



Wildland-Urban Interface (WUI) Wildfire Risk Strategy

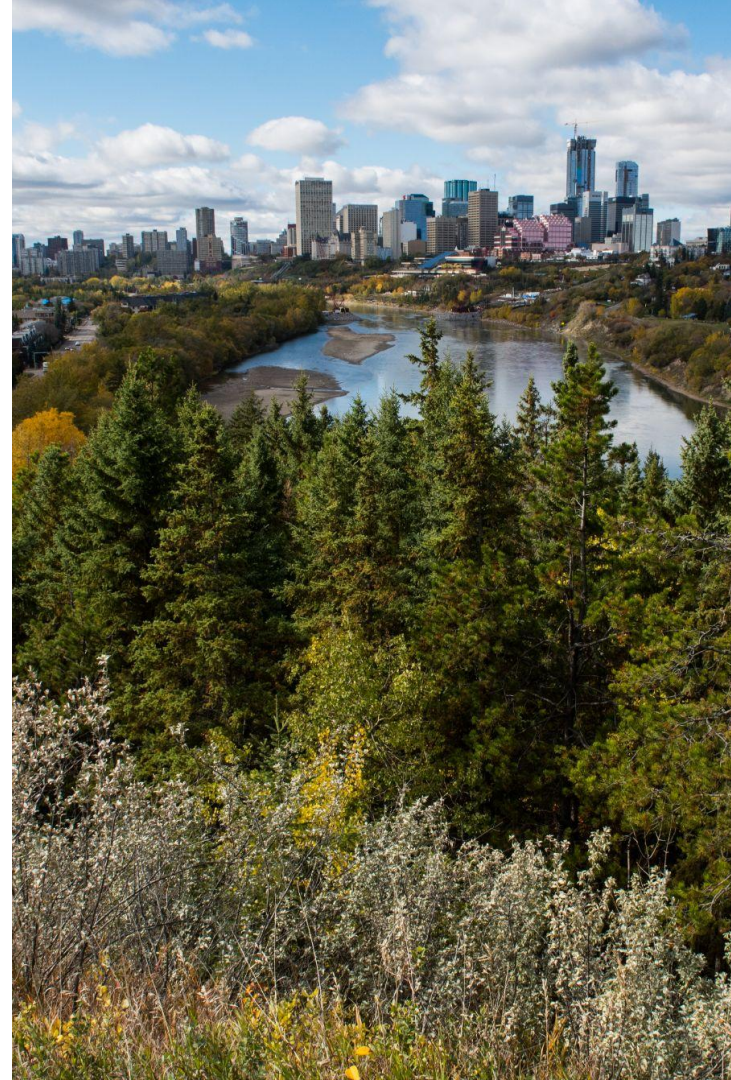
Edmonton

Phase 2 Engagement - Draft Action Overview

December 2025

Project Background

- The Wildland-Urban Interface (WUI), defined as the zone where human development meets undeveloped wildland vegetation, is expanding as Canadian municipalities continue to grow
- Increasing wildfire frequency and severity due to longer fire seasons and drier conditions as a result of climate change



Project Objectives and Timeline

The Wildland-Urban Interface Wildfire Risk Strategy will:

- Provide a centralized, comprehensive framework to proactively plan and mitigate wildfire impacts on communities, infrastructure, and the environment
- Align with the FireSmart framework, existing regulations, and industry best practices
- Explore the integration of Indigenous knowledge and traditional fire stewardship

Phase 2 Public Engagement:

- We are currently undergoing Phase 2 public engagement to gather feedback on the draft Strategy overview

Draft WUI Wildfire Risk Strategy Overview

Proposed Pillars

Pillar	Goal	Related FireSmart Discipline(s)
Reduce	Minimize the potential for wildfire ignition and spread in and around Edmonton's WUI	+ Vegetation Management + Legislation + Development
Educate	Increase wildfire awareness and preparedness by engaging the community	+ Education
Respond	Support integrated emergency responses and wildfire training across City departments	+ Emergency Planning + Cross Training
Coordinate	Collaborate with neighbouring jurisdictions and external agencies to build regional resilience	+ Interagency Cooperation

Pillar #1 - Reduce (City-led actions)

→ Vegetation Management and Operations:

- **Targeted Fuel Reduction:** Implement mechanical treatments (e.g. pruning lower branches on trees and shrubs), fuel breaks (e.g. removing vegetation in a linear area), and fuel conversion (e.g., replacing conifers with deciduous trees) in high-risk areas.
- **Prescribed Burns:** Expand ecologically sensitive controlled burns to reduce surface fuels, restore fire-adapted ecosystems, and integrate cultural burn practices.
- **Fire Break Development:** Explore opportunities to implement linear features (e.g. pathways) along the Top of Bank (TOB) as permanent fuel breaks and for emergency access.
- **Utility Coordination:** Work with utility and transportation agencies to prioritize vegetation management around infrastructure (power lines, corridors) to minimize potential ignition sources.

