority, no shortages were noted
- Conflicts occurred around your stuff/our stuff and financial tracking

# 2017 Kenow Wildfire – UC Recommendations

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- Each unified commander should come with personnel in finance section (deputy FSC) and supply ordering
- Unified objectives need to be clear early
- Information: Agencies needs to develop protocols for info release prior to the incident
- After fire left the park there was a push to terminate the UC by some partners as they felt that there were no longer UC objectives to be met.
  - Discussions of triggers for terminating UC and planning for the transition needs to be clarified
- UC needs to flexible
  - Sept 8 Initial UC
  - Sept 11 major fire fun and transition of UC
  - Sept 13 Supplemental AB IMT arrivers creating transition

# Kenow Fire Review – AEMA Post Incident Assessment Comments on Unified Command

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- Perception that not all jurisdictions were represented in the UC
- Stakeholders with different views of the command structure had different expectations of the responsibilities and authorities of their partners
- ICS concept and practice of adopting a Unified Command structure should be incorporated into an education and exercise framework so that it can better understood and effectively implemented within Alberta.
- When Unified Command is adopted by various agencies, a clear understanding of the time, space, responsibilities and authorities is approved and widely communicated by an overarching coordinating authority.

# 2019 Horse River – MNP Wildfire Review – Comments on Unified Command

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- Initial set-up of UC came with challenges as partners formed relationships and familiarized themselves with the UC protocol
- Municipalities possessed limited ICS knowledge and experience which impacted the setting of priorities and decision making
- The execution of UC was reported to be effective and well-received.
- Unified command was implemented and terminated multiple times during this incident
  
- In 2019 a WUI Unified Command Workshop was conducted in Hinton with emergency management practitioners to study UC in the WUI context to better inform response during WUI events
- Alberta Municipal Affairs developed the “Unified Command Best Practices for the WUI” to better inform WUI response and UC for municipal and wildfire agencies.

# What is your experience with Unified Command?



Source: theglobeandmail.com

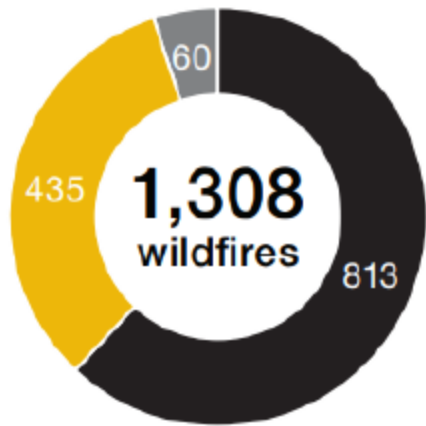
# Fire Season Forecast...and a stats!



