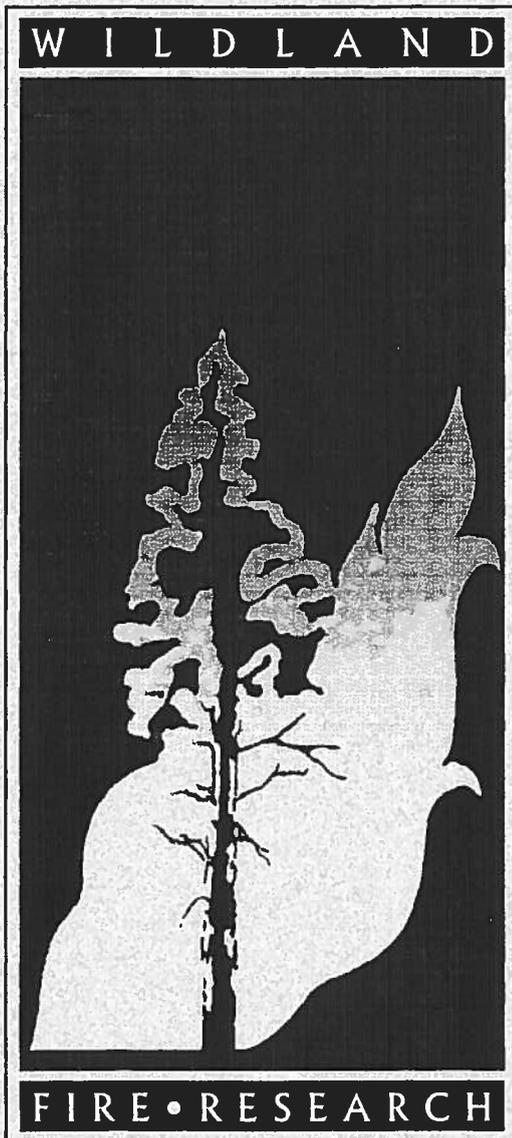


Fire Conditions on Public Forests & Rangelands

A Survey of Citizens in Colorado's Estes Valley and Front Range Communities: Larimer and Boulder Counties



Summary Frequency Distributions January 2002

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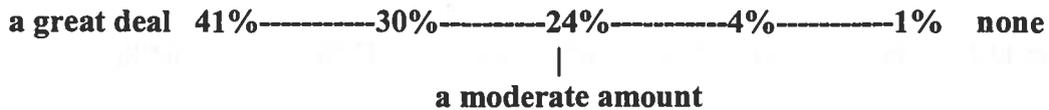
**Research conducted for the Joint Fire
Science Program, USDA Forest Service
and U.S. Department of Interior**

This preliminary report summarizes responses to a mail survey of citizens in Larimer and Boulder counties. Overall, 346 citizens were contacted and 164 completed the questionnaire for a 47% response rate. This report is a summary of frequency distributions only. Some response categories have been collapsed for presentation purposes (e.g. *strongly agree* and *agree* responses were combined into a single category). A more detailed analysis will be forthcoming in the final project report.

Please note: Research for this project is still in progress. Do not cite information contained within this report without permission of the authors.

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1. Prior to this survey, how much had you thought about wildfires in forests, rangelands, or grasslands?



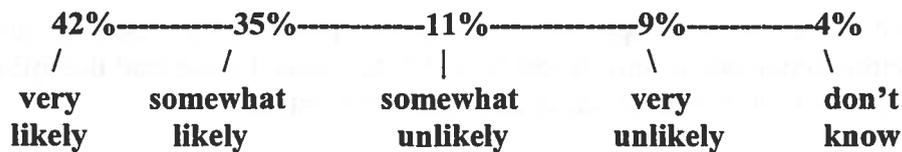
2. About how far is it from your home to a natural area where a wildfire might burn?

mean = 3.8 miles

3. About how often do you spend time in a national forest or national park?

1% never	14% about once a month
4% less than once a year	20% about once a week
33% a few times a year	16% several times a week
	11% daily

4. In your opinion, how would you rate the likelihood that a wildfire could break out in the forests, rangelands, or grasslands near your home in the next five years?



5. Public trust in natural resource agencies is essential to the success of fire protection programs. Please indicate your level of trust in these agencies to make good decisions *about wildfires and fire prevention*. If you feel you have no basis for judgment, please mark "no opinion."

