FireSmart BC

Wildland-urban interface case-study research project

Research that may be conducted during active wildfires in the wildland-urban interface during the 2022 fire season in British Columbia. This document is relevant for wildfire management agencies, first responders, communications staff, local governments, First Nations, and other authorities having jurisdiction.

FireSmart BC: Wildland-urban interface case-study research project

The purpose of this guidance document is to outline FireSmart BC research that may be conducted during active wildfires in the wildland-urban interface during the 2022 fire season in British Columbia. This document is relevant for wildfire management agencies, first responders, communications staff, local governments, First Nations, and other authorities having jurisdiction and Crown land managers.

Contents

FireSmart background

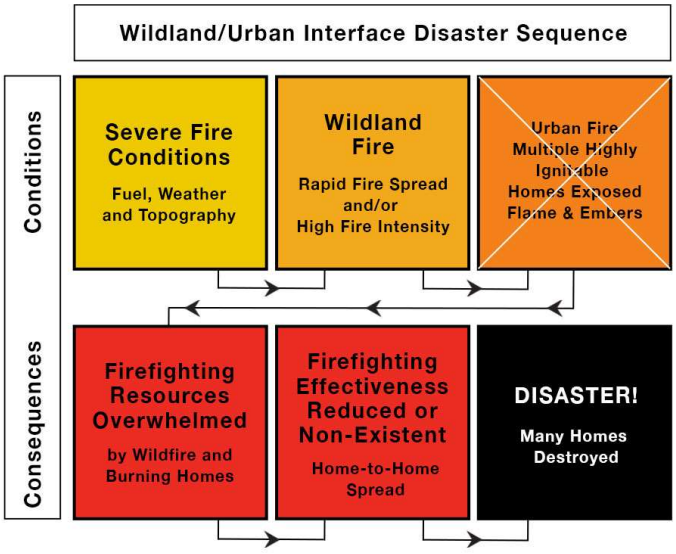
FireSmart is a national program designed to increase the resiliency of homes, neighbourhoods and communities to wildfire. Wildfires play a natural part in the BC ecosystem but as the climate warms, forest conditions change, populations grow and more people move into the wildland-urban interface (WUI), the threat of wildfire to homes and infrastructure continues to increase. FireSmart provides the tools for individuals, neighbourhoods, and authorities to greatly reduce the risk of wildfire losses to homes and to communities. For more information on FireSmart in BC and available programs visit www.FireSmartBC.ca.

Purpose and necessity for this research

Fires in the WUI are now one of the leading causes of natural disasters in Canada[6], and the impact that they are having on communities is increasing. Wildfires in the WUI continue to represent a growing concern in BC and over the last three fire seasons more than 600 homes in BC were destroyed. The WUI is area where the wildland and human development mix, where houses are interspersed with wildland vegetation. To become more resilient to wildfire as a province, the BC FireSmart Committee recognizes the need for adjustments to the built environment that are based on sound science. For FireSmart BC to continue to provide solid recommendations on how to increase wildfire resiliency of structures, the scientific basis of FireSmart guidelines must be increased.

Currently there are few studies in Canada that discuss WUI fire disasters and structure damage and there is an urgent need for further research. What is known is that majority of large fires in the WUI follow the WUI fire disaster sequence[2,3]. In this sequence, disasters result due to large numbers of structure ignitions overwhelming the responders. Creating structures/homes that are ignition resistant using scientifically proven FireSmart guidelines, is the most effective way of preventing and/or limiting WUI fire disasters.

Figure 1: Graphic depiction of the Wildland-Urban Disaster Sequence[2]



The purpose of this research project is to assist in the development of tools, resources and assets that will mitigate the losses to structures and their surroundings. Ultimately the goal is to collect data that will help develop new approaches to ensure in the future we as a province are better prepared to prevent catastrophic wildfire events in the interface. Further, this research would be a step towards meeting the recommendations of "Addressing the New Normal"[1] regarding FireSmart, better equip us to improve our prevention programs provincially and guide the BC FireSmart Committee in its creation of a FireSmart BC.

The key deliverables are:

- A better understanding of the factors leading to ignition and loss of homes and other structures,
- An improved foundation for enhanced FireSmart guidelines and FireSmart communications with the public,
- Better informed policy, legislation and development initiatives regarding FireSmart, and
- A stronger foundation for future wildfire resiliency initiatives.

