

*A Study of Southwesterners' Opinions on  
The Management of Wildland and Wilderness Fires*

*Fire Management Version*

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## *Table of Contents*

| <b><i>Section</i></b>  | <b><i>Page #</i></b> |
|--|----------------------|
| Executive Summary.....   | 3                    |
| Introduction.....  | 4                    |
| Method.....  | 4                    |
| Survey Instrument.....   | 4                    |
| Procedure.....   | 4                    |
| Results.....   | 5                    |
| Concern and Knowledge about Wildland and Wilderness Fires.....                       | 5                    |
| Concern of Self and Others.....  | 5                    |
| Knowledge.....   | 6                    |
| Opinions about Forest Fire Management.....   | 7                    |
| Selected Facts Regarding Wildland and Wilderness Fires.....                          | 7                    |
| Likelihood of Selecting ‘True’.....  | 8                    |
| Approval and Effectiveness of Management Strategies.....                             | 9                    |
| Controlled Burns.....  | 9                    |
| Ban Mechanically Based Uses.....   | 10                   |
| Restrictions on Use.....   | 11                   |
| Signs at Recreation Sites.....   | 11                   |
| Closure of Some Areas.....   | 12                   |
| Chipping or Other Mechanical Means.....  | 13                   |
| Summary of Management Strategies.....  | 13                   |
| Perceived Value Similarity and Trust.....  | 14                   |
| Values.....  | 14                   |
| Goals.....   | 15                   |
| Views.....   | 16                   |
| Trust.....   | 16                   |
| Consistency of FS Decisions and Actions with Salient Values.....                     | 17                   |
| Validity of Inconsistency with Salient Values.....                                   | 18                   |
| Relationship Between Value Items and Trust.....                                      | 18                   |
| Predicting Reactions to Management Interventions.....                                | 19                   |
| Predicting Ratings of Controlled Burns.....  | 19                   |
| Predicting Ratings of Banning Mechanically Based Uses.....                           | 19                   |
| Predicting Ratings of Restrictions on Use.....                                       | 20                   |
| Predicting Ratings of Signs at Recreation Sites.....                                 | 20                   |
| Predicting Ratings on Closure of Some Areas.....                                     | 20                   |
| Predicting Ratings on Chipping or Other Mechanical Means.....                        | 20                   |
| Description of Respondents.....  | 21                   |
| Discussion and Conclusions.....  | 27                   |
| Acknowledgements.....  | 27                   |
| References.....  | 28                   |
| Appendix A: Counties Within Each Regional Division by State.....                     | 29                   |
| Appendix B-1: Residential Zip Codes of California Respondents Grouped by Region..... | 34                   |
| Appendix B-2: Residential Zip Codes of Arizona Respondents Grouped by Region.....    | 43                   |
| Appendix B-3: Residential Zip Codes of Colorado Respondents Grouped by Region.....   | 47                   |
| Appendix B-4: Residential Zip Codes of New Mexico Respondents Grouped by Region..... | 51                   |
| Appendix C-1: Open-Ended Comments, California Respondents.....                       | 54                   |
| Appendix C-2: Open-Ended Comments, Arizona Respondents.....                          | 66                   |
| Appendix C-3: Open-Ended Comments, Colorado Respondents.....                         | 74                   |
| Appendix C-4: Open-Ended Comments, New Mexico Respondents.....                       | 83                   |

## *Executive Summary*

### *Fire Management Version<sup>1</sup>*

This report presents findings on public attitudes and opinions regarding fire and fire management. The focus is on fires in wildland and wilderness areas. Residents of Arizona, California, Colorado and New Mexico participated in the survey. They were contacted by telephone during 2001 and 2002. Findings are representative of the statewide population because of the sampling strategy used in each state, and the weighting of data to match regional population distributions. The results and discussion are helpful in understanding more about public attitudes and preferences regarding fire management, and will be helpful when public opinion can weigh into land management decisions being made. Results focused on social trust will be of special interest to researchers and managers concerned with how trust interacts with public perceptions about land management.

The data was gathered through cooperative agreement<sup>2</sup> with San Diego State University and the Pacific Southwest Research Station. The report is divided into sections as follows: the introduction, method, the findings on wildland and wilderness fire management, social trust, predicting reactions to management, description of respondents, and discussion. Appendices are included which present regional divisions and counties for each state, the zip codes of respondents, and open-ended responses.

The main findings include:

- Respondents were concerned about wildland and wilderness fires, though they tended to see others as less concerned.
- Ratings of knowledge were mostly in the middle range of the scale, indicating that respondents were somewhat cautious in assessments of their own knowledge about wildland and wilderness fires.
- The majority of respondents felt that “We probably have to let some fires burn, but must protect residences”. About one-fourth agreed, “All fires must be extinguished regardless of cost.”
- True/false ratings on a series of eight statements about fire and fire management showed that most disagreed with “controlled burns are likely to burn up more area than planned”, while all other statements were marked true by a majority.
- Signs and area closures were the most approved of management interventions, while area closures and controlled burns were expected to be the most effective.
- The lowest approval and effectiveness ratings were given to banning specific uses on the forest.
- Most respondents perceived salient values similarity (measured through values and goals items) with the Forest Service regarding fire management on forestlands. Overall, trust in the agency to manage fires was high.
- Trust was the most significant predictor of approval and effectiveness ratings of all six interventions designed to manage fire and fire risk.

