

**Public Perceptions of Wildland Fire Management in the
Foothills Model Forest:
A Summary of Findings**

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1.0 INTRODUCTION

The Foothills Model Forest has initiated the FireSmart-ForestWise Community Protection and Forest Restoration Project (FsFw) to manage forest fuels to reduce wildfire risk and to improve ecological conditions, wildlife habitat, and aesthetics. As part of this initiative, Jasper National Park (JNP) has undertaken a project aimed at reducing the risk of wildfire to the Town of Jasper and adjacent developments and to improve ecosystem health by restoring more natural variation in the forest structure. Fuel modifications such as selective thinning, pruning, and burning are taking place on about 350 hectares of forest around the Town of Jasper and the Lake Edith cottage development. The Jasper project appears to be a success, with local residents supporting and helping with the project.

Residents' perceptions of the risks from wildfire, their acceptance of fuel modifications within the national park, and the factors that influenced individual and community level mitigation response were the focus of this study. We used the Jasper FsFw project as a case study of a success story of public engagement in wildfire risk reduction and addressed the following objectives:

1. To examine the public's knowledge and acceptance of fire management strategies and the FsFw project.
2. To examine the influence of characteristics of the FsFw project, perception of wildfire risk, wildfire experiences, and other factors on citizen involvement in the FsFw project.
3. To identify management implications to assist Parks Canada, municipalities, and fire management agencies in developing strategies to communicate with and engage the public in fire management and mitigation.

This report provides a summary of the study's key findings.

2.0 METHODS

This study used qualitative research methodology. Interviews were conducted with residents and business representatives in Jasper and Hinton, municipal representatives of the towns of Jasper and Hinton, provincial government representatives familiar with fire management in the Foothills Model Forest, and JNP staff. Business representatives from Jasper included people who owned or operated a business in the park (including outlying commercial accommodation) and representatives of business associations. Jasper residents included permanent residents from the town and seasonal residents from Lake Edith.

In JNP, a first round of resident and business interviews was completed with people referred to us by Parks Canada staff. Other participants were recruited using a snowball sampling method whereby interviewees were asked to identify others who were representative of the range of views in JNP. A similar method was used to identify participants in Hinton, with a key contact from the Foothills Model Forest providing names for initial contacts. The intent of the sampling was not to obtain a statistically representative sample. Rather, due to the qualitative nature of the study and the desire to

solicit a range of perceptions related to fire management, a purposeful sample was considered appropriate. A total of 54 interviews were conducted between June and September 2006.

Interviews were tape recorded with permission of the participants and professionally transcribed, verbatim. The data analysis process involved coding the transcribed text into conceptual categories and creating themes which were then used to analyze the data. Once all interview transcripts were coded, the next step involved a comparison of the themes cross the interviews. This was aided by the use of NVivo® 2.0, a qualitative data analysis software program.

The study was judged to meet ethical standards for research involving human participants by the Arts, Science and Law Research Ethics Board, University of Alberta. The research was conducted under Parks Canada Research and Collection Permit JNP-2006-669.

3.0 RESULTS

3.1 Perceptions of Fire Management

3.1.1 The goal of fire management

To provide an indication of JNP participants' expectations of fire management, we asked them what they thought the goals of fire management should be within the park. Comments from residents, business representatives, and municipal staff in Jasper were grouped into three themes: protection, prevention, and restoration. The protection theme focused on public safety, protecting the Town of Jasper and park infrastructure. The prevention theme refers to being proactive to mitigate the potential impacts of wildfire on commercial and residential property. The creation of fire breaks around the town and reducing fuel loads were the primary goals identified for prevention. The restoration theme recognizes the role of fire in the ecosystem and the desire to return the park to more natural conditions whereby wildfire can be allowed on the landscape with minimal management. Protection and prevention were prevalent themes identified for fire management in the Foothills Model Forest area among respondents from Hinton. Although some Hinton interviewees identified restoration as a goal, they also recognized the need to balance industrial values (e.g., timber) with ecological values. Working with industry to manage the landscape was viewed as a key factor in achieving fire management goals.

3.1.2. Awareness of fire management

To assess if respondents were familiar with fire management activities, they were asked what was being done to manage wildfire. All Jasper interviewees (residents, business owners, and municipal representatives) were aware of at least some of the fire management activities in the park (prescribed burns, thinning around the town site, and the creation of fire breaks).