# 2021

## Fire season

### 1,308 wildfires

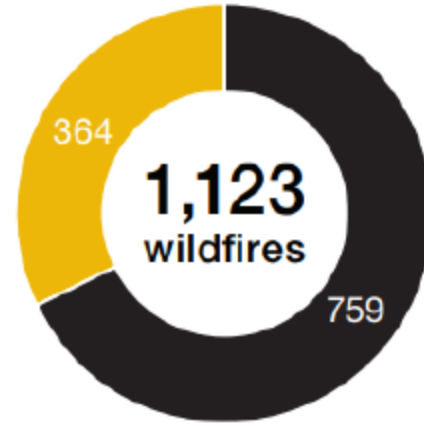


2021

**62%**  
human  
caused

**33%**  
lightning  
caused

**5%**  
under  
investigation



Five-year average

**68%**  
human  
caused

**32%**  
lightning  
caused

**0%**  
under  
investigation

#### Top human causes 2021



**193**  
Recreation



**159**  
Resident



**151**  
Incendiary

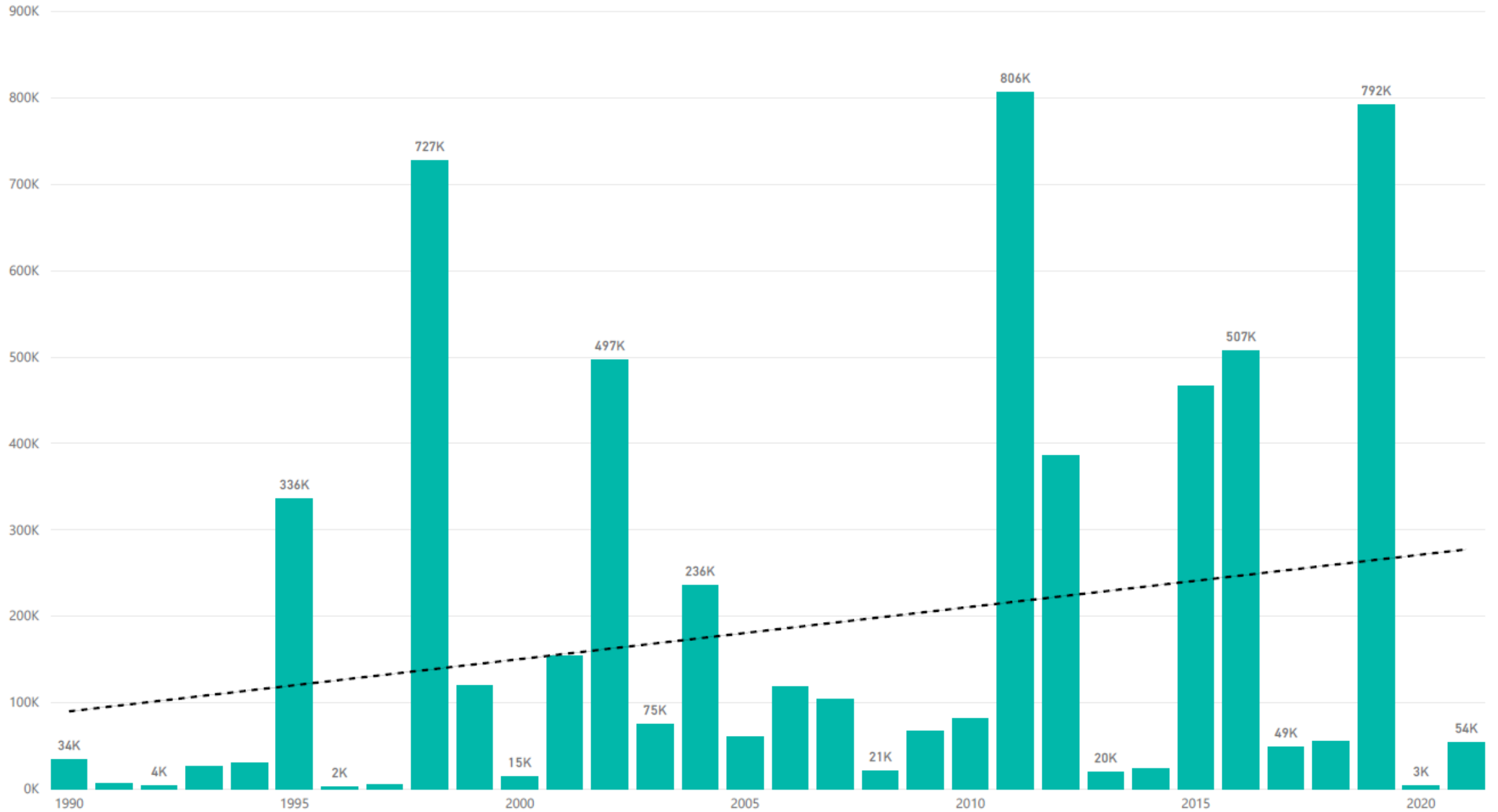


**107**  
Power line  
industry

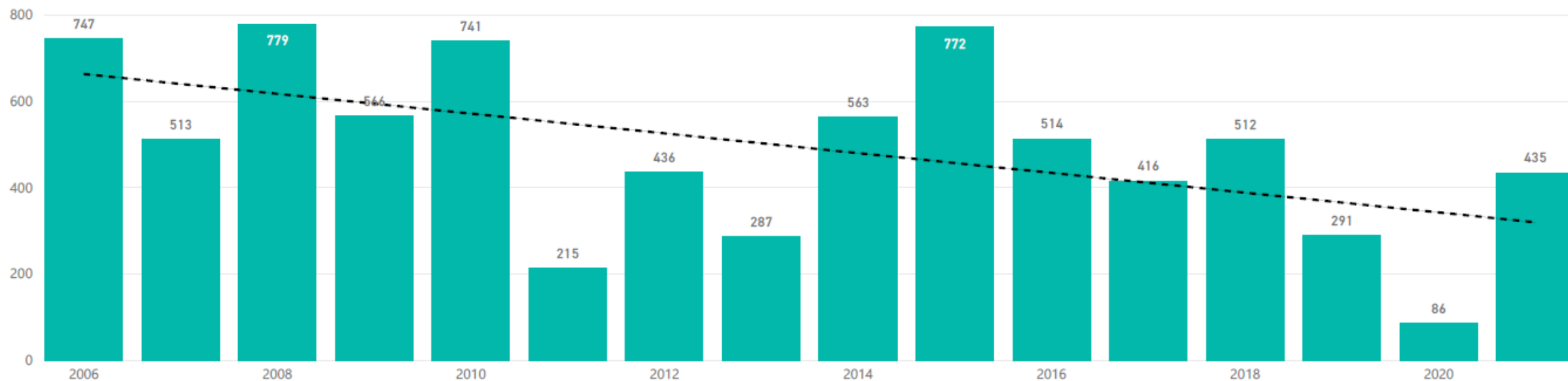


**54**  
Agriculture  
industry

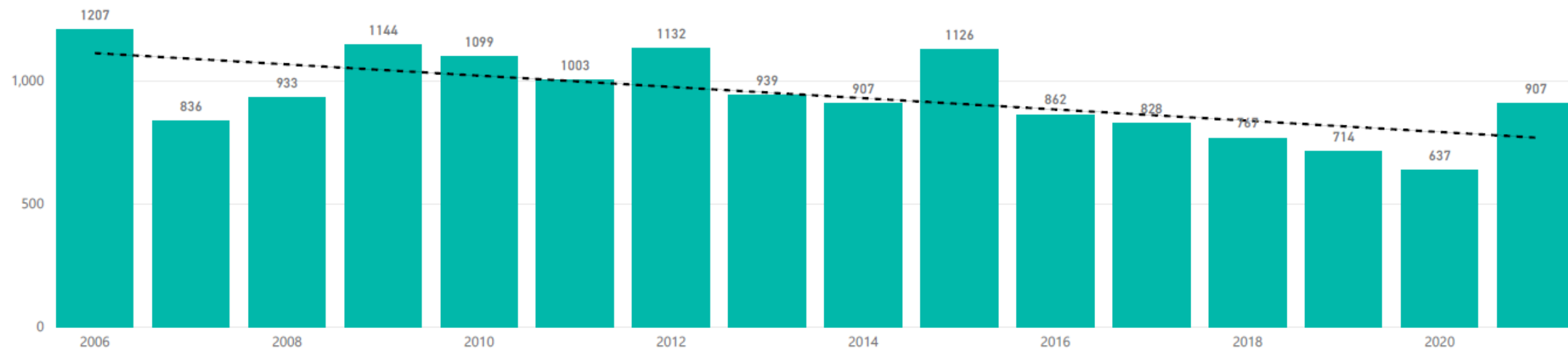
Hectares Burned in Alberta - 1990-2021 \*From FIRES Database, by calendar year



Lightning Caused Wildfires in Alberta - 2006-2021 \*From FIRES Database, by calendar year