Focus of the research

The research that will be conducted in 2022 across BC will focus on determining why some homes are more impacted by wildfire than others and, collect data on the susceptibilities for home ignition and analyzing how fire the spreads independently within the community. To reduce the ignitability of structures, adjustments must be made to the structure itself and the 30 metres surrounding it[2,5], the Home Ignition Zone (HIZ). Data collected through this research will aim to improve the survivability of homes in years to come by identifying hazard factors that increase the ignition potential of structures as well as how fires travel between structures.

PLEASE NOTE: this research will **NOT** look to assign blame or responsibility for losses. Data collected during this research will **NOT** affect the insurance of individual homeowners or their liability regarding the wildfire. Researchers will **ALWAYS** respect private property and community sensitivities.

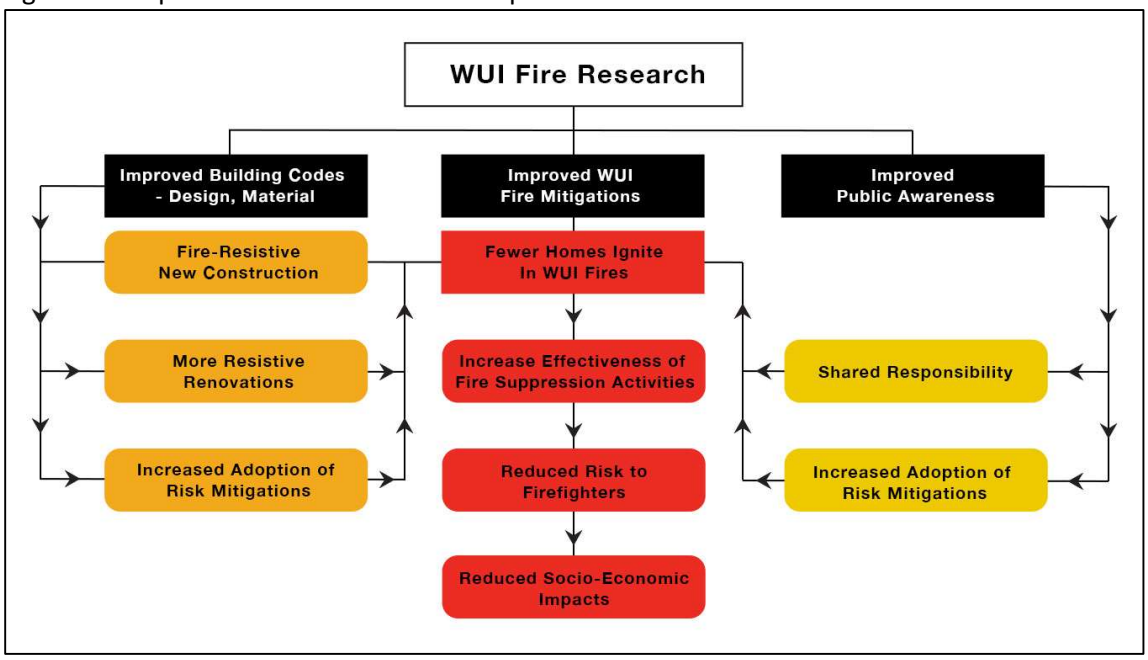
Personal information captured inadvertently like street signs and house numbers (which researchers will avoid gathering) will all subsequently be removed from data and results. If in the communication of the research certain pictures are anticipated to be used, permission will first be requested from homeowners.

Research foundation

Standards Council Canada working with the Institute of Catastrophic Loss Reduction recently released a report that outlined the importance of conducting national case-study research on fires in the WUI. There has only been a handful of case-studies conducted in Canada to analyze the effect of wildfire on the built environment. Due to the complicated nature of studying wildfires and their impact on communities, there have been rare opportunities and most often they are missed[6]. The report asserts that to identify where knowledge is lacking and improve current wildfire mitigation efforts, case-studies need to be conducted in the WUI.

