

What is FireSmart?

By Joanna Skrajny, *AWA Conservation Specialist*



Fires are smart.

In the beginning, Alberta's forests grew in harmony with fire. Fires were wild and unpredictable, equally likely to burn in forests of all ages. Caused by lightning, often these fires were small and inconsequential. Drier conditions would result in large and irregular fires that significantly impacted the landscape. Fire was a natural and essential disturbance to the landscape that recycled nutrients, regulated succession of plants, maintained diversity, and controlled insects and disease.

Over the course of a hundred years, we have ransacked and pillaged our forests. We have sliced up the forest with cut lines, seismic lines, roads, trails, pipelines, and homes, carving a once unimaginable expanse of forest into smaller and smaller portions. At the same time, we have expected the forest to provide us with its goods and services: unlimited sustained timber yield, clean water, clean air, wildlife. How can we expect the forest to continuously supply us with resources and ecosystem services when we have altered it to such a degree that it struggles to regenerate itself?

What is the problem?

The crux of our problem lies in the fact that our society wants all activities and amenities to be easily available, everywhere, all the time. We want to live in adorable homes nestled within the beautiful forests beyond our urban centres. Alberta's incredible urban sprawl is testament to this. Rather than question if we

should build in the forest and who should bear the risk *if* we build there, we try to engineer a solution to the problem. We have tolerated, if not promoted, more and more human settlement in forests over the past 50 years, at greater risk to the people in those communities.

Alberta's FireSmart Program was introduced in 1999 by Partners in Production, an Alberta-based non-profit dedicated to providing information to reduce the risk of wildfire losses. It was later adopted by the Alberta Government. The Forest Resource Improvement Association of Alberta (FRIAA) is responsible for administering and delivering the FireSmart Initiative Program. The FireSmart program historically received \$2 million annually until funding ended in 2010. After the catastrophic Slave Lake fire in 2011 resulted in over \$700 million in damages and \$290 million spent on the disaster, the Alberta government renewed its support of the Firesmart program, allocating \$20 million. This amount was cut to \$7 million in 2013, increased to \$10 million in 2014, and cut again to \$3.5 million for the 2015 season. Alberta has funneled a sizeable amount of money into the FireSmart Program.

The original intent of the FireSmart Program was to address research findings regarding home ignitability, namely that home ignitability rather than wildland fuels is the principal cause of home losses during fire events. The 2003 FireSmart manual highlights this with a focus on removing fuel from the urban-wildland interface. But, over the years, the meaning of "FireSmart" and the allocation of funds

have been co-opted by the Forest Service. The original intent of making a community's buildings more fire resistant has changed into extending the program into the surrounding forests. The effectiveness of this change is dubious and it possibly may have benefited industry operators. A quick look at FRIAA's membership leads to questions about who Firesmart really benefits. Spray Lake Sawmills, Sundre Forest Products, and Weyerhaeuser Company Ltd. are listed as members in FRIAA's 2015 Annual Report. As the focus of the FireSmart Program moved away from reducing home ignitability to managing forest vegetation, some Albertans began to voice their concerns that clearcut logging was occurring and being justified under the auspices of FireSmarting.

Case studies

Problems surfaced in the community of Bragg Creek in 2012 when FireSmart activities were announced in order to create a "fuel break" for the community. Just a year after the Slave Lake fire the possibility of catastrophic fire was still fresh in the minds of residents. However, there was a massive public outcry when it was discovered that the logging would occur on an extensive patch of trail networks and forests that many Bragg Creek and Calgary residents hold dear. Throughout a heated public consultation process, many participants opposed the plan since the proposed logging would not retain any trees around recreational trails and only adhered slightly to true FireSmart practices. Although visual buffers were eventually

added around recreational trails, logging plans were approved and went ahead in October 2012.

The Minister of Environment and Sustainable Resources at the time issued a public release stating that the “FireSmart Plan will create a series of firebreaks on forested Crown land west of Bragg Creek by harvesting timber” and that the plan “respects government’s obligation to manage the costs all Alberta taxpayers would

have to bear to fight an extreme wildfire in the area.”