Given these findings, education appears to have an important role in the relationship between the Forest Service and the public concerning fire and fire management. High average concern and conservative ratings of knowledge, paired with perceived shared values and trust, offer an open door for communication and education.

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<sup>1</sup> This version of the report has the same contents as the original technical report, but has been organized to present the issues most salient to fire and aviation management at the front of the report.

<sup>2</sup> The first wave of data was collected in 2001 for California, with Doug Coe as principal investigator. The second wave of data was collected in 2002 in Arizona, Colorado and New Mexico, with Dr. Roger Caves as principal investigator. Both waves of data collection were through the facilities of the Social Science Research Institute at San Diego State University.

## **Introduction**

National Forest management in California, Arizona, Colorado, and New Mexico involves a number of pressing issues, including wildland and wilderness fires and fire management. Public opinions regarding these issues are important to examine, as they are useful to natural resource managers in formulating decisions where public opinion can weigh into the decision process. Researchers and academicians are interested in these opinions because they are helpful in understanding how people will respond to various policy initiatives and management proposals. The attitudes, opinions, and beliefs of the public are the focus of this study.

In addition, this study is a follow-up to inquiries about land management preferences and the role of social trust in those preferences. Prior applications have included: reactions to a proposed research program in an adaptive management area (Cvetkovich, Winter and Earle 1995), reactions to possible interventions to protect a watershed (Cvetkovich and Winter 1998), public reactions to a proposed recreational fee demonstration program in southern California (Winter, Palucki and Burkhardt 1999), and opinions about threatened and endangered species management on forestlands (Cvetkovich and Winter 2001, Cvetkovich and Winter in press, Winter and Knap 2001).

California data was collected in 2001, and was followed up with data collection in Arizona, Colorado, and New Mexico in 2002. All findings are reported for Arizona, Colorado and New Mexico, and findings for California are reported when items match those asked for the other states. The full California report is available from the first author.

## **Method**

### *Survey Instrument*

The research team at San Diego State University developed a survey designed to be administered in conjunction with the computer-assisted telephone interviewing (CATI) system. All respondents were asked the same sociodemographic, outdoor recreation, and forest visitation/activity questions. Survey items focused on concern about wildland and wilderness fires, perceived concern of others, level of knowledge about fires, similarity of salient values with the Forest Service, and trust of the Forest Service, agreement with general attitudinal statements about fire and fire management, and approval and perceived effectiveness of selected management strategies. Respondents were also asked to identify a series of statements about fire and fire management as true or false.

### *Procedure*

A sample of residential telephone numbers was drawn from regional divisions in each of the four states. Specification of regions by state is included in Appendix A. In California, eight regional divisions were used based on the California field poll methodology. These regions included the Bay Area, Central Coast, Central Valley, Inland Empire, Los Angeles, North Coast/Sierra, Orange County, and San Diego County. In Arizona, Colorado, and New Mexico the regions were determined based on regional planning divisions. The total population for each of these regions and states was determined based on state data. These regional proportions were then used to create weights for the final data set.

A target of 600 in California, and a target of 400 in the other three states were set. Interviewers contacted the adult in the household (age 18 or older) with the most recent birthday, assessed willingness to participate in a phone survey, and then asked if the respondent was male or female (each final set of respondents was targeted to have half males and half females). The same series of screening questions and introductory statement were read. Responses were entered directly into the CATI system. At the completion of the survey, respondents were thanked for their participation. The final cooperation rates were high:

| <i>State of Residence</i> | <i>Percent Cooperation Rate</i> |
|---------------------------|---------------------------------|
| CA                        | 83.9                            |
| AZ                        | 86.8                            |
| CO                        | 87.6                            |
| NM                        | 90.1                            |

The survey took an average of 16 minutes to complete (mean= 16.1 minutes, range was 7 to 57).

Data were then transferred to SPSS and analyzed by the authors using a variety of summary and descriptive procedures as well as those designed for statistical comparisons. In some cases, data are presented for all four states. In other cases, only the data from the 2002 survey from Arizona, Colorado, and New Mexico are presented due to lack of comparable items for California.

**Results**

*Concern and Knowledge about Wildland and Wilderness Fires*

**Concern of Self and Others**

Respondents were asked to indicate how concerned they were about wildland and wilderness fires in their state, using a scale from 1 to 8 (1=not at all concerned, 8=very concerned). Most (78.5 percent) rated their concern above the neutral range (6, 7 or 8). Average concern was above the mid-range of the scale (*table 1*). Respondents were also asked to indicate, using the same scale from 1 to 8, how concerned in general they thought other state residents are about wildland and wilderness fires (58.1 percent selected a rating of 6, 7 or 8). Respondents tended to see others as less concerned than themselves (*table 1*).

