Social science research insights into public support for wildfire mitigation

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Forest Fuels Management Workshop, Hinton AB

January 14, 2014

Overview

- Wildfire mitigation by homeowners
- Support for wildfire mitigation at the community/landscape level
- Gaining support
  - Trust & trust building

Wildfire mitigation by homeowners

Percentage of homeowners who completed wildfire mitigation activities in Alberta (McFarlane et al 2011)	n	Percent
Keep grass short and water frequently during the spring, summer and autumn	1201	92.4
Remove shrubs, trees or fallen branches close to your house	1037	77.4
Remove needles, leaves and overhanging branches from the roof and gutters	998	77.9
Install fire resistant roofing materials	1206	61.5
Install double/thermal pane or tempered glass in windows and exterior glass doors	1222	59.8
Remove debris or needle build up under balconies and porches	837	82.9
Prune large trees by removing all branches that are close to the ground	917	75.6
Store firewood well away from your house	776	77.7
Install fire resistant exterior siding	1205	40.2
Thin shrubs or trees so that nearby plants and trees do not touch	885	61.5
Landscape with fire resistant materials and vegetation (such as rocks, aspen, maple or poplar trees)	981	44.4
Screen house vents, gutters and undersides of eaves with metal mesh	1077	39.8
Screen or enclose the underside of decks and porches	934	45.8

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More likely to implement wildfire mitigation measures

- Other benefits
- Older homeowners
- Perceive wildfire risk as significant enough to undertake mitigation measures
- Perceive there to be enough resources to implement the mitigation measures
- View the impacts from wildfires to be controllable
- Place a high priority on the completion of mitigation measures

Support for wildfire mitigation at the community/landscape level

Percent of homeowners in Alberta who support wildfire mitigation policies and fuels management options (Flanagan 2008).		
Wildfire mitigation policies:	n	Percent
Educate homeowners about ways to reduce their wildfire risk	1250	90.2
Free residential wildfire hazard assessments	1241	80.5
Bylaws requiring new houses to use fire resistant building materials	1248	77.4
Bylaws requiring homeowners to remove vegetation close to their house	1252	57.5
Restrict building in high risk areas	1248	55.7
Neighbourhood work bees	1247	47.0
Fuel management options:		
Fireguards around communities	1253	79.2
Prescribed burning	1252	73.0
Thinning trees	1253	70.9

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Gaining support via trust building

- Research indicates that trust is crucial for fire management agencies to be able to carry out their wildfire management programs on the ground (Shindler et al 2014).

Trust

- Trust is an attribute that exists in an individual who is willing to rely on another person or group.

Types of trust

- Trust in agencies (organizational trust)
- Trust in individuals (interpersonal trust)

Characteristics of Trustworthiness
(Shindler et al 2014)

Qualities	Definition
Ability	Perceptions of the knowledge, skill and competence of the agency and its personnel. Characteristics that demonstrate this component include professional expertise, leadership and decision-making skills, and open communication about risks and benefits.
Goodwill	The extent to which an individual believes the agency and its personnel will act in ones best interest. Characteristics demonstrating this component include sincerity, inclusiveness (giving others a say), responsiveness, and empathy for negative impacts a wildfire may have on individuals.
Integrity	Belief that the agency and its personnel are seen as acting in accord with a set of values and norms shared by the community. This component includes fairness, transparent decisions, reliability, and promise keeping.

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A Canadian case study

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FireSmart-ForestWise program, Jasper National Park, Alberta

- Fire managers focused on gaining public support for fuel modification through small, neighbourhood initiatives.

> "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 was available, this assessment, and you were to phone him and arrange a time. Now, I think with most of us, you'd see him over there and you'd go "Hello, how are you? When can you do ours?" [and he would respond] "Well, tomorrow morning, how's that?" In fact, it was pretty informal, but that's basically how he started it, was you contacted him and he came and did his assessment. Then he went over it with you. And it was very nice. It's not like, an official coming and telling you [chuckles] what to do. No, no." (McGee, 2011)

What fostered trust in this situation?

(Shindler et al 2014)

- **Ability:** Knowledgeable agency staff worked alongside residents towards a common goal.

- **Goodwill:** JIST provided an opportunity to include local ideas & address concerns. Nothing was done until committee members were comfortable. Concerns and questions also discussed during work bees and risk assessments.

