



# *Yellowhead County*

Beyond the Fires and Flood

Understanding the Impacts  
of the 2023 Disasters  
on Yellowhead County



A national consultancy based in Alberta providing services to a variety of organizations focused on emergency management and emergency services. Services include emergency management, incident management, strategic direction, after-action reviews, and leadership coaching.

Experience when you need it.

Photos have been used with permission from Yellowhead County. Other sources are cited below the image

Dear Reader:

Comprehensive after-action reviews are an integral part of creating a learning organization which builds on the significant events in their history. It takes courage to call for an independent review of a disaster. The staff at 9Zero Solutions, while seasoned in emergency management, are exempt from the heat of the moment decisions and the dynamic variables impacting life safety. The reviewers have the benefit of hindsight. I encourage us all to be gentle on the entire community.

Yellowhead County (YHC) staff, volunteers, and residents should be commended for their openness and transparency through this process. The 2023 wildfire season marked an unprecedented era in Yellowhead County characterized by an alarming number and scale of wildfires along with their swift and unprecedented spread. The community and the responders were forced to rapidly pivot from wildfire response to flood response as the weather quickly changed. Through the response, there are many items that demonstrate best practices for future response. As expected, there are opportunities for improvement.

Personnel and personal matters will not be discussed in this report. 9Zero Solutions has promised contributors confidentiality and that will not be compromised. Where appropriate, feedback on specific personnel situations has been provided to Yellowhead County leadership.

After-Action reviews are difficult by nature. We realize and want to acknowledge that without the hard work done by paid staff, volunteers, and countless members of the community, the losses in Yellowhead County would have been much worse. Yellowhead County should be commended for their effort, their response and their dedication to mitigating losses in the community.

At every turn, I have been impressed by the way YHC staff, volunteers and residents rose to the challenge and never gave up despite the length, complexity and magnitude of the situation. A commendable feat!

We hope this report serves as a valuable resource for enhancing future response efforts and addressing concerns raised by residents. By providing explanations and insights into the complexities of managing wildfires at the county, provincial, and national levels, we aim to foster greater understanding and trust within the community.

I hope you find the report informative and useful.

Tom Sampson

# After Action

## Executive Summary

The events of 2023 were unprecedented in nature. The scope and scale of wildfires across the province of Alberta challenged many communities, stretched resources to the breaking point, and resulted in the evacuation of thousands of Albertans. In Yellowhead County, there was not one fire but multiple large complex fires that disrupted the regular operations and routine of staff, volunteers and community members. An abrupt change in weather quickly required the focus to shift from wildfire to flood response.

The span of this report covers an extended timeframe from the start of the fires to the closure of the Emergency Coordination Centre 63 days later. While the methodology for the after-action review focused primarily on Yellowhead County's response to the wildfires, there are references throughout regarding the coordination of flooding response.

As an effective after-action review, this report is designed to acknowledge both best practices and opportunities for improvement. The report is organized around eleven themes. While the themes are not mutually exclusive, an effort was made to ensure a logical grouping of information.

The following eleven themes are expanded upon in the report:

- Theme 1: Emergency Management Program
- Theme 2: Operational Response
- Theme 3: Alberta Wildfire
- Theme 4: Evacuation
- Theme 5: Emergency Social Services
- Theme 6: Provincial Coordination
- Theme 7: 9-1-1 & Dispatch
- Theme 8: Communications
- Theme 9: Training & Education
- Theme 10: Mental Health & Wellness
- Theme 11: Community Education & Empowerment

While the request for this review was made by Yellowhead County and is designed to provide information to learn from this event, disasters are not simple. When a large incident occurs that crosses multiple jurisdictions with many different players, it is impossible to review one group's actions in isolation. Throughout the review there are comments intended for partners, particularly Alberta Wildfire, and other provincial entities.

The time for action is now. Disaster events are becoming more frequent and severe. If organizations continue to focus on preserving the best practices and evaluating the opportunities for improvement, this will help to ensure Yellowhead County is prepared for whatever events may come next.

# Executive Summary

## Areas for Significant Impact

After-action reports provide valuable information to communities that over time will make them stronger and more resilient. Throughout the report there are many best practices and opportunities for Yellowhead County. As the 2024 spring hazard season approaches, there will be limited time to comprehensively implement all aspects of the after-action review. Below are the most impactful best practices and opportunities for Yellowhead County.

### Most Impactful Best Practices

1. The staff members of Yellowhead County showed an incredible sprit and willingness to help. This demonstrates a strong culture that should be maintained.
2. The alignment of leadership between the Mayor, Council, the Chief Administrative Officer (CAO) and the General Manager (GM)/Fire Chief was noteworthy and impactful.
3. The establishment of an evacuee call-in line where evacuees obtained information. Residents from Yellowhead County, the Town of Edson, and Entwistle (Parkland County) were able to access the line for information.
4. The leadership of Yellowhead County recognized the magnitude of the events early and requested assistance of both the North Central Incident Management Team and Canada Task Force 2.

### Most Impactful Opportunities

1. Continue to advocate for increased Alberta Wildfire resources, both personnel and air assets to be fully trained and available earlier in the wildfire season.
2. Advocate for a review of the Wildland Urban Interface (WUI) program within the Alberta Emergency Management Agency (AEMA). Alter the program to dismantle roadblocks and open access to interested parties, including first responders and community members.
3. Work with Alberta Wildfire to modernize their mapping system and approach to information transparency to provide increased situational awareness for members of the community.
4. Work with Alberta Wildfire to re-evaluate the dual processes of using 9-1-1 and 310-FIRE for reporting fires.

Yellowhead County.....	Page 07
The 2023 Fire Season .....	Page 08-09
Timeline .....	Page 10-11
Methodology .....	Page 12
Community Survey Overview .....	Page 13-15
Yellowhead County Staff Survey .....	Page 16
Theme 1 – Emergency Management Program .....	Page 17-23
Theme 2 – Operational Response .....	Page 24-29
Theme 3 – Alberta Wildfire .....	Page 30-37
Theme 4 – Evacuation .....	Page 38-41
Theme 5 – Emergency Social Services .....	Page 42-44
Theme 6 – Provincial Coordination .....	Page 45-49
Theme 7 – 9-1-1 & Dispatch .....	Page 50-52
Theme 8 – Communications .....	Page 53-59
Theme 9 – Training & Education .....	Page 60-62
Theme 10 – Mental Health & Wellness .....	Page 63-66
Theme 11 – Community Education & Empowerment .....	Page 67-70
Conclusion.....	Page 71
Summary of Recommendations – Best Practices.....	Page 72-74
Summary of Recommendations – Opportunities.....	Page 75 - 78

# Background

## Yellowhead County

Yellowhead County is a municipal district in west central Alberta. The Yellowhead Highway, (Highway 16), connecting Edmonton and Jasper is the primary highway running through Yellowhead County.

According to the Statistics Canada 2021 Census, Yellowhead County has a population of 10,426 people and encompasses a land area of 22,238.56 square kilometers. The boundaries of Yellowhead County are represented in Figure 1.

The county spans eight hamlets, over 571 farms, and rural properties, surrounding Hinton and Edson towns, and borders Jasper National Park. It is an economically strong region with opportunities in petroleum, mining, forestry, tourism and agriculture.

The Yellowhead County Fire Department (YCFD) provides fire and rescue services to the businesses, residents and visitors of the County. There are existing mutual aid agreements with Parkland County, the Town of Edson, and the Town of Hinton. YCFD operates seven fire stations throughout the county boundary and is staffed with a combination of full time, work experience, and volunteer members.

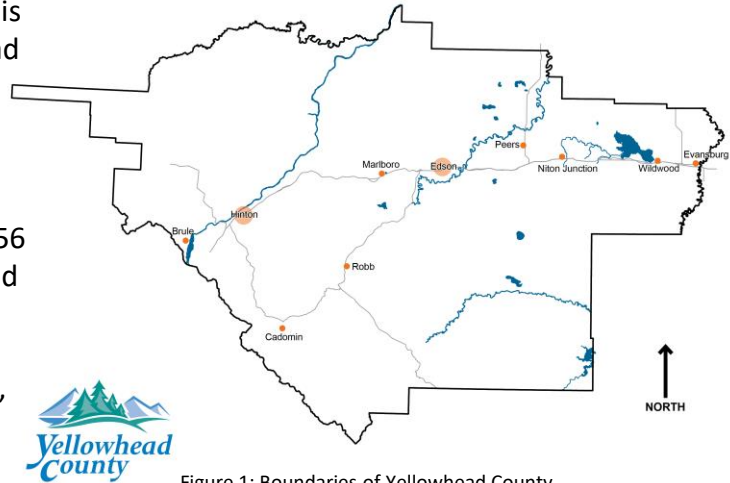


Figure 1: Boundaries of Yellowhead County used with permission from YHC

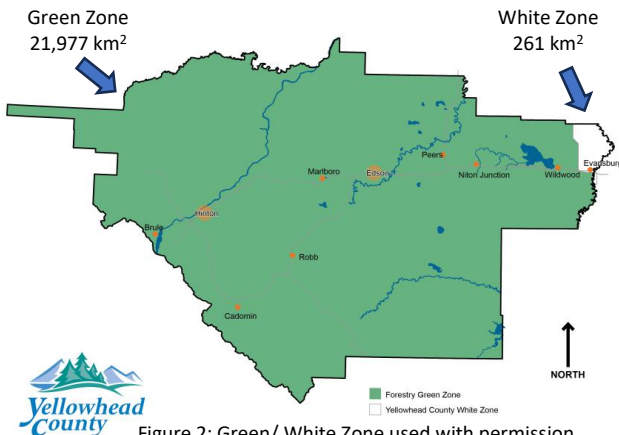


Figure 2: Green/ White Zone used with permission from YHC

Current firefighting responsibilities are complex. Yellowhead County is separated into green and white zone responsibilities, as depicted in Figure 2. In the Forestry green zone, Alberta Wildfire staff are responsible for the wildland firefighting environment. In the white zone, the Yellowhead County Fire Department is responsible for fire suppression. The white zone is considered a mutual aid control zone, where upon request of the local jurisdiction, Alberta Wildfire resources respond to assist with fire suppression efforts.

Throughout both the green and white zones, YCFD is responsible for structural firefighting. Calls for assistance are prioritized and routed based on the geographical area and the type of call. Grass fires in the green zone are routed to the Alberta Wildfire dispatch centre and structure fires are routed through 9-1-1 services to the YCFD.

# Background

## The 2023 Fire Season

The 2023 fire season proved to be an unprecedented and challenging season for many communities across Alberta and Western Canada. Officially, fire season in Alberta runs between March 1<sup>st</sup> and October 31<sup>st</sup>. Conditions across the province can be highly variable and moisture conditions throughout the winter play a critical role in the severity of each season.



Figure 3 highlights the statistics released by Alberta Wildfire that summarize the 2023 year. The 2023 Alberta Wildfire season shattered all previous records, burning an area over 11 times larger than the 5-year average from 2018 to 2022, a staggering 2,211,900 hectares! This represents not just a significant increase, but a monumental leap. The burned areas exceeded the average by 1006%.

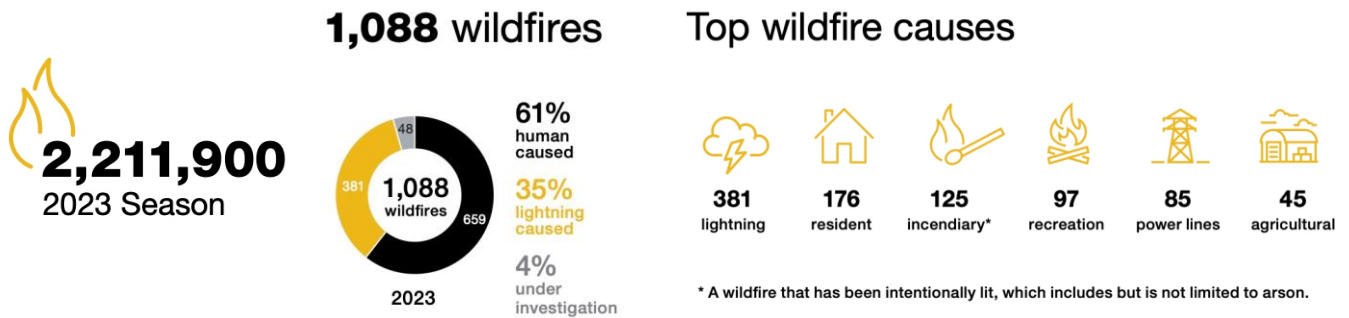


Figure 3: Images from <https://open.alberta.ca/publications/alberta-wildfire-season-statistics>



# Background

## The 2023 Fire Season

At the peak of the fire season, Yellowhead County was dealing with many fires of note. This review is intended to provide a holistic picture of the response and not a comprehensive review of the actions taken for any one fire. The overall situational awareness of what was happening across the county and the province is crucial for understanding the actions, resources, and impact to residents, businesses and first responders. There are many fires represented in the comments throughout the report and any one of these major interface fires or complexes, would have been a large event in the province. The scope and scale of the fire season are not something Alberta, nor Yellowhead County have experienced before.