Differences by state in concern of self, and concern of others, about wildland and wilderness fires were statistically significant (ANOVA,  $F_{(3, 1,795)} = 15.62, p < .05$ , and  $F_{(3, 1,749)} = 37.83, p < .05$ , respectively). Californians were less concerned about fire than respondents in the other states, and saw others as less concerned as well (Scheffe,  $p < .05$ ).

**Table 1.** Average Concern and Concern of Others about Wildland and Wilderness Fires, by State of Residence

| State | Concern Rating | Mean | SD  | N     |
|-------|----------------|------|-----|-------|
| CA    | Self           | 6.3  | 2.0 | 599   |
|       | Others         | 5.3  | 1.8 | 579   |
| AZ    | Self           | 6.9  | 1.6 | 401   |
|       | Others         | 6.0  | 1.7 | 388   |
| CO    | Self           | 6.8  | 1.6 | 402   |
|       | Others         | 6.4  | 1.5 | 395   |
| NM    | Self           | 6.9  | 1.6 | 397   |
|       | Others         | 6.1  | 1.7 | 391   |
| All   | Self           | 6.7  | 1.8 | 1,799 |
|       | Others         | 5.9  | 1.7 | 1,753 |

Analyses on ratings of concern of self revealed additional variations.

Higher concern of self about wildland and wilderness fires in the state was found among respondents who:

- Were older (ANOVA,  $F_{(5, 1,789)} = 7.18, p < .05$ );
- Were female (means of 6.9—females versus 6.4—males,  $t = -6.22, p < .05$ );
- Completed the survey in Spanish (means of 7.5—Spanish versus 6.6—English,  $t = -8.38, p < .05$ ); and
- Were Native American or Hispanic/Latino(a) (ANOVA,  $F_{(4, 1,688)} = 9.31, p < .05$ ).

Regression was used to examine the ability to predict ratings of concern based on the variables described above. The regression for predicting concern about wildland and wilderness fires was significant ( $F_{(5, 1,687)} = 30.64, p < .001$ ), though the amount of variance explained was marginal ( $R^2 = .083$ ). The significant predictors of concern were gender, language of survey, age of respondent, and state of residence.

| <i>Variable</i>     | <i>t</i> | <i>p</i>              |
|---------------------|----------|-----------------------|
| Gender              | 6.55     | <.001*** <sup>3</sup> |
| Language of survey  | 6.51     | <.001***              |
| Age                 | 6.22     | <.001***              |
| State of residence  | -5.18    | <.001***              |
| Ethnic/racial group | -1.31    | .192                  |

Analyses on ratings of concern of others also revealed additional variations.

Higher concern of others about wildland and wilderness fires in the state was found among respondents who:

- Were older (ANOVA,  $F_{(5, 1,744)} = 4.22$ ,  $p < .05$ );
- Were female (means of 6.1—females versus 5.7—males,  $t = -4.30$ ,  $p < .05$ );
- Recreated less frequently (ANOVA,  $F_{(4, 1,746)} = 4.65$ ,  $p < .05$ );
- Completed the survey in Spanish (means of 7.1—Spanish versus 5.8—English,  $t = -9.57$ ,  $p < .05$ );
- Were less educated (ANOVA,  $F_{(4, 1,744)} = 13.06$ ,  $p < .05$ );
- Had not lived in the US their entire lives (means of 6.2—non-lifetime residency versus 5.8—lifetime,  $t = -3.48$ ,  $p < .05$ ); and
- Were Hispanic/Latino(a) (ANOVA,  $F_{(4, 1,645)} = 9.54$ ,  $p < .05$ ).

Ratings of concern of others also had a significant regression ( $F_{(8, 1,634)} = 25.54$ ,  $p < .001$ ), with just above 11 percent of the variance explained ( $R^2 = .111$ ). The significant predictors of concern of others were state of residence, age, language of survey, gender, ethnic/racial group and education level.

| <i>Variable</i>                 | <i>t</i> | <i>p</i> |
|---------------------------------|----------|----------|
| State of residence              | -7.68    | <.001*** |
| Age                             | 5.69     | <.001*** |
| Language of survey              | 5.54     | <.001*** |
| Gender                          | 4.37     | <.001*** |
| Ethnic/racial group             | -3.81    | <.001*** |
| Education level                 | -2.84    | <.01**   |
| Lifetime US residency           | -1.06    | .290     |
| Frequency of outdoor recreation | .66      | .509     |

### Knowledge

Perceived degree of knowledge was also queried. Respondents were asked to rate their own knowledge about wildland and wilderness fires in the state on a scale from 1 to 8 (1=not at all knowledgeable, 8=very knowledgeable). Half of the respondents rated their knowledge at 6, 7 or 8. The average knowledge rating was 5.3 for the four states, with statistically significant variation (ANOVA,  $F_{(3, 1,784)} = 31.69$ ,  $p < .05$ ; *table 2*). California residents rated their own knowledge about fires significantly lower than did respondents in the other three states (Scheffe,  $p < .05$ ).