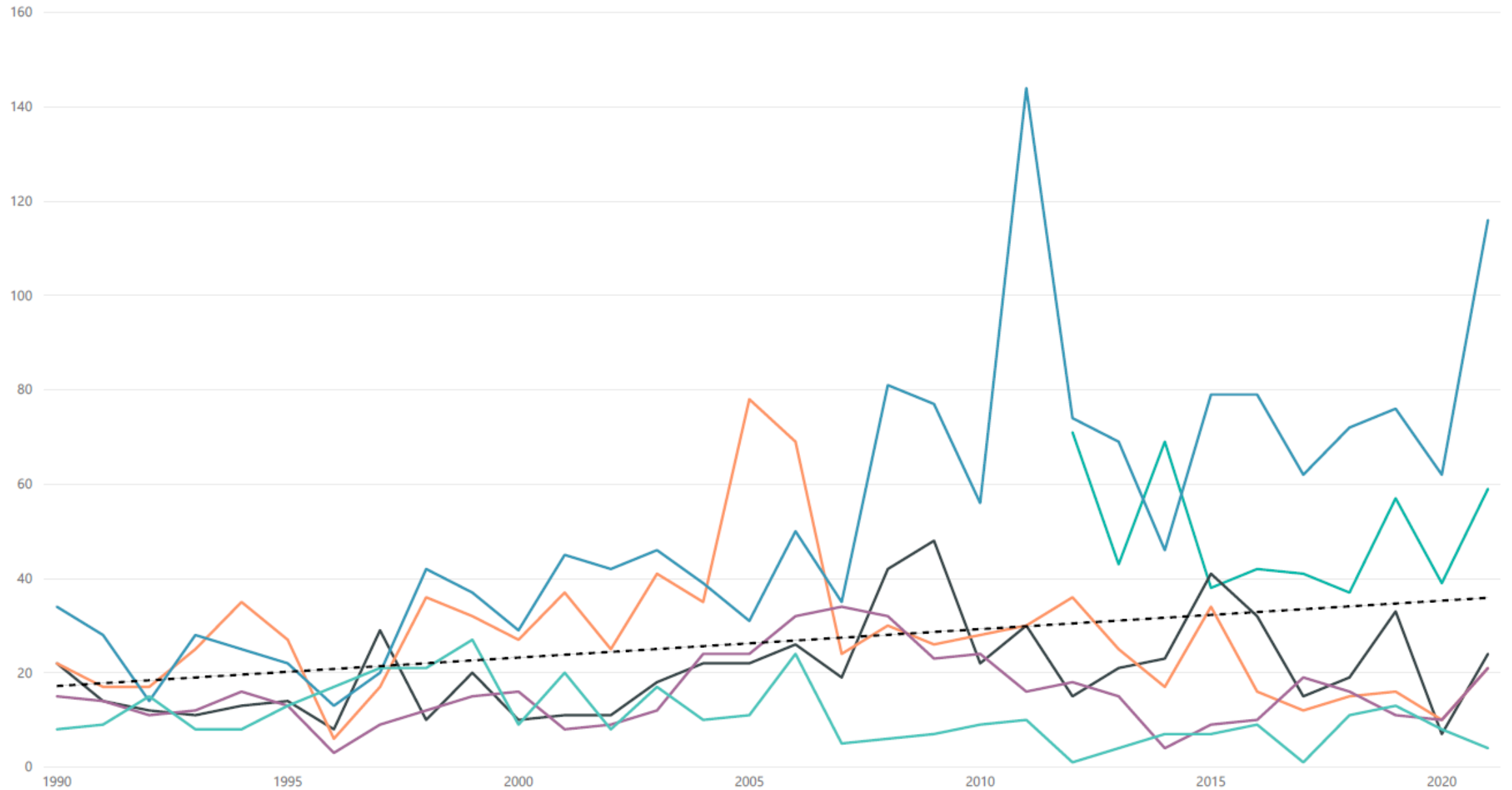


Human Caused Wildfires in Alberta - 2006-2021 \*From FIRES Database, by calendar year

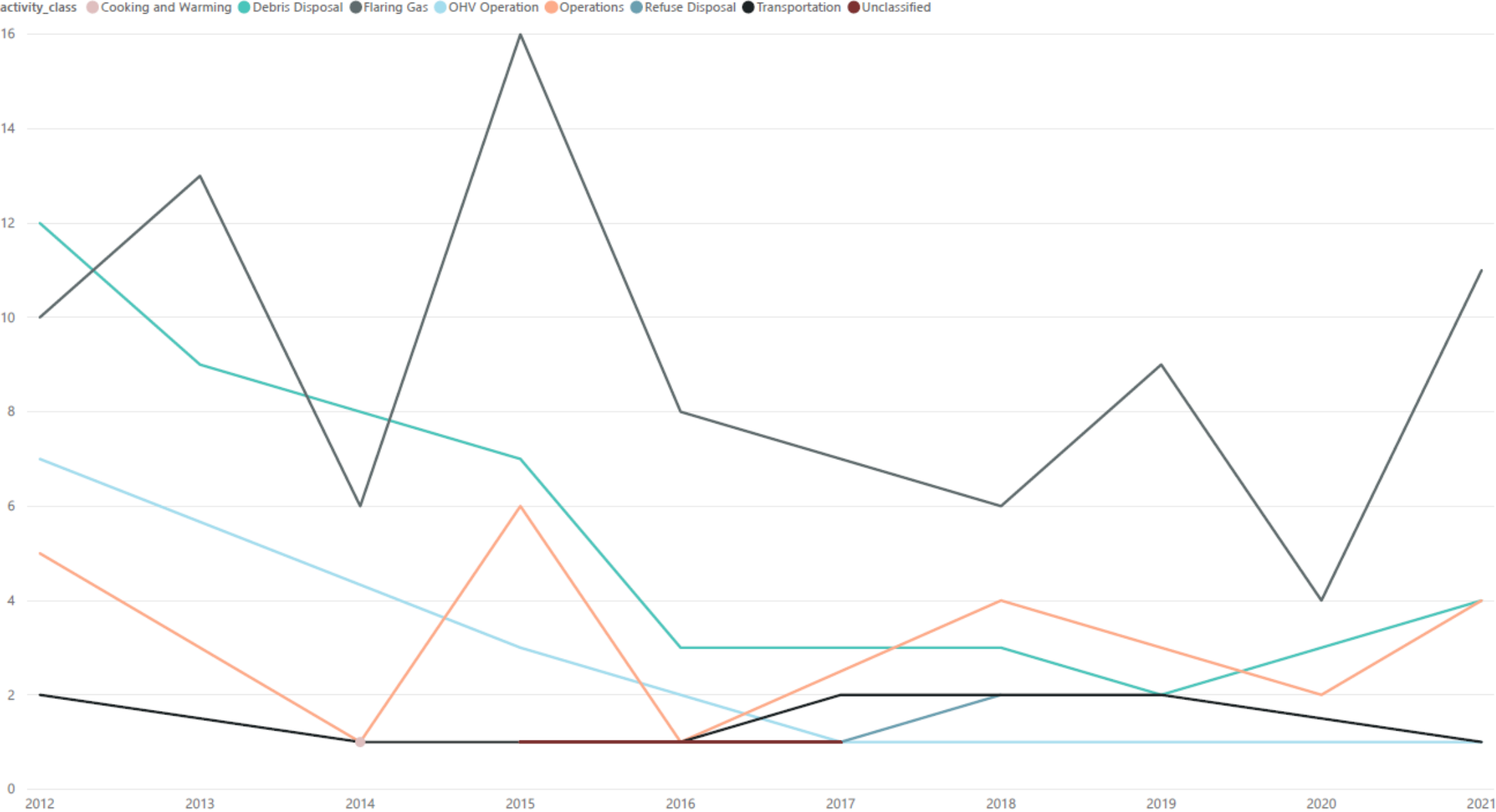


Industry Caused Wildfires in Alberta by General Cause - 1990-2021 \*From FIRES Database, by calendar year

general\_cause\_desc ● Agriculture Industry ● Forest Industry ● Oil & Gas Industry ● Other Industry ● Power Line Industry ● Railroad