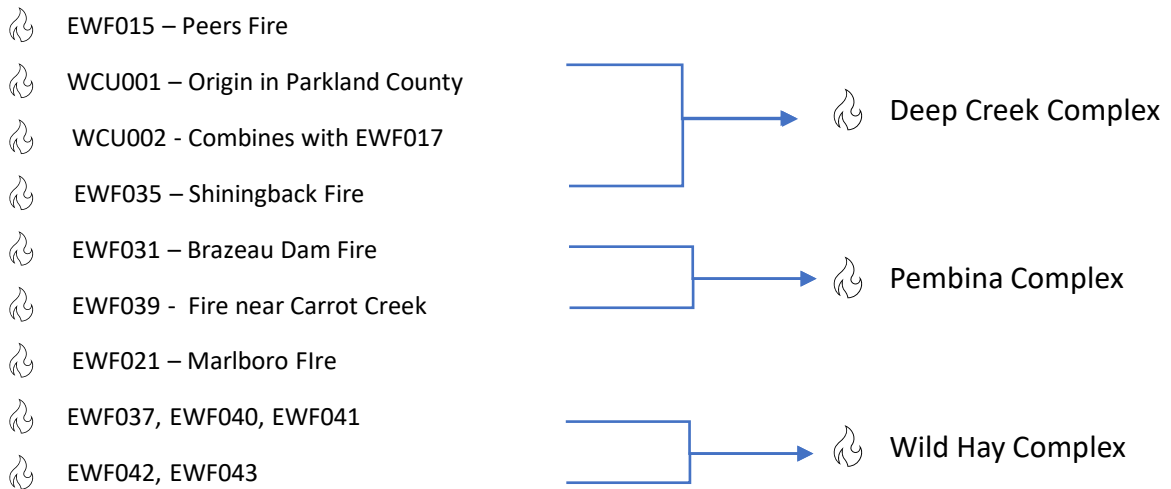


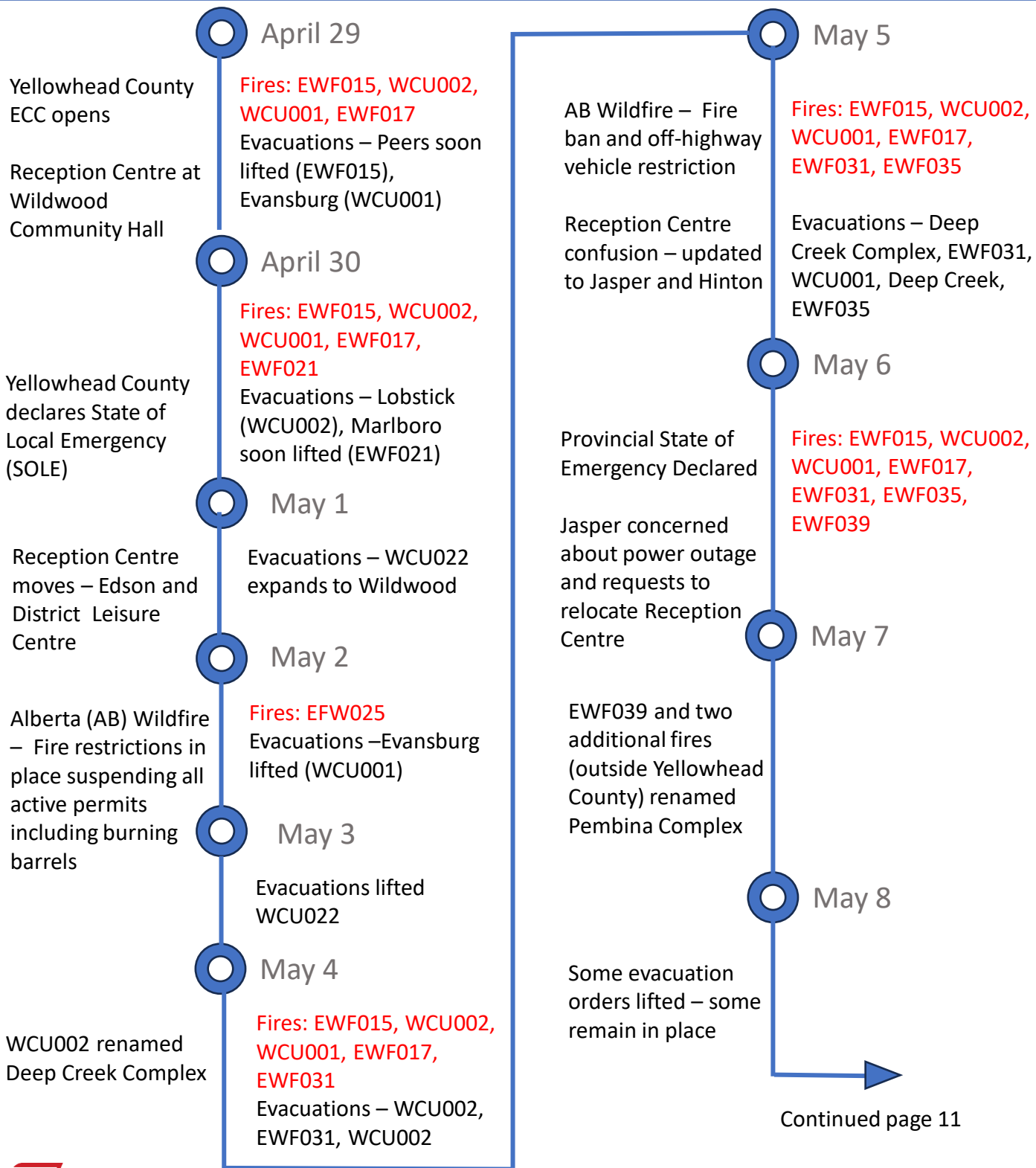
Figure 4: Fires of note and how they combined into complexes

Figure 4 above highlights the main fires and how they combined as complexes as the conditions changed and some fires merged.



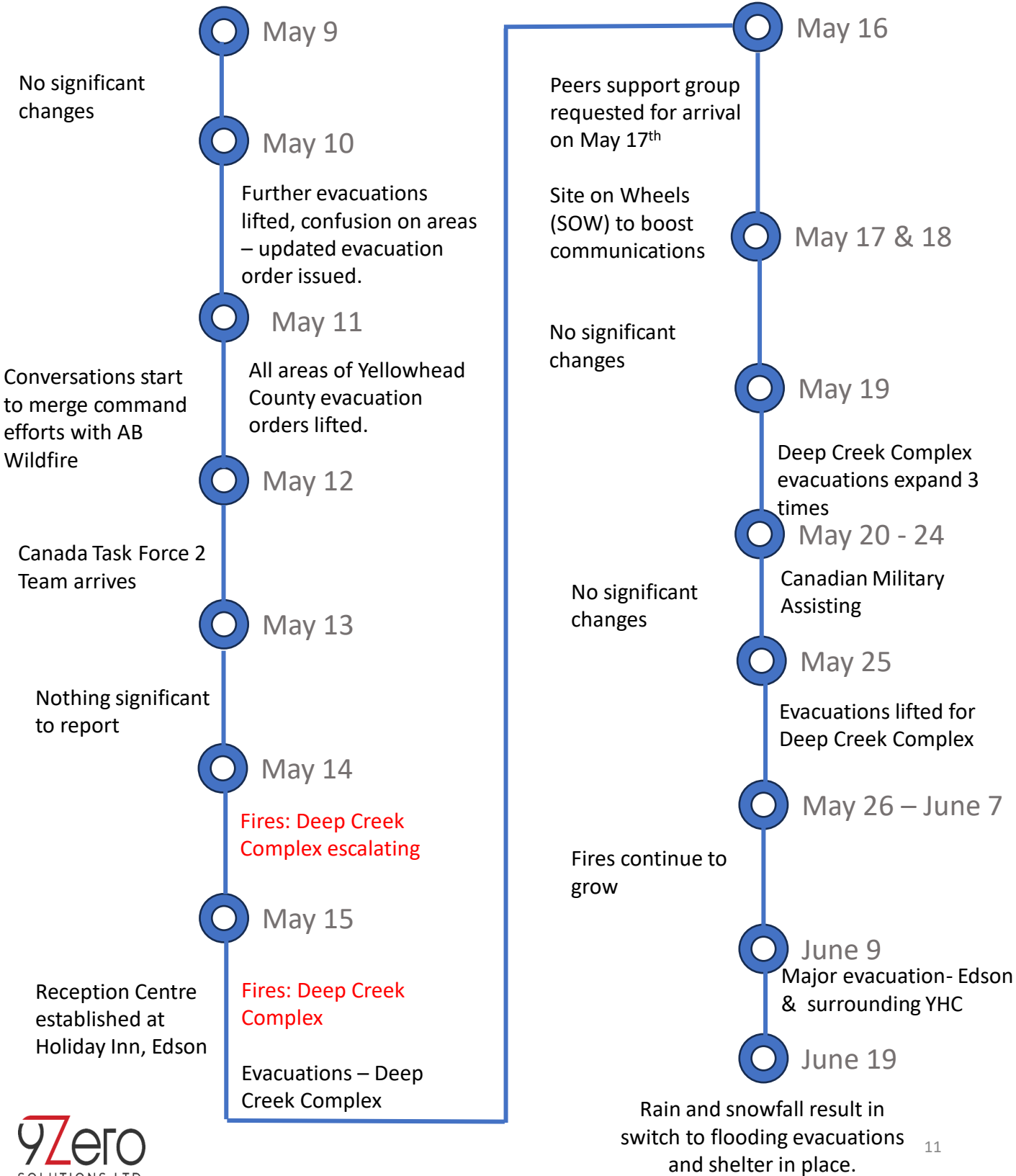
# Timeline:

## April 29<sup>th</sup> to May 8<sup>th</sup>, 2023



# Timeline:

## April 30<sup>th</sup> to June 8<sup>th</sup>, 2023



# After Action:

# Methodology

9Zero Solutions used a multifaceted approach to collecting and analyzing information which included data collected through open surveys, interviews, and a review of all documents provided by Yellowhead County and other stakeholders, as well as publicly available information regarding the fire response.

Two surveys were used to collect information anonymously from both the public and the staff of Yellowhead County. Surveys were designed to collect both objective and subjective information from participants.

The primary focus of the review was from the opening of the Emergency Coordination Centre, April 29 until June 19, when the fire response was required to quickly shift from wildfire coordination to flood response coordination.

All collection methods were designed to extract both best practices implemented during the wildfire response and opportunities for improvement. Figure 5 highlights the interaction of these collection methods. As the data collection process concluded, a detailed synthesis of data resulted in the creation of intentional insights to inform opportunities for improvement and best practices to maintain.

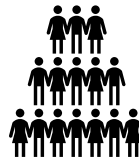


Figure 5: Information collection methodology



42 People Interviewed

200 Hours of Information Processing



940 Citizen Survey Responses

719 from Yellowhead County

221 from Edson, Parkland, Hinton\*

85 Staff Survey Responses

\* The 221 community members were excluded from our survey and analysis as they were out of scope. Their participation indicates an apparent interest.



1,952 Open ended public responses



Over 200 hours reviewing & trending survey feedback

# What We Heard

## Community Survey Overview



**940** Total

**719** Yellowhead Residents

**11%**

West Yellowhead  
County

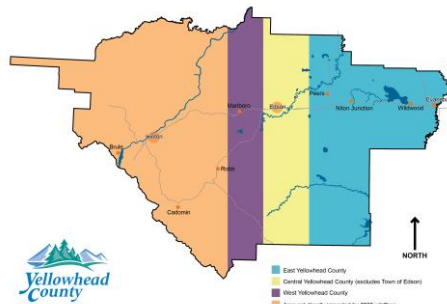
**36%**

Central Yellowhead  
County

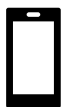
**53%**

East Yellowhead  
County

Note: Regional differences are further explored on page 14



### Top Sources of Information for Residents



**78%** Cell Phone (AEA\*) Alerts

**70%** Social Media



**50%** YHC Website



**45%** Friends, family, neighbours

### Evacuations

**67%** of respondents under evacuation order

**67%** Notified by AEA\* alert

**16%** Accessed ESS\*\*

### Top Evacuation Challenges



Livestock logistics



Evacuation boundary info



Information: where to go



Time



Trust of property protection

### Improvement Suggestions

- ✓ Communication
- ✓ Increased resources
- ✓ Increase community involvement
- ✓ Increase awareness
- ✓ Enhancement of WUI program

### Communication

**56%** Wanted more information:



Fire behavior & predications



Resources & information



Property protection



Evacuation boundaries



Community involvement

# What We Heard


## Community Survey Regional Differences

### West Yellowhead


Overall Response Satisfaction

 **37% Satisfied**  
**16% Neutral**

Understood actions to take

 **54% Agree**  
**16% Neutral**

 **41% Needed more info**


 **79% FireSmart Aware**

### Central Yellowhead

Overall Response Satisfaction

 **39% Satisfied**  
**15% Neutral**

Understood actions to take

 **44% Agree**  
**17% Neutral**

 **47% Needed more info**

 **84% FireSmart Aware**


### East Yellowhead

Overall Response Satisfaction

 **13% Satisfied**  
**13% Neutral**

Understood actions to take

 **20% Agree**  
**19% Neutral**

 **65% Needed more info**

 **68% FireSmart Aware**

Figure 1 provides an overlay of the Yellowhead County regions with the various fires of note that were active in the community.

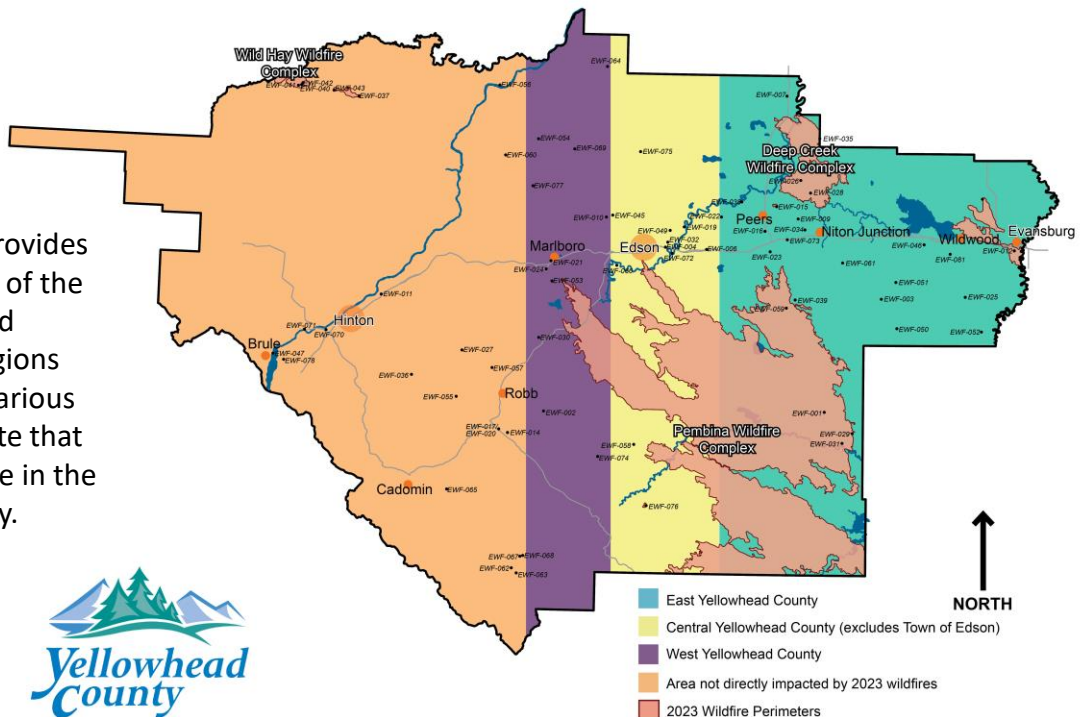


Figure 6: Areas of Yellowhead County and Fires of note

# What We Heard

## Community Survey Regional Differences

The majority of survey responses were statistically consistent across the regions in Yellowhead County. Variations occurred in the responses from community members to the questions regarding satisfaction with the response to the 2023 wildfires and whether the residents understood the actions they were required to take.

Survey analysis revealed that regional differences in satisfaction levels may be linked to each community's proximity to the wildfires. Many of the fires rapidly merged to create three primary complexes and led to an extraordinary crisis in Yellowhead County. The exceptional speed and magnitude of the 2023 wildfires resulted in a significant disparity between public expectations and the harsh realities on the fire ground. While these expectations were genuine and grounded in historical response, the systems within Alberta Wildfire and YCFD were simply overrun. Feelings of being overlooked emerged with many residents questioning the adequacy of the response by provincial Wildfire services and YCFD. Such perceptions likely stem from challenges in effectively communicating the proximity of the fire to the community, compounded by a lack of shared situational awareness. The complexity of the wildfires, both province wide and within the county, may have obscured the overall emergency response efforts, leading some residents to feel that their individual emergencies were not prioritized as expected.

The following answers in Figure 7 were the most common when community members were asked "What positive actions, did you, as a resident, see during the wildfire?"

