

Lessons Learned: Engaging Homeowners and Neighbourhoods in Wildfire Mitigation

Bonita McFarlane
Natural Resources Canada

Tara McGee
University of Alberta

Wildland Fire Canada 2010, Kitchener-Waterloo, Oct. 5-7, 2010



Natural Resources
Canada

Ressources naturelles
Canada



UNIVERSITY OF
ALBERTA

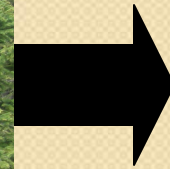
Canadian Wildland Fire Strategy

Desired Future State

- Resilient communities and an empowered public
 - Informed of the role of wildland fire
 - Aware of potential impact on ecosystems, communities, and individuals
 - Take action to proactively manage risk

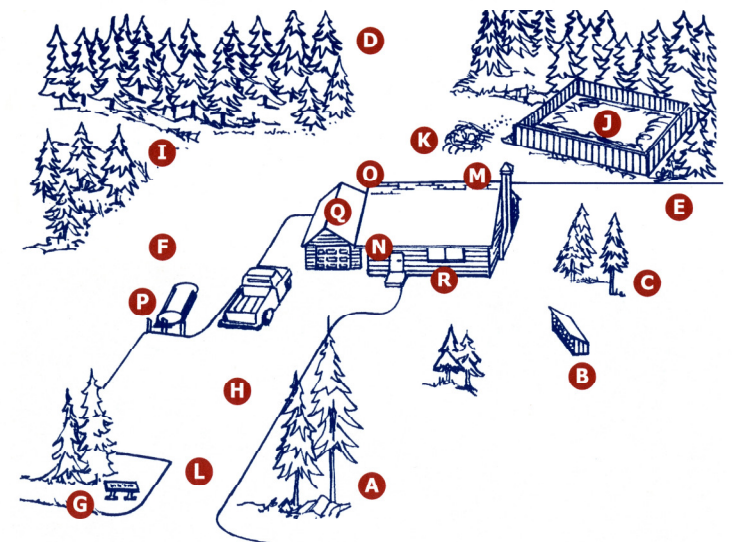


Change from this...

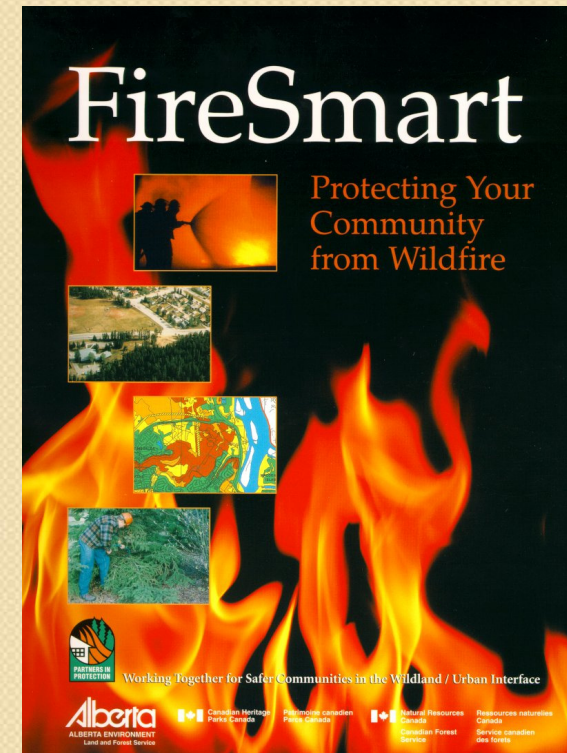


to this?

**A Well Thought Out
FireSmart Protection Plan**



Is public education the solution to proactively managing risk?



Research Questions

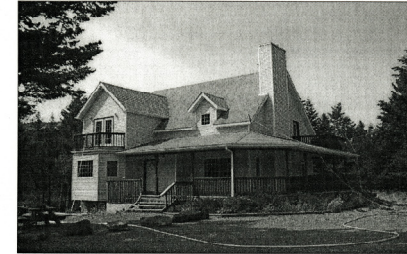
- Is the public aware of the risk & mitigation?
- What are homeowners and communities doing to reduce the risk?
- What influences mitigation?