Case-studies like the ones to be conducted through this project are integral to help prevent further structure ignition and loss. “Wildland fires are inevitable but the ecological consequences and the susceptibility of human values (i.e., the built environment) are not inevitable … because management actions, like building or modifying structures for fire-resistance, can be undertaken to change the outcome. “[4] The parties that contributed to the national case-study report maintain that the quality of research conducted in the WUI and how those results are shared with the public can have lasting positive influences on public participation in WUI wildfire mitigation activities. Figure 2 is taken from the Westhaver and Taylor’s foundational document and show the anticipated benefits from research projects like the one being undertaken this year in BC.

Figure 2. Adaptation of the Model of anticipated benefits of WUI fire research.[6]



How this research will be used

The results from this research project will ultimately be used to better understand how the impact of wildfire on communities can be reduced. Government policy bodies, industry, the general public, fire departments, public safety organizations, wildfire management agencies, insurance agencies, builders, Crown land managers and several other key stakeholders can all benefit from a better understanding on structural ignition and wildfire risk in the built environment.

Data will first be shared with the authorities having jurisdiction (AHJs) involved in the project to inform their own organizations and to share with their communities. Before any data is shared publicly there will be a formal approval process with the AHJ. Data will also be gathered into a report(s) that will be shared publicly to assist provincial and territorial stakeholders, Indigenous communities as well as national organizations in benefiting from current Canadian research conducted in the WUI. It is hoped that this research fosters more understanding and support for further research in the same field.

Past wildland urban fire research

In 2021, wildland-urban fire destruction was researched in Lytton, BC. The Lytton Report, authored by Jack D. Cohen, PhD., and Alan Westhaver, M.Sc., was commissioned by the BC FireSmart Committee and published by the Institute of Catastrophic Loss Reduction (ICLR). It provides a comprehensive examination of the Lytton Wildland-Urban fire disaster for the purpose of:

- Understanding the relationship between the wildfire conditions and how homes and businesses ignited and burned to total destruction resulting in the Lytton WU fire disaster on June 30, 2021.
- Communicating understanding and awareness specifically related to the Lytton WU fire disaster examination revealing fundamental principles of all WU fires that can be generally applied by residents, municipal and emergency managers such that all communities can choose to become more wildfire resilient and more likely to avoid future disasters.

- Making recommendations for readily attainable ignition resistant materials and designs, and best practices for rebuilding and maintenance of fire-resistant communities at the Village of Lytton and Lytton First Nations, Klahkamich (IR 17) and Klickkumcheen (IR 18).

Research methods

FPInnovations will be applying a wholistic qualitative approach to data collection. Data will be collected on fuel attributes, structural characteristics and neighborhoods using UAV's (drones), 360-degree cameras and data collection forms. As much data as possible will be collected during pre-fire operations and will be collected post-fire from the same positions for data analysis. During the fire passage data will be collected using in-fire video cameras, sensors (heat flux and temperature) and potentially a sensor that collects ember data. This data will be analyzed post fire and stored securely in an access-controlled data platform developed for the project.

Profile of the researchers

FPInnovations is a private not-for-profit forest research organization of which the Fire Operations Group is a small part of. The group includes five researchers and a Manager, and they are based out of Kamloops, Penticton, and Nelson in BC and Edmonton and Cochrane in Alberta. Quick response is assured from the BC locations and will be followed up by those based primarily in Alberta. Equipment will be moved to Kamloops (or a centrally designated location) when the fire hazard increases. FPInnovations possesses all the equipment required for data collection in two trucks and a trailer as well as any other supplies that are potentially required.

The research team has experience in; wildfire operations (Incident Command Level 3 certified), fire behaviour, fuels management, firefighter safety, drone work, prescribed fire, data equipment and collection technology, IT specialization, mechanical engineering, experimental fires, Emergency Medical Response and Geographic Information Systems. As a group, they are trained to work in and around wildfires with a range of certifications and experience. FPInnovations has produced several WUI wildfire case studies and conducted 18 years of applied wildfire research in the WUI throughout western Canada.

How researchers will be integrated with authorities managing the incident

To ensure this research project is successful there will be communication and close collaboration between the research team, the authorities having jurisdiction, and all wildfire management organizations that are involved in the incident. As such, much thought was put into the integration of the research team into the Incident Command Structure (ICS).