Pillar #1 - Reduce (City-led actions con't)

→ Planning and Regulatory Framework:

- **Fire-Resilient Standards:** Develop and implement FireSmart Landscaping Standards (e.g. using fire-resistant plants) for public parks and City-owned properties, where appropriate
- **New Development Regulations:** Update the Zoning Bylaw to include requirements for new construction and major exterior renovations in regulated WUI areas to adhere to fire resilience standards.

Pillar #1 - Reduce (Resident-led actions)

→ Property Design and Maintenance:

- **Maintain Defensible Space:** Consider following the [FireSmart Home Ignition Zone \(HIZ\)](#) principles by removing all combustible materials (e.g., leaves, dead vegetation, woodpiles, bark mulch) within 1.5 meters of the home.
- **Manage Ladder Fuels:** In the Intermediate Zone (1.5m to 10m), consider maintaining a well-trimmed lawn, spacing out shrubs and trees, and pruning lower tree branches up to 2 meters from the ground.
- **Choose Fire-Resistant Materials:** When renovating (roofing, siding, decking) or landscaping, consider choosing materials and plants that are less likely to ignite from radiant heat or embers from a wildfire.

Pillar #2 - Educate (City-led actions)

→ Expanding FireSmart Education Programs:

- **WUI Education Programming:** Establish a year-round education program with different streams for residents, businesses, and recreational users of the WUI.
- **School & Public Engagement:** Deliver FireSmart presentations in schools and at public events, especially near WUI areas, with interactive setups and regular refresher training for students.
- **Seasonal Mailouts & Online Resources:** Distribute seasonal FireSmart-aligned resources (e.g., yard maintenance tips, 72-hour emergency kit list) both through online resources and physical mail and promote FireSmart training opportunities.

Pillar #2 - Educate (City-led actions con't)

→ Create Incentives and Awareness:

- **Bylaw & Incentive Awareness:** Raise awareness with property owners and developers on new wildfire-related bylaws, incentives (like a proposed rebate program), and permit guidelines.
- **Evacuation Preparedness Toolkit:** Create and/or provide residents with clear evacuation checklists, emergency kit guides, and home shut down instructions for evacuation preparedness.
- **Assess Program Effectiveness:** Conduct periodic surveys to measure community wildfire awareness and track the effectiveness of education programs over time.

Pillar #2 - Educate (Resident-led actions)

→ Personal Preparedness:

- **FireSmart Education:** Consider taking the free [FireSmart 101 course](#) and attending local presentations or community info sessions.
- **Prepare for Evacuation:** Consider assembling a 72 hour emergency kit (containing essential documents, medication, supplies) and develop/practice a household emergency evacuation plan.
- **Know the Regulations:** Understand bylaws with wildfire-related provisions that may apply to your property if you are in the WUI.

Pillar #2 - Educate (Resident-led actions con't)

→ Community Engagement:

- **Join FireSmart:** Consider participating in the [FireSmart Neighbourhood Recognition Program \(NRP\)](#) by joining or establishing a local committee and championing the efforts.
- **Share & Advocate:** Consider sharing FireSmart information with neighbors and advocate for risk reduction actions in your community.
- **Provide Feedback:** Consider participating and providing feedback on educational materials to support their accessibility and to help meet the diverse needs of all populations.

Pillar #3 - Respond (City-led actions)

→ Planning and Preparedness:

- **Wildfire Response Plan & Training:** Develop a wildfire-specific response plan and schedule regular mock drills (e.g. every two years) to support staff training on procedures.
- **WUI Evacuation Plans:** Continue developing detailed evacuation plans dedicated to WUI neighborhoods, including identified reception centers and support protocols.
- **Critical Infrastructure Review:** Continually reviewing the locations of the City's Emergency Operations Centre and current fire stations, and planning for secondary backup locations/resources if they are exposed to fire hazards.

Pillar #3 - Respond (City-led actions con't)

→ Technology and Capacity:

- **Enhanced Monitoring:** Continue developing the EmberWise Tool and the City's drone overwatch program to closely monitor fire hazards and assist with initial fire assessment and response.
- **Specialized Training (Cross Training):** Continue to provide specialized WUI firefighting accreditation and training for all Edmonton Fire Rescue Services and Emergency Management staff, building on the existing recruit program.
- **Resource Alignment:** Utilize multi-layer GIS field maps showing critical infrastructure, exposure, and evacuation routes to improve first responder decision-making and safety.

Pillar #3 - Respond (Resident actions)

→ During an Emergency:

- **Monitor Official Alerts:** Listen to and immediately follow instructions from official sources (e.g., Alberta Emergency Alert, City notifications, first responders).
- **Use Designated Routes:** Follow evacuation signage and use the routes specified by the City to ensure traffic flow remains efficient for all evacuees and incoming emergency vehicles.
- **Check-In:** Know the locations of designated reception centers and check in upon arrival so authorities can account for all residents.