Jasper interviewees were mostly supportive of fire management activities in the park. This support was based on the recognition that mitigation activities reduce the potential

for a catastrophic fire that could threaten the town or Lake Edith cottages, beliefs that there appears to be no better alternative, recognition that fire is necessary for forest renewal (including opening up views and changing the flora and fauna), and recognition that Parks Canada is both a leader and expert in fire management. However, some concerns were expressed, including the potential impact of management activities on the visitor experience, uncertainty of the outcomes and the effectiveness of thinning, the amount of timber being harvested (concerns were expressed over too much and not enough being harvested), a perception that commercial interests outside the park (such as the forest industry) are given a higher priority than the ecology of the park, and the strategy is based on only Parks Canada science and expertise.

When Hinton interviewees were asked if they were aware of fire management activities in the Foothills Model Forest, the activities in JNP were mentioned foremost (prescribed burning, thinning, and the creation of fire breaks around the Town of Jasper). They were also aware of thinning and fire breaks around Hinton. Other activities identified as consistent with fire management were the forest industry emulating fire in their logging activities and creating access that can help fire suppression. Hinton interviewees were supportive of fire management because of the need to be proactive in preventing a catastrophic wildfire, and because they felt that there were few alternatives. One participant felt that the emphasis of current fire management outside of JNP is on fire suppression but more proactive, preventative measures are needed. Other concerns included the necessity of incorporating the ecological role of fire into management and better use of the timber harvested to create fire guards around Hinton.

3.1.3 Prescribed fire

A range of views about prescribed fire was evident among both Jasper and Hinton participants. Some people were very supportive of prescribed fire, others were supportive of the concept but had concerns, and a small number of study participants did not support the use of prescribed fire. Interviewees supported the use of prescribed fire primarily because of the ecological benefits and its role in reducing the risk of a catastrophic wildfire.

Concerns about prescribed burns focused on the potential of fire escaping the planned boundaries. Although an escape was recognized as a potential risk by most participants there did not seem to be a high level of concern over this potential danger. In other words, these participants recognized a potential risk but accepted it. In contrast, some study participants who were not supportive of prescribed burns did not accept this risk. Others who did not support prescribed burns viewed them as interfering with Mother Nature and a waste of money.

Hinton participants were also concerned with the timing of the burns (with a preference for fall burns), the impact on tourism, poor air quality (because of smoke), disruption of recreational use of the forests around Hinton, and keeping Hinton residents informed of prescribed burns in JNP.

It was a common belief that burns should not be conducted in the summer months but rather in the spring or fall when there are fewer tourists. Many preferred the fall because of the added safety factor that winter and snow would soon extinguish any lingering fire and because there are fewer visitors to manage if a fire escapes. In terms of where they thought the burns should occur, some felt they should occur wherever fire is needed for ecological reasons. Others felt that areas with high tourist traffic and recreational use should be avoided. In contrast, some felt that prescribed burns in tourist areas would provide opportunities for educating people about fire and fire management.

Public support for prescribed fire depends partly on the public's trust in fire managers' expertise and abilities to keep the fire within prescription. Therefore, we asked participants if they trusted Parks Canada to contain prescribed fire and achieve their fire objectives. Most interviewees from both Jasper and Hinton felt that park managers could achieve (or they hoped that managers could achieve) fire management objectives and prevent prescribed burns from escaping. The primary reason for this was faith in Parks Canada's fire expertise. Many trusted the leadership and fire expertise of Parks Canada staff in determining when and where burns should occur.

Those who had doubts about achieving objectives and preventing escapes cited the escape of the 2003 Syncline Ridge prescribed fire as an example of failure, thought that fire managers lacked knowledge about the long-term impacts of prescribed burns, and felt that other interests (such as tourism and industry outside the park) had prevented managers from achieving fire management goals.

3.1.4 Fire suppression

To examine participants' views about fire suppression, we asked them their opinion on letting some wildfires burn. Almost all municipal, business, and resident interviewees from Jasper saw a role for fire in the park and were not opposed to letting some wildfires burn. However, the protection of human life, community, historic sites, tourist attractions (such as Maligne Canyon), and infrastructure were considered paramount by most interviewees. Conditions under which it was perceived to be acceptable to let a wildfire burn included if the fire is naturally caused, if it is in remote areas away from the heavily used areas of the park, if the fire can be contained, if the conditions are not dry, if the fire is monitored closely, and if the fire can be used to achieve other objectives such as to create a firebreak.