	----- Level of Trust -----		
	moderate/full	none/limited	no opinion
▶ city government	47%	37%	16%
▶ county government	62%	27%	11%
▶ state government	57%	31%	12%
▶ Bureau of Land Management (BLM)	57%	24%	20%
▶ U.S. Forest Service	72%	18%	10%
▶ National Park Service	69%	19%	12%

6. We're interested in learning more about what Front Range residents know about wildfires. Please answer the following questions to the best of your ability by indicating whether you believe the answer is generally true, generally false, or that you are not sure.

	generally true	generally false	not sure
▶ Humans cause most of the wildfires in Colorado.	42%	48%	10%
▶ Fires kill a majority of animals in a burned area.	17%	64%	19%
▶ Fires kill a majority of large trees in a burned area.	51%	32%	17%
▶ Fires play an important role in controlling insect and disease outbreaks in forests and rangelands.	77%	6%	17%
▶ The quality of water in streams and rivers is often badly degraded in the first year or two after a wildfire.	57%	18%	25%
▶ Many plants require occasional fires so that new seeds or seedlings can sprout.	86%	3%	11%
▶ Fires play an important role in controlling noxious weeds in Colorado's forests and rangelands.	51%	20%	29%

7. The next few questions ask for your opinions about specific practices that resource managers can use to change environmental conditions in forests and rangelands. Please read the following descriptions, then answer the questions about management practices.

- **Prescribed fire** – Also called controlled burning, this practice can involve 1) letting a naturally caused fire burn under close and careful watch; or 2) intentionally setting fires in ways that can be controlled to produce desired conditions and protect against undesired results.
- **Mechanical vegetation removal** – Managers can use chainsaws, mowers, or other specialized machines to reduce the number of shrubs and small trees where they are so numerous that they increase the risk and size of wildfires.
- **Grazing** – In some cases, domestic animals can be placed in areas where they graze on plants before they dry out in summer, thus reducing the amount of flammable vegetation later on.
- **Restoration planting** – Planting native, fire-adapted, or less flammable species that can slow the spread of wildfires.

For each of the following questions, choose the answer that best matches your opinion.

a. In my opinion, intentionally setting **prescribed fires** on public forests and rangelands is:

- ▶ a legitimate tool that resource managers should be able to use whenever they see fit. 46%
- ▶ something that should be done only infrequently, in carefully selected areas. 45%
- ▶ a practice that should not be considered because it creates too many negative impacts. 3%
- ▶ an unnecessary practice. 1%
- ▶ I know too little to make a judgment about this topic. 5%

b. In my opinion, **mechanical vegetation removal** on public forests and rangelands is:

- ▶ a legitimate tool that resource managers should be able to use whenever they see fit. 59%
- ▶ something that should be done only infrequently, in carefully selected areas. 24%
- ▶ a practice that should not be considered because it creates too many negative impacts. 3%
- ▶ an unnecessary practice. 3%
- ▶ I know too little to make a judgment about this topic. 10%

c. In my opinion, **grazing** on public forests and rangelands to reduce wildland fuels is:

- ▶ a legitimate tool that resource managers should be able to use whenever they see fit. 62%
- ▶ something that should be done only infrequently, in carefully selected areas. 21%
- ▶ a practice that should not be considered because it creates too many negative impacts. 6%
- ▶ an unnecessary practice. 3%
- ▶ I know too little to make a judgment about this topic. 9%

d. In my opinion, **restoration planting** to prevent wildfires on public forests and rangelands is:

- ▶ a legitimate tool that resource managers should be able to use whenever they see fit. 83%
- ▶ something that should be done only infrequently, in carefully selected areas. 6%
- ▶ a practice that should not be considered because it creates too many negative impacts. 0%
- ▶ an unnecessary practice. 2%
- ▶ I know too little to make a judgment about this topic. 8%

8. Not everyone agrees about the impacts and effectiveness of fuels management practices. We'd like to know what *you* believe about the practices described on the previous page. For each of the following statements, please circle the number that best reflects your belief about the accuracy of the statement. You are not being judged on right or wrong answers – we are interested in your opinion. If you feel you do not know enough to give an opinion, circle “don't know” for that statement.