Homeowner Wildfire Mitigation

- Grande Cache, Hinton, Whitecourt, Edson, High Level, and Peace River
- Classified as high risk by ASRD
- Mail survey in 2007
- Response rate 38%
($n = 1,265$)

YOU, YOUR PROPERTY AND WILDFIRES



Each year wildfires impact woodlands, properties and homes. This survey is being conducted by researchers at the University of Alberta to help us understand how Albertans view wildfires and the impacts wildfires have on property and communities. All of your responses will be kept confidential and only a summary of everyone's answers will be used in reports and presentations. The information provided will be used to determine Albertans' expectations for managing and reducing the potential impacts of wildfires and also help wildfire management agencies protect Albertans and their communities from wildfires.

Please try to answer all of the questions. If there are any questions you do not wish to answer, please leave them blank and move to the next one.

Please return your completed questionnaire in the postage paid envelope provided. Thank you for taking the time to complete this questionnaire.

If you have any questions regarding this survey please contact: **Hilary Flanagan** by phone at (780) 492-5879 (leave a message) or e-mail at flanagan@ualberta.ca

Hilary Flanagan
Masters Student
Phone: 780-492-5879
E-mail: flanagan@ualberta.ca

1-26 Earth Sciences Building, University of Alberta
Edmonton, Alberta T6G 2E3
Website: <http://research.eas.ualberta.ca/hdresearch/>



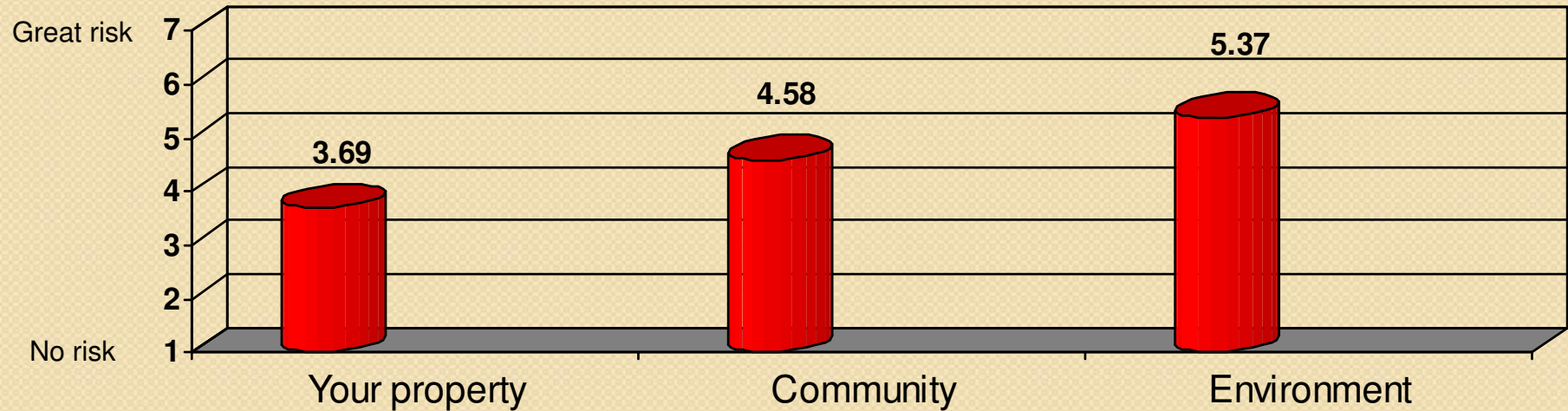
Tara McGee
Associate Professor
Phone: 780-492-3042
E-mail: tmcgee@ualberta.ca



DEPARTMENT OF EARTH AND
ATMOSPHERIC SCIENCES

Perceived Risk

Level of risk wildfire could pose in the next 5 years (mean ratings)