Study participants from Hinton had similar views on suppressing wildfire. They felt that the protection of human life, communities, and infrastructure should be the first priority. Letting some wildfires burn in protected areas, such as JNP and the Willmore Wilderness Park, was acceptable to most study participants, but only under certain conditions. These conditions included if wildfires are in remote areas, are manageable, can be used to achieve other objectives such as managing mountain pine beetle, and if there is no danger of the fire escaping into the neighbouring industrial land base. Hinton interviewees had a variety of views on wildfires that occur outside of protected areas. Some thought that they should be allowed to burn for ecological health reasons and to achieve objectives such as controlling the mountain pine beetle, and others felt that commercial values (such

as timber) should be protected. One Hinton resident was not supportive of allowing wildfire to burn anywhere in the Foothills Model Forest.

3.2 Mitigation

During the interviews in JNP, we examined mitigation based on familiarity and involvement in FsFw, views of FsFw, and factors that influenced interview participants' involvement in the FsFw program. In the Hinton interviews, we examined familiarity with mitigation in the Foothills Model Forest area, views of mitigation, and participation in mitigation (FireSmart) on participants' own properties.

3.2.1 Familiarity and involvement

In terms of awareness, almost all resident and business owners in the JNP sample had heard of the FsFw project. These interviewees who had heard of the project were primarily aware of thinning in the park, especially at Lake Edith.

There was considerable variation in how involved participants were with FsFw. Most of the Jasper town resident interviewees had no direct involvement in FsFw. Only one of the Jasper town resident interviewees had participated in a community work bee¹. One had integrated fire resistant vegetation when landscaping their property, another had used fire resistant materials in house renovations, and another had attended a FsFw planning meeting. The business owners' involvement in FsFw also varied considerably. Some were not involved, some had attended FsFw meetings held by Parks Canada, and some had participated in work bees or had done fuel modifications and other activities on their properties. The Lake Edith interview participants were very familiar with the FsFw project and all of them had participated in at least one work bee and had carried out fuel modifications around their cottages.

Hinton residents were aware of thinning and fire guards around their town. Although most of the residents had heard the term FireSmart, some were not familiar with recommended mitigation activities.

3.2.2 Views of mitigation

There were diverging views between residents of the Town of Jasper and Lake Edith interviewees on the success of the FsFw project. Town residents consistently expressed uncertainty over the outcomes of the FsFw project, questioning the effectiveness of fuel modifications for reducing the risk and potential impacts during a large fire event. Although some thought the aesthetics of the forest had improved and the project had created greater public awareness of fire, they were not convinced that the thinning activities within and adjacent to the town site would protect the town from fire and questioned the rationale for the sites chosen for thinning. Concerns were also expressed about logging being an unnatural modification of park ecosystems, and the implications of allowing logging because it could potentially open the national parks to further resource extraction.

¹ Community work bees engage citizen volunteers working with Parks Canada staff to gather and pile debris from mechanical thinning activities in or near residential areas.

These views are in contrast with those of residents at Lake Edith. The cottage owner interviewees expressed no doubt that the FsFw project is successful and were appreciative of the project. Interview participants at Lake Edith felt that the thinning had reduced the wildfire risk and made their community safer, the trees were healthier, wildlife habitat had improved, the ecosystem was being restored, and the project had created fellowship and a sense of community among residents as a result of working towards a common goal. However, Lake Edith residents also recognized that mitigation did not eliminate the wildfire risk.

Similarly, Jasper business owners also judged FsFw to be successful even though most of these interviewees had not participated in the project. Business owners cited reduced risk as one of the reasons behind the project's success. Municipal representatives thought the project had made the community safer and had increased community awareness and involvement.

Interviewees in Hinton also showed variation in their judgments of FireSmart in their community. Judgments were based primarily on perceived effectiveness of fireguards around the community. The fireguards were judged as adequate by some who felt that landscape level mitigation was needed. Others questioned the effectiveness of the fireguards and described them as unnatural, "*an unsightly mess*", and "*a waste of money*." These assessments were based on the harvested trees being left on site, impacts the fireguards had on trail use in the area, and the fact that the fireguards had not been tested by fire. Hinton municipal and provincial government interviewees judged the outcome of FireSmart as excellent and very positive. Some Hinton government interviewees felt that residents understand why the fireguards are needed and feel safer as a result of the guards.