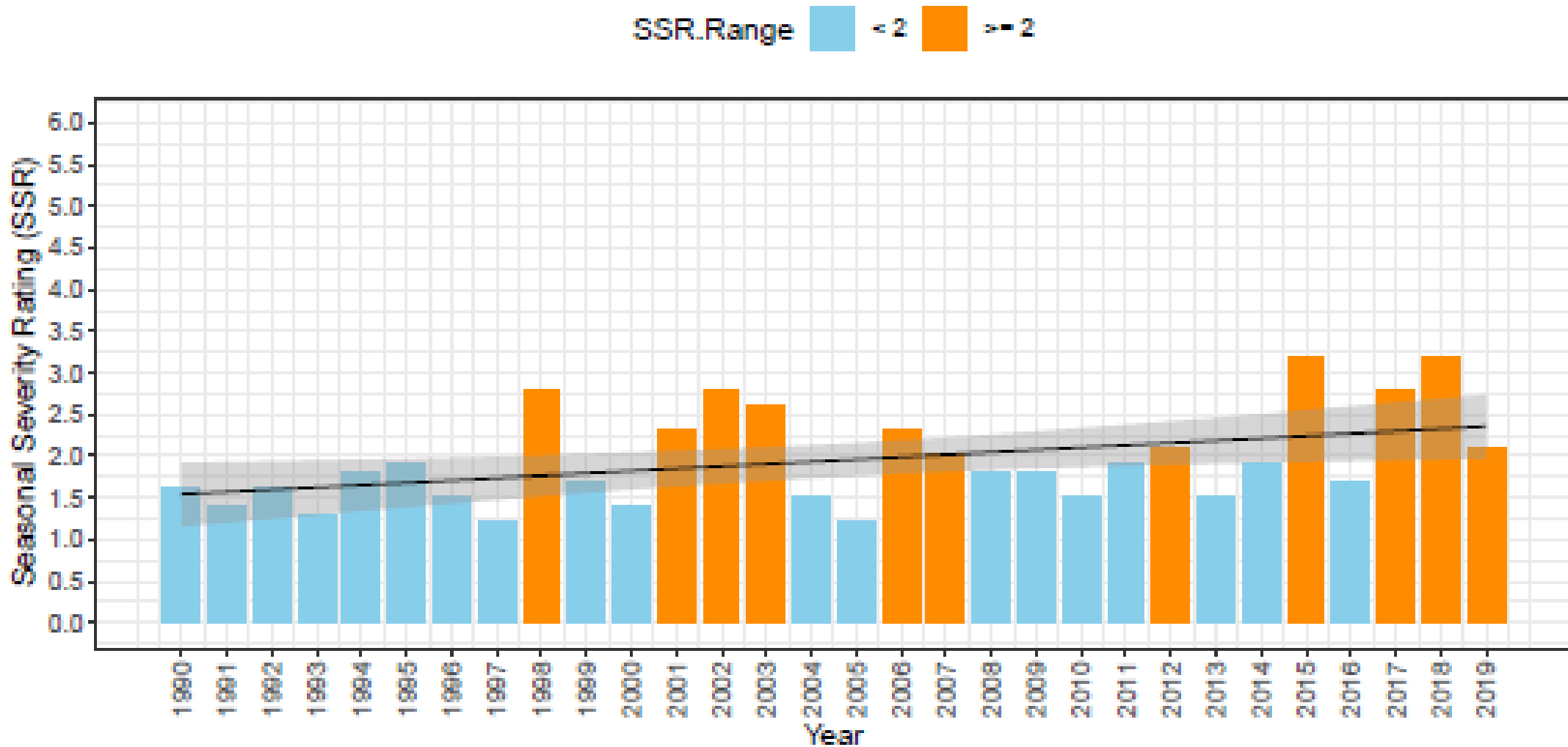
Oil and Gas Industry Caused Fires in Alberta by Activity Class 2012-2021 \*From FIRES Database, by calendar year



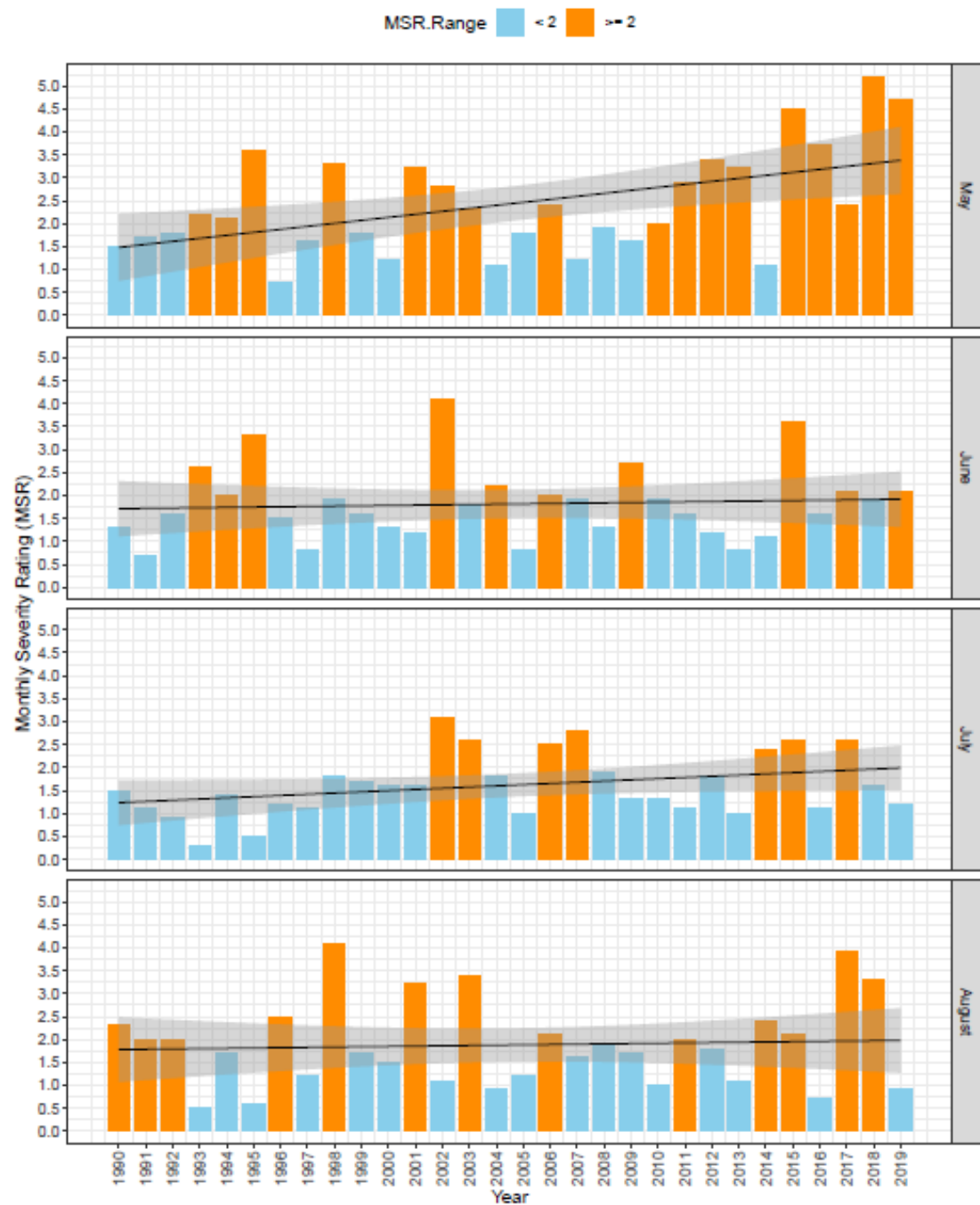
# Seasonal Severity Rating

## 1.1 Plot of provincial SSR values by year (1990 - 2019)

Averaged annual SSR values for all available stations.