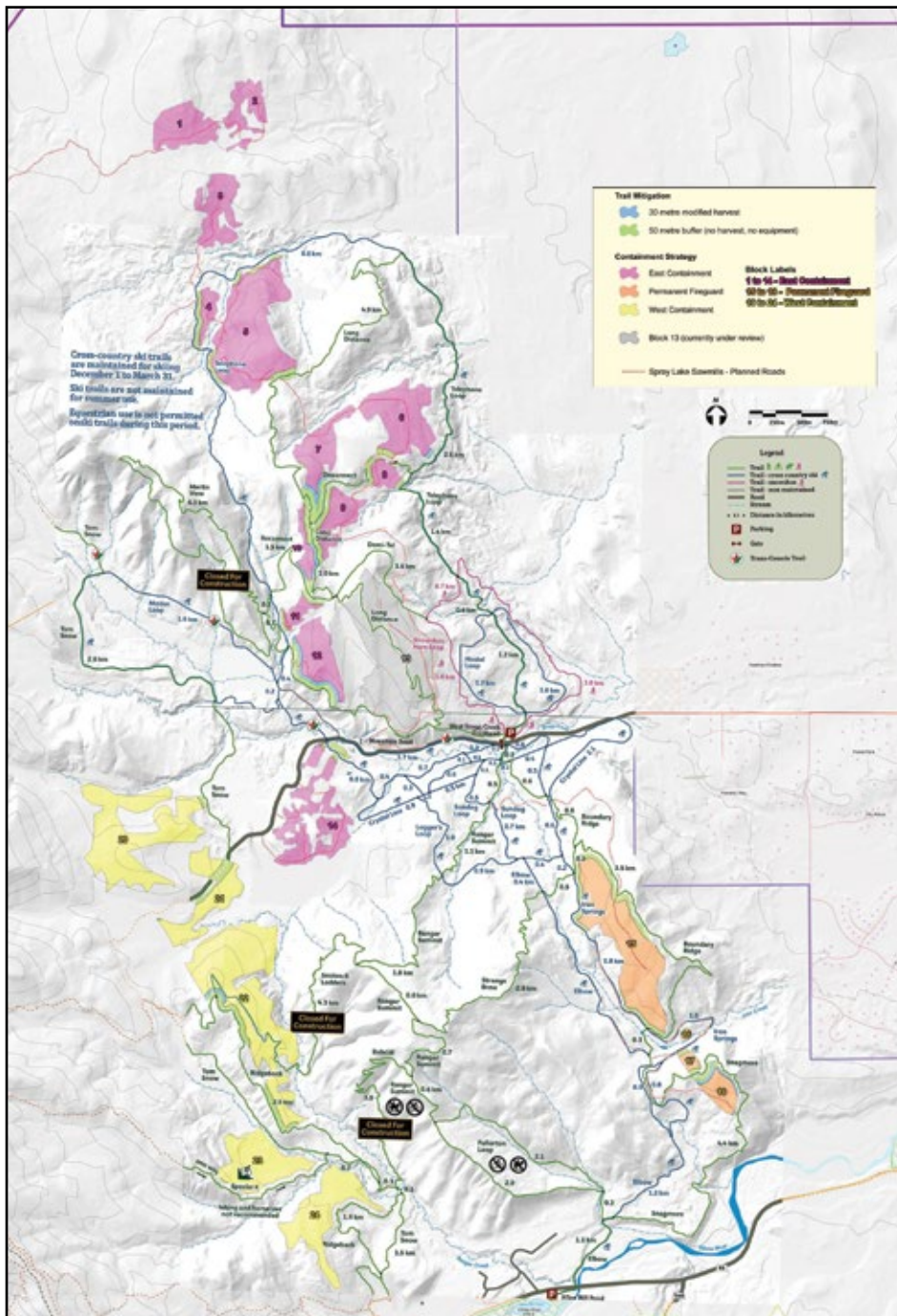
Dr. Ralph Cartar, ecologist and member of the Bragg Creek Environmental Coalition, had serious reservations about the touted ability of these clearcuts to provide a fire break to the residents of Bragg Creek. “The way in which the logging would reduce fire risk was never explained,” he told me. Turning to the research that has been done on fire behaviour, he exam-

ined the proposed logging plans from a FireSmart perspective.

The approved plan, outlined in the map of approved FireSmart logging plans, had three logging phases: the purple and yellow areas designated blocks planned to be cut in consecutive years and then replanted, the orange area was a permanent fire break. What is not seen on this map are the plethora of past clearcuts interspersed between each of these proposed cuts. The young forests will effectively transmit any fire and reduce the value of any short-term (10 year) reduction in fire risk that results from logging the discontinuous patches of old growth forest shown.

It’s clear from the maps that these purported “fire breaks” are patchy and do not provide a solid line of defence to the residents. Why is this the case? Half of the forests surrounding Bragg Creek have already been logged and therefore are composed of immature lodgepole pine. Does that mean that the remaining immature lodgepole pine stands are less of a fire risk? The answer is a resounding no. A study done in Kananaskis determined that young forests have the same fire risk and are as susceptible to burning as old forests (Johnson & Larsen, Ecology 1991). The forest patches that were left are as prone to fire as regenerating clearcuts for which no logging is planned. The myth of increased fire risk with forest age is deep-rooted though and appears often in justifications of logging by the Forest Service, politicians, and logging companies.

So the Bragg Creek community now has a patchy network of clearcuts, the majority of which will be replanted. For how long will these clearcuts provide a fire break? Since forests are returning to these stands, the benefits that the logging will provide is at best a temporary firebreak for 10-15 years, until the young forests – as prone to burning as older-aged forests – are re-established. Dr. Cartar concluded “the proposed ‘FireSmart’ logging was simply not scientifically supportable.” He added: “They only harvested mature stands of pine, and left immature pine simply be-



Map of Approved FireSmart Logging Plans in the Bragg Creek area. The community of Bragg Creek is directly east, flanking either side of the road (cut off in map). SOURCE: Government of Alberta (SRD, now AEP).

cause it was non-merchantable timber.”