Link to Structural Protection Specialists

The research team will be a part of BC Wildfire Service response, to gather the most meaningful data, it is important that they are involved in the earliest stages so that on-scene arrival can happen swiftly. The time that the research team arrives at the incident in the WUI and the ability to work in areas not affected by fire protection activities are the biggest factors in determining what data they can collect and the value of that data[6]. To address the biggest knowledge gaps regarding structure ignition, it is important that the researchers arrive to conduct data collection before and during the wildfire event. A primary objective of this research is early deployment of the research team. In BC, it has been

determined that this can best be achieved by linking the dispatch of the FireSmart research team to that of the Structural Protection Specialists (SPS).

The SPS are the BC Wildfire Service members that manage and implement structure protection units in interface wildfires where structures may be impacted. These crews employ FireSmart principles that are useful in protecting homes that may be in the path of an active wildfire. SPS are deployed to coordinate the protection of structures during a wildland fire incident. Linking the deployment of the research team to the SPS means that early dispatch is more likely to be achieved.

Deployment of the research team will not be possible in every situation as there is only one such team. The team may have to travel a significant distance depending on the location of the incident, and certain wildfires may not be considered appropriate for data collection. The research team has developed a decision table to best determine the type of situations which it can be most effectively dispatched with the SPS.

PLEASE NOTE: Research will **NOT** prevent, impact, or delay structural protection. The first priority, after the safety of firefighters and other personnel, will continue be to defending structures from wildland fire.

Deployment procedures

The following is the deployment procedure that will be utilized to deploy the SPS Research and FireSmart BC Research team for 2022.

A candidate wildfire is identified by the BC Wildfire Service staff at the site level possibly requiring structure protection resources, including potential deployment of the FireSmart research team.

1. BC Wildfire Service or structural fire crew responds to a wildfire incident.
2. Incident Commander determines the need for structural protection and works with the local Zone, Fire Centre, or Incident Management Team (IMT) to submit a Resource Request to the Provincial Wildfire Coordination Centre (PWCC) for a Senior Structure Protection Specialist (SPS).
3. PWCC coordinates with the Structure Protection Coordinator Officer (SPCO).
4. SPCO dispatches the best resource to the incident.
5. PWCC does initial screen for FireSmart Research suitability using a decision tree.
6. PWCC relays request to FireSmart Research Liaison who confirms the availability of the FireSmart Research Team.
7. FireSmart Research Liaison confirms dispatch of FireSmart Research Team is approved by Incident Commander or agency in control of the incident (i.e. Fire Department, Zone, Fire Centre, PWCC).
8. PWCC dispatches the FireSmart Research Team to the incident alongside the initially mobilized SPS.
9. Senior SPS does assessment and determines further SPS requirements, request is made through SPS for Structure Protection or Structure Defense resources.
10. The FireSmart Research Team does an assessment and determines further Research requirements, request for further resources is through FireSmart Research Liaison.
11. FireSmart Research Liaison connects with IMT, Zone, or Fire Centre to submit a request for additional resources.
12. On the incident, the Research Team reports to the Senior SPS.

PLEASE NOTE: A qualified staff member from the FireSmart BC business area of the BC Wildfire Service will also be dispatched with the research team to fill the FireSmart Research Team Liaison role. This individual's position will be to coordinate the communications between the AHJ, wildfire operations and the research team. If a Liaison has been activated by the Office of the Fire Commissioner, the Research Team Liaison will work closely with this person.

Considerations for this project

Case-studies conducted in the WUI are challenging both operationally and technically, however with coordination and communications and a priority placed on safety, those challenges can be overcome. Due to the unpredictable nature of wildfire and the variation in candidate interface incidents, researchers involved with this project will be well-prepared in advance, be able to respond quickly and will need the support of AHJ as well as wildfire management agencies. As this is a multi-year research project that will hopefully be duplicated across Canada, there is an expectation of learning through doing and continuing to adapt methods and protocols to ensure research needs as well as the needs of the involved stakeholders and communities are met.

COVID

Research teams will follow all COVID related safety measures that are currently in place for the BC Wildfire Service and will coordinate through their liaison with the AHJ to ensure they are meeting COVID requirements of the area. The research team will be briefed on and expected to integrate current COVID protocol and mitigation strategies in place based on the public health and BC wildfire standards.