	agree/ strongly agree	disagree/ strongly disagree	don't know
Prescribed fire has little overall effect on the intensity or frequency of wildfires.	20%	67%	13%
Prescribed fire effectively reduces amounts of fuel in most natural areas.	87%	6%	7%
Prescribed fire stimulates the growth of native plants eaten by wildlife.	77%	4%	19%
Prescribed fire reduces the amount of useful minerals and nutrients in the soil.	6%	76%	19%
Mechanical vegetation removal is an effective way to reduce the intensity and frequency of wildfires.	75%	10%	15%
Mechanical vegetation removal often leaves behind unacceptable amounts of fuel in natural areas.	25%	28%	47%
Mechanical vegetation removal stimulates the growth of native plants eaten by wildlife.	41%	10%	49%
Livestock grazing has little overall effect on the intensity or frequency of wildfires.	27%	45%	28%
Livestock grazing stimulates the growth of native plants used by wildlife.	30%	32%	37%
Restoration planting is an effective way to reduce the intensity and frequency of wildfires.	62%	10%	28%
Restoration planting cannot re-create a natural area, only create a different kind of artificial one.	17%	57%	26%

9. To further help natural resource managers make decisions, please tell us how you feel about the following fire and fuels policies by circling the number that best matches your agreement with each statement.

	agree/ strongly agree	uncertain	disagree/ strongly disagree
Following nature's way is preferable to human intervention in ecosystems.	50%	22%	28%
All fires, regardless of origin, should be put out as soon as possible.	15%	12%	74%
Selectively thinning dead and dying trees is better than leaving them in the forest.	73%	17%	10%
Fire risks are so great in Colorado that managers need to use any means necessary to reduce them.	45%	22%	33%

10. We'd like to know what you think about the scenic impact of fuels management practices. For each practice, please circle the number that best describes how acceptable you believe the likely impacts are.

	-----Scenic Impacts-----		
	acceptable	neutral	unacceptable
▶ prescribed fire	65%	17%	17%
▶ mechanical vegetation removal	63%	21%	16%
▶ livestock grazing	65%	19%	16%
▶ restoration planting	83%	14%	3%

11. The use of prescribed fire may create concerns for some people. Please indicate how concerned you are about the following possible effects in the Front Range area.

	moderate concern/ great concern	not a concern/ slight concern
▶ damage to private property	56%	44%
▶ effects on recreation opportunities	66%	34%
▶ loss of wildlife and fish habitat	46%	54%
▶ risk to human safety	46%	54%
▶ economic loss of useable timber	20%	80%
▶ reduced scenic quality	36%	66%
▶ increased levels of smoke	42%	58%
▶ deteriorated public water supply	38%	62%
▶ increased soil erosion	51%	49%

12. How much confidence do you have in the U.S. Forest Service and National Park Service to use the following practices as part of a responsible and effective fuels management program for the Front Range?

	moderate/full	none/limited	no opinion
▶ prescribed fire	61%	37%	8%
▶ mechanical vegetation removal	63%	29%	8%
▶ livestock grazing	62%	31%	7%
▶ restoration planting	78%	16%	6%

13. Often natural resource managers must decide how to make tradeoffs between different management approaches or goals. For each of the five pairs of statements below, please tell us what you would prefer managers to do by circling the number that best reflects your beliefs about the choice between the statement in Column A and the statement in Column B. If you truly feel you do not know enough to give an opinion, circle "don't know."

<u>Column A</u>	Prefer Col. A	Neutral	Prefer Col. B	<u>Column B</u>	Don't Know
Prescribed fire should be the preferred option when reducing wildland fuels.	36%	20%	34%	Mechanical removal should be the preferred option when reducing wildland fuels.	10%
Use prescribed fire in both wild <i>and</i> populated areas to reduce wildfire danger.	34%	24%	35%	Do not attempt to use prescribed fire in populated areas even if it means a higher risk of wildfires.	7%
Do not use fuels reduction practices in highly scenic locations.	12%	21%	60%	Use fuels reduction practices in highly scenic areas even if doing so temporarily hurts scenic beauty.	7%
Allow livestock grazing wherever it is likely to reduce fuel levels.	56%	19%	20%	Prohibit livestock grazing in recreation areas even when it can be used to reduce fuel levels.	5%
Try to restore native plants wherever they can be useful for reducing wildfire risks.	76%	7%	12%	Restore native plants only when doing so won't reduce an area's value for recreation or livestock.	5%