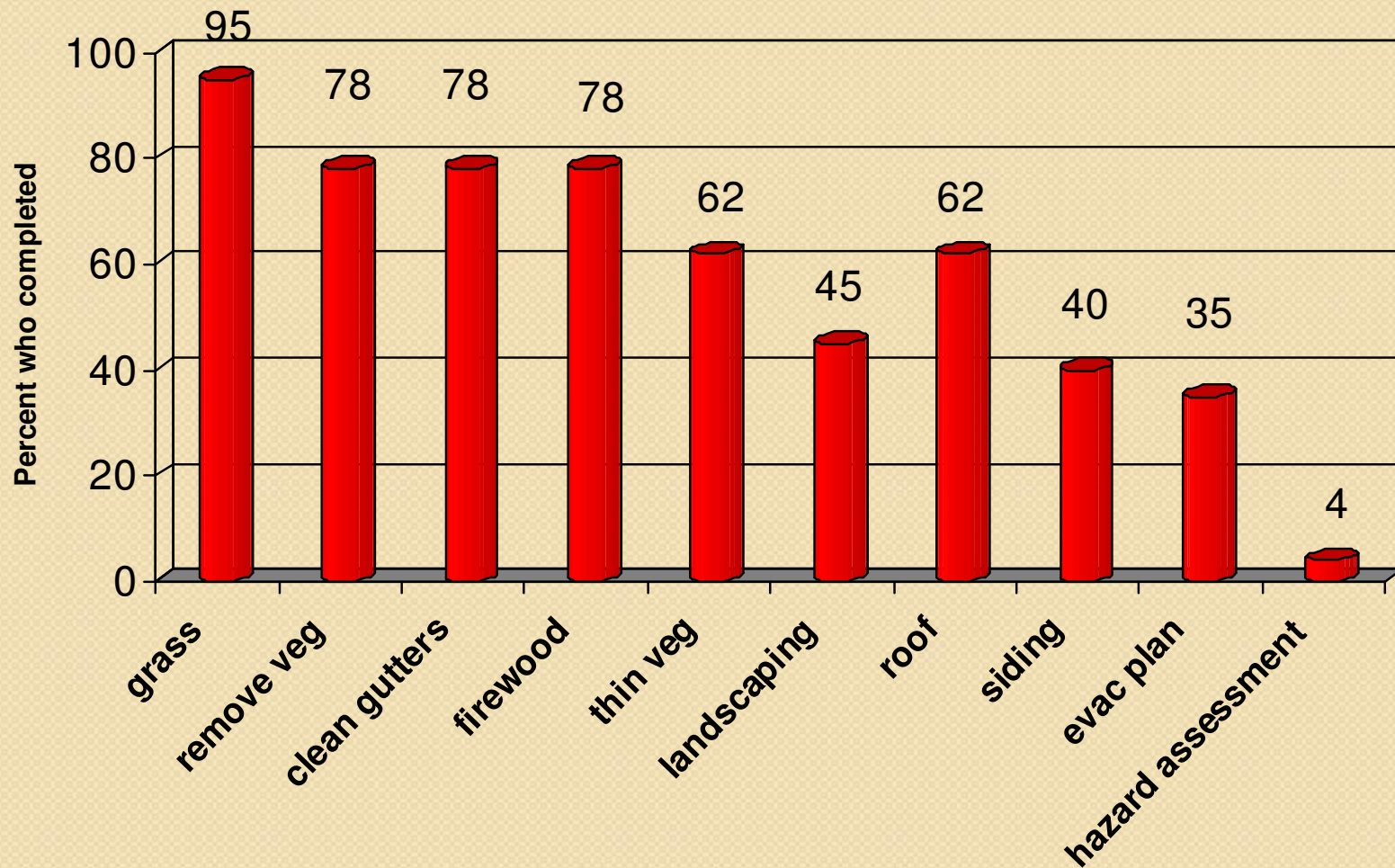
- Least risk to their own property
- Moderate risk to their community
- Highest risk to the natural environment

Awareness



- 66% had heard of FireSmart
- Only 20% had searched for information about wildfire, their impacts and preparing house & property for wildfires

FireSmart™ Activities



Constraints to Mitigation



- 51% cost
- 42% family/neighbours
- 34% information
- 32% do not have skills
- 30% physical limitations

Reliance on Firefighters



- 56% thought that firefighters could protect their home if it was threatened by a wildfire
- only 22% thought that firefighters could not protect their home
- 22% were 'not sure'

Homeowner Mitigation is Complex



- Must perceive a risk and judge it as significant within a context of trade-offs
- Weigh the benefits & costs (constraints) of mitigation (e.g. assess the threat relative to cost, impacts on family/neighbours, perceived effectiveness, trust in firefighters)