Sprinkler protection	30.08%
Dedicated phone line for residents to call	22.41%
Real time social media and website information	34.29%
Support for our evacuation	19.25%
Emergency support from outside the region	37.29%
Mental health and social programs	5.41%
Promotion of FireSmart strategies	12.63%
Assistance with livestock	9.17%

Figure 7: Positive actions expressed through the community survey

Communication with residents	58.03%
FireSmart information	23.64%
Increase the available number of community volunteers	43.33%
Contracting of more firefighting resources in Alberta (staffing, aircraft ability and types of firefighting equipment)	67.27%
Review and enhance the current wildfire urban interface program (WUI)	35.00%
Increase emergency management training across Yellowhead County	0.00%
Increase awareness and education on insurance coverage	29.09%
Increase information available ahead of each wildfire season	42.73%

Figure 8: Positive actions expressed through the community survey

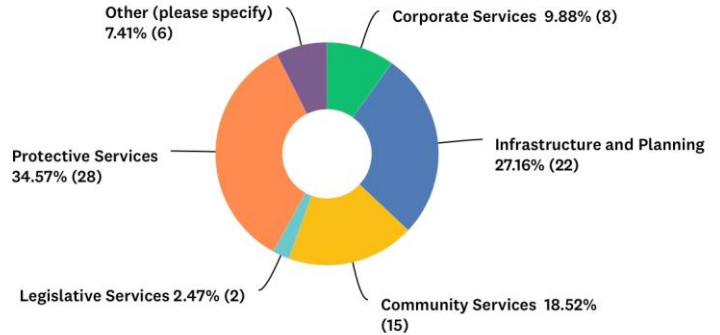
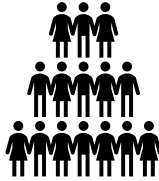
Figure 8 highlights the positive actions seen by the community during the response. These are actions that community members want to see should Yellowhead County experience another event.

# What We Heard

## Yellowhead County Staff Survey

### Respondents and their Department

85



### Satisfaction with Response



67 % Satisfied  
19 % Neutral

### Response Roles



Involvement in response  
85 % Yes



Top Roles  
61 % EOC\* or ICP\*\*  
28 % Logistics

\*Emergency Operations Centre  
\*\* Incident Command Post

### Top Team Challenges



55% Communications



47% Managing Fatigue



33% Personal needs



31% Work capacity



31% Credible information

### Top Needs Expressed



71% Real time fire info



62% Evacuation procedures

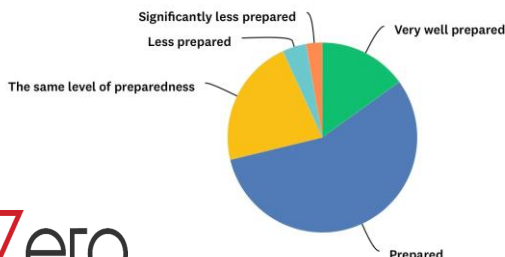


45% Mapping



40% Communication Equip

### YHC Preparedness for Future Events



### Personal Readiness for 2023

65% Prepared  
18 % Neutral  
17 % Unprepared



# Theme 1

## Emergency Management Program

An effective emergency management program is the cornerstone to reducing disaster risk in a community. The management of large-scale emergencies and disasters requires well thought out policies, plans and procedures before an emergency exists. These plans need to be based on the hazards, risks and vulnerabilities of a specific community and be balanced with the available resources.



Figure 9: From Wildfire Management in Canada: Review, challenges and opportunities

Emergency management programs need to consider the holistic pillars of prevention, preparedness, mitigation, response, and recovery. Recent advances in wildfire management thinking are adding an additional phase of "Review" to ensure lessons from large events are captured. Figure 9 highlights this addition from the 2020 article Wildfire Management in Canada: Review, challenges and opportunities. While this review is primarily focused on the response phase as it pertained to the 2023 wildfires, the nature of many recommendations and best practices will also crossover into other emergency management pillars. During the response phase, an effective municipal emergency plan and an effective business continuity program allow an organization to rely on a preestablished playbook to deal with many challenges.

In large events, where there is coordination needed across many organizations, an Emergency Coordination Centre (ECC) becomes the nerve centre of the response. The ECC is useful for ensuring situational awareness, coordinating communications, making decisions, and looking beyond the events of today towards the challenges on the horizon.

### What We Heard – Adaptability

The ECC showed incredible adaptability through the 63 days of operations. The teams were able to re-evaluate priorities as they changed and expanded. On two occasions, during the wildfires, the ECC was able to assist the Town of Edson. This was done in the spur of the moment, with little supporting training, procedures or a common understanding of scope and roles. While the collaboration was valued, it was not without challenges.

It was extraordinary how quickly the weather changed. This required the ECC team to pivot from wildfire to flood response. Priorities instantly changed to deploying flood tubes, inspecting bridges, completing rescues, handling road washouts, responding to bridge and culvert washouts, and controlling traffic. A tired team simply transitioned to flood activities without missing a beat.

## Emergency Management Program

### What We Heard – Municipal Emergency Plan (MEP)

Yellowhead County has a robust Municipal Emergency Plan (MEP) that is compliant with the provincial Local Authority Emergency Management Regulation requirements. Some staff members expressed challenges translating the MEP into knowledge of what needed to be done and how to do it. It is expected that this is a result of staff in new positions, and an exceptionally large document, reported to be nearly 800 pages. While the MEP is available to all staff on the county's internal drive system, many staff reported lack of familiarity.

It is recommended that Yellowhead County work to streamline and simplify the MEP. Additionally, there is an opportunity to create hazard specific annexes to preplan unique scenarios. There must be an emphasis on plans to facilitate emergency social services delivery and evacuation supports. Both of these topics will be expanded upon in future sections.

### What We Heard – Staffing

When a community is embattled in a disaster as significant as the 2023 wildfire season, it is imperative that plans are in place to manage the depth required in the organization. Throughout the response, there are many examples of multilevel field promotions for staff members, who may or may not have been trained in the particular role. Whilst the staff members were adaptive and willing to learn, it was reported that this caused anxiety amongst the staff. In some cases, the staff members acting in positions expressed reluctance to make decisions as they did not understand their specific delegation of authority or decision-making scope.

A plan that increases training to ensure increased depth in emergency response role is recommended. This was reported to be underway at the time of writing. That plan should ensure that all departments within Yellowhead County are required to train, exercise, and provide personnel to assist.



## Emergency Management Program

Staff to coordinate an ECC for extended operations is often a challenge. Within 24 to 48 hours, response teams can easily become exhausted. YHC predicted this problem and called for additional assistance early. This demonstrates the critical need to make an early prediction if an incident is escalating, and whether emergency support can be requested from outside Yellowhead County. Yellowhead County should be commended for activating assistance from other regional and provincial incident management teams to bolster their staffing depth and experience. The participation of YCFD in the North Central Incident Management Team (IMT) and their co-training opportunities ahead of 2023 paved the pathway for this assistance. Additionally, this created a culture of openness to assistance from both the North Central IMT and Canada Task Force 2. Many respondents spoke of the competence, horsepower and energy that resources arriving from other jurisdictions brought to the response.



Photo from Strathcona.ca



Photo from cantf2.com

### What We Heard – Relationships

The leadership of Yellowhead County had effectively established relationships with many partners including the Alberta Emergency Management Agency, Alberta Wildfire and the neighboring communities. While the relationships were established and organizations were familiar working together on smaller, more routine incidents, there is an opportunity to establish a different working relationship as incidents escalate. This can be achieved through additional training and exercising.



The alignment of leadership in YHC is noteworthy. It is rare to see a response where the messaging, trust, direction and focus of leadership remains united through the GM/Fire Chief, the Chief Administrative Officer, and on through to the Mayor and Council. The declaration of a State of Local Emergency was timely, prudent and relevant to the rapidly developing situation.

## Emergency Management Program

### What We heard – Business Continuity

An effective business continuity program is one that is understood and implemented across all departments with engagement, education and training common throughout all levels of staff. Many staff respondents in the survey were unclear as to whether a generalized business continuity plan existed for their department, or across the organization.

Figure 10 shows the results of the staff survey when participants were asked whether their department had a business continuity plan in place. It is evident that only 24% of respondents knew about their departments' existing plans. It would be advantageous to create a robust business continuity program across Yellowhead County. It is imperative that a culture where business continuity becomes more than the responsibility of Emergency Management is fostered. Effective business continuity plans can become the foundation for many business operations.

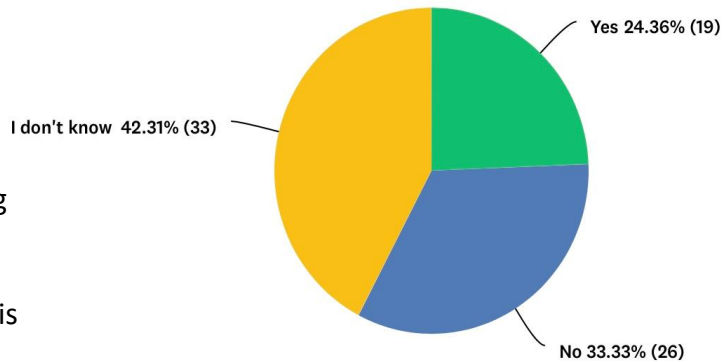


Figure 10: Did your Department have a Business Continuity Plan in place? (Staff Survey)

Business continuity plans can help focus limited resources on the highest priority services. Typically, the highest priority services are the services which have a direct effect on life safety of the first responders and the community.



While senior members of Yellowhead County spoke of continuing only essential services (water and sewer service), a gap existed in the translation of this to middle management and frontline workers. Staff members felt the pressure of filling their emergency response role and their ongoing day-to-day responsibilities.

## Emergency Management Program

Additional staffing policies and procedures should be evaluated and potentially updated as a result of the 2023 wildfire season. Staff expressed confusion and frustration as evacuations orders were issued. Many were unclear how the need to evacuate interacted with their role as an existing, or new, essential service provider and therefore the need to stay and respond in the community. As part of the response Yellowhead County offered lodging and RV accommodation for all staff who required assistance.

Members of Council also expressed the feeling of being conflicted whether they should be staying in the community as essential service workers or setting an example and evacuating along with community members. Staff who initially evacuated were called back to perform essential roles, with Yellowhead County providing travel assistance. However, some staff remained unclear on the resources that were available to them and what the triggers would be for the evacuation of all personnel remaining in an area.

The survey also revealed additional confusion regarding vacation and pay policies for the staff. The perception was evident that staff members had the ability to choose whether to stay and help, or whether to evacuate with their family, despite their essential roles. Policies between departments regarding remote work and the use of vacation during this time exacerbated the staff perceptions. It is recommended that Yellowhead County modernize and standardize pay process across all of the county's departments.



### **What We Heard – The Emergency Coordination Centre (ECC)**

Due to the nature of the events and the rapidly changing environment, the ECC was challenged to keep pace with an accurate situational awareness of everything occurring in the County. The chaotic start to the fire prevented the early establishment of a battle rhythm. This created a situation where the ECC was responding to the urgent matters, thus making predictive planning and true situational awareness difficult to attain.

Due to the dynamic nature of the wildfire and the number of available staff, the ECC operated at times as both an ECC and an ICP. While not ideal, the circumstances required this co-location. Some found this confusing and were unable to delineate the appropriate assignment and coordination of objectives.

## Emergency Management Program

It is important to note that a common understanding of terminology was difficult. Through the review it was challenging to determine the specific locations described by respondents. Particularly the term Emergency Operations Centre, Emergency Coordination Centre, Incident Command Post appeared to be used interchangeably. Additionally, the ECC also referred to the Emergency Communication Centre where 9-1-1 and dispatch services were operated, and some thought it was the Emergency Call Centre where residents could call for information. It is recommended that Yellowhead County work towards clarity in naming conventions.



There are opportunities to streamline the ECC should Yellowhead County experience another event. Long term capital budgets should consider increasing the space available to work. This will allow for appropriate meeting spaces, break out rooms and contribute to a less chaotic environment. Making additional space to operate the call line and tactical radio communications nearby, and not in the ECC, should also be considered. The co-location of crisis communications staff in the ECC would be valuable.

The value of an ECC is often found through the face-to-face interaction of all involved parties. These interactions allow the entire response to focus on common priorities. Additional representatives from healthcare, RCMP, and industry may provide additional situational awareness and further resources to address objectives. A consistent and full-time representative from Alberta Wildfire would help to streamline situational awareness across the jurisdictions. Staff members expressed appreciation for the consistent presence of CN Rail representatives. The establishment of an early battle rhythm for the response will help to ensure that everyone is well informed, consulted as needed, and operating off the same situational awareness.

## Emergency Management Program

### Theme 1: Best Practices

- Continue to maintain and update the Municipal Emergency Plan in compliance with provincial legislation.
- Continue to demonstrate alignment between the Mayor, Council, the CAO and the GM/Fire Chief.
- Continue to activate assistance early from outside jurisdictions when an event is escalating.
- Establish and maintain relationships ahead of an emergency with AEMA, AB Wildfire, and others partners who are critical for effective coordination.
- The declaration of a State of Local Emergency was timely, prudent and effective.



### Theme 1: Opportunities

- Work to further streamline the MEP while creating hazard specific annexes particularly for evacuation and Emergency Social Services.
- Create a staffing and training plan to increase the depth required to fill all emergency management positions.
- Create a comprehensive Business Continuity program across all Yellowhead County departments.
- Update staffing policies and procedures for evacuation and pay during disasters.
- Establish common terminology of emergency response naming conventions.
- Where possible, establish a separate Incident Command Post and Emergency Coordination Centre.
- Create long term capital plans to increase the available space for the ECC to operate.
- Develop additional plans and processes to enhance situational awareness in the ECC and across all departments during a disaster.

# Theme 2

## Operational Response

As already emphasized, the geographical area of Yellowhead County is massive. The county encompasses over 22,000+ square kilometres that is covered by 14 full time firefighters, 2 work experience students, and a volunteer contingent that fluctuates in number. At the time of the wildfires, there were 70 rostered volunteers. Including the work experience students, this means one full time firefighter for approximately every 1,375 square kilometres. While the limited resources are well distributed, the geographical dispersity results in long travel times across the county and an incident occurring near one of the boundaries can leave the opposing area of the county vulnerable.

YCFD responds to fires in both the green zone and the white zone with Alberta Wildfire. When the fire is in the green zone, YCFD conducts initial attack until wildfire crews arrive to take over and manage the fire. In the white zone YCFD is responsible for initial attack and sustained action operations until the fire is no longer a thread. In the white zone, they may be assisted on a mutual aid basis by AB wildfire.



### What We Heard

With the number, size and complexity of the 2023 wildfire incidents, YCFD coverage was naturally spread unbearably thin. In a disaster that inherently overwhelms local systems and resources, there is a pressing need for comprehensive local, regional, provincial, and national strategies plus resources to support local disasters. .



The wildfire events of 2023 were no exception and at the height of the response, an additional 350 personnel of various specialities were brought in to assist Yellowhead County. In addition, approximately 500 personnel were stationed in the county to assist Alberta Wildfire. This large influx of resources added to the capacity of Yellowhead County however, more resources could have been used. In fact, one expert told the authors that "we could have had every firefighter in the province in Yellowhead County and we would not have stopped these fires".



# Theme 2

## Operational Response

The size of the YCFD creates pressure points. During regular business and day to day circumstances, the service can handle the incidents with which they are faced. However, even the occurrence of two medium sized simultaneous events requiring responses would stress the capacity of the department. The location of incidents may exacerbate geographical coverage demands. YCFD is predominantly staffed for serial incident response and have been able to meet expectations when situations arise. This creates a culture where all available resources respond to and manage the current problem. As a result, the general community believes that the fire department is the right size for whatever may occur. This creates a disparity between the public's response expectations in crisis and the staffing capacity of YCFD.