14. Some people worry about prescribed fire reaching their property, or a place that they care about. How concerned would you be if a prescribed fire was:

	moderate concern/ great concern	not a concern/ slight concern
▶ anywhere in the U.S.?	17%	83%
▶ within 100 miles of you?	24%	76%
▶ where you can see the smoke?	41%	59%
▶ within 10 miles of your community or property?	54%	44%
▶ one mile from your community or property?	88%	12%
▶ adjacent to your property?	88%	12%

15. For some people, reducing fuels by mechanical vegetation removal may be a concern. How concerned would you be if a mechanical vegetation removal project was:

	moderate concern/ great concern	not a concern/ slight concern
▶ anywhere in the U.S.?	11%	89%
▶ within 100 miles of you?	15%	85%
▶ where you can see the affected site?	28%	72%
▶ within 10 miles of your community or property?	29%	71%
▶ one mile from your community or property?	35%	65%
▶ adjacent to your property?	50%	50%

16. Which of the following items reflect your opinion about smoke from prescribed fire?

▶ Smoke from prescribed fire has never been an issue with me.	agree 32%
▶ Smoke from prescribed fire is a necessary inconvenience.	56%
▶ Smoke levels from prescribed fire are a concern, but I think they are managed acceptably.	48%
▶ I worry about the effects of smoke from prescribed fire on public health.	35%
▶ I worry about the effects of smoke from prescribed fire on travel safety.	18%
▶ Because of the smoke, prescribed fire isn't worth it.	4%

17. Even though prescribed fires are planned in order to minimize smoke, some smoke is usually unavoidable. We would like to know how much smoke is acceptable to you, and what is the amount of time that you can tolerate at each level. For each statement, please place an X in the box that best matches your level of tolerance for that level of smoke intensity.

	Acceptable length of time					
	Not Acceptable	A Few Hours	One Day	Three Days	One Week	More than One Week
Visibility						
a. Smoke plumes visible in the distance, but no decrease in visual quality near my residence or workplace.	3%	4%	17%	12%	18%	46%
b. Light haze visible on the horizon and some decrease in visual quality, but not enough to affect my activities.	4%	6%	15%	16%	22%	37%
c. Smoke is apparent near my residence or workplace and visual quality has decreased so some activities are affected.	11%	19%	16%	24%	19%	11%
d. High levels of smoke have caused poor visual quality that affects my ability to do many activities.	28%	21%	24%	15%	10%	3%

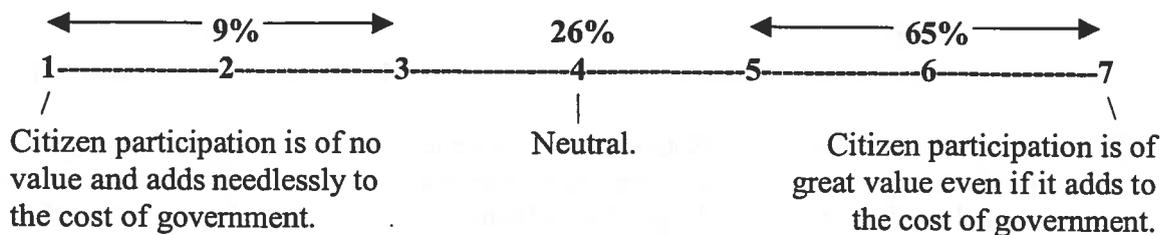
Odor/Breathability

a. Smoke plumes are visible in the distance, but I cannot smell smoke when I breathe.	4%	2%	12%	12%	16%	54%
b. Occasionally I can smell smoke, but it doesn't affect me otherwise.	4%	7%	14%	16%	23%	36%
c. I notice the smoke slightly when I breathe.	14%	20%	20%	19%	16%	11%
d. Smoke is highly noticeable each time I breathe, even indoors.	44%	23%	14%	11%	7%	1%

18. Fire managers have used various programs to provide information about management actions such as fire prevention, prescribed burning, and thinning hazardous fuels. We want to know how useful you think these types of information are – in other words, do they provide you with information that you find easy to understand, that you trust, and is helpful. For each of the following types of information about fire and fuels management, please circle the best answer in each column. If you are unfamiliar with an information source, or have never used that source, please mark the space on the far right “no opinion.”