- **Integrity:** JIST ensured agency acted in accordance with local norms & values. Fire managers are local residents. Staff followed through on commitments.
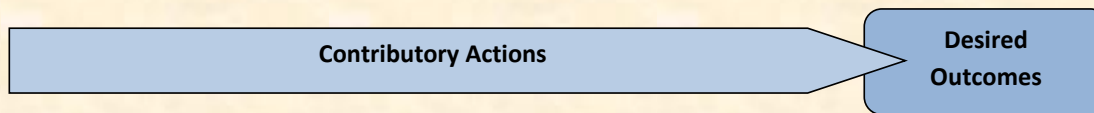
Building relationships

- "This clearing activity and the work bees. The relationship between the residents at Lake Edith and the [Parks Canada] wardens department became a lot closer, and much more respectful too. And it's sort of created a bridge between people and the wardens out there. You get to know the wardens by name, and if they're around, you stop and talk to them."

  (McGee 2011)

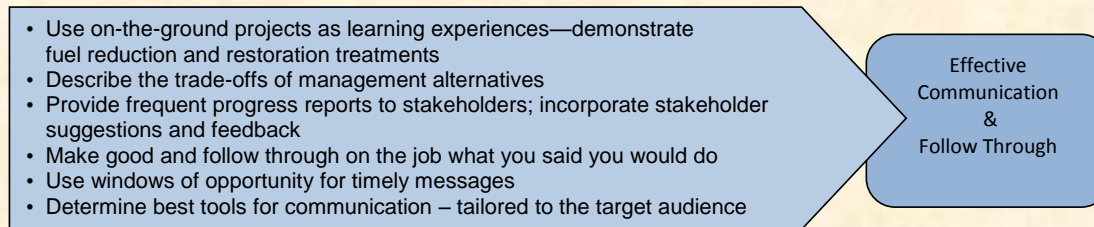# Actions for achieving outcomes that build trust (Shindler et al 2014)

- "We should never assume that trustworthy relations is the starting place – that a community will trust us just because we have shown up." (Agency practitioner – Australia)

- "Trust is not earned until you take action that shows you weighed and considered what people had to say." (Agency practitioner – U.S.)

- "I don't think trust comes accidentally. You have to plan to develop trust… there's a process involved." (Agency practitioner – Canada)

Trust-building by Practitioners/Field Managers

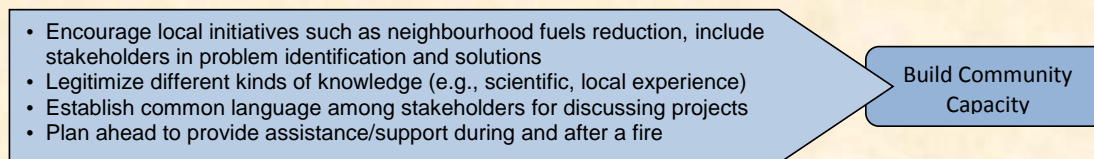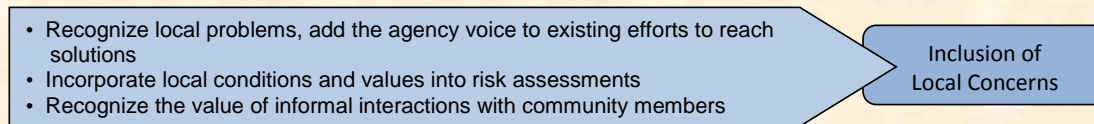**Contributory Actions** → **Desired Outcomes**

Trustworthy Quality: Ability
Stakeholder perceptions of the knowledge, skills, and competencies of the practitioner

- Use on-the-ground projects as learning experiences—demonstrate fuel reduction and restoration treatments
- Describe the trade-offs of management alternatives
- Provide frequent progress reports to stakeholders; incorporate stakeholder suggestions and feedback
- Make good and follow through on the job what you said you would do
- Use windows of opportunity for timely messages
- Determine best tools for communication – tailored to the target audience
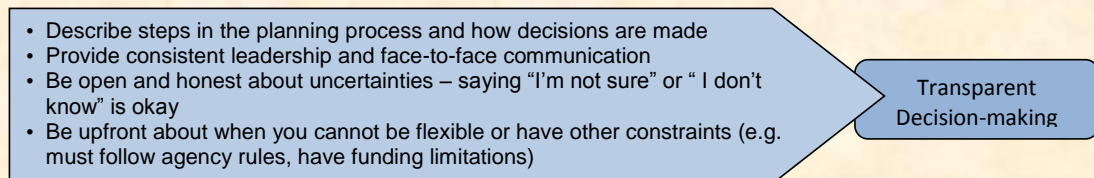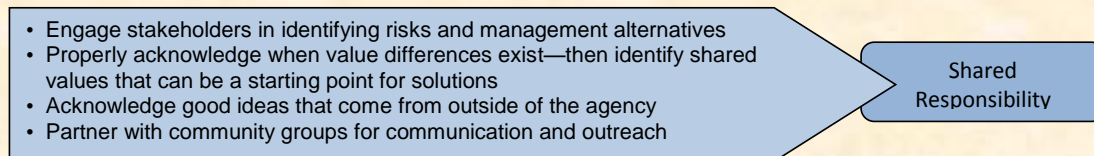
→ Effective Communication & Follow Through