3.2.3 Reasons for being involved

Lake Edith residents identified several reasons why they became involved in FsFw. They included reducing the risk to their cottage, culling unwanted trees, improving the aesthetics of the cottage community, reconnecting socially with their seasonal neighbours and enjoying the physical activity during the work bees, the desire to be a good citizen, and learning about fire management in the park. Fuel modifications around the lake and on the cottage properties were viewed as a means of reducing the risk from both wildfire and from dead or dying trees falling on the cottages. Some Lake Edith residents viewed FsFw as a solution to what they described as "*a tree removal problem*." Under the FsFw project Parks Canada identified trees that should be removed and granted permission to remove them without residents having to go through the normal permitting process.

Jasper town residents cited several reasons why they were not involved in FsFw. Some were not supportive of tree and undergrowth removal from the park citing ecological concerns and a preference to let wildfires burn. Others felt that residents who reap the most benefit from the work bees should be involved i.e., those living in neighbourhoods where the thinning occurs. In other words, the work bees were viewed as a neighbourhood activity rather than an activity that benefits the town and in which all

residents should be involved. Other commitments and priorities, and the timing of the work bees (e.g., during the summer or on long weekends) were also cited as reasons why residents were not involved. Business owners who had not participated in mitigation activities on their properties cited the cost associated with these activities and the feeling that they pay enough taxes without incurring the added expense to reduce wildfire risk in the park.

3.2.4 Other benefits of being involved

In addition to the obvious benefit of reducing the wildfire threat, several themes emerged from the Lake Edith resident interviews as benefits of being involved in the FsFw project. These included enhancing a sense of community, a social activity, free firewood, better visibility along the road to the cottages, an opportunity to learn about fire management, and improved relations with Parks Canada.

Business owners cited the personal satisfaction of knowing they were doing the right thing, satisfaction of their customers with visual improvement from thinning, creation of wildlife habitat, the sense of community that it has instilled among those involved, and the reduced threat to customers, staff and property as benefits of being involved in FsFw.

Municipal representatives viewed the benefits of being involved in FsFw as creating a safer community, creating a sense of community by people working together to resolve a common problem, improving relations between the municipality and Parks Canada, and having Jasper National Park be recognized as a leader and a showcase for wildland fire mitigation that other communities are emulating.

3.2.5 Support from Parks Canada

Lake Edith residents viewed support by Parks Canada as instrumental and vital to the FsFw initiative. Parks Canada was viewed as providing leadership by initiating FsFw and organizing the work bees. They provided expertise, labour, equipment (e.g., wood chipper), arranged for food and beverages at the work bees, conducted hazard assessments of individual properties, educated residents by giving presentations at Lake Edith Leaseholders Association meetings and distributing brochures door-to-door, kept residents informed by attending association meetings and providing project updates, and granted permission for residents to remove problem trees that were identified in the hazard assessments.

Lake Edith residents also cited the ability of people involved (Parks Canada staff and Lake Edith Leaseholders Association members) to motivate others. They spoke of Parks Canada staff and association members as being good salespeople, able to sell the benefits of FsFw. Follow-up presentations by Parks Canada showed what had been accomplished (using pictures), outlined what remained to be done, and provided praise for residents' efforts and kept residents motivated. As one Lake Edith resident noted "*everybody felt good*" about what they had accomplished.

Lake Edith residents cited the positive attitude of Parks Canada as a factor in their involvement. Parks Canada invited a lot of public input so the project became inclusive,

involving the residents, considering their concerns, and not forcing the project on people. The voluntary nature of the project, the informal approach taken by Parks Canada, and involving residents from the beginning of the project were cited as factors that encouraged participation. Business owners and the municipal representatives cited the education and communication by Parks Canada and the high degree of cooperation between the municipal fire department and Parks Canada as an important factor in FsFw.

3.2.6 Constraints to involvement

The cost of implementing some mitigation activities was a common theme identified as a constraint to mitigation. Regardless of where mitigation occurs (residential, municipal, provincial or federal lands) it was recognized that increased resources need to be provided over the long-term. Resources for prescribed burns, thinning, structural changes (e.g., new roofs) and tree removal by businesses and residents were cited as potential constraints. Potential constraints to participating in the FsFw work bees in JNP included the physical demands and the time commitment.