Additionally, the volunteer-based model doesn't guarantee that members will be available for deployment when an incident occurs. This is evident in the availability of Yellowhead County volunteers. Figure 11 highlights the number of volunteers and the various shifts of 8+ hour shifts they were able to assist with. Over the course of the wildfire response, 43% of volunteers worked less than four shifts. There are many reasons that volunteers may not have been available however this highlights the need to bolster the personnel resources available. This can be done through increasing the number of volunteers or full-time firefighters. Recognizing that across the country, fire departments that rely on volunteers are struggling with recruitment and retention, there is the need to implement a multifaceted approach to staffing the department.

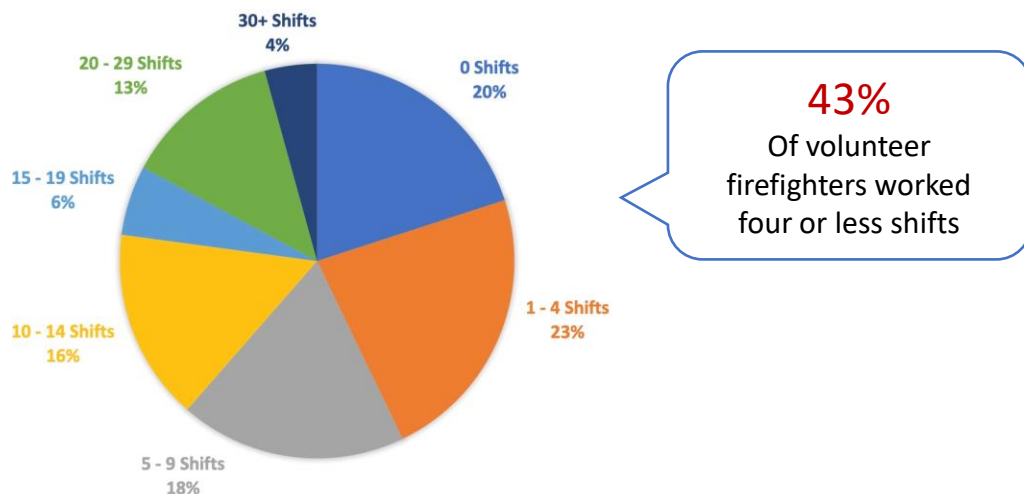


Figure 11: number of shifts per volunteer YCFD member

## Operational Response

While we appreciate that in the approved budget for 2024, Council has approved four additional full-time equivalents and two additional work experience students, there is an opportunity for subsequent investment. We believe that a six-person seasonal crew focused on the speciality of Wildland Urban Interface (WUI) would be extremely beneficial to the advancement of the program and the residents. Additionally, there is a need for a staff member to focus on the Emergency Management program and required training.

The wildfires required the staff of the YCFD to have responsibilities on many different, yet conflicting fronts. This added additional confusion and pressure on the available resources. As shown in Figure 12, the department was required to continue normal emergency response duties, provide emergency management coordination, assist with wildland urban interface response, and provide wildfire response in the white zone.

### YCFD – Operational Roles

1. Routine emergency response

2. Emergency management coordination

3. Support to AB wildfire urban interface response in the green zone

4. Wildland firefighting in the white zone

Figure 12: the operational roles of YCFD

1. Continuation of routine emergency response: Members were required to respond to and manage regular normal emergencies. This included everything from vehicle collisions, to the multitude of structure fires across the county, to medical calls. While additional resources were brought in to assist in this area which demonstrates a best practice, there is little that can replace local knowledge and the commitment of local firefighters.



## Operational Response

2. Emergency management coordination: As the lead department for the response, YCFD was required to manage and coordinate the emergency management program. This required staffing and oversight for the Emergency Coordination Centre, the Incident Command Post, and all the supporting roles. There is a need to bolster the overall depth of resources available to provide Incident Management Team support.



ECC Centre with support from Canada Task Force 2 – picture provided from the Calgary Emergency Management Agency

3. Wildland urban interface response: Due to the limited resources of Alberta Wildfire, referenced further in Theme 3 Alberta Wildfire, the YHFD had a larger role in the green zone assisting with wildland firefighting tasks. With Alberta Wildfire facing resource pressures, in some circumstances Yellowhead County resources became the logistical answer. When Alberta Wildfire struggled to provide water, YCFD provided water systems. Additionally, team members were attached to roles required to set up sprinklers, provide structure protection, provide medical support and assist with critical infrastructure protection including fire suppression near roadways. This model had relative clarity for local teams, however, created accountability challenges. As supporting resources arrived from outside jurisdictions, this became a common point of confusion. It is recommended to establish a more formal command structure with Alberta Wildfire especially when external teams arrive.
4. Wildfire response in the white zone: YCFD remained accountable for wildfire responses in the white zone of the county. Proportionally the white zone is a very small area, just over 1 %, of the overall county and challenges exist in the coordination of response. There is a need for clarity around the request for air support assistance from Alberta Wildfire. This review finds it to be incongruent that Yellowhead County would be responsible for fire suppression in a forested area and not able to direct water bombing and air support action. The process for activating and prioritizing air support in the white zone is not well developed.

**1%**  
of total area is  
White Zone

## Operational Response



It is evident from the survey results that many community members were unaware of the myriad of pressures on the Yellowhead County Fire Department. The survey revealed many examples of what authors of this report believe to be misplaced anger at YCFD for their inability to deal with every emerging incident. The department called for additional assistance early, however there were simply not enough members for an event of this size and duration. The County has ample equipment so, at times these physical resources sat idle, as crew members performed other tasks or combined with existing crews to ensure staff safety. The survey revealed that residents also found the appearance of empty units frustrating.

YCFD recognized the need for assistance and many fire departments from the surrounding areas deployed to assist. The responders from outside jurisdictions did great work. It is recommended YHC continue to rely on mutual aid assistance for large events. Mutual aid is viewed as a best practice method of bolstering the resources in a community. Results from the community survey indicated that 37% of respondents felt that emergency response from other jurisdictions was something that they would like to see continue in another event.

**37%**  
Of survey respondents felt emergency response from other jurisdictions was a best practice

In disasters, resources often go to where they are urgently required. This can result in staff filling unconventional roles based on urgent need rather than skillset or training. The willingness of YCFD to collaborate and assist was amazing! The team members did the right things for the right reasons. However, this led to confusion and a further stretching of the tight municipal resources. The expansion of roles and responsibilities contributed to the levels of exhaustion that were experienced by the staff. There is a need to balance existing roles and responsibilities with emerging roles and responsibilities in an event. Additional training and capacity building will assist with this balance.



## Operational Response

### Theme 2: Best Practices

- Continue to support and develop the YCFD culture of service and community support with an incredible spirit and willingness to help.
- The recognition and activation of support from outside Yellowhead County is commended and should be continued in future incidents.
- Continue to advance formal mutual aid agreements and activate assistance early in incidents.



### Theme 2: Opportunities

- There is a need to increase the capacity of YCFD and find creative solutions to ensure volunteer availability during events.
- It is recommended that YCFD work with Alberta Wildfire to negotiate away their responsibility for the white zone, while simultaneously advocating for changes to the green and white zones.
- Should responsibility for the white zone remain with YCFD, clarity around requesting and directing air support from Alberta Wildfire is needed.
- Consider additional resources for a YCFD specific WUI team.
- Bolster the personnel resources that are trained and available to assist with emergency management coordination.
- Enter into a more formal command structure with Alberta Wildfire to decrease confusion when resources from other jurisdictions arrive.

# Theme 3

## Alberta Wildfire

Similar to other jurisdictions across Canada, Alberta Wildfire is a stand-alone, single hazard wildfire control agency. Alberta Wildfire currently operates in the same ministry as forestry management. The events of 2023 highlight the need to consider a closer alignment of Alberta Wildfire as an emergency response organization.



Photo Credit <https://blog.wildfire.alberta.ca/about/>

A quick review of publicly available documentation indicates that Alberta Wildfire has suffered a series of budget reductions over the last few years that has resulted in decreased resource availability and an unstable staffing environment. At this time of this report, it appears that Alberta Wildfire is starting to address this issue. Many survey respondents spoke about the loss of the Rap Attack Program and the subsequent impact on Alberta Wildfire's initial attack abilities. While it is intuitive that successful initial attack programs help to lessen the frequency and severity of sustained action wildfires, it is beyond the scope of this After-Action to speculate what the impact of additional initial attack resources would have been on the events in Yellowhead County.

The change in Alberta Wildfire resourcing is relevant to this review and the actions that occurred in Yellowhead County during the 2023 wildfire season. The wildfire season in Alberta is March 1<sup>st</sup> to October 31<sup>st</sup> and the timelines are based on calendar dates, not seasonal conditions. This creates a situation where fires that occur early in the year may not have the same resource availability as fires occurring when the season is underway. While recently the Alberta government announced the planned extension of the 2024 season, Yellowhead County should advocate for this to be a permanent strategy, to ensure available crews and equipment earlier in the year.



**Alberta government to fully staff wildfire crew earlier after last y...**  
Alberta Wildfire is hiring more firef...  
[www.cbc.ca](http://www.cbc.ca)

The wildfire season of 2023 was challenging. There were multiple aggressive wildland urban interface fires across the province and Alberta Wildfire did not have the luxury of assigning all resources to one incident. Even the events occurring in Atlantic Canada impacted the availability of resources to support YHC. It was evident that the strain on Alberta Wildfire resources was felt on every response in the county. The events in Yellowhead County were dynamic, unprecedented. A running crown fire is a force of nature and a fire disaster knows no boundary when driven by wind.

## Alberta Wildfire

### What We Heard - Green Zone Versus White Zone

Historically, the province has been divided into “green zones” and “white zones” for the purposes of resource protection. Green zones were designed for the protection of marketable timber and white zones were designated as farmland. Over the years, despite this designation being grounded in the forest industry and not fire suppression, the areas are being used to delineate fire suppression responsibilities and coordination. Alberta Wildfire retains the responsibility for wildland fire suppression in the green zone, however local authorities have the responsibility for structure protection. In the white zones, local authorities have the responsibility for both wildland firefighting and structure protection. There is evidence that confusion over roles and responsibilities in the white and green zone is prevalent.

While there are many polarizing views on the future of the green zone and white zone designations, it is evident that the delineation caused confusion, resource challenges, and decreased overall coordination to the fires. It is recommended that a thorough review is undertaken to revisit and modernize these zones, with a wildfire prevention and protection lens. This review should examine how fires are prioritized in Alberta, including when green zone and white zone fires are occurring simultaneously. The recent Rural Municipalities of Alberta (RMA) resolution 7-23F in November 2023 may represent the start of this process.

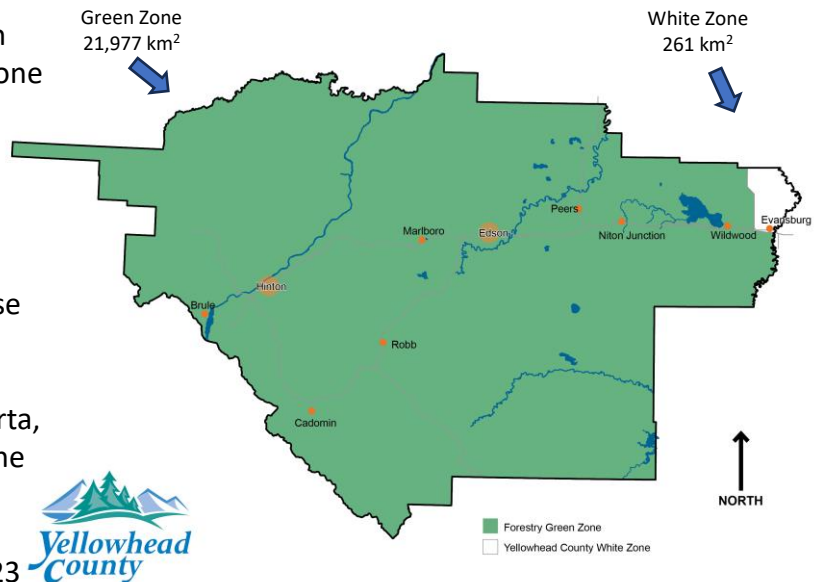


Figure 13: Green Zone and White Zone map of Yellowhead County

The resolution calls for a longer-term strategy for the resourcing and management of wildland fire events outside of the Forest Protection Area and to train additional rotary wing pilots to bolster resources. There are strong feelings that Alberta Wildfire should cover all forested areas of the province and not just marketable timber.

In the interim, it is suggested that Yellowhead County educate the public on the differences and work with Alberta Wildfire to negotiate away the very small portion of white zone within the county. Figure 13 highlights the 1.2 % of total county area that is considered white zone. A small pocket of white zone, within a massive county of green zone, makes little sense logistically, operationally or financially.

## Alberta Wildfire

### What We Heard – Situational Awareness

Alberta Wildfire sources were well recognized by the community as a source of information. However, throughout the course of the review, many challenges were shared related to situational awareness. Through the responses to the survey, it was evident that both community members and staff of Yellowhead County felt they needed additional information on the current fire location, and fire behavior predictions.

There is a need to modernize the sharing of information and the mapping systems in use. Figures 14 and 15 show the mapping information that is available through Alberta Wildfire and through an emergency alert. As shown, it would be difficult for a member of the community to obtain the necessary detail to understand where the fire is relative to their home and therefore understand their risk, and any actions they should take.

Historically, there has been a hesitation to share information and fire behaviour predictions, for the fear of providing misinformation. Simply put, that needs to change, as in the absence of information, people will fill in the blanks and make decisions regarding their personal safety or the inherent risk to their homestead and livestock. Increased communication and transparency from Alberta Wildfire officials prepares the community and provides them with confidence in the response system in place. It is imperative that emergency response organizations rethink the mapping that is available.

Ideally, a searchable map used by both Alberta Wildfire and the Alberta Emergency Alert notification system would allow the community to input their address, see their location in relation to the fire perimeter, understand the fire behavior predictions, clarify their location against an evacuation order and subsequently process the information and make informed decisions. The survey highlighted the desire for community members to have more information in a timely fashion. The planning for and evacuation of herds of livestock for example takes days, not hours.



Figure 14: Screenshot of map information available from Alberta Wildfire

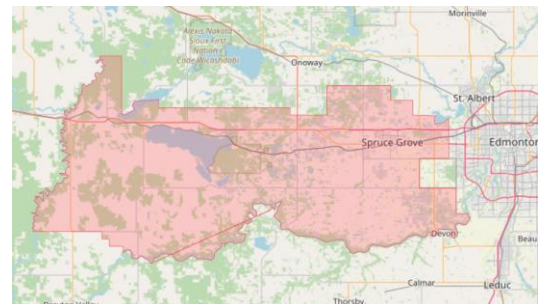


Figure 15: Screenshot of map information available of Alert Ready



## Alberta Wildfire

Many respondents spoke highly about the mapping changes implemented when one of the British Columbia (BC) Incident Management Teams brought in their mapping system. This system plotted the fire location and where fire equipment was placed. Unfortunately, these changes and enhanced mapping processes were discontinued and the reference was lost when the team returned to BC. As referenced in the survey, 32% of survey respondents were asked to evacuate but due to circumstances already highlighted chose not to, despite being under an evacuation order. The failure to provide additional information may have contributed to these decisions and may result in the loss of life, livestock and livelihood in a future event.