Pillar #4 - Coordinate (City-led actions)

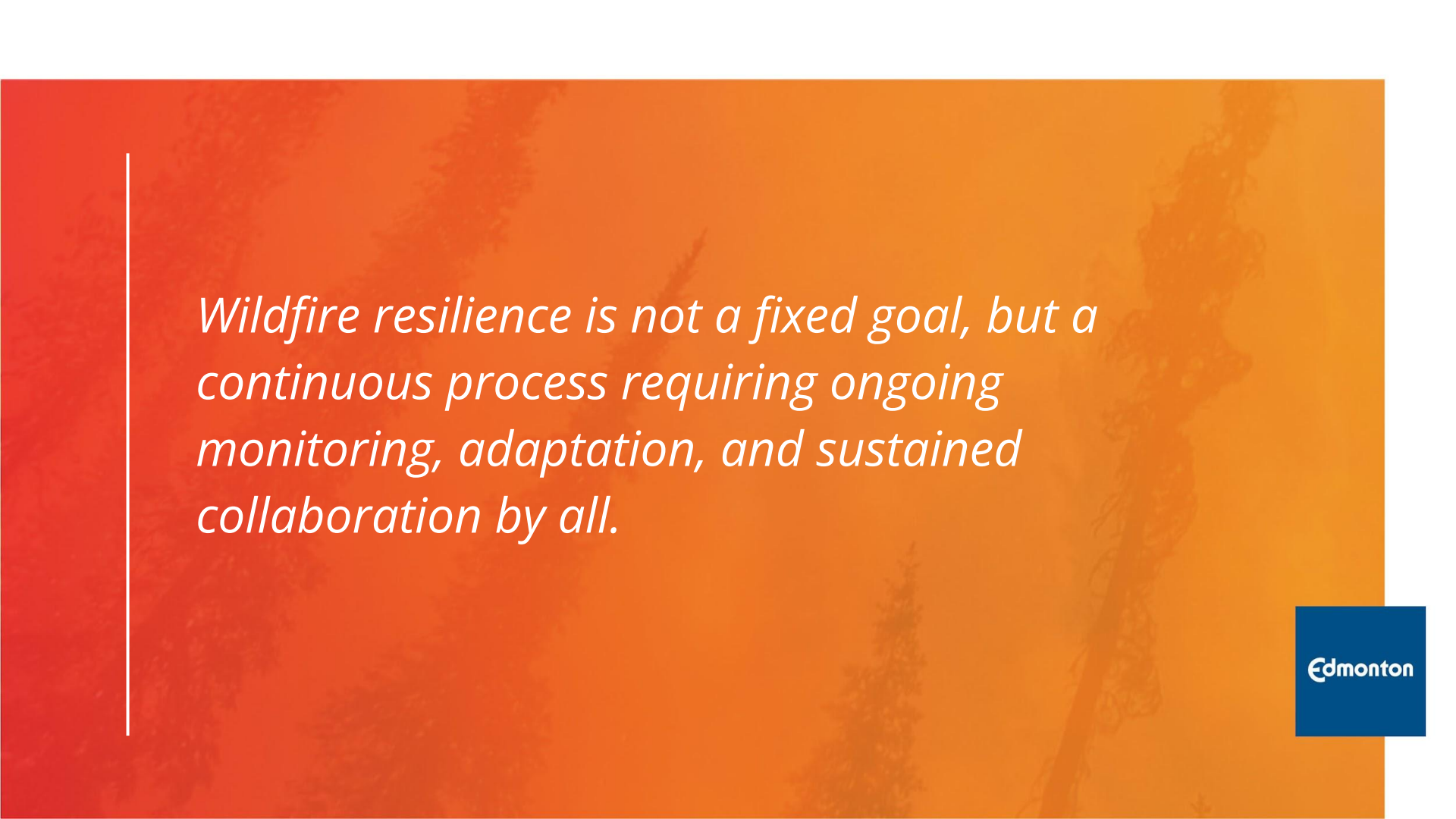
→ Governance and Leadership:

- **Establish FireSmart Committee:** Establish a cross-departmental WUI FireSmart Committee consisting of internal and external experts to champion work across the organization and community.
- **Regional Alignment:** Coordinate with surrounding municipalities and partners to align with FireSmart disciplines, land use planning (e.g., through Intermunicipal Development Plans), and education programs across the Edmonton region.
- **Joint Training & Burns:** Use prescribed and/or cultural burns as formal opportunities for joint training, education, and academic research with partners.

Pillar #4 - Coordinate (City-led actions)

→ Agreements and Logistics:

- **Mutual Aid Updates:** Regularly review and update Mutual Aid Agreements with neighboring municipalities to specifically consider wildfire responses, resource sharing, communication protocols, and evacuation support.
- **Industry & Infrastructure Engagement:** Collaborate with utilities, transportation agencies, and industrial operators to ensure they have wildfire mitigation plans in place, minimizing the risk of industrial ignition.
- **Insurance Advocacy:** Work with insurance providers to help recognize FireSmart-certified properties to incentivize risk mitigation at the homeowner level.



Wildfire resilience is not a fixed goal, but a continuous process requiring ongoing monitoring, adaptation, and sustained collaboration by all.

Share your feedback!

- + Provide comments on the draft Strategy action overview on Engaged Edmonton (December 8 to 22)
- + Review the Phase 1 What We Heard Summary



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