3.3 Perceived Risk and Wildfire Experiences

Perceiving a high risk from wildfire, knowing the factors that contribute to wildfire risk, and experiencing a wildfire have been cited in the literature as factors that influence views of fire management. We asked the study participants several questions related to these concepts and explored if these influenced their views of fire management or their involvement in mitigation on their own properties.

Among JNP interviewees, almost all of the residents, business representatives, and government officials (municipal and Parks Canada) perceived that, currently, there is a risk of a wildfire in the park, and most perceived the risk to be high. Weather (moisture levels, lightning, and the force and direction of winds), the amount of forested land and age of the forest, climate change, mountain pine beetle, the commercial railway running through the park, the number of visitors, bush parties, and illegal camping were cited as contributing to the risk.

Most of the resident interviewees in Hinton thought there was a high risk of wildfire in the Foothills Model Forest area and that the Town of Hinton was at risk. In addition to many of the same risk factors identified by the JNP interviewees, Hinton participants cited the expanding wildland-urban interface in Hinton and an increase in industrial activity (oil and gas, forestry, and mining) as risk factors.

In terms of perceived risk to their own properties or businesses, most interviewees in JNP and Hinton thought that they were at risk. Homeowners cited the location of their homes (e.g., on the edge of town) and the structural characteristics of their houses (e.g., cedar siding or cedar shake roof) as increasing the risk. Business owners in JNP who perceived a risk to their business also cited the location of their businesses (in a forested area) as a risk factor. In addition, they recognized that wildfire could jeopardize their business opportunities by damaging the natural beauty of the park. Lake Edith residents cited the fuel reductions around the lake as reducing the threat to the Lake Edith cottages, however, most felt they were still at risk. The few resident interviewees who did not feel

their homes or cottages were at risk cited the lack of any significant fire as evidence that the risk was low, they believed that the thinning activities and fuel breaks would stop a fire, and they had confidence in fire suppression capabilities.

To examine if participants felt that the risk of wildfire had changed in the past decade, and to explore if people perceived that fire management strategies (prescribed burning and thinning) had reduced the risk we asked them to compare the risk today to the risk 10 years ago. Most of the Jasper town resident interviewees viewed the risk as greater today than it was a decade ago. This assessment was based primarily on the perception that the weather has changed significantly with warmer, drier summers, and less snowfall. Although many of the study participants recognized that fuel modifications in the park might reduce the risk, they cited change in climate and increased fuel loads as increasing the risk. In other words, they viewed the factors that contribute to risk as outweighing the risk reduction efforts. In contrast, most Lake Edith participants thought the risk had decreased in the past decade because of the thinning around the lake and cottages. Most Jasper business owners, municipal government, and Parks Canada staff viewed the risk as the same or less than it was a decade ago. Interviewees from Hinton were almost unanimous in their assessment that the risk has increased compared to a decade ago.

We also asked participants their thoughts about how much of a wildfire risk there would likely be in 10 years, to determine if they viewed fire management as being effective in reducing future risk. JNP interviewees showed considerable variation in their assessment of future risk. For example, some believed it will decrease, some believed it will be about the same, and others believe it will increase in the next decade. Climate change (warmer, drier conditions), forest age and fuel loads, and the mountain pine beetle infestation were cited as the main contributors to increased future risk. It seems that for these respondents, the risk factors will outweigh gains made in fire management aimed at reducing the risk. Hinton business, government, and industry representatives all believed the risk will increase in the next decade. Residents showed greater variation in their responses, with about half thinking that the risk would remain the same, and the other half thinking that the risk will increase. Hinton interviewees cited increasing fuel loads, increasing housing developments, expanding industrial and recreational use of the forest, mountain pine beetle, and a warmer, drier climate as factors escalating the future risk of wildfire in the Foothills Model Forest. Several interviewees from both Jasper and Hinton thought that a catastrophic wildfire was inevitable within the next decade.

We also explored participants' personal experiences with fire and how they felt their experiences might have affected their views on fire management and involvement in mitigation. Almost all Jasper interviewees recalled either direct or indirect experiences with a fire event. Indirect experience included news reports about wildfires in other places such as the Yellowstone fires in the 1980s and fires in BC in 2003. Direct experiences included prescribed burns that had occurred in JNP, working as a firefighter or being present at a prescribed burn, witnessing fire from a distance (e.g., seeing smoke rising from a prescribed burn), and observing firsthand the regeneration from past fires.