3.1 Plot of provincial MSR values by year (1990 - 2019)



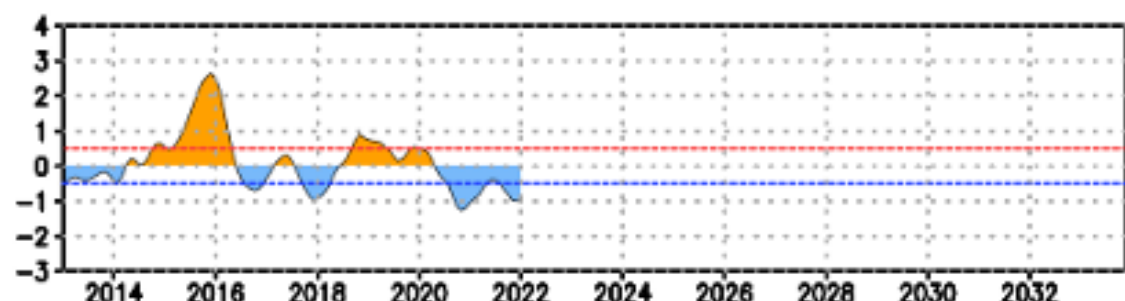
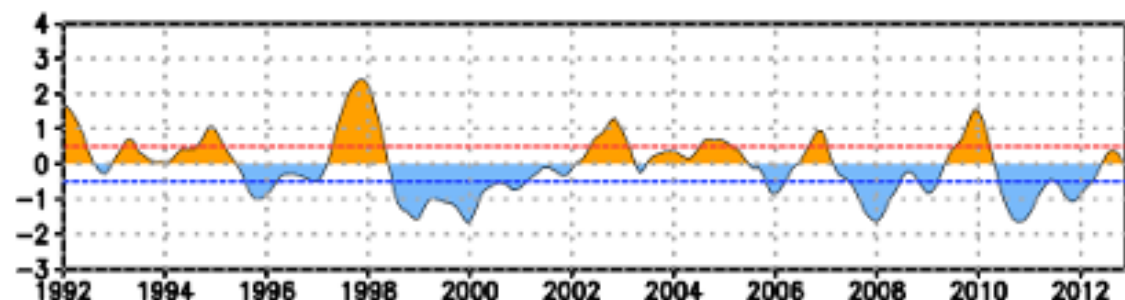
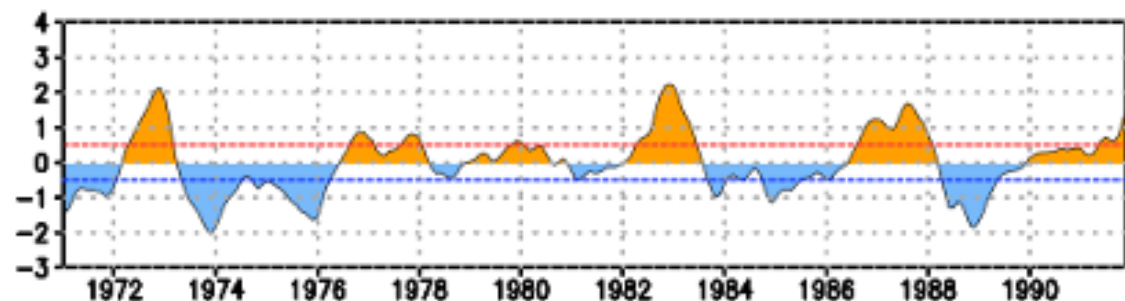
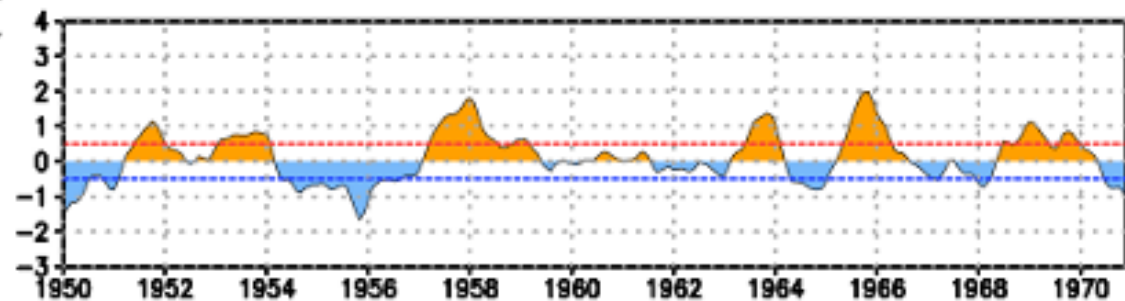


Credit: Jenna Hill

# Oceanic Nino Index (ERSST.v5 ONI)

3mrm Nino 3.4 SST Anomalies (varying 30yr base period)

SST Anoms (C)