Safety of operations

First and foremost, the research team's activities should not affect the ability of the AHJ to conduct prepare for wildfire or manage an active wildfire incident. The research team must not affect the safety of fire responders and wildfire operations staff.

Safety of researchers

Concerns regarding the responsibility for the safety of the research team can be mitigated. The SPS designate and Research Team Liaison will pay particular attention to researcher safety and will ensure that no additional emergency resources are taken from their required duties to assist researchers. The research team will be appropriately checked-in to the incident and will receive a briefing from the Safety Officer or Structure Protection Specialist. Due to the nature of the research, there must also be physical separation between fire suppression and control operations and research activities. For safety, where intensive fire activity begins to develop, researchers must withdraw. However, pre-positioned equipment will be left behind to allow collection of critical data without risk to personnel. Data collected during stages of active fire or in fire-impacted areas during times where dangerous levels of ember activity or flames and radiant heat are present will be collected by equipment and not research personnel. Additional health and safety protocols will be adopted to further reduce the potential for safety concerns as this project unfolds.

Additional considerations

There is valid concern regarding the operational necessity of requesting individuals to evacuate an active wildfire area for safety reasons as a research team is subsequently granted access. It is important to note that the research team will only be present in areas where structure protection has been

requested and there are other wildfire management staff operating in that area. Researchers will not be in areas where other frontline operators have been restricted from entering due to safety. There is no proper time to study how wildfire effects structures, but the need is great and imperative if the aim is to prevent damage to property from wildfire in the future. Transparent and coordinated communication should be part of the research project deployment and will assist in alleviating the majority of concerns around optics.

Project communications

Stakeholders within the WUI, host agencies, AHJs and the public (particularly those evacuated) must have timely information regarding the research project if it is to be conducted in their area. This prevents misunderstandings, ensures transparent communication, and facilitates a coordinated approach. Media and public interest in wildfires is great when people are asked to leave their homes. This is precisely when the research team alongside the Structural Protection staff will be coming to site so curiosity regarding their presence and purpose should be expected.

The communications package that is included with this guideline document will focus on the importance of risk mitigation and preventing damage to communities. Key messages will outline that the more fire agencies and resident of the WUI work together to reduce the vulnerability of homes and property to ignition, well before wildfires occur, the safer and more effective fire fighters and firefighting in general is. This communications package aims to provide information for AHJ to explain why this research project is important for reducing the potential for home ignitions and to start discussions on the participation of WUI resident in the FireSmart program.

Further resources

For more information please contact:
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Thank you to the following contributors to this guidance document

Operations and logistics staff (BCWS)
Incident Management Team staff (BCWS)
Fire Chiefs Association of BC
Emergency Management BC
Communications Specialists (BCWS)
Structural Protection Specialists
TEAMS Information Officers
BC Parks
Parks Canada
Indigenous Services Canada
Union of BC Municipalities
First Nations' Emergency Services Society
Forest Enhancement Society of BC
Emergency Program Coordinators from Regional Districts
BC Office of the Fire Commissioner
Research and Innovation (BCWS)
Risk Management Branch (BCWS)
FPInnovations (primary contractor)
Institute for Catastrophic Loss Reduction
FireSmart Canada

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Appendix 1: Communication Package

The communications package includes the following:

- One-page project summary document
- Community bulletin template
- Key messages for media and communications personnel that cover:
    - FireSmart
    - Wildfire risk
    - The research project
    - Concerns regarding the research
    - How the research will be conducted and by whom
    - Research link to wildfire response through structural protection
    - Safety
- Information to be shared on partner platforms (logos and brief project description)

This communications package can be accessed through this link:
https://firesmartbc.ca/research/

What is FireSmart? FireSmart is a national program designed to increase the resiliency of homes, neighbourhoods and communities to wildfire. FireSmart provides the tools for individuals, communities, and authorities to greatly reduce the threat of wildfire to communities.

Why FireSmart research in the WUI matters. Fires in the wildland-urban interface (WUI) are now one of the leading causes of natural disasters in Canada, and the impact that they are having on communities is increasing. To become more resilient to wildfire as a province, the BC FireSmart Committee recognizes the need for adjustments to the built environment that are based on sound science. For FireSmart BC to continue to provide solid recommendations on how to increase wildfire resiliency of homes, the scientific basis of FireSmart guidelines must be increased.