When asked if their fire experiences had influenced their views of fire management, several themes emerged. Fire experiences were cited as creating awareness of the role of fire in park ecosystems and the potential of a devastating wildfire in the park; fire experiences increased or reinforced support for fuel modifications (thinning and prescribed burns) among some study participants, and decreased support among others; and fire experience was a factor in Lake Edith participants undertaking mitigation activities on their own cottages. Several interviewees spoke of how their experiences reinforced or changed their views in support of prescribed fire and thinning activities because of their increased awareness of the potential risk. One Jasper town resident, however, cited the Syncline Ridge prescribed burn as fueling doubt and distrust among some park residents as to Parks Canada's capabilities.

In terms of motivating study participants to undertake mitigation on their own properties, only the Lake Edith residents cited their fire experiences as a motivating factor. Most Jasper town residents and business owners either felt there was not much more they could do or simply had chosen not to make any changes.

Hinton study participants also had several fire experiences. Hinton participants cited the Syncline Ridge fire in JNP, the December 1997 fire near Hinton that destroyed a house and several buildings, experiences as forest fire fighter, and driving through areas burned by the 2003 fires in BC. One resident described the Syncline Ridge fire as "*very, very scary*" and cited the experience as making them less accepting of prescribed burning in the park but it did not motivate them to undertake mitigation on their property.

Hinton participants seemed less affected by their fire experiences than the participants from Jasper, with several interviewees stating that it had not impacted their views on fire management and, although several were now more cautious with their own fire activities (e.g., backyard fire pits), their experiences did not motivate them to undertake mitigation activities on their properties.

3.4 Improving Fire Management

Most of the JNP residents, business, and municipal study participants appeared satisfied with the current Fire Management effort by Parks Canada. A few participants had some suggestions for improvement. These included providing more resources to Parks Canada so that fire management activities can be accelerated and thus be more effective. More public education on when and why prescribed burns are occurring was identified as an important component in gaining public acceptance for this fire management activity. In terms of on-the-ground management, one interviewee thought that more logging was needed in high risk areas, especially west of the town. Some concerns were expressed that logging does not have the same ecological benefits as fire, the logging equipment causes environmental damage, and that logging may be setting a precedent for revenue generation in the park.

Keeping people informed and included in FsFw was cited as an important factor in retaining a successful project. Although some felt that being able to give back to the community was reward in itself, others felt that providing incentives such as food and

beverages at work bees and allowing residents to take the wood were important aspects of encouraging and retaining participation in the work bees. Some town residents who had not participated in the work bees viewed them as attracting certain types of people: those who enjoy volunteering and participating in social events in the community. In other words, it seemed that they did not perceive the work bees as an event that they would enjoy.

Hinton participants indicated several areas for improvement for fire management on provincial lands. These included doing more vegetation management, completing more fire prevention activities (especially with industry), and reducing the risk around gas plants. Better communication and public input, developing a process to guide fire management decisions, and having industry more involved in fire management rather than relying solely on government expertise were also identified as areas for improvement.

Hinton interviewees had several suggestions for improving homeowner participation in mitigation on their own properties. These included providing incentives for homeowners (e.g., reduced insurance premiums), conducting hazard assessments and providing advice for homeowners (especially on properties that border green space), providing information sessions for the public so they can understand mitigation activities planned for their community and how they can get involved, providing opportunities for homeowners to see the impacts of wildfire and the effectiveness of mitigation, and teaching children about mitigation.

Hinton participants also felt that FireSmart principles should be incorporated into town bylaws and municipal plans. Mitigation around Hinton was viewed by some interviewees as haphazard and lacking a long-term plan and it was suggested that a FireSmart plan should be developed and citizens should be provided with periodic updates and progress reports.

Hinton government interviewees (municipal and provincial) cited long-term financial commitments from the province and municipality, and on-going consultation and collaboration among the levels of government (Parks Canada, provincial, and municipal) as ways to improve mitigation efforts.

4.0 Implications

This study has provided insight into public perceptions of fire management in the Foothills Model Forest and identified several factors that contribute to gaining public acceptance of fire management and engaging the public in mitigation. These findings have several implications for managing wildland fire.