In addition to questions raised about the ‘science’ and the effectiveness of the Bragg Creek FireSmart activities, questions have been raised about the reality that Spray Lake Sawmills was to carry out the FireSmart logging. An online map of Spray Lake Sawmills’ 2012 Bragg Creek planned timber harvest mirrors the SRD FireSmarting map almost perfectly. Many residents of Bragg Creek who question the purposes of FireSmart believe this was an attempt to fulfill a contractual obligation made under the local Forest Management Agreement, even though it was presented to the community as a FireSmart Plan. The FireSmart solution that some residents of Bragg Creek actually wanted was this: a permanent fire break which would be wide enough to slow down a fire, allow for access by fire-fighting crews, and allow time for the community to evacuate. Nonetheless, the logging plans proposed by SRD and industry were approved and went ahead, without explana-

tion or justification.

Unfortunately, this problem is not confined to one region of Alberta. The Nordegg Community Association (NCA) has had serious concerns with the failures of FireSmart logging in the R11 Forest Management Unit (FMU) located in Bighorn Backcountry (see Jane Drummond’s article in this issue of WLA). The community cites a failure to follow R11 ground rules that require consideration of aesthetic values and mitigation of visual impacts of FireSmart logging on tourism values.

In a recent letter to the Government of Alberta, the Nordegg Community Association stated:

“The Bighorn Backcountry includes no commercial forestry tenure, but government FireSmart logging has been conducted in a manner that is indistinguishable from commercial clearcutting that is completely inappropriate for a tourism and recreation area. In par-

ticular, visual assessments have not been conducted, and screening buffers, topography and residual material have not been used to address visual concerns, as is required by the R11 plan.”

Regardless of the effectiveness of FireSmart logging, the NCA says it’s frustrating that important recreational trails could not have at least had visual buffers. What is especially frustrating for Jane Drummond, a member of the NCA, is that “the North Saskatchewan Regional Plan is an excellent opportunity to designate the Bighorn as a Wildland Provincial Park, yet the ongoing and unnecessary FireSmart logging is undermining the region’s stated tourism and economic development goals.”

Thankfully, it seems that the Alberta government is becoming more responsive. Commitments have been made to include the NCA in future activities, to reclaim roads that were used in FireSmart activities, and to reduce motorized access



Black Canyon trail west of Fish Lake after FireSmart logging, once a popular biking and hiking trail. CREDIT: Nordegg Community Association

into treated areas. An important next step will be to ensure that future FireSmart decisions are based on peer-reviewed science and public input. The need to apply FireSmart clearcut logging treatments must be re-evaluated entirely, particularly in view of their lack of support in the scientific literature.

Looking into the future

The battle with FireSmart logging is far from over. In the Ghost Valley, residents remain concerned about the FireSmart plans for the Summer Village of Waiparous which still show up in timber harvest documents for the area. Many residents have voiced their belief that the plan as drawn would mostly serve to protect the forest from fires escaping the village, rather than serving FireSmart's original intention – making residential areas more resistant to fire dangers.

Meanwhile, huge swaths of timber are being clearcut from three adjacent compartments in Spray Lake Sawmills' north Forest Management Agreement area. As the foothills are cleared, residents wonder about the fire risks that go along with forestry. The Ghost Valley is increasingly char-

acterized by clearcuts littered with woody debris, dried through exposure to sunlight and wind, then frequented by weekend recreationalists who enjoy campfires and setting off the occasional explosive. And, as Ghost Valley community member Gord MacMahon says, "We've seen that industrial scale forestry opens up new areas to OHV traffic. Reclamation of logging roads does little to keep OHVs out once clearcut forestry opens up an area." Gord notes that the hot metal and sparks emitted from the vehicles may be a source of human caused fires. "It's important," he says, "that we look at the big picture and ask whether our activities are really reducing wildfire risks, rather than increasing them."

Fortunately, solutions are within reach. Large intact forested areas that don't pose dangers to communities in the event of wildfire must be left free to burn in order that natural checks and balances might take place. Where that is not possible, forest communities must focus on making their buildings, yards, fire pits and community green spaces fire resistant: choosing building materials carefully, remaining vigilant to cut new growth back from homes and outbuildings, committing to

safe practices for homeowner fire pits, and implementing annual plans for reducing fuel loads within residential green spaces. In conjunction with these activities, the Alberta government might consider permanent and well-maintained fire breaks in close proximity to the communities at risk. This solution promises to be more effective than clearcut logging in patches and then replanting fuel.

Above all, FireSmart activities must be truly fire smart. These activities must be done using the best available science and must be shaped by meaningful and timely public input. After all, FireSmart was developed with the goal of protecting the property of individual Albertans, rather than as a strategy for finding additional areas for timber harvest. Returning FireSmart to its original intent offers a promising path forward for Albertans seeking sustainability in our land use practices. 🌲

Thanks to the people cited in this article for providing me with on-the-ground knowledge and for guiding me through the complexities of this issue.