What will the research do? The purpose of this research project is to assist in the development of tools, resources and, assets, that will mitigate the losses to structures and their surroundings. The key deliverables are:

- A better understanding of the factors leading to ignition and loss of homes and other structures,
- An improved foundation for enhanced FireSmart guidelines and FireSmart communications with the public,
- Better informed policy, legislation and development initiatives regarding FireSmart, and
- A stronger foundation for future wildfire resiliency initiatives.

Creating structures and homes that are ignition resistant using scientifically proven FireSmart methods, is the most realistic way of preventing WUI wildfire disasters.

PLEASE NOTE: this research will **NOT** look to assign blame or responsibility for losses. Data collected during this research will **NOT** affect the insurance of individual homeowners or their liability regarding wildfire. Researchers will **ALWAYS** respect private property and community sensitivities.

How will the research be carried out? FPInnovations, a not-for-profit forest research organization, makes up the research team. They have extensive experience in everything from wildfire operations and firefighter safety, to mechanical engineering and data collection technology. Data will be collected on fuel arrangement, structural characteristics and neighborhoods using UAV's (drones), 360-degree cameras and data collection forms. The data will be analyzed post fire and stored securely in an access-controlled data platform developed for this project.

How will the researchers be part of wildfire response? The research team will be deployed with a designated Structure Protection Specialist and a Liaison from the BC Wildfire Service's Research and Innovations Branch. They will be incorporated into the Incident Command Structure and will not prevent, impact, or delay structural protection or the authority having jurisdiction's (AHJ) ability to prepare or manage an active WUI incident.

What can we share about the research project? Stakeholders within the WUI, host agencies, AHJs and the public (particularly those evacuated) must have timely information regarding the research project if it is to be conducted in their area. This prevents misunderstandings, ensures transparent communication, and facilitates a coordinated approach. Please use the communications package on www.FireSmartBC.ca under FireSmart Research to help you communicate regarding this project.

For more information please contact:
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BRITISH COLUMBIA FireSmart™ COMMITTEE

FireSmart BC: Wildland-urban interface case-study research project

[Insert information about the current wildfire incident here: area, resources, summary, timeline – can be taken from the BC Wildfire Service website.]

The BC FireSmart Committee, in partnership with FPInnovations and the Institute for Catastrophic Loss Reduction are currently conducting research in your area.

A team of qualified and experienced professionals, working closely with the Structural Protection Branch and the Incident Management Team will be collecting data on how the wildfire is affecting the built environment. The purpose of this research is to assist in the development of tools, resources and, assets, that will mitigate the losses to structures and their surroundings. The key deliverables are:

- A better understanding of the factors leading to ignition and loss of homes and other structures,
- An improved foundation for enhanced FireSmart guidelines and FireSmart communications with the public,
- Better informed policy, legislation and development initiatives regarding FireSmart, and
- A stronger foundation for future wildfire resiliency initiatives.

The *[insert name of the wildfire here]* wildfire provides an opportunity to further our understanding of how adjustments to properties in the interface can better protect you from wildfire in the future. Please note that research will not prevent, impact, or delay suppression or protection operations. This research will not look to assign blame or responsibility for losses. Data collected during this research will not affect the insurance of individual homeowners or their liability regarding wildfire. Researchers will always respect private property and community sensitivities.

For further questions regarding:

- This research project please contact:
  Helena Marken, FireSmart Analyst at Research@FireSmartBC.ca or at 250.255.4848
- Evacuation alerts or orders please contact:
  [insert contact here]
- Wildfire specifics please visit www.bcwildfire.ca
- Steps to increase the wildfire resiliency of your property and community please visit www.FireSmartBC.ca

Key messages

FireSmart

- FireSmart is a national program designed to increase the resiliency of homes, neighbourhoods and communities to wildfire.
- FireSmart provides the tools for individuals, communities, and authorities to greatly reduce the risk of wildfire losses to property owners and communities.
- For more information on FireSmart in BC and available programs visit www.FireSmartBC.ca

Wildfire risk

- Globally, and despite enhanced control capabilities, the number, size, and intensity of wildfires have been, and will continue to increase due to climate warming.
- Fires in the wildland-urban interface are now one of the leading causes of natural disaster losses in Canada, and the impact that they are having on communities is increasing.
- Wildfires in the wildland-urban interface continue to represent a growing concern in BC and over the last three fire seasons more than 600 homes in BC were destroyed.
- The wildland-urban interface is area where the wildland and human development mix, where homes are vulnerable to ignition – mostly by burning embers.