**Table 2.** Perceived Knowledge about Wildland and Wilderness Fires, by State of Residence

| State | Mean | SD  | N     |
|-------|------|-----|-------|
| CA    | 4.6  | 2.1 | 597   |
| AZ    | 5.4  | 1.9 | 398   |
| CO    | 5.7  | 1.7 | 398   |
| NM    | 5.6  | 1.9 | 395   |
| All   | 5.3  | 2.0 | 1,788 |

<sup>3</sup> Asterisks indicate the usual depiction of statistical significance, which is three asterisks to denote a p value of less than .001, two for .01, and one for .05.

Additional variations of interest in perceived knowledge ratings were revealed.

Average perceived knowledge was highest among respondents who:

- Were older (ANOVA,  $F_{(5, 1,778)} = 17.27, p < .05$ );
- Frequently participated in outdoor recreation (ANOVA,  $F_{(4, 1,780)} = 13.51, p < .05$ );
- Were male (means of 5.4—males versus 5.1—females,  $t = 3.03, p < .05$ );
- Had visited National Forest lands (means of 5.5—visitors versus 4.2—non-visitors,  $t = 9.87, p < .05$ );
- Completed the survey in English (means of 5.3—English versus 4.2—Spanish,  $t = 4.99, p < .05$ ).
- Had lived in the US all of their lives (means of 5.4—lifetime residency versus 4.7—non-lifetime residency,  $t = 5.27, p < .05$ );
- Were more educated (ANOVA,  $F_{(4, 1,778)} = 9.42, p < .05$ ); and
- Were Native American or White/Caucasian (ANOVA,  $F_{(4, 1,676)} = 15.02, p < .05$ ).

The ability to predict knowledge ratings based on the above variables was examined through regression ( $F_{(9, 1,642)} = 26.94, p < .001$ ), with approximately 13 percent ( $R^2 = .129$ ) of the variance explained. Significant predictors of perceived knowledge were age, visitation to a National Forest, state of residence, frequency of outdoor recreation, lifetime US residency, and gender.

| <i>Variable</i>                 | <i>t</i> | <i>p</i> |
|---------------------------------|----------|----------|
| Age                             | 6.72     | <.001*** |
| National Forest visitation      | -6.12    | <.001*** |
| State of residence              | -6.08    | <.001*** |
| Frequency of outdoor recreation | -3.73    | <.001*** |
| Lifetime US residency           | -2.74    | <.01**   |
| Gender                          | -2.27    | <.05*    |
| Education                       | .84      | .400     |
| Language of survey              | .76      | .447     |
| Ethnic/racial group             | .043     | .966     |

### *Opinions about Forest Fire Management*

Variations in opinions about forest fire management by state were statistically significant ( $\chi^2_{(6, n=1,756)} = 23.84, p < .05$ ). While the vast majority agreed that some fires probably have to be allowed to burn, Californians indicated the highest percentage agreement that all fires must be extinguished regardless of cost (almost one-third of those respondents; *table 3*).

**Table 3.** Opinions on Forest Fire Management, by State of Residence

|  | <b>ALL</b>     | <b>CA</b> | <b>AZ</b> | <b>CO</b> | <b>NM</b> |
|--|----------------|-----------|-----------|-----------|-----------|
|  | <b>Percent</b> |           |           |           |           |
| All fires must be extinguished regardless of cost  | 26.2           | 31.5      | 26.4      | 20.4      | 24.2      |
| We probably have to let some fires burn, but must protect residences   | 63.3           | 60.1      | 65.2      | 66.4      | 63.3      |
| Fires must be allowed to take their natural course when burning in wildland or wilderness areas, even if structures are involved | 7.5            | 5.4       | 5.5       | 9.0       | 10.5      |
| Don't know/refused   | 3.0            | 3.0       | 3.0       | 4.2       | 2.0       |

### *Selected Facts Regarding Wildland and Wilderness Fires*

Several statements were presented regarding wildland or wilderness fires, and respondents were asked to rate each as true or false. A majority rated eight of the nine statements as true (*table 4*).

**Table 4.** Percent Ratings of True or False on Statements Regarding Fire, by State of Residence

| Item  | Percent True by State |      |      |      |
|---|-----------------------|------|------|------|
|   | CA                    | AZ   | CO   | NM   |
| Controlled burns reduce the risk of larger, uncontrolled fires <sup>1</sup> . | 90.5                  | 93.0 | 89.8 | 85.5 |
| Fire means danger to residences and other important structures.               | 89.5                  | 89.3 | 89.6 | 89.8 |
| There are proven management techniques for fire prevention and suppression.   | 82.8                  | 83.3 | 81.8 | 80.0 |
| People have difficulty breathing due to poor air quality after a fire.        | 82.8                  | 81.8 | 82.1 | 82.5 |
| Views along the road and on trails are less scenic following a fire.          | 77.7                  | 81.3 | 79.1 | 80.0 |
| Fire is a natural ecosystem process <sup>2</sup> .                            | 77.4                  | 82.1 | 86.8 | 85.0 |
| The health of vegetation is improved following a controlled burn <sup>3</sup> | 74.2                  | 79.4 | 87.3 | 84.8 |
| Fires lead to improved survival of native plants <sup>4</sup> .               | 52.1                  | 58.7 | 64.9 | 60.8 |
| Controlled burns are likely to burn up more area than planned <sup>5</sup> .  | 40.7                  | 38.6 | 41.5 | 51.6 |

Note: Statistically significant differences by state of residence:

<sup>1</sup> ( $\chi^2_{(3, n=1,749)} = 16.50, p < .05$ ).