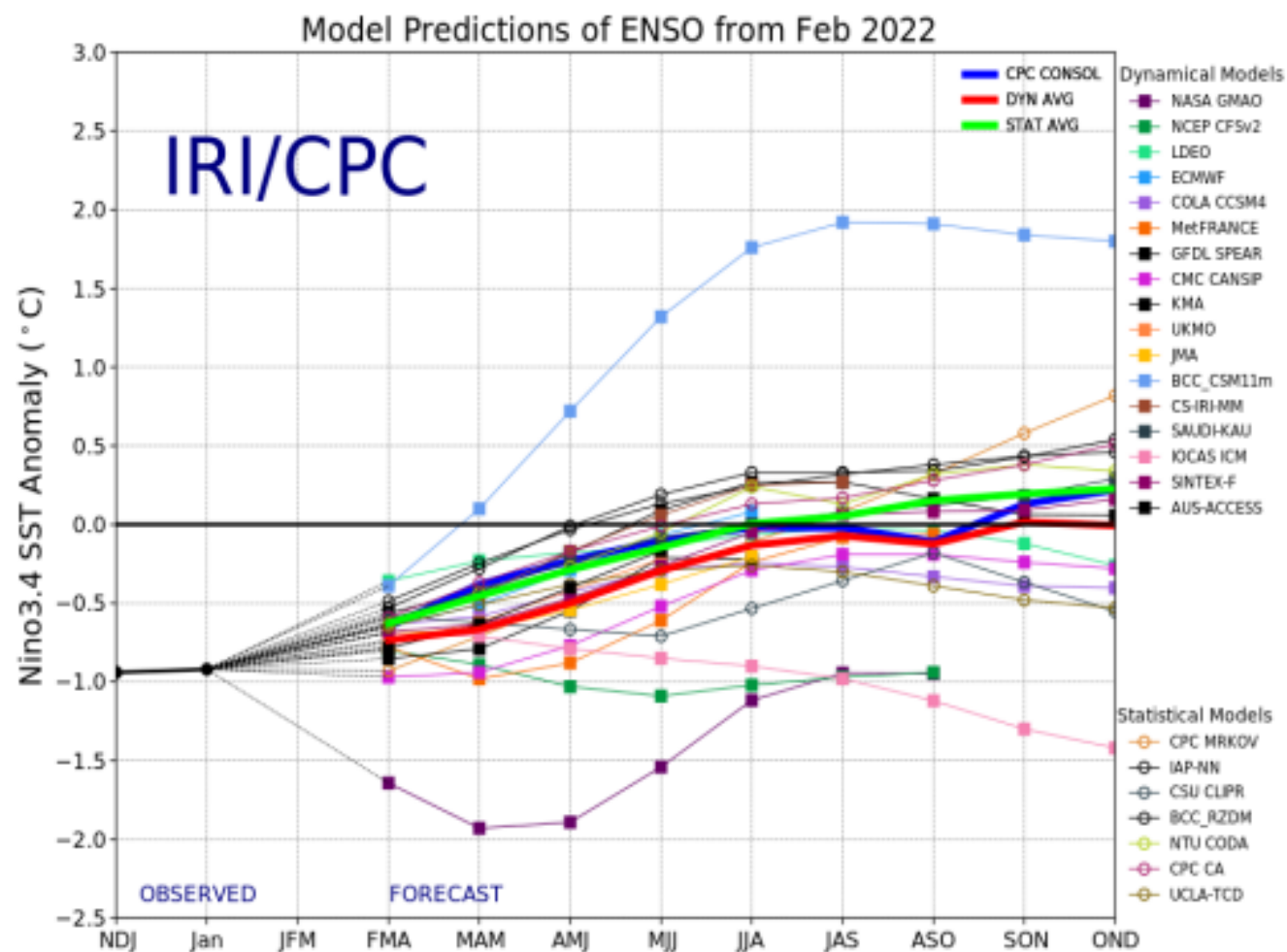


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 18 February 2022).

# El Niño Southern Oscillation

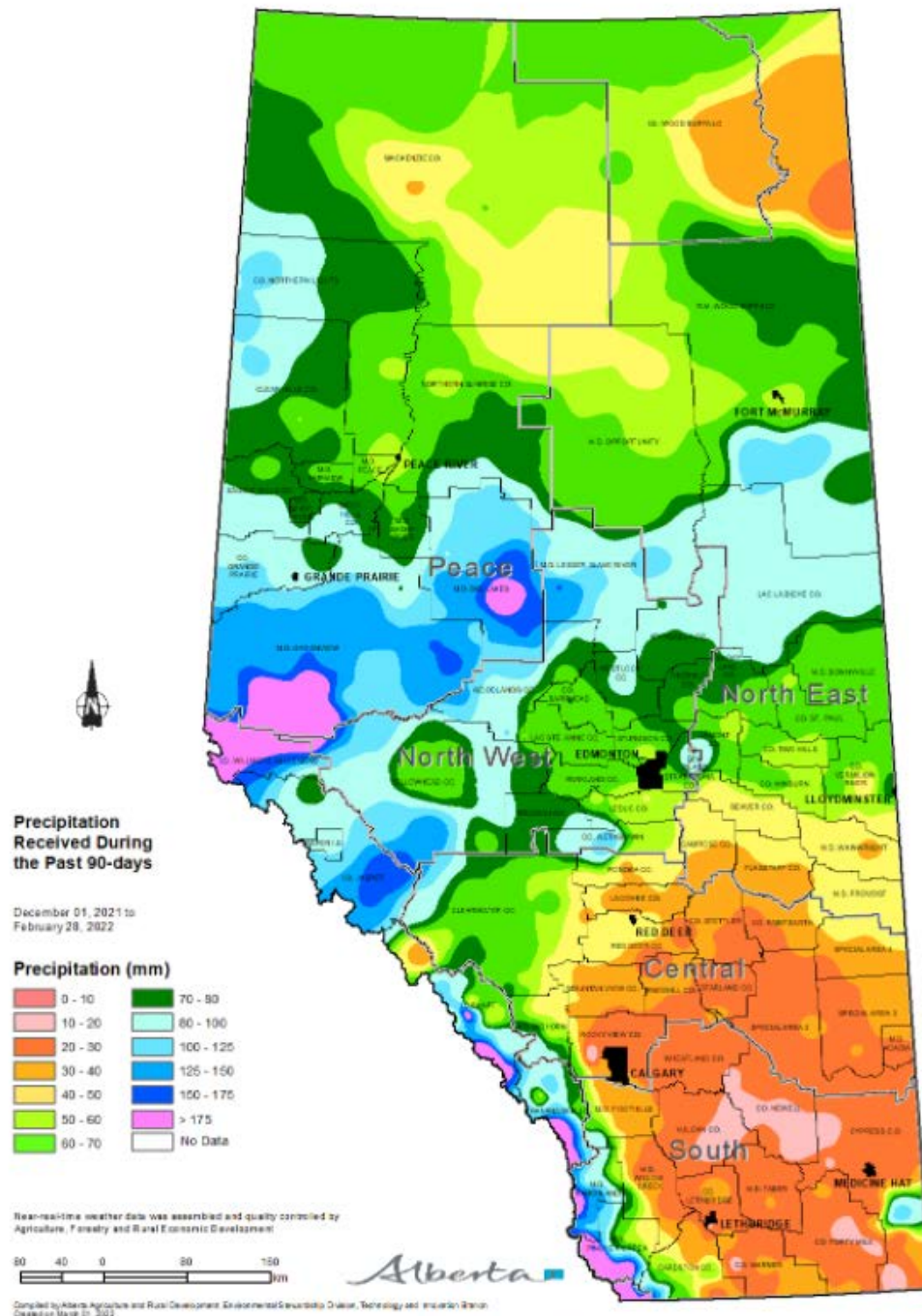
What does La Niña typically mean in Alberta?