Typically, fire management agencies' efforts to gain public acceptance of mitigation are focused on educating the public by supplying information on the fire risk and how to reduce the risk. It is assumed that this will translate into acceptance of fuel modifications and result in private property owners carrying out mitigation activities on their own properties. Results from this study, however, suggest that gaining public acceptance and

engaging the public in mitigation is considerably more complex. Participants in this study provided several insights into other factors that influenced their acceptance of FsFw and conducting mitigation on their own properties.

Most of our study participants perceived a high wildfire risk, were well informed of risk factors and fire management and mitigation options, and had experiences with fire. Although these may influence support for fire management, they are not necessarily sufficient for acceptance of fire management or to motivate residents to make changes to their own properties.

Our results from the Lake Edith community, where the FsFw seems to have had its biggest success, suggest that characteristics of the community played a role in acceptance of mitigation efforts. The community had the capacity to respond to issues and get things done. The community was organized and had a pre-existing association (Lake Edith Leaseholders Association) that served to address community issues, which provided a means for Parks Canada to present information about the FsFw project and to begin to engage the cottage owners. Existing community groups may serve as an important first contact with residents by providing a forum to introduce fire management and mitigation and to begin to gain the trust of respected community leaders.

Incorporating values that are important to the public in mitigation efforts was an important factor in the FsFw success. The Lake Edith cottage owners have a long history in the park and the cottages have high heritage values, being passed from generation to generation. This sense of history and protecting heritage values probably contributed to a strong desire to protect their cottages. Residents were motivated to remove trees from their properties because many of the trees were old and dying and posed a threat if they fell on the cottages. Incorporating values that are important to residents (such as preserving the heritage of the community or the desire for wildlife) in mitigation may be more attractive to residents than simply reducing the fire risk. In addition, the community work bees served a second important purpose for residents. They became a recreational activity that allowed social interaction with family and neighbours.

Mitigation can become a normative standard for a community. Initially, there was a core group of Lake Edith residents that endorsed the FsFw project and became involved. They served as ambassadors for the project by talking to other residents, encouraging involvement, and distributing brochures. As more residents were recruited for the work bees and conducted mitigation around their cottages, a new community standard and expectation was set, and mitigation became a norm for the community. Engaging ambassadors early in the mitigation process was an important factor in the success of FsFw.

Several characteristics of the FsFw program itself also contributed to its acceptance and the involvement of residents:

1. The voluntary nature of the project.
2. Including residents early in project development and forming a steering committee, which included residents, to guide the project.

3. Communication went beyond distributing brochures to homeowners. The go-to-the-people approach taken by Parks Canada was well received by the cottage owners. The one-on-one discussions with fire managers during the property hazard assessments and the work bees helped build trust between the agency and residents and provided an opportunity to learn more about fire management and residential mitigation. Public presentations by fire managers on project progress provided residents with positive feedback on their hard work (they appreciated the acknowledgement of a job well done) and helped keep residents motivated. In addition, Parks Canada provided public recognition of the community's efforts by showcasing the Lake Edith community as an example of successful mitigation and community involvement.
5. Parks Canada provided resources in the form of knowledge, expertise, and labour (to cut down trees from around the lake and hazard assessments).
6. Providing lunch and refreshments at the work bees were described as helping to reduce barriers between park managers and residents, taking time for a lunch break provided participants with an opportunity to talk to fire managers, interact with their neighbours, and meet new cottage dwellers. Allowing residents to take the wood was also seen as a gesture of good will.
7. The commitment and knowledge of Parks Canada staff were recognized as important components in getting residents engaged in the FsFw project.
8. Trust in Parks Canada to implement a responsible and effective project played a key role in public acceptance.
9. The most prominent constraint identified for implementing mitigation was adequate resources.

The interview approach used in this study allowed respondents to express thoughts in their own words and raise issues that were most salient to them and facilitated the respondent, rather than the researcher, defining salient issues in fire management. The interview approach, however, does not allow us to make statistical inferences about the broader population. By identifying salient issues, the interviews have provided the foundation for development of a survey which could be administered to a random sample of residents, business owners, and government agency staff. A survey would provide an indication of how prevalent the perceptions from the interviews are shared among the population and should be the next step in understanding public perceptions of fire management within the Foothills Model Forest.

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