<sup>2</sup> ( $\chi^2_{(3, n=1,726)} = 14.34, p < .05$ ).

<sup>3</sup> ( $\chi^2_{(3, n=1,699)} = 23.04, p < .05$ ).

<sup>4</sup> ( $\chi^2_{(3, n=1,559)} = 23.80, p < .05$ ).

<sup>5</sup> ( $\chi^2_{(3, n=1,670)} = 16.58, p < .05$ ).

#### Likelihood of Selecting ‘True’

A series of Chi-Square analyses was conducted, exploring differences in true/false responses on each item by education level, ethnic/racial group, National Forest visitation, gender, lifetime US residency, language of survey, frequency of participation in outdoor recreation, and age group. Only those differences that were statistically significant are reported.

Respondents were more likely to select ‘true’ for ‘*controlled burns reduce the risk of larger, uncontrolled fires*’ when they:

- Had visited a National Forest ( $\chi^2_{(1, n=1,726)} = 12.60, p < .05$ , Fisher’s exact test).

Respondents were more likely to select ‘true’ for ‘*fire means danger to residences and other important structures*’ when they:

- Were less educated ( $\chi^2_{(4, n=1,765)} = 16.31, p < .05$ ); and
- Had visited a National Forest ( $\chi^2_{(1, n=1,746)} = 16.89, p < .05$ , Fisher’s exact test).

Respondents were not more or less likely to select ‘true’ for ‘*there are proven management techniques for fire prevention and suppression*’ based on any comparisons conducted.

Respondents were more likely to select ‘true’ for ‘*people have difficulty breathing due to poor air quality after a fire*’ when they:

- Were less educated ( $\chi^2_{(4, n=1,749)} = 24.28, p < .05$ );
- Were female ( $\chi^2_{(1, n=1,754)} = 47.69, p < .05$ , Fisher’s exact test); and
- Had not visited a National Forest ( $\chi^2_{(1, n=1,730)} = 16.85, p < .05$ , Fisher’s exact test).

Respondents were more likely to select ‘true’ for ‘*views along the road and on trails are less scenic following a fire*’ when they:

- Were older ( $\chi^2_{(5, n=1,722)} = 46.73, p < .05$ ).

Respondents were more likely to select ‘true’ for ‘*fire is a natural ecosystem process*’ when they:

- Were more educated ( $\chi^2_{(4, n=1,723)} = 144.29, p < .05$ );
- Were older ( $\chi^2_{(5, n=1,723)} = 49.56, p < .05$ );
- Had visited a National Forest ( $\chi^2_{(1, n=1,702)} = 141.13, p < .05$ , Fisher’s exact test);
- Completed the survey in English ( $\chi^2_{(1, n=1,726)} = 138.68, p < .05$ , Fisher’s exact test);
- Lived in the US their entire lives ( $\chi^2_{(1, n=1,723)} = 59.86, p < .05$ , Fisher’s exact test); and
- Were White/Caucasian ( $\chi^2_{(4, n=1,627)} = 179.61, p < .05$ ).

Respondents were more likely to select ‘true’ for ‘*the health of vegetation is improved following a controlled burn*’ when they:

- Lived in the US their entire lives ( $\chi^2_{(1, n=1,696)} = 52.36, p < .05$ , Fisher’s exact test);
- Were older ( $\chi^2_{(5, n=1,696)} = 36.88, p < .05$ );
- Were more educated ( $\chi^2_{(4, n=1,695)} = 97.61, p < .05$ );
- Completed the survey in English ( $\chi^2_{(1, n=1,699)} = 113.84, p < .05$ , Fisher’s exact test);
- Had visited a National Forest ( $\chi^2_{(1, n=1,676)} = 93.80, p < .05$ ); and
- Were White/Caucasian ( $\chi^2_{(1, n=1,601)} = 118.40, p < .05$ ).

Respondents were more likely to select ‘true’ for ‘*fires lead to improved survival of native plants*’ when they:

- Participated in outdoor recreation frequently ( $\chi^2_{(4, n=1,558)} = 34.88, p < .05$ );
- Completed the survey in English ( $\chi^2_{(1, n=1,559)} = 111.67, p < .05$ , Fisher’s exact test);
- Were more educated ( $\chi^2_{(4, n=1,555)} = 129.35, p < .05$ );
- Had lived in the US their entire lives ( $\chi^2_{(1, n=1,556)} = 62.28, p < .05$ , Fisher’s exact test);
- Had visited a National Forest ( $\chi^2_{(1, n=1,538)} = 91.32, p < .05$ , Fisher’s exact test); and
- Were White/Caucasian ( $\chi^2_{(4, n=1,475)} = 182.48, p < .05$ ).