### What We Heard – Operational Response

This After-Action Review does not encompass a detailed analysis of Alberta Wildfire operations as a whole. Instead it narrows its focus to the specific interactions between Alberta Wildfire and YHC. Our commentary focuses solely on the direct interaction of Alberta Wildfire and Yellowhead County resources. Most commonly, respondents to the survey expressed observations on air suppression resources, the use of common terminology, conflicting policies, the relationship with wildfire incident management teams, and the use of non-traditional response resources.



Many respondents to the community survey spoke about the desire for Alberta Wildfire operations to have a more visible presence in the community. Understanding the geographical spread of Yellowhead County and the resource pressures on Alberta Wildfire, the desire for a more visible presence is understood.

The community survey also revealed that 59% of respondents wanted additional information about the various resources that were assigned to each of the fire complexes. Future release of this type of information may help create understanding among the community members.

# Alberta Wildfire

A prevalent perception among both the YHC staff and residents was that early and increased air support would have made a significant difference in the control of the wildfires. Common beliefs included that a helicopter crash stopped operations out of the Edson airport and water bombers were grounded due to untrained staff. Alberta Wildfire noted that the helicopter crash did not affect operations and that the water bombers were grounded due to ice on the lakes where they would be required to skim. Since the original collection of information was completed, supplementary information indicates that had the crews been trained and oriented, the water bombers would have been able to fill at the airport.

This highlights the need for more transparent communications and coordination to prevent misperceptions. It also highlights the needs for Alberta Wildfire to ensure that staff are trained and ready to operate well before they will be called into action.

One of the key findings is the necessity for Alberta Wildfire and YHC to establish common terminology. For example, the term “tactical evacuation” was used but with varying meanings. Despite its use, there was no common understanding of what calling a tactical evacuation meant for Yellowhead County staff and residents. To some, the term was used to reflect an evacuation order, in other situations it represented the withdrawal of emergency response resources, and in other situations represented community evacuations that needed to be expedited. This added to the situational awareness confusion and is important to be clarified for both responders and members of the public.

Additionally, policy misalignment between Alberta Wildfire and Yellowhead County were evident. When Alberta Wildfire issued a “red flag warning” and withdrew all suppression resources from the affected areas, Yellowhead County resources were in a precarious position with conflicting mandates, and a lack of situational awareness. Community members were occasionally witness to these circumstances, and it eroded the feelings of trust for the YCFD and Alberta Wildfire. It is recommended that work continue to align organizational policies to ensure the mandates of both organizations can be safely achieved.



## Alberta Wildfire

The events of 2023 saw the use of diverse resources from many different jurisdictions converging in Yellowhead County to assist. Well-developed local relationships allowed for a less formal command structure between the organizations. However, this became confusing for incoming teams who did not have local knowledge or relationships. When Alberta Wildfire imported Incident Management Teams (IMTs) from British Columbia, a breakdown of this structure occurred. It is recommended that a more formal command structure, ideally unified command occurs, and the use of a local liaison should be considered when an external IMT is placed in the county. Imported IMTs should be required to implement unified command practices of the local jurisdiction. This will help to maintain the connection between the organizations.

The ability of Alberta Wildfire to source assistance from the global community was evident. These teams had a willingness to assist with all objectives. As the response transitioned from fires to flood, Alberta Wildfire was able to divert a South African team to immediately help YHC with flood cleanup



The contribution of the community in Yellowhead County during the wildfire added value to the response and from many accounts, homes were saved by their actions. However, it was done in isolation from the formal response structures. Many residents stayed behind to undertake fire suppression actions against the evacuation order. We heard directly from residents in the survey on the positive impacts they made. The subsequent decision by the provincial government to provide compensation for their efforts poses a conundrum. While it acknowledges the value of their actions, it also potentially undermines the evacuation protocols.



## Alberta Wildfire

This creates an interesting crossroad for future responses and will certainly make evacuations more challenging. It is recommended that a provincial program is established to leverage the local communities and their resources in future events. This would ensure training, safety and formal integration with the response occurs.

### What We Heard - Fire Permit System

In Alberta, fire permits are managed by Alberta Wildfire. They are intended to ensure safe burning practices. They also help Alberta Wildfire understand where approved burning is occurring, verify reports of smoke from the public and allow firefighting resources to focus on fire suppression in areas without issued permits.

There is opportunity for YHC to advocate to Alberta Wildfire for changes to the permitting system that would allow for more timely application of bans that are directly in line with the local conditions.

The wildfires began on April 29, 2023, however Alberta Wildfire did not issue burning bans for the area until May 2<sup>nd</sup>, followed by a provincial ban (including off highway vehicles) on May 5<sup>th</sup>. This delay in implementing preventative measures could have had serious consequences. Alberta Wildfire should consider more aggressive preventative measures based on environmental conditions, weather and ongoing fires across the province.

**Fire ban**  
In effect

The Province of Alberta is restricting fires within the Forest Protection Area (FPA).

<b>✘ Prohibited</b> Safe wood campfires on public and private land, including provincial campgrounds Backyard firepits Charcoal briquette barbecues Fireworks and exploding targets	<b>✔ Allowed</b> Propane and natural gas powered appliances (stoves, lanterns, fire rings) Open flame oil devices (deep fryers, tiki torches) Indoor wood fires
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May 5, 2023  
UNTIL FURTHER NOTICE

alberta**fire**bans.ca  
1.866.FYI.FIRE

## Alberta Wildfire

### Theme 3: Best Practices

- Continue with the use of outside resources to bolster local and provincial capacity. Continue to be flexible in their assignment, supporting changing priorities (flood clean up).
- The early call of local Alberta Wildfire teams who recognized the need for the assistance of a Type 1 team was prudent, especially in light of the increasing resource pressures in the province.
- Alberta Wildfire sources were well recognized by the community members as a reputable source of information.
- Continue to have local Alberta Wildfire crews establish relationships with local authorities in times of regular business.
- While viewed as both positive and negative, the compensation for local resources used provided recognition to the local community that their participation was valued.

### Theme 3: Opportunities

- Consider improving the alignment of Alberta Wildfire as an emergency response organization.
- Review the dates for wildfire season in light of climate change and local conditions and train the resources required to be available earlier in the season.
- Complete a comprehensive, province wide review of the green zone and white zone protections areas. Consider Alberta Wildfire to hold responsibility for all timber areas.
- Modernize the Alberta Wildfire mapping system providing situational awareness and enhance the sharing of information.
- Provide Fire Behavior Forecasts at a minimum daily to a broader audience.
- Establish common and well understood terminology while allowing for the local authority processes to simultaneously exist.
- Establish formal Unified Command with local authorities, early and swiftly and provide a local liaison for teams from outside the jurisdiction.
- Establish a provincial program to proactively leverage local communities and their resources in future events.

# Theme 4

## Evacuation

Throughout the duration of the wildfire season there were many evacuation orders, extensions, and rescindments, and each presented significant challenges. In North America you will find the officials that are charged with the decision to evacuate are placed in a difficult position. When an evacuation order is announced and citizens leave, they are leaving their livelihood and personal property.

This creates a paradox for both the members of the community and officials. This paradox is represented in Figure 16. If they return to a damaged home, there is a feeling their property was not protected. If their home is not damaged, there is a feeling that the evacuation was not necessary. Additionally, if they stay to fight the fire, they feel abandoned by the local authority. This feeling of abandonment was evident in the community survey. In essence the authority issuing the evacuation order rarely is seen in a good light.

Evacuation Status	Property Condition	Public sentiment
Evacuated	No damage	Evacuation was not required
Evacuated	Damaged	Property was not protected
Refused Evacuation	No Damage	Evacuation was not required
Refused Evacuation	Damaged	Property was not protected

Figure 16: The Evacuation Paradox

### What We Heard – Evacuations

Of the public survey respondents, 678 were under evacuation order at least once. However, it is important to note that 220 (32%) chose not to evacuate. When people are presented with a decision, whether they actively recognize the process, they quickly undertake a decision-making process.

**32%**  
Of survey respondents chose not to evacuate

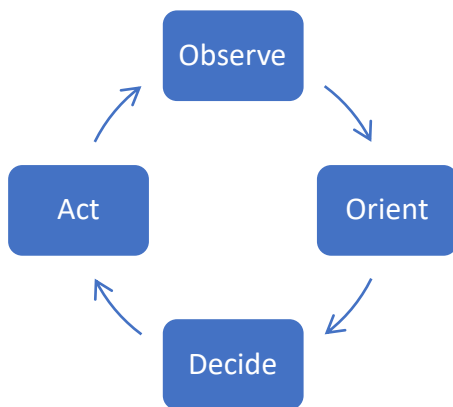


Figure 17: Visual Representation of the OODA Loop

In emergency situations, John Boyd, a military strategist and United States Air Force Colonel developed the model referred to as the OODA (observe, orient, decide, act) loop that many people subconsciously use. Figure 17 demonstrates the OODA process used to process information and make decisions. The OODA loop is a decision-making cycle that consists of four sequential steps designed to provide a strategic advantage in dynamic situations. The loop is continuous, with the outcome of actions being observed and fed back into the cycle, allowing for rapid adaptation to changing circumstances. Understanding the OODA loop is fundamental to understanding why community members made the decisions they did, and how to influence them in the future.

## Evacuation

The OODA Loop:

1. **Observe:** Gathering information from the surrounding environment. This involves monitoring the situation to identify potential threats and opportunities. It is the data collection phase where situational awareness is developed.
2. **Orient:** Analyzing the information and using it to update one's current reality. This step involves interpreting the data collected during the observation phase, taking into account personal and organizational filters such as culture, traditions, and previous experience. It is where understanding of the situation is formed, and options are considered.
3. **Decide:** Selecting a course of action from the available options. This involves making a decision on how to respond to the situation based on the understanding developed in the orientation phase. It is the planning phase where strategies or tactics are chosen.
4. **Act:** Implementing the chosen course of action. This is where decisions are executed and physical action is taken. The effectiveness of these actions is then observed, marking the beginning of a new cycle.

In exploring the reasons community members chose not to evacuate, insight was gained into areas where additional support may be required in future emergencies. The primary concerns were:

- **Concern for animals:** many were hesitant to leave livestock or pets behind, indicating the need for additional planning around animal evacuation or shelter in place supports.
- **Understanding of the fire conditions and level of danger:** a lack of clear understanding about the severity and immediacy of the fire risk was evident.
- **Resources to leave:** whether financial or transportation.
- **Confusion over evacuations reasons:** There was ambiguity whether the evacuation was the result of fire danger or of closed access roads that might limit egress if the fire came closer.
- **Fear of looting and trespassers:** reported to be relatively minimal.

**62%**  
Of survey respondents needed clarity on evacuation procedures

## Evacuation

It would be beneficial for Yellowhead County to develop specific evacuation plans and training (including livestock considerations) for the various areas in the community. While the use of the Edson residential plan was reported to be helpful for coordinating collection points and transportation, it did not provide the detailed nuances for community areas.



Enhanced communications and accurate mapping are vital in emergency situations, as they significantly influence residents' understanding and responses to evacuation orders. This concept is further elaborated on in the communications theme of the report. Residents shared feedback about mixed messaging as they were asked to evacuate west into Hinton. For many, this was towards the approaching fire and smoke. At the time, residents lacked the context to understand that the other directions were cut-off by other fires, both inside and outside of Yellowhead County.

When we compare the top reasons that residents expressed for choosing not to evacuate with the OODA loop, the decision-making process becomes clearer. Residents were looking for additional information to supplement what they were observing in the county. In some cases, this information was not available, and some folks were challenged to make decisions without understanding the full picture of the situation.

The timing of evacuation orders and their subsequent rescindment requires a delicate balance, all in the literal heat of the moment. It is recommended once the trigger for an evacuation has been met, the rescindment triggers need to be established with the community in mind. Many respondents shared examples of the stress caused by evacuating for a very short period, returning home and being re-evacuated shortly after returning.



## Evacuation

### Theme 4: Best Practices

- The use of established plans from other regions helped bolster the evacuation efforts.
- Yellowhead County showed the willingness to take necessary actions.

### Theme 4: Opportunities

- Enhance the processes and information available to residents to ensure they have the time to process the information and make decisions relative to their specific risk and circumstance.
- Develop specific evacuation plans and training (including livestock considerations) to be able to handle the unique needs of the population.
- Carefully consider the timing of evacuation orders and rescindments to ensure public safety.



# Theme 5

## Emergency Social Services

Effective Emergency Social Services (ESS) plans are necessary to support members of the community when they are required to evacuate. ESS programs are designed to provide basic needs support during the emergency phase of an incident particularly for community members who are experiencing vulnerability.

### What We Heard – Emergency Social Services



Despite some ESS staff reporting that they were unfamiliar with the plans in Yellowhead County, they were able to successfully establish reception centre locations where residents could access assistance. Of the survey respondents, 16% accessed various services through ESS. This is much higher than the typical rate of access in major urban centres. Financial support was identified in the survey as the most impactful form of assistance provided.

Consistent with other themes of the response, resources were a challenge. Finding enough people to administer the ESS program in the midst of evacuations influenced the decisions made at the ECC. Further, it limited the capacity to respond to the changing conditions. It is recommended that ESS undertake regular training and exercises to ensure they are properly resourced and supported to provide services as required.

Confusion exists across the province for how local response agencies can access additional resources from outside their jurisdiction. It was reported that the use of Red Cross was fraught with challenges. Unfortunately, this is not a unique situation and therefore it is recommended that Yellowhead County explore other solutions to their resourcing challenges.



## Emergency Social Services

As mentioned previously, the evacuation orders and instructions were being issued quickly and occasionally changed after the emergency alert had been issued. This is expected in highly volatile situations. As a result, some members of the community expressed confusion in understanding what action they should take and where they should go. In some cases, this was described as a barrier for community members to evacuate.



With the geographical vastness of the county and the differing needs of residents, it is recommended Yellowhead County establish an ESS trailer with portable equipment that could be relocated to the affected area of a community. This equipment would include the supplies to establish a reception and general lodging centre. As referenced further in the communications section, additional communication methods would help to ensure community members have the most recent, relevant information.

The establishment of the Yellowhead County community information line during the wildfire was highly beneficial and identified as a best practice, affirming its necessity in future events. The widespread use of the line by community members underscores its significance in disseminating essential information during emergencies. For future implementation, careful consideration is needed regarding the location and resourcing of this line to maximize its effectiveness. Additionally, it is crucial for call-takers to be thoroughly informed and equipped with the latest situational awareness. They need access to real-time information to accurately verify the rapidly changing conditions of the emergency. Moreover, it is imperative that the information provided by call takers is consistently aligned with other communication channels. They should be well-versed in every decision and rationale in order to effectively explain these aspects to callers, ensuring that their messaging synchronizes with the details shared in emergency alerts, the county's website, the Mayor/CAO briefings, and any media releases. Such comprehensive and aligned communication strategies will cement the community information line and as later referenced, the YHC website, as reliable and trusted resources for residents during critical situations.

## Emergency Social Services

### Theme 5: Best Practices

- The establishment of a community information line was highly beneficial and well received by the community members. The information provided by this line and the YHC website should always remain congruent.
- Yellowhead County successfully established reception centres where residents could obtain information.