Trustworthy Quality: Goodwill
The extent to which stakeholders believe the practitioner will act in their best interest

- Recognize local problems, add the agency voice to existing efforts to reach solutions
- Incorporate local conditions and values into risk assessments
- Recognize the value of informal interactions with community members

→ Inclusion of Local Concerns

- Encourage local initiatives such as neighbourhood fuels reduction, include stakeholders in problem identification and solutions
- Legitimize different kinds of knowledge (e.g., scientific, local experience)
- Establish common language among stakeholders for discussing projects
- Plan ahead to provide assistance/support during and after a fire

→ Build Community Capacity

Trustworthy Quality: Integrity
The extent to which the practitioner is acting in accord with acceptable values and norms of stakeholders

- Engage stakeholders in identifying risks and management alternatives
- Properly acknowledge when value differences exist—then identify shared values that can be a starting point for solutions
- Acknowledge good ideas that come from outside of the agency
- Partner with community groups for communication and outreach

→ Shared Responsibility

- Describe steps in the planning process and how decisions are made
- Provide consistent leadership and face-to-face communication
- Be open and honest about uncertainties – saying "I'm not sure" or " I don't know" is okay
- Be upfront about when you cannot be flexible or have other constraints (e.g. must follow agency rules, have funding limitations)

→ Transparent Decision-making

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Source: Shindler, B., Olsen, C., McCaffrey, S, McFarlane, B., Christianson, A., McGee, T., Curtis, A. & Sharp, E. (in press) Trust: A Planning Guide for Wildfire Agencies and Practitioners. JFSP Report.

Key questions for examining the current situation and management challenges

(Shindler et al 2014)

- What is the history of agency-stakeholder relationships in the local area?

- How does this translate to trust today in my management unit? How are 'we' doing?

- What is the scale of the current project and how does this influence the way we should respond to other organizations and key stakeholders?

- Is healthy skepticism present? Or just suspicion about motives?

- What additional discussion points could help improve trust-building within our community?

Key questions for assessing progress

<u>Ability</u>

- Is trust-building a legitimate priority for our management unit?
- How is trust currently built among colleagues and superiors, and stakeholders?
- Which other agencies/organizations should be at the table having this conversation with us?
- Are we completing projects we said we would?
- Are we providing leadership to build capacities in local communities?
- What past or recent factors have slowed progress or contributed to trust-building?
- Do we have a strategy for replacing key personnel (and their knowledge) when they move on?

Goodwill

- Who are our stakeholders? Which ones are relevant to this project? How can we engage them?

- Do we have a common terminology for discussing projects? Have we adequately framed the project/planning process for stakeholders? How so?

- Who is the decision-maker for this project? Is this clear to all involved?

- Have we adequately outlined agency regulations that guide what we can do?

- What type of commitment can our agency make to stakeholders about the role they can play?

Integrity

- Thus far, what is the quality of our interactions?

- Are we viewed as fair and genuine in our relationships with stakeholders?

- Which practices give people concern? How so?

- What questions do stakeholders have about existing practices?

- How could we make better use of our community's resources?

Resources

- Shindler, B., Olsen, C., McCaffrey, S., McFarlane, B., Christianson, A., McGee, T., Curtis, A. & Sharp, E. (in press) *Trust: A planning guide for wildfire agencies & practitioners*. Joint Fire Science Program Research Publication.

- McGee, T.K. (2011) Public engagement in neighbourhood level wildfire mitigation and preparedness: Case studies from Canada, the US and Australia, *Journal of Environmental Management*, 92(10), 2524-2532.

- McFarlane, B.L., McGee, T.K. & Faulkner, H. (2011) Complexity of homeowner wildfire risk mitigation: an integration of hazard theories, *International Journal of Wildland Fire*, 20(8), 921-931.

- Faulkner, H., McFarlane, B.L. & McGee, T.K. (2009) Comparison of homeowner response to wildfire risk among towns with and without wildfire management, Environmental Hazards: Human and Policy Dimensions, 8(1), 38-51.

Acknowledgements

- Research participants
- Research colleagues
- Funding agencies:
  - Joint Fire Science Program
  - Social sciences & Humanities Research Council, Canadian Forest Service, Alberta Sustainable Resource Development, CIFFC, ICLR & ATCO electric.

Discussion/Questions?

- Tara McGee, University of Alberta, tmcgee@ualberta.ca
- Copy of *Trust: A planning guide for wildfire agencies & practitioners* should be available on the Joint Fire Science Program website in Feb/March 2014.