- Cooler than normal conditions (with longer and more frequent cold snaps)
- On average, more precipitation
- Typically later timing of snowmelt and spring peak streamflow<sub>1</sub>
- Typically longer duration of river ice<sub>2</sub>
- Typically later onset of spring<sub>3</sub>

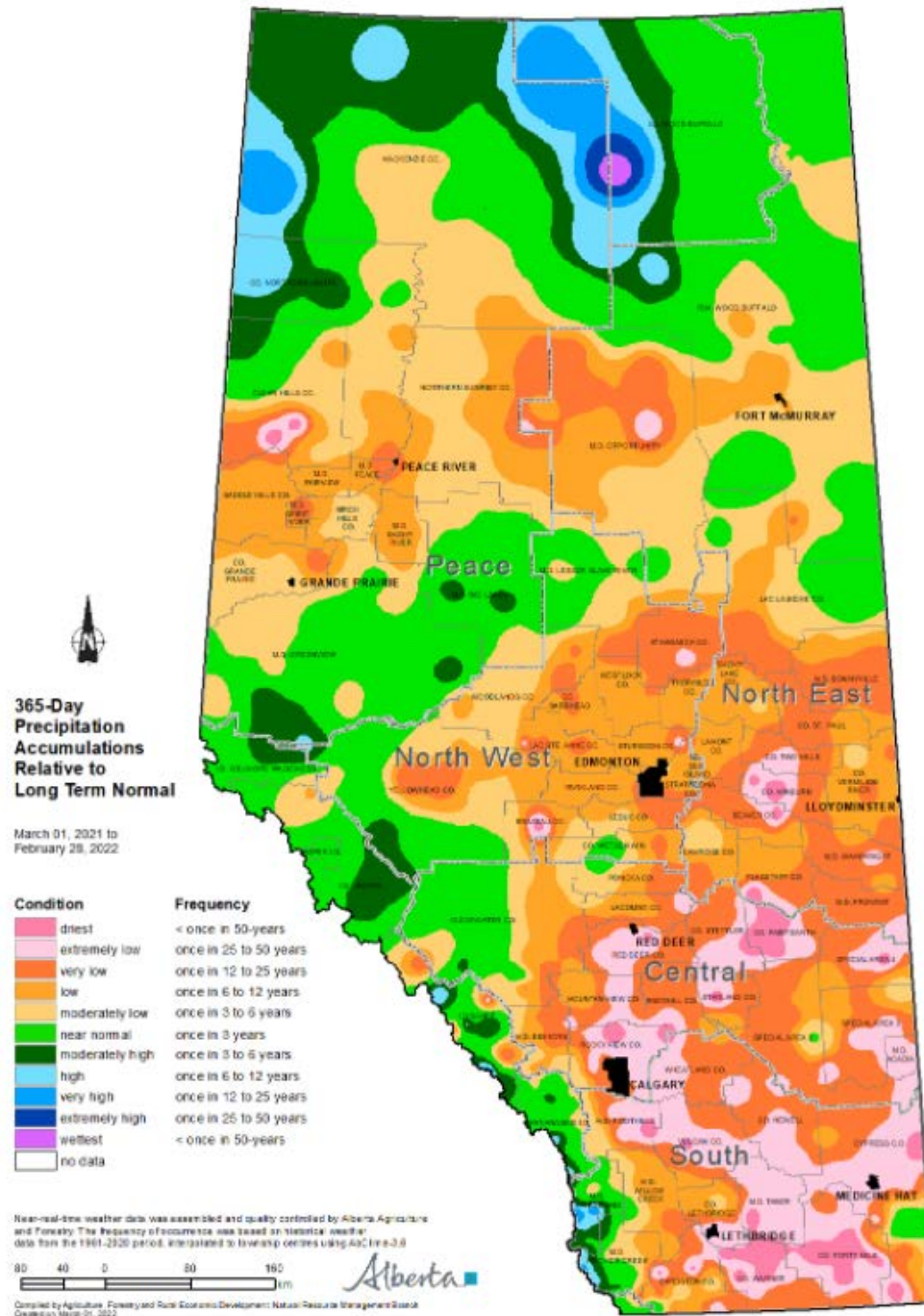


# 90 Day Precipitation Total

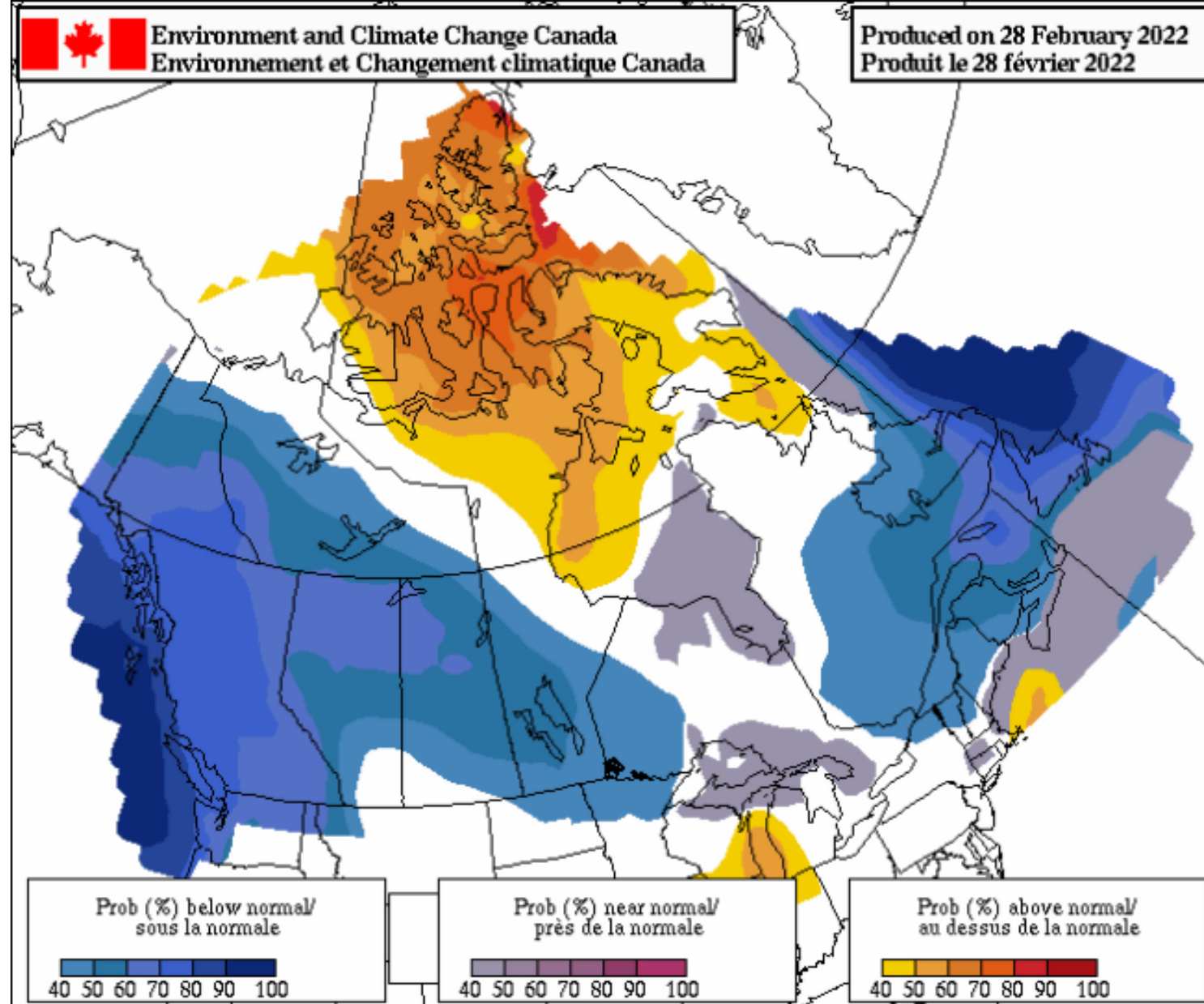
- The northern half of Alberta has had normal to above normal precipitation
- Rocky Mountains have had higher than normal precipitation
- Southeastern Alberta had well below normal precipitation.