The research project

- To become more resilient to wildfire as a province, the BC FireSmart Committee recognizes the need for adjustments to the built environment that are based on sound science.
- For FireSmart BC to continue providing improved recommendations on how to increase wildfire resiliency of homes and communities, the scientific basis of FireSmart guidelines must be increased.
- Creating structures/homes/properties that are ignition resistant using scientifically proven FireSmart methods, is the most realistic way of preventing wildland-urban interface fire disasters.
- The purpose of this research project is to assist in the development of improvements to building design/materials, prevention tools and public awareness that will reduce the risk of losses to structures and their surroundings.
- Data collected through this research will aim to improve the survivability of homes in years to come by identifying hazard factors that increase the ignition potential of structures as well as the knowledge of how fires travel between structures.
- The results from this research project will ultimately be used to better understand how homes ignite and how the impact of wildfire on communities can be reduced.
- Government policy bodies, industry, the public, fire departments, public safety organizations, wildfire management agencies, builders, and several other key stakeholders can all benefit from a better understanding on structural ignition and wildfire risk in the built environment.

Concerns regarding the research

- This research will not look to assign blame or responsibility for losses. Data collected during this research will not affect the insurance of individual homeowners or their liability regarding the wildfire.
- Researchers will always respect private property and community sensitivities.
- Personal information captured inadvertently like street signs and house numbers (which researchers will avoid gathering) will all subsequently be removed from data and results.
- If in the communication of the research certain pictures are anticipated to be used, permission will first be requested from homeowners.

How the research will be conducted and by whom

- Data will be collected on fuel arrangement, structural characteristics and neighborhoods using UAV's (drones), 360-degree cameras and data collection forms.
- As much data as possible will be collected during pre-fire operations and will be collected post-fire from the same positions for data analysis. During the fire passage data will be collected using in-fire video cameras, sensors (heat flux and temperature) and potentially a sensor that collects ember data.
- All data will be analyzed post fire and stored securely in an access-controlled data platform developed for the project.
- FPInnovations is a private not-for-profit forest research organization that makes up the research team.
- They have extensive experience in everything from wildfire operations and firefighter safety, to mechanical engineering and data collection technology.

Research link to wildfire response through structural protection

- The research team will be a part of BC Wildfire Service response, linked to the Structure Protection Branch and a designated Structure Protection Specialist.
- The Structure Protection Specialists are the BC Wildfire Service members that manage and implement structure protection units in interface wildfires where structures may be impacted.
- These crews employ FireSmart principles that are useful in protecting homes that may be in the path of an active wildfire.
- Research will not prevent, impact, or delay structural protection. Priority, after the safety of firefighters and other personnel, still remains with defending structures from embers and flames of wildland fire.

Safety

- Research teams will follow all COVID related safety measures that are currently in place for the BC Wildfire Service and will coordinate through their liaison with the authority having jurisdiction to ensure they are meeting COVID requirements of the area.
- Due to the nature of the research, there will be physical separation between fire suppression and control operations and research activities. Areas that are significant for research will likely not overlap with areas where the wildfire has impinged the community and is not safely extinguished.
- Researchers will not be in areas where other frontline operators have been restricted from entering due to safety.

Logos and brief project description

The BC FireSmart Committee, in partnership with FPInnovations, the Institute for Catastrophic Loss Reduction and FireSmart Canada have launched a research project in British Columbia aimed at the development of tools, resources and, assets, that will mitigate losses to structures and their surroundings caused by wildfire. By implementing a case-study research model for wildfires in the wildland-urban interface, they hope to gain a better understanding of the factors leading to ignition and loss of homes and other structures. This intent behind this long-term research project is to improve the foundation for enhanced FireSmart guidelines and FireSmart communications with the public, as well as better inform policy, legislation and development initiatives regarding FireSmart, and enhance future wildfire resiliency initiatives.