Respondents were more likely to select ‘true’ for ‘*controlled burns are likely to burn up more area than planned*’ when they:

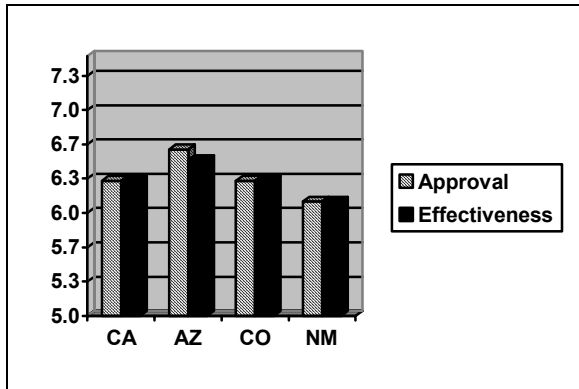
- Were less educated ( $\chi^2_{(4, n=1,665)} = 29.45, p < .05$ );
- Had not visited a National Forest ( $\chi^2_{(1, n=1,648)} = 7.21, p < .05$ , Fisher’s exact test); and
- Were Asian/Pacific Islander ( $\chi^2_{(4, n=1,577)} = 16.49, p < .05$ ).

### *Approval and Effectiveness of Management Strategies*

A series of management approaches for fire in wildland and wilderness areas was presented. For each approach, respondents were asked to rate, on a scale from 1 to 8 (1=strongly disapprove, 8=strongly approve) their degree of *approval* of the approach. They were also asked to rate, on a scale from 1 to 8 (1=not effective, 8=highly effective), how *effective* they thought each approach would be.

#### **Controlled Burns**

The first strategy was “If the Forest Service were to conduct controlled burns to reduce vegetation and decrease the likelihood of large, uncontrolled fires.” Ratings of approval and effectiveness of controlled burns were not significantly different across states of residence. Controlled burns received the 4<sup>th</sup> highest approval rating of the six management approaches (mean= 6.3, SD= 2.0, n= 1,766). However, controlled burns had the 2<sup>nd</sup> highest effectiveness rating on average (mean= 6.3, SD= 1.9, n= 1,745). The majority of ratings for both approval and effectiveness fell into the range of 6 through 8 on the scales (*fig. 1*). Approximately one-tenth (10.7 percent) disapproved of controlled burns (ratings of 1, 2 or 3), or rated them as ineffective (8.4 percent, ratings of 1, 2 or 3).



**Figure 1.** Approval and Effectiveness of Controlled Burns

*Variations in Approval and Effectiveness for Controlled Burns.* Ratings of approval and effectiveness of controlled burns varied significantly by age group, National Forest visitation and ethnic/racial group. Higher approval ratings of controlled burns were found for respondents who:

- Were older (ANOVA,  $F_{(5, 1,757)} = 4.46, p < .05$ );
- Had visited a National Forest (means of 6.4—visitors versus 5.8—non-visitors,  $t = 4.23, p < .05$ ); and
- Who were White/Caucasian (ANOVA,  $F_{(4, 1,659)} = 8.82, p < .05$ ).

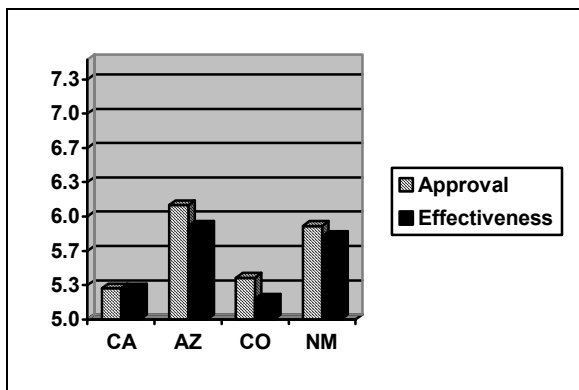
Higher effectiveness ratings of controlled burns were found among respondents who:

- Were older (ANOVA,  $F_{(5, 1,735)} = 5.89, p < .05$ ).

### Ban Mechanically Based Uses

Respondents were asked to rate the approval and effectiveness of: “If the Forest Service were to ban mechanically based uses on forest lands or areas of forests during fire season, such as off-road vehicle use or mountain biking.” Ratings of approval and effectiveness of banning mechanically based uses varied significantly by state (ANOVA,  $F_{(3, 1,737)} = 10.35, p < .05$ , and  $F_{(3, 1,718)} = 8.12, p < .05$ , respectively). Californians and Arizonans rated bans lower than did respondents from Colorado and New Mexico.

