

Urban Planning and Economy

Edmonton

Wildland-Urban Interface (WUI) Wildfire Risk Strategy

Kent Snyder, Branch Manager, Planning and Environment Services
edmonton.ca/WildfireStrategy

Wildland-Urban Interface (WUI) Wildfire Risk Strategy

OVERVIEW

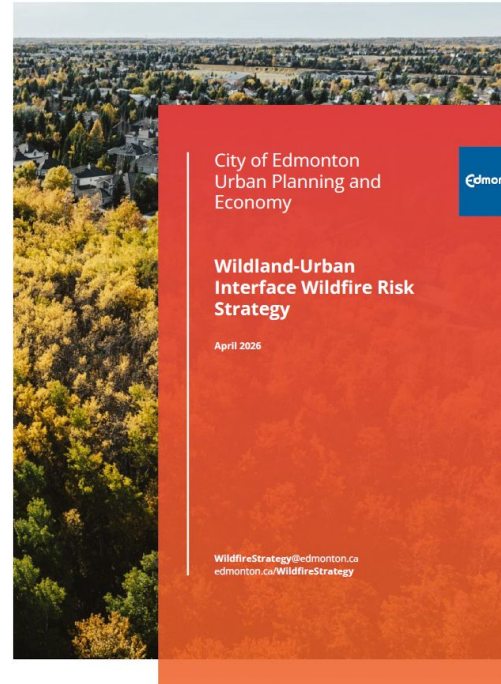


- The area where human development meets undeveloped wildland vegetation is expanding
- The river valley is Edmonton's primary wildfire corridor
- Climate change is increasing wildfire frequency and severity
- 7 of the 12 driest years on record in Edmonton have happened since 2000

Wildland-Urban Interface (WUI) Wildfire Risk Strategy

OVERVIEW

- Changing wildfire risks requires a new “whole-of-society” approach
- Aligned with the FireSmart Alberta framework and industry best practices
- Goal: Proactively minimize wildfire risk, safeguarding people, property, and the environment.



Strategy Development Process

TECHNICALLY SOUND

- Jurisdictional scan
- Wildfire exposure modelling (*U of A*)
- Risk assessment
- Expert advice (*Wildland Firefighters, Ecologists, Planners, etc.*)

COMMUNITY SUPPORTED

- 4,500+ public participants (*pop-up events, workshops, virtual sessions, surveys*)
- Indigenous organizations and Knowledge Keepers
- Businesses and development community
- Utility companies
- Environment and conservation groups
- Community groups

Wildfire Risk in Edmonton



Global News, 2023. Courtesy of Dustin Strazza

- >7,400+ hectares of WUI in Edmonton
- Highest wildfire exposure in the river valley, ravine system and along major utility/ transportation corridors
- Increased spring/fall wildfire risk in grassland and agricultural areas
- Wildfire seasons start earlier and last longer

Progress from 2025 to Present

- Proactive wildfire mitigation and preparedness efforts (e.g. *drone overwatch program, prescribed burn operations*)
- Every \$1 not invested in wildfire preparedness could result in more than \$22 in lost future economic activity



Applying Lessons Learned

- **2016 Fort McMurray wildfire:** \$9 billion in insured losses
- **2024 Jasper wildfire:** \$1.23 billion in insured losses
- **Key contributing factors to structure loss:** Distance to nearby structures, lack of home hardening, inadequate defensible spaces.



Four Pillars of Wildfire Resilience



REDUCE

Vegetation
Management
Legislation
Development



EDUCATE

Education



RESPOND

Emergency
Planning
Cross Training



COORDINAT E

Interagency
Cooperation

WUI Wildfire Risk Strategy - Action Plan



REDUCE

- Wildland Fuel Treatment Program
- Property Owner Incentives
- Bylaw, Policy, and Standard Updates



EDUCATE

- Targeted Outreach
- Promoting Community Action
- Public Surveys



RESPOND

- Structure Protection Plans
- Tactical Wildfire Response Planning & Training
- Wildfire Data Monitoring Program



COORDINATE

- FireSmart Action Group
- Indigenous Collaboration on Cultural Burn Program
- Mutual Aid Agreement Updates

Implementation Pathways for Proactive Risk Reduction

1

FOUNDATIONAL

(Existing Resource Alignment)

Low Impact
(~30% risk reduction)

Implementation Timeline:
3.2/14 actions over 2 years

FireSmart Discipline(s)

- Vegetation Management
- Legislation
- Development
- Education
- Interagency Cooperation

2

SCALED

(Highest Priority Actions Only)

Medium Impact
(~65% risk reduction)

Implementation Timeline:
9/14 actions over 4 years;
all 14 actions over 8 years

FireSmart Discipline(s)

- Vegetation Management
- Legislation
- Development
- Education
- Emergency Planning
- Interagency Cooperation

3

FULL

(All 14 Recommended Actions)

High Impact
(~100% risk reduction)

Implementation Timeline:
All 14 actions over 4 years

FireSmart Discipline(s)

- Vegetation Management
- Legislation
- Development
- Education
- Emergency Planning
- Cross-Training
- Interagency Cooperation

Questions and Thank You

Kent Snyder, Branch Manager, Planning and Environment Services
edmonton.ca/WildfireStrategy

Edmonton