### Theme 5: Opportunities

- Consider ways to bolster the resources available for the coordination of an ESS response.
- Advocate for more coordination across the province in ESS delivery and support.
- ESS needs to undertake regular training and exercises to ensure they are properly resourced to provide service.
- Establish an ESS trailer with portable equipment that can be relocated to affected areas of the community easily.



# Theme 6

## Provincial Coordination

An event of this magnitude necessitated a collaborative response involving responders from other sectors across the province. There is no question that community members and responders benefit from collaboration and cooperation between departments, regions, and levels of government. Every department that participates in the response has their own challenges, resourcing, and operational procedures that they bring to the table. This After-Action Review is not intended to review other government programs. It is intended to highlight areas where those programs interacted with Yellowhead County.



### What We Heard – Alberta Emergency Management Agency

The Alberta Emergency Management Agency (AEMA) leads the coordination and cooperation of all organizations involved in emergencies and disasters at the provincial level. Often, when an impactful event occurs in a community, AEMA deploys field officers to the jurisdiction. These field officers are the eyes and ears of the province and provide a window of access for other resources. Reports indicate that AEMA field officers did an exceptional job in challenging circumstances to boost the capacity of the community. The officers were stretched out over large areas and despite being spread thin, provided sage advice to Yellowhead County responders. The scope and scale of events across the province were important contributors to the number of resources available and the pressures being placed on the organization.



The Wildland Urban Interface (WUI) program, part of the AEMA, faced a significant challenge in Yellowhead County. In one particular incident, it was strongly felt that the WUI program, and the managers of the program in AEMA, undermined and discredited the local authority. The incident and the fall out did not contribute positively to the emergency response. It is apparent from many different sources that Yellowhead County has been asking for support on the wildland interface front for a long time. This support includes Task Force Leader and Structural Protection Specialist training, and training for firefighters.

At the time of this reports writing, several classroom sessions for WUI training have been scheduled. However, no practical, hands-on sessions have been arranged to date.

## Provincial Coordination

The WUI program is being tightly controlled within the AEMA and its alignment with either Yellowhead County or Alberta Wildfire is currently not apparent. The program has been criticized as being exclusive, with training only available to a small, select group of individuals, which does not allow the local responders or community members to take advantage of the education. It is recommended that a major change takes place in the availability of this program. There is incredible value in FireSmart programs incorporating a WUI component. This information should be readily available to residents and the county, and include specific training for fire response staff ideally before March 31, 2024. The dismantling of various roadblocks and the opening of access to all members of a community would result in increased levels of preparedness, and greater capacity for community members and responders to make decisions. There is incredible untapped value in an aggressive, open program. Holding this information tightly is outdated much like the old mindset where people were not taught CPR, for fear they may do more harm than good.

### **What We Heard – Alberta First Responder Radio Communication System (AFRRCS)**



The Alberta First Responder Radio Communication System (AFRRCS) stands out as a forward-thinking and decentralized communications infrastructure, essential for the operations of public safety agencies. Its design, aimed at ensuring interoperable communication across various agencies during emergencies, positions AFRRCS as slightly ahead of its time.

Despite its remarkable capabilities, AFRRCS faces a significant challenge that affects its efficiency; the lack of enforced naming conventions for radios within the system. Stemming from the flexibility agencies have in renaming talk groups on their radios, this issue leads to inconsistencies that can impede effective communication, especially during high-impact events.

While AFRRCS mandates certain talk groups, agencies are allowed to rename them on their device, creating a patchwork of identifiers for the same channels. This situation is particularly problematic when coordinating response to emergencies, when common event talk groups need to be accessed quickly and reliably. The confusion arising from these varying names has been a persistent issue, highlighted in the 2021 Lobstick Wildfire and again in the wildfires of 2023. These events underscore the difficulties in resource allocation and coordination due to communication barriers.

## Provincial Coordination

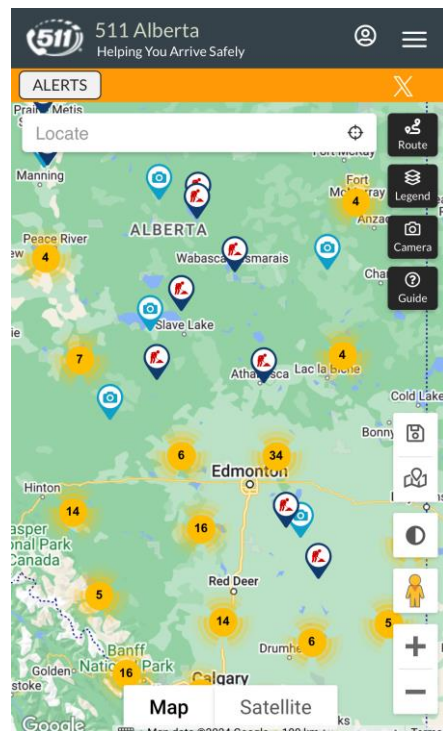
Two considerations are recommended to enhance the functionality of the AFRRCS system. First, standardized naming conventions for talk groups across all participating agencies will ensure uniformity, making it easier for responders to communicate effectively during joint operations. Second, complementing these standards with comprehensive training programs for all users of the AFRRCS radio system will ensure that personnel are well versed in the system functionality.

AFRRCS is a system with great potential that can significantly improve its service to the public safety sector and become a more powerful tool for public safety, ensuring better outcomes during disasters and high-impact events.

### What We Heard – Alberta Transportation

Many respondents expressed confusion understanding the status of road networks in both the county and the surrounding areas. The information about roadway status that was issued from responders on the ground in Yellowhead County often did not match the information that was represented on 511 Alberta. There is a need to align the information to ensure members of the public receive this information in a faster, more efficient and accurate manner.

While we understand there are financial implications to closing roadways, there is a need to redesign the mechanisms and processes for road closures. Working collaboratively with Alberta Transportation, there needs to be an understanding of the ground truth of an incident. The local authority needs to have the capacity to close a road and work with 511 to have the information updated quickly. The mismatch of information exacerbated the confusion in the community in the midst of an evacuation. A complete closure of Highway 16 due to a motor vehicle collision versus the information on 511 that the road was open created additional problems. With fewer access roads in and out of a community, the accurate status of the remaining roads becomes even more crucial.



Screenshot from Alberta 511 app

## Provincial Coordination

### What We Heard – Policing

In the community survey, many people mentioned problems with how the RCMP and Alberta Sheriffs responded during the evacuation. These agencies were under tremendous pressure, handling more work than they had resources for, especially as the emergency situation continued and demands increased across the province. This strain was particularly clear in the struggle to provide enough support for evacuations. Additionally, many residents found the officers strict and firm approach difficult to work with during the evacuation. In an interview, the RCMP acknowledged these challenges. They explained that maintaining the integrity of the evacuated areas was challenging and they aimed to be polite but firm to ensure safety and security. Concerning looting, they noted it was relatively minimal, but still a concern. The RCMP had staff in the ECC as much as they could resource however, more consistent communication with the incident commander, especially with daily updates or reports would have been beneficial.



### What We Heard – AHS – Emergency Medical Services

In response to concerns about Emergency Medical Services (EMS) provision during the recent wildfire, Yellowhead County proactively engaged the Minister of Health prior to the initiation of our review. Minister LaGrange responded decisively, committing to addressing the issues raised and we understand that there will be significant changes to enhance EMS provision to the public for future emergencies.



## Provincial Coordination

### Theme 6: Best Practices

- Continue to build relationships with AEMA through the field officers.
- Continue to engage early with AEMA when incidents occur in the county.

### Theme 6: Opportunities

- Advocate for a review of the WUI program within AEMA. Alter the program to dismantle roadblocks and provide open access to interested parties.
- Work with AFRRCS to enforce naming conventions across the system.
- Address the mismatch of information between responders on the ground and 511 Alberta in complex, dynamic situations.
- Advocate for process changes in the way roads can be declared open and closed that utilize the information from responders on the ground.
- Increase the coordination of RCMP and Alberta Sheriffs in the ECC.



# Theme 7

## 9-1-1 & Dispatch

Any time there is an event of this magnitude in the community, there is added pressure on the 9-1-1 and dispatch systems. Call volumes rise, community members are on the move and incoming resources require tracking, dispatch and communications. In Yellowhead County, the Public Safety Answering Point (PSAP) and dispatch centre is called Yellowhead Regional Emergency Communications Centre (YRECC), often shortened to ECC. YRECC answers calls from more than 65,000 residents from across the province of Alberta.



### What We Heard – 9-1-1

The Emergency Communication Services in Yellowhead County did not have a formal business continuity plan in advance of the 2023 wildfire season. The dramatic influx of responders and the evacuation overloaded the YRECC major incident plan. This caused confusion for individuals answering incoming calls. There was a lack of clarity whether they should enter the calls in the Computer Aided Dispatch (CAD) System or onto an Incident Command System (ICS) form. There was also confusion on whether to send the calls to the ECC or dispatch them through normal protocol. While there is no evidence that this confusion caused a decreased level of response, it resulted in variations in how different telecommunicators handled calls. It is recommended that these processes are developed, matured, and trained ahead of the 2024 wildfire season.



Additionally, some perceived the co-location of 9-1-1 services within the ECC was both challenging and helpful. While 9-1-1 staff spoke of enhanced situational awareness, the co-location added pressure to the space and level of noise in the ECC. It is recommended that active dispatch of apparatus should come from the dispatch centre.

In Alberta, and many other provinces, there is a confusing dual process for reporting fires. The public is asked to dial 9-1-1 for a fire involving a house or other structure. However, if the fire is burning in the forest adjacent to the house, they are asked to call 310-FIRE. This is even more confusing where wildfires are reported in a white zone which is the responsibility of the municipality. To address these concerns and streamline the response process, a more integrated approach is needed.

## 9-1-1 & Dispatch

Over time the processes should be modified where all callers dial 9-1-1 for their problem. Such a system would allow 9-1-1 operators to quickly determine the nature of the emergency and whether any structures are involved. Then, if necessary, they would transfer and co-evaluate with 310-FIRE and a wildfire dispatcher would be fully engaged. While there may be resistance to this change, as 9-1-1 systems transition to Next Generation 9-1-1 (NG911) systems, additional benefits of call accuracy and call data will flow to both 9-1-1 and 310-FIRE. These additional benefits include location, video, photos and/or text from the call.

Finally, a provincial public education campaign would clearly communicate to residents when to use each number, emphasizing that 9-1-1 is the go-to for all immediate threats, including wildfires, with 310-FIRE as a secondary contact point for controlled burns or permit-related inquiries.

### When you should call 911:

- **for a life-threatening medical emergency**
- **for a crime in progress**
- **for a motor vehicle collision**
- **for any fire – vehicle, structure, or wildfire**

Photo from yhcounty.ca



From Alberta.ca

### Report a wildfire

If you see a wildfire in a forested area:

[Call: 310-FIRE \(3473\)](#)

When a resident calls 9-1-1, their call is answered by the designated Public Safety Answering Point (PSAP). In Yellowhead County when the call is answered and the caller identifies that a wildfire is active in the green zone, they are transferred to Alberta Wildfire dispatch for action. However, if there is structural involvement, that caller needs to be passed on to YCFD. There are many examples of situations where this link between the two dispatch centres was ineffective. For example, in some situations Yellowhead County was not notified of structure involvement and therefore did not dispatch resources. For community members, this left a sense that they called for help and no one came. It is recommended that Alberta Wildfire dispatch centres and PSAPs around the province, implement a co-evaluation process where representatives from other organizations are evaluating the incoming call and, if required, are able to send resources.

Historically, once an area experiences a severe wildfire, the subsequent fire season brings back memories for the community. Sometimes this causes residents to be hypervigilant. This anxiety often results in increased calls and a strain on existing resources. It is recommended that YRECC prepare for the possible surge in calls as they enter the 2024 wildfire season.

## 9-1-1 & Dispatch

### Theme 7: Best Practices

- Continue to promote the sharing of information and common situational awareness between the ECC and 9-1-1 staff.



### Theme 7: Improvement Opportunities

- Create a major incident response plan and clearly define call protocols and pathways for large incidents, including the routing of calls through CAD, ICS forms, or the ECC.
- Provincially re-evaluate the dual processes of using 9-1-1 and 310-FIRE for reporting fires.
- Implement co-evaluation policies with Alberta Wildfire to share information and ensure appropriate resource dispatching.
- Ensure the use of a physically separated location for 9-1-1 services, to add space into the ECC.
- Prepare for a potential influx of calls as wildfire season starts.

## Communications

Virtually every after-action review following a disaster recommends improvement to communications. Rarely do organizations anticipate the number of personnel required to successfully gather, assimilate, and present information to the many different audiences. Over the last decade, the demand for information has increased dramatically. Today's environment requires the use of traditional media, social media, various technology platforms and chat groups. Crisis communication experts face an almost impossible task to keep up. They are required to create content, monitor evolving situations, complete trend analyses and deal with arising issues. Further, in Yellowhead County, the small contingent of staff was also required to draft, reissue and update 65 emergency alerts.

65  
Emergency alerts issued

Disaster communications require coordinated delivery to three distinct audiences. Communications up through an organization to mayors, councils, chief administrative officers, and other government organizations is critical to ensuring they have the necessary information to perform their specific roles in supporting the community, including advocating for needed resources. Communications across an organization are integral to ensure situational awareness, common priorities, and aligned goals across all departments. Finally, communications to the public are needed to provoke action and provide situational understanding to protect life safety and critical infrastructure.



In the case of a wildfire disaster, the communications team is also reliant on the AEMA Alert Ready / Alberta Emergency Alert application and on Alberta Wildfire providing accurate situational awareness on the location of the fire and the anticipated fire behaviour in the next 24 hours. Without this information communicators are relegated to talking about what happened in the past tense versus what may happen in the future.

Good decisions stem from good information. Independent people like to gather the information, orient and process it to their respective situation and make plans to move forward. The power in a person making a decision on their own is immeasurable compared to someone being told what to do. There is a broken communication link between Alberta Wildfire providing the fire location and its predicted behavior, and the information flow through YHC (via Alert Ready) to the residents, which created more distrust.

## Communications

### What We Heard – Communications

The need for communications during the 2023 wildfire season was immense. Yellowhead County was operating with a primary communications team of one individual who was assisted sporadically by a second individual and the Alberta Wildfire communicator. By all accounts, the work was well done. However, like most disasters, communications was overrun. In the height of the response, it is likely that up to 10 individuals would have been kept busy monitoring the various channels and creating content. This proved to be a daunting task and most of the focus was correctly placed on the issuance of critical alerts from the Alberta Emergency Alert / Alert Ready system as well as information disseminated to the Yellowhead County's Facebook page. That said, more resources were required.

The geographical diversity of the community adds a unique complexity to the communications needs for Yellowhead County. An incident affecting one area can be completely unique to an incident affecting a different area of the county. This disparity is extreme in Yellowhead County where one can travel approximately 270 km and still be in the county.



Despite the best efforts of Yellowhead County, virtually all respondents, whether members of the community or members of the staff, expressed the desire for additional communications and a better understanding of the situation. There is a need to create a communications team and plan for Yellowhead County. Ideally, a team of 10-12 motivated members would allow the large amount of communications work to be completed. The team can be pulled together from Yellowhead County staff or there is an opportunity to partner with local industry for capacity. The establishment of a battle rhythm early in the incident will help satisfy many of the information gathering and sharing needs. Additionally, understanding the various audiences requiring communications and the processes to establish a group of trained individuals will be critical. The planned choreography of all the necessary communications components should be included in this plan.