Bans were the least approved of management approach (mean= 5.7, SD= 2.5, n= 1,741). Approximately one-fifth indicated disapproval of bans (21.1 percent, ratings of 1 through 3; *fig. 2*). Bans were also expected to be the least effective approach (mean= 5.5, SD= 2.3, n= 1,722), though more than half (55.1 percent) rated bans as effective (ratings of 6, 7 or 8).



**Figure 2.** Approval and Effectiveness of Banning Mechanically Based Uses

*Variations in Approval and Effectiveness Ratings for Banning Mechanically Based Uses.*  
Higher approval ratings of banning mechanically based uses were assigned by those who:

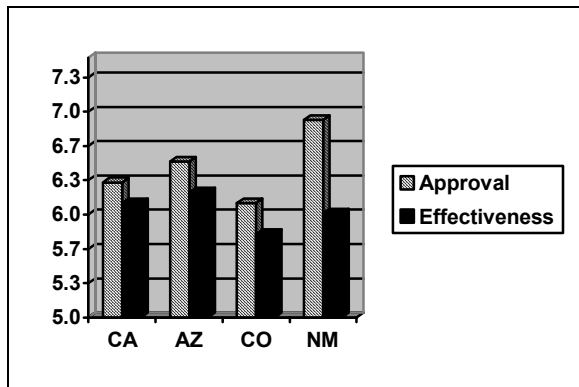
- Were older (ANOVA,  $F_{(5, 1,712)} = 10.77, p < .05$ ); and
- Were female (means of 5.9—females and 5.2—males,  $t = -6.42, p < .05$ ).

Higher effectiveness ratings of banning mechanically based uses were assigned by those who:

- Engaged in outdoor recreation infrequently (ANOVA,  $F_{(4, 1,715)} = 5.97, p < .05$ );
- Had not visited a National Forest (means of 5.9—non-visitors versus 5.4—visitors,  $t = -3.47, p < .05$ ); and
- Were older (ANOVA,  $F_{(5, 1,731)} = 14.47, p < .05$ ).

### Restrictions on Use

Another strategy queried was “If the Forest Service were to make certain restrictions on uses of wildland and wilderness areas, for example, allowing fires in agency-built fire rings only.” Approval and effectiveness ratings of restrictions were not significantly different by state (ANOVA,  $p > .05$ ). Restrictions on use received the 3<sup>rd</sup> highest approval rating of the six management approaches (mean= 6.3, SD= 2.2, n= 1,718). Similarly, it had the 4<sup>th</sup> highest effectiveness rating on average (mean= 6.0, SD= 2.1, n= 1,702). The majority of ratings for both approval and effectiveness fell into the range of 6 through 8 on the scales (*fig. 3*). Less than 12 percent (11.9 percent) disapproved of restrictions (ratings of 1, 2 or 3), or rated them as ineffective (11.6 percent, ratings of 1 through 3).



**Figure 3.** Approval and Effectiveness of Restrictions on Use

*Variations in Approval and Effectiveness Ratings for Restrictions on Use.*

Higher approval ratings for restrictions on use were found among respondents who:

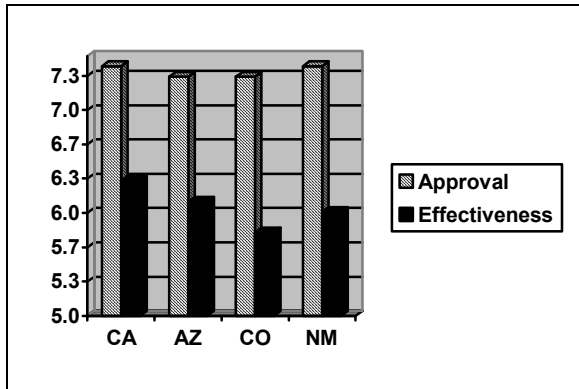
- Recreated less frequently (ANOVA,  $F_{(4, 1,695)} = 4.55, p < .05$ ); and
- Were female (means of 6.5—females versus 6.0—males,  $t = -4.46, p < .05$ ).

Higher effectiveness ratings for restrictions on use were found among respondents who:

- Were female (means of 6.3—females versus 5.8—males,  $t = -5.53, p < .05$ ).

### Signs at Recreation Sites

The fourth management approach was “If the Forest Service were to have signs at recreation sites informing forest users of fire risks and how they can help prevent fires.” Ratings of effectiveness of signs varied significantly by state of respondent (ANOVA,  $F_{(3, 1,782)} = 6.89, p < .05$ ). Signs received the highest approval rating of the six management approaches (mean= 7.4, SD= 1.2, n= 1,797). However, signs had the 3<sup>rd</sup> highest effectiveness rating on average (mean= 6.1, SD= 1.9, n= 1,786). The vast majority of ratings for both approval and effectiveness fell into the range of 6 through 8 on the scales (*fig. 4*). Less than one-tenth (2.3 percent) disapproved of signs (ratings of 1, 2 or 3), or rated them as ineffective (9.9 percent, ratings of 1 through 3).