# 365 Day Accumulation Compared to Normal



# ECCC March – April – May Temperature Forecast

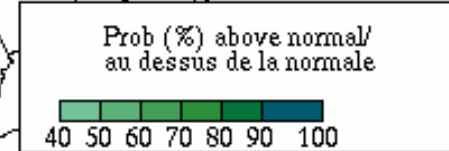
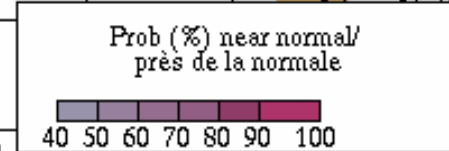
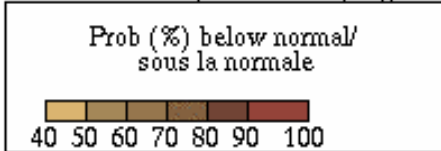
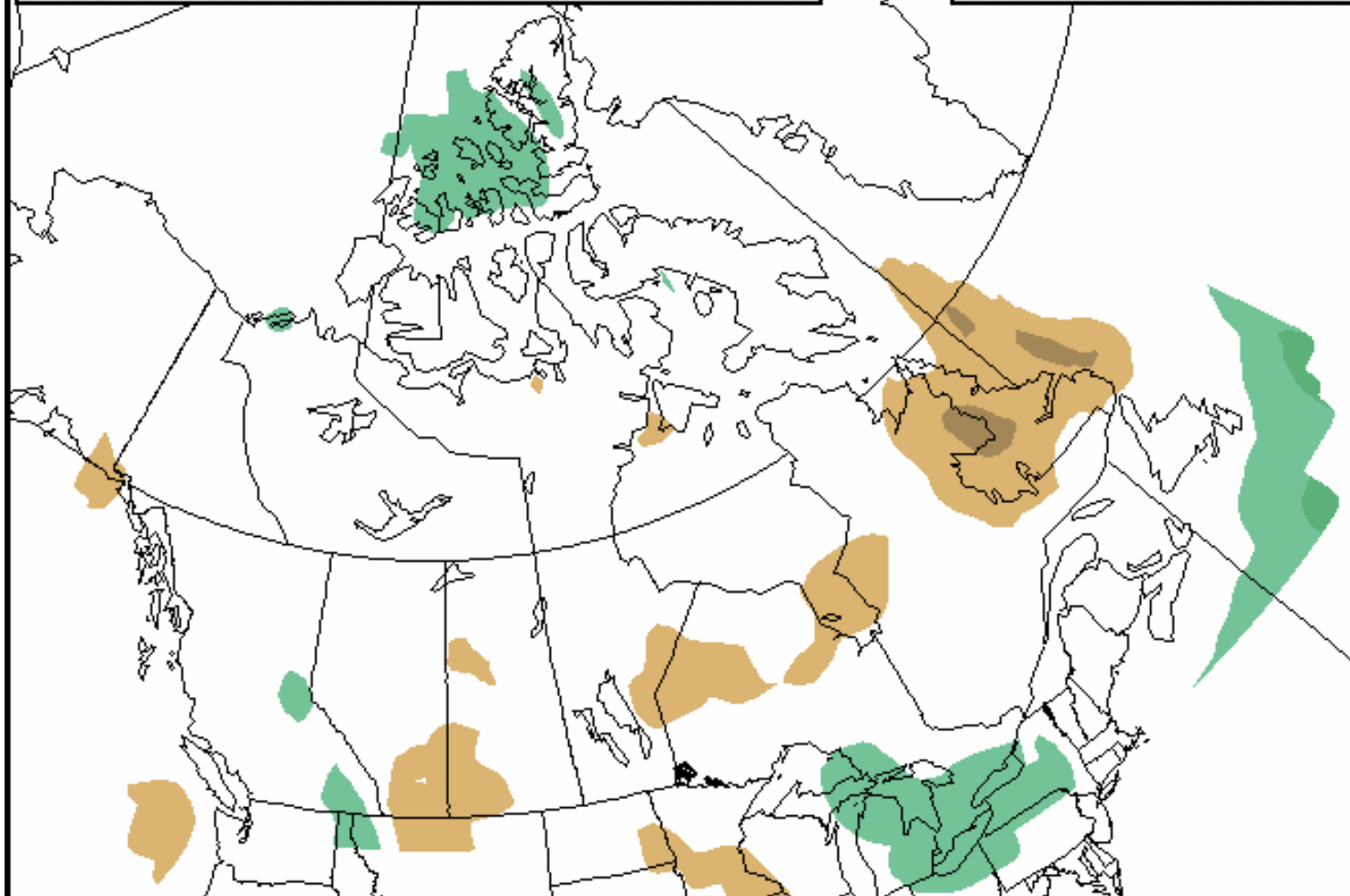


**Forecast probability of Temperature above, below and near normal (calibrated)**  
**Period: March-April-May 2022**  
Based on 3 equiprobable categories from 1991-2020 climatology

**Probabilités prévues de températures au-dessus, sous et près de la normale (calibrées)**  
**Période: mars-avril-mai 2022**  
Basé sur 3 catégories équiprobables de la climatologie 1991-2020



# ECCC March – April – May Precipitation Forecast



**Forecast probability of Precipitation  
above, below and near normal (calibrated)**  
**Period: March-April-May 2022**  
Based on 3 equiprobable categories  
from 1991-2020 climatology

**Probabilités prévues de précipitations  
au-dessus, sous et près de la normale (calibrées)**  
**Période: mars-avril-mai 2022**  
Basé sur 3 catégories équiprobables  
de la climatologie 1991-2020

# Spring Forecast Summary

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- Heavy snowfalls and cold snaps still likely. Expect variability
- Likely below normal temperatures, with the potential for a later spring melt and delayed river breakup – Reducing chances for early wildfire season in the central through northern areas.
- Below normal temperatures and normal precipitation over the Rockies and foothills could lead to an increased, longer lasting snowpack over the mountains and foothills this spring.
- The moisture deficit over southern Alberta has been long lasting and is likely to continue. This could lead to increased risk of grass fires this spring.

- **Founded in 2020 from the top recommendations from the AAFRED 2019 Wildfire Review final report**
- **Registered not-for-profit**
- **Goal: Fostering all-of-society approach to wildfire resilience in Alberta**
- **Strategic plan outlines six primary goals to elevate the profile and application of FireSmart in Alberta**

# Thank You

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