As a part of the communications plan, it is recommended that communication templates and briefing templates be developed and drafted for all high-risk areas. The use of these resources can help inform the systems that will ensure all audiences have the same information, in the necessary time.

## Communications

### What We Heard – Communications Up

Yellowhead County experienced incredible alignment between members of Council, the Mayor, CAO, and the Fire Chief. Many respondents spoke highly of the updates provided daily through the livestreams. This is a practice that Yellowhead County should ensure becomes a part of their strategic communications plan moving forward.

Many members of Council expressed the desire to be more supportive to their team members. The widespread geography of the county meant that not all Council members were affected to the same degree. Members of Council are a meaningful resource to the community. A coordinated communications plan would ensure Council members are staying aligned with YHC messaging and further, they can provide communication feedback from their constituents.



### What We Heard – Communications Across the Organization

Communications across the departments of Yellowhead County were challenged by the volume of information and the rapidly changing landscape. Of the staff who responded to the survey, 55% highlighted communications as one of the top challenges with their team. Absent in the responses was information on what supervisors and managers did to ensure that the current situation was well communicated to team members. Invariably, it is known that staff became a force multiplier in getting informal communications out to the community. Staff expressed the desire for more information about the evacuation procedures and expectations for staff members who stayed behind, real time information on fire behavior and progress, additional communications equipment and systems, and additional mapping and geographical information.

## Communications

During the response, Yellowhead County established a call-in line where members of the public could call in for additional information. This call line is a best practice and was appreciated and well received by members of the community. Residents from Yellowhead County, the Town of Edson and Parkland County residents from Entwistle were able to access the line for information. At times there was a disconnect between the information that the call line staff members had available and the information that community members were asking about.



1(833) 334-4630

### What We Heard – Communications to the Public



Through the public survey, 31% of the public felt well informed about the actions that they should take. Most community residents expressed challenges understanding the resources assigned to the fires and the current fire conditions. The lack of understanding contributed to the community hesitating to act as requested and the fear that resources may not be available to protect their assets. This ultimately challenged the trust that the community placed in both Alberta Wildfire and Yellowhead County.

The daily livestream updates provided by senior members of the organization were well received by the survey respondents. Many tuned in daily as a source of trusted information. It is recommended that moving forward these types of updates are continued. Ideally, the inclusion of a consistent spokesperson from Alberta Wildfire will ensure additional relevant information is provided.

The public perceived that the primary method of public communication was the cellphone alerts issued through the Alberta Emergency Alert / Alert Ready system. Over the course of the response, Yellowhead County issued 65 critical alerts. Survey participants noted that the Alberta Emergency Alert / Alert Ready system was their most sought-after information source. That said, this was both an effective and ineffective method of critical information delivery to the community.



## Communications

In the early stage, the sounds of the cellphone alert resulted in action by the members of the community. As the number of evacuation areas expanded and more fires started in the county, many residents shared their decision to turn off their mobile phones as the alerts were becoming overwhelming and added significant confusion and stress to the situation.

This may seem counterintuitive, however, many expressed frustrations with yet another alert. As demonstrated in Figure 18, information was difficult to follow. We encourage the implementation of additional strategies to bolster communications. It may be prudent for YHC to consider a more aggressive use of their website with a front banner, activated during crisis, where residents can click for up-to-date information and the latest developments.

The screenshot shows a red header bar with the text "Critical: Wildfire" on the left and "Updated Apr 29, 2023 at 08:24 PM" on the right. Below the header, the "Source" is listed as "Alberta Emergency Management Agency" and the "Issued" time is "Apr 29, 2023 at 08:24 PM". A "History" section lists several updates: "Alert: Apr 29, 2023 at 06:11 PM", "Update: Apr 29, 2023 at 08:24 PM", "Update: Apr 30, 2023 at 07:19 PM", "Update: May 01, 2023 at 06:42 PM", "Update: May 02, 2023 at 12:00 PM", and "Cancel: May 03, 2023 at 11:00 AM". A "Description" section reads: "Parkland County Entwistle area Wildfire alert MANDATORY EVACUATION ORDER There is a wildfire near the hamlet of Entwistle".

Figure 18: Snip of one series of Alert Updates

As also highlighted in Theme 3 Alberta Wildfire, Alberta Emergency Alert / Alert Ready communications lacked the detailed mapping necessary for residents to understand exactly where they are in relation to the developing fire. Residents need to take in the information as an event is unfolding in order to orient it to their particular situation. Once this is done the residents can process what decisions need to be made and act.

**71%**

Community members needed real time fire information

In the survey, 71% of community members needed factual information about the location of the fire relative to their residential property. The projected pathway of the fires and anticipated behavior were missing from both the Alberta Wildfire and Alberta Emergency Alert /Alert Ready sites. This type of information is perhaps one of the most important pieces residents need.

The ability to provide this information is not a resource challenge, but instead, a fundamental system problem in the approach of Alberta Wildfires. Additionally, we struggle to understand why fire behavior analysis is not provided to residents. Clearly, it may be under or over-estimated, similar to a weather forecast. However, the residents, all with their own complex situations, could use the information earlier rather than later when the need to evacuate becomes urgent. For many, there was not enough time to prepare the logistics of moving their livestock.

## Communications

It is recommended that AEMA and Alberta Wildfire work collaboratively together to provide detailed mapping to residents. As referenced in the Alberta Wildfire theme, this mapping should include fire perimeters, growth projections for the fire and expected weather conditions.

In the urgency of the events, there were times where the primary communications focus was on immediacy and not accuracy of the message. This resulted in Yellowhead County occasionally requiring a re-issue of communications to correct errors. Despite the added pressure as events escalate, it is necessary to continually maintain a balance between immediacy and accuracy. It is possible this can be maintained by a more robust approval process, for communications to be signed off by the Director of Emergency Management or Emergency Coordination Centre Director.



While we understand that the Alberta Emergency Alert / Alert Ready program is not intended as a bulletin board, we believe it should house critical alerts issued for a wildfire evacuation until the situation is resolved. Currently these alerts expire after 24 hours. In an event where conditions are constantly changing and evacuation orders are continually expanded, the need to continuously extend the existing alerts created additional confusion and frustration for residents. There is a role for Yellowhead County to advocate to AEMA for these changes. In addition, AEMA should further investigate additional methods to link Alberta Emergency Alert / Alert Ready information to other sources.

## Communications

### Theme 8: Best Practices

- An incredible number of communications were issued despite the small communications team available.
- Continue to ensure communications alignment across members of Council, the Mayor, the CAO, Fire Chief, and staff.
- Continue to use frequent live updates by trusted community sources.
- Continue to leverage the voices of Council members to provide approved messaging and information to the community.
- Continue to establish call in line concept for future events where evacuees can access additional information.

### Theme 8: Opportunities

- Create a formal crisis communications team and plan for disaster events, including templates and key messages for various events types.
- Increase the opportunities for communication to occur across departments and levels of staff.
- Examine other critical communications methods as the Alberta Emergency Alert / Alert Ready system became frustrating and confusing due to the number of alerts issued.
- Work with AEMA and Alberta Wildfire to increase the quality of mapping available to the public including geolocation information.
- Fire behavior analysis and prediction needs to become a part of public communications issued by Alberta Wildfire.
- Work to balance the need for speed and accuracy in communications.
- Work with AEMA to change how the length of expiration for critical alerts is managed.

# Theme 9

## Training & Education

It is apparent that Yellowhead County believes in providing staff training in fire operations and emergency management. Training and exercising are two of the most effective ways to prepare people for the situations they may encounter. While many people rose to the occasion in the wildfire, providing them the advanced skills ahead of time will reduce stress, increase coordination, and enhance the response.

### What We Heard

Over the years, Yellowhead County Fire has provided fundamental training to staff members. Many staff members have Incident Command System 200, which provides the basics of incident coordination for routine emergencies. The events of 2023 were well beyond the level of a routine emergency.

Through an exercise program, staff can test their skills and abilities and then adjust. Historically, the focus has been on smaller, more routine emergencies where success is relatively straight forward. It is imperative to design exercise scenarios that will test the system and help staff members to establish a battle rhythm. There is a need to test plans to the point of success and subsequently to the point of failure. This approach will help to bridge the gap between training exercises and the real-world disaster impacts.



There is a need to expand the emergency management training to the entire organization. The YCFD cannot be expected to manage incidents of this nature without an all-hands-on deck approach. Organizationally, there is a need for every staff member in Yellowhead County to have some emergency management training, enabling them to assist in future events. Buy-in is needed across the organizations and department leadership to ensure this training occurs. It is noteworthy that while job descriptions usually include the catch all phrase “other duties as assigned”, incorporating a specific statement in all new job postings and position descriptions emphasizes the importance of emergency roles and responsibilities to all Yellowhead County staff.

## Training & Education

It is encouraging that, in the months since the fires, 36 staff members have participated in IMT block training hosted by the Alberta Emergency Management Agency. Additional training is scheduled to occur prior to the 2024 fire season. Additionally, YCFD has hosted Incident Command System (ICS) 100 and 200 courses and ICS position specific courses have been facilitated throughout the winter. In the spirit of collaboration, spots have been offered to the neighboring jurisdictions.

Through the responses to the staff survey, there was an indicated desire to receive additional training. Figure 19 highlights the top areas identified by staff members wanting additional training. Additionally in the interview process, it was also apparent that team members would benefit from training to manage the personal impacts of an event and increased skills to manage the financial tracking and safety officer roles. Finally, many spoke of the desire to have increased flexibility in their schedule and regular work duties to be more proactive with training, especially with Alberta Wildfire and other partners.

Staff Survey: What specific training would enhance your ability to respond to future wildfires?

Incident command system training	31.08%
Wildland urban interface training	24.32%
Emergency operations centre training	45.95%
Basic Emergency Management	37.84%
Participation in simulated emergency management exercises	41.89%
Training in conflict management	28.38%
Emergency Social Services training	16.22%
Communication and coordination skills training	36.49%
Fire prevention and mitigation strategies training	13.51%
Stress management and mental resilience training	44.59%
Environmental and ecological impact assessment	6.76%

Figure 19: Types of training desired by staff

## Training & Education

### Theme 9: Best Practices

- Continue providing training for staff members to prepare for routine emergencies.
- Continue training and building the relationship that has been established with the North Central Incident Management Team.
- Continue to host training and exercises for members of Yellowhead County.

### Theme 9: Improvement Opportunities

- Expand the Yellowhead County exercise program to prepare for larger, more complex events. Exercise to find failure and learning points in the plans.
- Expand and mandate emergency management training across all staff of Yellowhead County
- Increase training to staff in areas that will bolster their large-scale response capabilities.



# Theme 10

## Mental Health and Wellness

People are the most treasured assets of a community and an organization. While mental health and wellness is extremely personal to people, there is no question that being in a high stress, dynamic environment can impact the mental health of the most resilient people.

While community members and responders have different roles in dealing with an emergency, both groups of people are first and foremost members of the community. They live, work, and play in Yellowhead County and experience some of the same fears about losing their homes, their possessions, and their livelihood when fires are growing and triggering evacuation orders.



### What We Heard – Staff

Members working in the Emergency Coordination Centre expressed the challenges of working long hours in tight and somewhat chaotic spaces, all while balancing the need to ensure their families were safe. As YHC looks forward, it will be important to have an ECC space that meets the needs of the County for training, exercises, and incident management.

As communities evacuated, 62% of staff who responded to the survey were separated from their family so they could stay in Yellowhead County to assist in the response. When asked to describe how staying behind affected them, Figure 20 highlights the common words used to describe the experience. Although many staff spoke of this separation providing the space and security for them to focus, staying behind as an essential service worker to coordinate the response was not without its challenges. Many staff expressed their own lack of situational awareness, the inability to manage basic needs, and the fear-associated uncertainty on their own evacuation if the fire conditions worsened.

Stressful  
Lonely Scared  
Easier  
Difficult  
Work

Figure 20: How did staying behind affect you?

## Mental Health and Wellness

While time is incredibly valuable during a response, it is important to make time to support mental health initiatives during the response. The request for, and activation of a peer support team helped to bolster the team. It is recommended that Yellowhead County explore additional measures.

The duration of the response added additional challenges for the mental health and wellness of the staff members. The Emergency Coordination Centre was open for a total of 63 days from the start of the first wildfire to the end of the response coordination for the flooding. This is an exceptionally long activation for a small team. Through the staff survey, 47% of respondents expressed managing their fatigue as the top challenge they faced.

**47%**  
of staff expressed  
fatigue  
management as  
their top challenge

Many staff members expressed challenges returning to normality after the fire. There is a pronounced feeling of being behind in regular business and a pressure to catch up despite most programs and plans being paused during the fire. These feelings are stronger than the desire of many staff members to rest and recover from the 2023 season. This need for a rest or a meaningful break will become especially important as the 2024 hazard season approaches and people are balancing the feelings of being behind and potential fears about what the new fire season will bring.

Figure 21 highlights the top type of supports or resources that staff members felt would enhance the effectiveness and wellbeing of employees during and after emergency situations.



Figure 21: Top supports requested by staff

Many emergency response organizations around the world are recognizing the value of training before an event to increase the resilience of staff members. Programs such as Wayfound's Before Operational Stress (BOS) are leading the way in building resilience and helping staff members prepare ahead of an event.

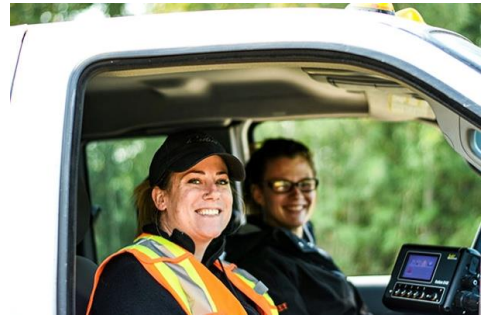


## Mental Health and Wellness

### What We Heard – Community Members

Many people have highlighted that Yellowhead County is a diverse community. It is philosophically inclined to less government and more grass roots initiatives. Many residents expressed their choice to live in the community was based on this freedom. This created a situation where many felt resentment towards officials for being told what to do. Due to the nature of the incidents, there was not the luxury of time for residents to process and validate information coming from either Yellowhead County, Alberta Wildfire or other available information sources. The need for community members to search through multiple locations in the hopes of finding the information they needed challenged many residents to identify if information was factual or based on rumour/speculation.

The survey revealed that the expectations of many community members differed from the capacity of Alberta Wildfire and Yellowhead County staff to deliver in the midst of a disaster. We go back to the statement that the very essence of a disaster is that it overwhelms the systems. These differences contributed to the stress level of all involved.



There is no question that there is anxiety in the community post wildfire. Where possible, all organizations need to give residents, and especially ranchers, processing time to work to enhance trust in the community. This is not unique to this wildfire disaster in Yellowhead County. Nationally, all communities are experiencing citizens questioning their trust in local government and in some cases actively disagreeing with governmental orders.

Figure 22 highlights the model developed by Zunin and Meyers for individual and collective emotional response in a community. When dealing with mental health programs and challenges, it is not easy to separate cause and effect. What is important is the recognition that feelings around the 2023 fire season are not complete. It is recommended that specific mental health and wellness programs for both staff and the community are considered.