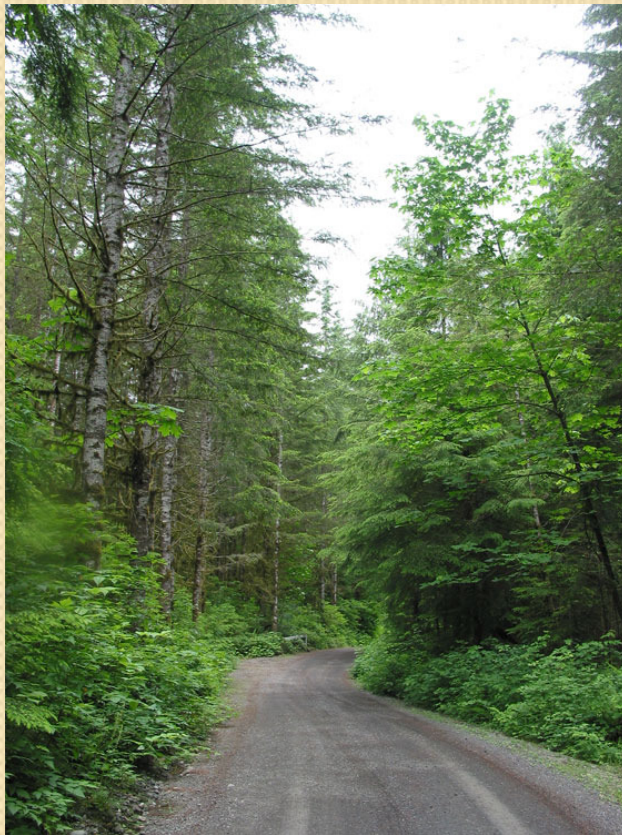
Neighbourhood level wildfire mitigation programs

- FireSmart-ForestWise, Jasper NP Canada.
- Firewise Communities/USA, Washington State.
- Community Fireguard, Victoria Australia.

FireSmart-ForestWise, Lake Edith, Jasper National Park



Firewise Communities/USA, Washington State



Community Fireguard, Victoria, Australia



Activities

- **FireSmart-ForestWise (Canada)**
 - Assist with vegetation removal and thinning
 - Communication
- **Firewise Communities/USA**
 - Vegetation removal and thinning
 - Communication
 - Land use planning
 - Non-flammable building materials
- **Community Fireguard (Australia)**
 - Household fire plan
 - Communication
 - Meetings and social activities

Motivation to participate: Fire experience



Motivation to participate: Agency Involvement

- “this was not pushed on anybody. It wasn’t like the government coming in, knocking on the door, saying ‘this is what we’re going to do’. Oh no. He let everyone know that this (fire assessment) was available, and you were to phone him and arrange a time.” (Canada)



Motivation to participate: Personal and Family Protection



Benefits of participation: Social networks and knowledge

- Social networks and knowledge
 - “It’s a nice kind of harmonious activity from a communal point of view You see a lot of people, ‘Gosh, I haven’t seen you in years! How have you been?’ And you have a conversation and you talk at lunch or when you’re working.” (Canada)
 - “Being in the group gives me more updated knowledge. You’re learning stuff all the time.” (Australia)

Benefits of participation: Enhanced relationships between residents and management agencies

- “We get to hear in our Community Fireguard group what the residents want, and we can pass that along to the CF coordinator for the region. She passes that along to the headquarters. So there is lots of sharing of information at all levels.” (Australia)
- This clearing activity and the work bees... the relationship between the residents at Lake Edith and the wardens department became a lot closer, and much more respectful too. “ (Canada)

Lessons Learned

- Educating the public
 - Awareness \neq adoption
- Facilitate overcoming constraints by emphasizing multiple benefits to mitigation & reducing costs (financial & non-financial)

Lessons Learned

- A culture shift in fire management
 - Limitations of fire suppression
 - Shared responsibility – a collaborative, inclusive mitigation plans
 - Shared decision making – engaging residents in community/landscape level mitigation
- Active agency involvement in neighbourhood level programs on an ongoing basis is crucial!
 - “Go-to-the-people” approach
- Programs where residents are actively involved with their neighbours can provide social benefits and enhance relationships between residents and Agencies.

Thank you to

- Our funding partners: Alberta Sustainable Resource Development, ATCO Electric, Canadian Forest Service, CFFC, Institute for Catastrophic Loss Reduction, Social Science and Humanities Research Council
- Study participants

The End



**Photo: Bob Pisko,
Digital Imaging & Photography**