	Easy to understand?	Trust-worthy?	How helpful is the information to you?			No opinion
	<i>yes</i>	<i>yes</i>	<i>not</i>	<i>slightly</i>	<i>very</i>	
▶ Smokey Bear message	100%	93%	16%	49%	35%	8%
▶ informational brochures	96%	95%	6%	32%	63%	29%
▶ TV public service messages	97%	87%	9%	45%	46%	17%
▶ interpretive signs on trails or at visitor centers	97%	96%	6%	28%	66%	8%
▶ internet web pages	81%	85%	18%	43%	39%	64%
▶ guided field trips	95%	95%	11%	23%	66%	51%
▶ government public meetings	60%	66%	31%	31%	37%	58%
▶ conversations with public employees	87%	88%	14%	23%	64%	48%
▶ regular newsletters	94%	92%	10%	40%	50%	44%
▶ Living With Fire Project	87%	80%	16%	31%	53%	72%
▶ elementary school programs	93%	91%	16%	26%	58%	63%
▶ special sections in newspapers	97%	94%	8%	35%	57%	42%

19. Recently there has been considerable debate over efforts to increase citizen participation in federal land management. Where would you place yourself regarding these efforts?



20. In your opinion, which is the most realistic role for the public in public land management?

- ▶ **None**, let natural resource professionals make the decisions. 5%
- ▶ **Provide suggestions** and let the natural resource professionals decide. 30%
- ▶ **Serve on advisory boards** that review and comment on decisions. 52%
- ▶ **Act as a full and equal partner** in making management decisions. 13%
- ▶ **The public should make the decisions** and natural resource professionals should carry them out. 0%

21. In your opinion, how well have agencies such as the Forest Service and National Park Service done in incorporating public concerns into their management strategies?

- ▶ **Excellent**, public concerns are always considered by federal public land agencies. 5%
- ▶ **Good**, public concerns are usually considered by federal public land agencies. 42%
- ▶ **Fair**, public concerns are sometimes considered by federal public land agencies. 47%
- ▶ **Poor**, public concerns are rarely or never considered by federal public agencies. 6%

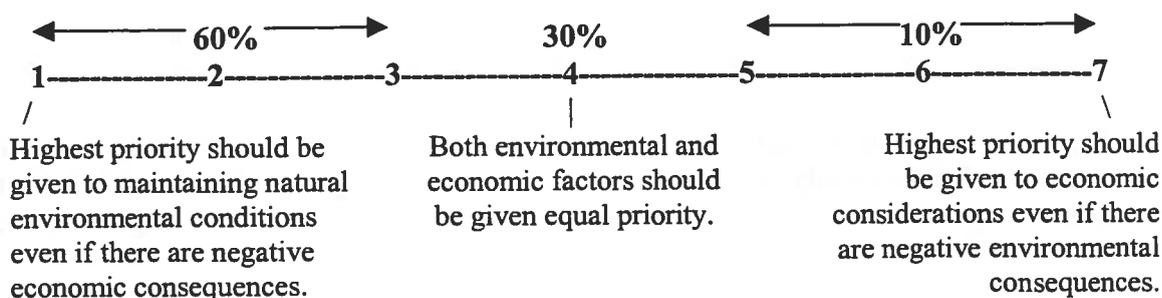
22. How interested are you in participating in the planning activities of federal public land agencies *in general*?

- 6% **very interested**
- 39% **somewhat interested**
- 29% **slightly interested**
- 26% **not at all interested**

23. How interested are you in participating in the planning activities of federal public land agencies as they consider using practices that could reduce the risk of wildfire on the Front Range?

- 11% **very interested**
- 40% **somewhat interested**
- 27% **slightly interested**
- 22% **not at all interested**

24. Public land management often involves difficult trade-offs between natural environmental conditions (wildlife, old growth forests) and economic considerations (employment, tax revenues). Please locate yourself on the following scale concerning these issues.



25. How long have you lived in the community where you now live?

mean = 18 years

26. How long have you lived in Colorado?

mean = 28 years

27. Which of the following best describes the community where you live now?

9% urban area
22% suburban area
17% small town
52% rural area

28. Which of the following best describes the community in which you grew up?

14% urban area
30% suburban area
37% small town
20% rural area

29. Gender

40% female
60% male

30. Age

mean = 51 years

31. What is the highest level of education you have completed?

1% some high school	25% bachelor's degree
13% high school graduate	7% some graduate school
25% some college	29% completed graduate degree

32. Do you, or does anyone in your household, suffer from a respiratory ailment?

75% no
25% yes