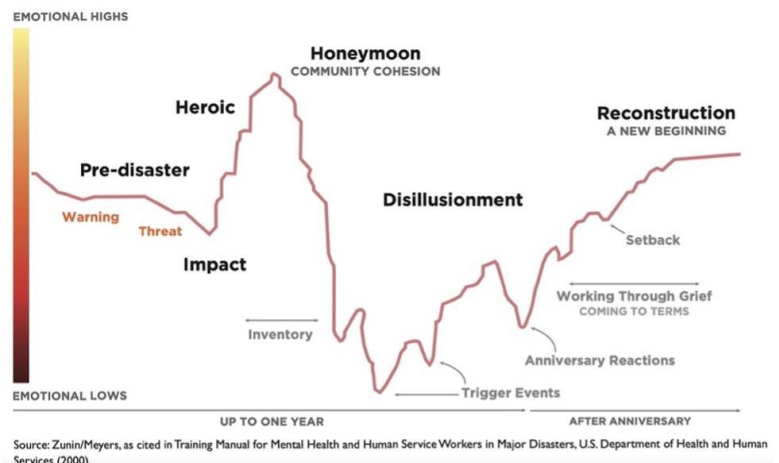


Figure 22

## Mental Health & Wellness

### Theme 10: Best Practices

- Continue to use peer support teams and other mental health initiatives during a response. Activate supports early and continue them past the conclusion of the response.

### Theme 10: Opportunities

- Develop or adopt a program to build resilience in staff members prior to an event.
- Encourage staff to rest, recover and take time off prior to the 2024 season.
- Continue to build trust in the community through education and understanding of the roles and responsibilities of responding organizations.
- Work with community partners to offer additional counselling support to the community ahead of the next hazard season.



# Theme 11

## Community Education & Empowerment

Traditionally, governments and citizen relationships are based in government providing defined services to the citizens in exchange for a fee. Increasingly, governments are faced with disaster events that far outweigh their capacity to effectively meet the needs of the people. As a society, we need to continue the evolution towards a truly empowered community, where the community knows how to prepare for events and what to do when an event is occurring.

### What We Heard – Community Response

There is no question Yellowhead County is a community full of incredible spirit and the desire to help one another. Throughout the community survey, there were countless stories of residents banding together and making the difference in property protection and the support of livestock that remained in the evacuated area.



There was a general sentiment in respondents that the community members at times were at odds with first responders and that all parties were not working collaboratively toward the same goals. While the interaction of community volunteers is challenging, it is an important concept to consider. Community members bring resources, historical and local knowledge, and a sense of purpose that is unparalleled. Through the survey, 43% of respondents expressed a desire to increase the number of community volunteers.

### What We Heard – Community Preparedness & Prevention

There is a need for aggressive education in Yellowhead County focused on FireSmart and Wildland Urban interface training. This will increase the level of fire preparedness and prevention in the county. Additional physical resources alone will not decrease the risk of future fires in the area. That education is required on several fronts, including an understanding of roles and responsibilities of various organizations, the understanding and action based on FireSmart and WUI programs, the sharing of current and projected fire condition information in advance of fire seasons, and the increased understanding of the fire danger rating system.



## Community Education & Empowerment

It is recommended that Yellowhead County consider the assignment of new or existing personnel to public education and outreach. Studies suggest that for every dollar spent on resources doing prevention and mitigation ahead of an event, up to six dollars of response costs can be saved in a major incident.

A FireSmart program with a WUI component could make a significant difference in the resilience of the community. In the community survey, 75% of respondents expressed an awareness of the FireSmart program, however only 3% of those people had requested an official assessment. There is a need to aggressively inspire community members to participate in and take action on FireSmart initiatives. It is noted that there remains confusion between Yellowhead County and Alberta Wildfire on who should lead this program and how a robust program can be implemented. This should be a collaborative partnership program with common goals for the community.

**75%**  
Of survey respondents know what FireSmart is

**97%**  
of survey respondents haven't had a FireSmart assessment



As referenced in other themes, it is recommended that a provincial review of the green zone and white zone designations is undertaken for clarity, efficiency and effectiveness of fire suppression activities. In the interim, there is a need for education in the community and for the responders regarding recognition of area locations, and the roles and responsibilities within each zone.

## Community Education & Empowerment

As each fire season approaches, it is suggested to ramp up communications to the community. This includes an increased understanding of the implications of low and high-risk fire rating signs. It is expected that increased communication and education on current conditions would result in best practices in residential burning, FireSmart, and WUI.

**75%**  
Of survey respondents know what FireSmart is



As mentioned in the Alberta Wildfire theme, there is value to be added by the Province landing a program that engages and utilizes community members, particularly ranchers with equipment they may be able to use in response. Programs in Australia, for example have State funded Farm Fire Response Units (FFRUs) with accompanying training and equipment.

Finally, there is an opportunity to leverage the purchasing power of Yellowhead County to increase the personal preparedness of the residents. Programs where bulk orders of sprinklers and other protection equipment can be purchased and repackaged as part of a community preparedness program can be incredibly effective.

**“There is no power greater than a community discovering what it cares about.”**

Margaret J. Wheatly

## Community Education & Empowerment

### Theme 11: Best Practices

- Continue providing proactive education opportunities for members of the community.
- Continue to engage community members through various channels and programs.



### Theme 11: Opportunities

- Find additional ways to empower the spirit of volunteerism in the community.
- Create aggressive education programs for FireSmart and WUI.
- Increase public outreach and education partnered with Alberta Wildfire to advance Yellowhead County as a prepared community.
- Encourage Alberta Wildfire to land a program to formally engage farmers and equipment during large scale events.
- Leverage the purchasing power of Yellowhead County to increase the personal preparedness of residents.

It is important to reiterate that a disaster, by very definition, overwhelms the resources of the local response agencies. The staff, volunteers and residents of Yellowhead County should be commended for the response to the wildfires of 2023 and the seamless shift to respond to the subsequent flooding. While there are opportunities for improvement, there are also many best practices that should be continued through any future response.

One of the fundamental challenges with after-action reports is ensuring that the improvements are integrated into future response. The compilation of this report has taken a few months and 9Zero Solutions is pleased to report that Yellowhead County continues to advance learnings from the response. They have taken action to increase staffing, provide continued training, and streamline logistics. This is encouraging and demonstrates an environment of continuous learning and the openness to changing where needed.

Work needs to continue to address the FireSmart and Wildland Urban Interface (WUI) training and programs in the community. This is work that needs to be led by the Alberta Emergency Management Agency and Alberta Wildfire in partnership with Yellowhead County.

Thank you to the staff, volunteers and residents of the community who trusted us to provide your feedback in an open and constructive manner. The strength of the Yellowhead County community is evident and unparalleled.



# After Action

## Summary of Recommendations

### Summary of Best Practices

#### Theme 1: Emergency Management Program

- Continue to maintain and update the Municipal Emergency Plan in compliance with provincial legislation.
- Continue to ensure and demonstrate alignment between the Mayor, Council, the CAO and the GM/Fire Chief.
- Continue to activate assistance early from outside jurisdictions when an event is escalating.
- Establish and maintain relationships ahead of an emergency with AEMA, AB Wildfire, and others who are critical for effective coordination.
- The declaration of a State of Local Emergency was timely, prudent and effective.

#### Theme 2: Operational Response

- Continue to support and develop the YCFD culture of service and community support with an incredible spirit and willingness to help.
- The recognition and activation of support from outside Yellowhead County is commended and should be continued in future incidents.
- Continue to advance formal mutual aid agreements and activate assistance early in incidents.

#### Theme 3: Alberta Wildfire

- Continue with the use of outside resources to bolster local and provincial capacity. Continue to be flexible in their assignment, supporting changing priorities such as flood clean up.
- The early call of local Alberta Wildfire teams who recognized the need for the assistance of a Type 1 team was prudent, especially in light of the increasing resource pressures in the province.
- Alberta Wildfire sources were well recognized by the community members as a reputable source of information.
- Continue to have local Alberta Wildfire crews establish relationships with local authorities in times of regular business.
- While viewed as both positive and negative, the compensation for local resources used provided recognition to the local community that their participation was valued.



# After Action

## Summary of Recommendations

Summary of Best Practices Continued:

### **Theme 4: Evacuation**

- The use of established plans from other regions helped bolster the evacuation efforts.
- Yellowhead County showed the willingness to take necessary actions.

### **Theme 5: Emergency Social Services**

- The establishment of a community information line was highly beneficial and well received by the community members. The information provided by this line and the YHC website should always remain congruent.
- Yellowhead County successfully established reception centres where residents could obtain information.

### **Theme 6: Provincial Coordination**

- Continue to build relationships with AEMA through the field officers.
- Continue to engage early with AEMA when incidents occur in the county.

### **Theme 7: 9-1-1 & Dispatch**

- Continue to promote the sharing of information and common situational awareness between the ECC and 9-1-1 staff.

### **Theme 8: Communications**

- An incredible number of communications were issued despite the small team available.
- Continue to ensure alignment across members of Council, the Mayor, the CAO, Fire Chief, and staff.
- Continue to use frequent live updates by trusted community sources.
- Continue to leverage the voices of Council members to provide approved messaging and information to the community.
- Continue to establish call in line concept for future events where evacuees can access additional information.

# After Action Summary of Recommendations

Summary of Best Practices Continued:

## Theme 9: Training & Education

- Continue providing training for staff members to prepare for routine emergencies.
- Continue training and building the relationship that has been established with the North Central Incident Management Team.
- Continue to host training and exercises for members of Yellowhead County.

## Theme 10: Mental Health & Wellness

- Continue to use peer support teams and other mental health initiatives during a response. Activate supports early and continue them past the conclusion of the response.

## Theme 11: Community Education & Empowerment

- Continue providing proactive education opportunities for members of the community.
- Continue to engage community members through various channels and programs.



# After Action

## Summary of Recommendations

### Summary of Opportunities

#### Theme 1: Emergency Management Program

- Work to further streamline the MEP while creating hazard specific annexes particularly for evacuation and Emergency Social Services.
- Create a staffing and training plan to increase the depth required to fill all emergency management positions.
- Create a comprehensive Business Continuity program across all Yellowhead County departments.
- Update staffing policies and procedures for evacuation and pay during disasters.
- Establish common terminology of emergency response naming conventions.
- Where possible, establish a separate Incident Command Post and Emergency Coordination Centre.
- Create long term capital plans to increase the available space for the ECC to operate.
- Develop additional plans and processes to enhance situational awareness in the ECC and across all departments during a disaster.

#### Theme 2: Operational Response

- There is a need to increase the capacity of YCFD and find creative solutions to ensure volunteer availability during events.
- It is recommended that YCFD work with Alberta Wildfire to negotiate away their responsibility for the white zone, while simultaneously advocating for changes to the green and white zones.
- Should responsibility for the white zone remain with YCFD, clarity around requesting and directing air support from Alberta Wildfire is needed.
- Consider additional resources for a YCFD specific WUI team.
- Bolster the number of trained personnel resources who are available to assist with emergency management coordination.
- Enter into a more formal command structure with Alberta Wildfire to decrease confusion as out of jurisdiction resources arrive.

# After Action

## Summary of Recommendations

### Summary of Opportunities

#### **Theme 3: Alberta Wildfire**

- Consider improving the alignment of Alberta Wildfire as an emergency response organization.
- Review the dates for wildfire season in light of climate change and local conditions and train the resources required to be available earlier in the season.
- Complete a comprehensive, province wide review of the green zone and white zone protections areas. Consider Alberta Wildfire to hold responsibility for all timber areas.
- Modernize the Alberta Wildfire mapping system providing situational awareness and enhance the sharing of information.
- Provide Fire Behavior Forecasts at a minimum daily to a broader audience.
- Establish common and well understood terminology while allowing for the local authority processes to simultaneously exist.
- Establish formal Unified Command with local authorities, early and swiftly and provide a local liaison for teams from outside the jurisdiction.
- Establish a provincial program to proactively leverage local communities and their resources in future events.

#### **Theme 4: Evacuation**

- Enhance the processes and information available to residents to ensure they have the time to process the information and make decisions relative to their specific risk and circumstance.
- Develop specific evacuation plans and training (including livestock consideration) to be able to deal with the unique needs of the population.
- Carefully consider the timing of evacuation orders and rescindments to ensure public safety.

#### **Theme 5: Emergency Social Services**

- Consider ways to bolster the resources available for the coordination of ESS response.
- Advocate for more coordination across the province in ESS delivery and support.
- ESS needs to undertake regular training and exercises to ensure they are properly resourced to provide service.
- Establish an ESS trailer with portable equipment that can be relocated to affected areas of the community easily.

# After Action

## Summary of Recommendations

### Summary of Opportunities Continued

#### Theme 6: Provincial Coordination

- Advocate for a review of the WUI program within AEMA. Alter the program to dismantle roadblocks and provide open access to interested parties.
- Work with AFRRCS to enforce naming conventions across the system.
- Address the mismatch of information between responders on the ground and 511 Alberta in complex, dynamic situations.
- Advocate for process changes in the way roads can be declared open and closed that utilize the information from the responders on the ground.
- Increase the coordination of RCMP and Alberta Sheriffs in the ECC.

#### Theme 7: 9-1-1 & Dispatch

- Create a major incident response plan and clearly define call protocols and pathways for large incidents, including the routing of calls through CAD, ICS forms, or the ECC.
- Provincially re-evaluate the dual processes of using 9-1-1 and 310-FIRE for reporting fires.
- Implement co-evaluation policies with Alberta Wildfire to share information and ensure appropriate resource dispatching.
- Ensure the use of a physically separated location for 9-1-1 services, to add space into the ECC.
- Prepare for a potential influx of calls as wildfire season starts.

#### Theme 8: Communications

- Create a formal crisis communications team and plan for disaster events, including templates and key messages for various events types.
- Increase the opportunities for communication to occur across departments and levels of staff.
- Examine other critical communications methods as the Alberta Emergency Alert / Alert Ready system became frustrating and confusing due to the number of alerts issued.
- Work with AEMA and Alberta Wildfire to increase the quality of mapping available to the public including geolocation information.
- Fire behavior analysis and prediction needs to become a part of public communications issued by Alberta Wildfire.
- Work to balance the need for speed and accuracy in communications.
- Work with AEMA to change how the length of expiration for critical alerts is managed.

# After Action

## Summary of Recommendations

### Summary of Opportunities Continued

#### **Theme 9: Training & Education**

- Expand the Yellowhead County exercise program to prepare for larger, more complex events. Exercise to find failure and learning points in the plans.
- Expand and mandate emergency management training across all staff of Yellowhead County
- Increase training to staff in areas that will bolster their large-scale response capabilities.

#### **Theme 10: Mental Health & Wellness**

- Develop or adopt a program to build resilience in staff members prior to an event.
- Encourage staff to rest, recover and take time off prior to the 2024 season.
- Continue to build trust in the community through education and understanding of the roles and responsibilities of responding organizations.
- Work with community partners to offer additional counselling support to the community ahead of the next hazard season.

#### **Theme 11: Community Education & Empowerment**

- Find additional ways to empower the spirit of volunteerism in the community.
- Create aggressive education programs for FireSmart and WUI.
- Increase public outreach and education partnered with Alberta Wildfire to advance Yellowhead County as a prepared community.
- Encourage Alberta Wildfire to land a program to formally engage farmers and equipment during large scale events.
- Leverage the purchasing power of Yellowhead County to increase the personal preparedness of residents.



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End of Report