**Figure 4.** Approval and Effectiveness of Signs in Recreation Sites

*Variations in Approval and Effectiveness of Signs in Recreation Sites.*

Higher approval of signs in recreation settings was found among respondents who:

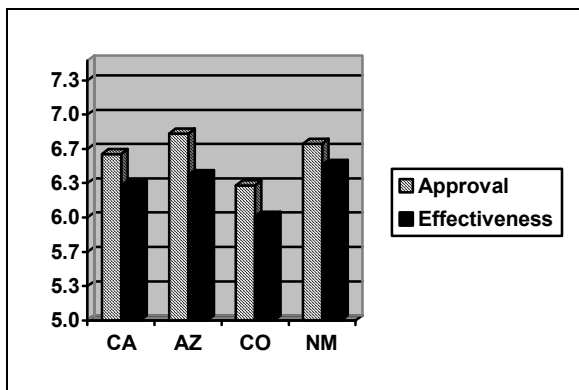
- Engaged in outdoor recreation infrequently (ANOVA,  $F_{(4, 1,779)} = 7.04$ ,  $p < .05$ );
- Had not visited a National Forest (means of 6.7—non-visitors and 5.9—visitors,  $t = -6.36$ ,  $p < .05$ );
- Were female (means of 7.5—females and 7.3—males,  $t = -4.13$ ,  $p < .05$ ); and
- Completed the survey in Spanish (means of 7.8—Spanish versus 7.4—English,  $t = -4.00$ ,  $p < .05$ ).

Higher effectiveness ratings for signs were found among respondents who:

- Had not lived in the US all of their lives (means of 6.6—non-lifetime residency versus 6.0—lifetime US residency,  $t = -4.75$ ,  $p < .05$ );
- Who completed the survey in Spanish (means of 7.5—Spanish versus 6.0—English,  $t = -12.38$ ,  $p < .05$ );
- Were less educated (ANOVA,  $F_{(4, 1,776)} = 16.84$ ,  $p < .05$ ); and
- Were Hispanic/Latino(a) (ANOVA,  $F_{(4, 1,676)} = 29.08$ ,  $p < .05$ ).

**Closure of Some Areas**

Another management approach queried was “If the Forest Service were to close some areas during fire season, but keep the majority of the areas open to use.” Variations in ratings of closures by state were not significantly different (ANOVAs,  $p > .05$ ). Closure received the 2<sup>nd</sup> highest approval rating of the six management approaches (mean= 6.6, SD= 2.1, n= 1,781). Similarly, closure had the highest effectiveness rating on average (mean= 6.3, SD= 1.9, n= 1,764). The vast majority of ratings for both approval and effectiveness fell into the range of 6 through 8 on the scales (fig. 5). Less than 11 percent (10.7 percent) disapproved of closure (ratings of 1, 2 or 3), or rated it as ineffective (9.9 percent, ratings of 1 through 3).

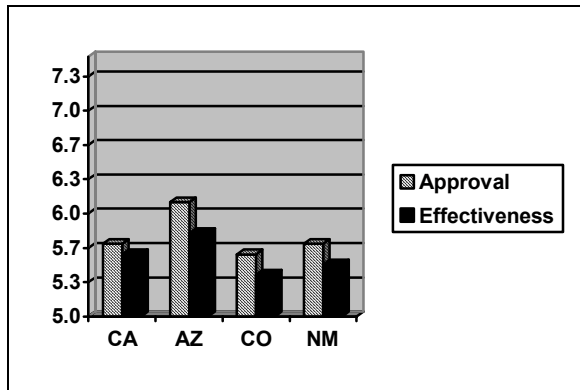


**Figure 5.** Approval and Effectiveness of Closure of Some Areas

*Variations in Approval and Effectiveness of Closure of Some Areas.* Females indicated higher approval of area closures than did male respondents (means of 6.9 versus 6.3,  $t = -6.27$ ,  $p < .05$ ); and higher expected effectiveness (means of 6.6 versus 6.0,  $t = -6.25$ ,  $p < .05$ ).

### Chipping or Other Mechanical Means

The sixth management approach queried was “If the Forest Service were to reduce fuels by chipping or other mechanical means.” Variations in ratings of chipping or other mechanical means were not significantly different (ANOVAs,  $p > .05$ ). Chipping or other mechanical means received the 5<sup>th</sup> highest approval rating of the six management approaches (mean= 5.8, SD= 2.3,  $n = 1,617$ ). Similarly, chipping or other mechanical means had the 5<sup>th</sup> highest effectiveness rating on average (mean= 5.6, SD= 2.3,  $n = 1,556$ ). A slight majority of ratings for both approval and effectiveness fell into the range of 6 through 8 on the scales (*fig. 6*). Approximately 16 percent (15.9 percent) disapproved of chipping or other mechanical means (ratings of 1, 2 or 3), or rated them as ineffective (15.4 percent, ratings of 1 through 3).



**Figure 6.** Approval and Effectiveness of Chipping or Other Mechanical Means

*Variations in Approval and Effectiveness of Chipping or Other Mechanical Means.* Approval and effectiveness of chipping or other mechanical means did *not* vary significantly by the sociodemographic and recreation-related items.

### Summary of Management Strategies

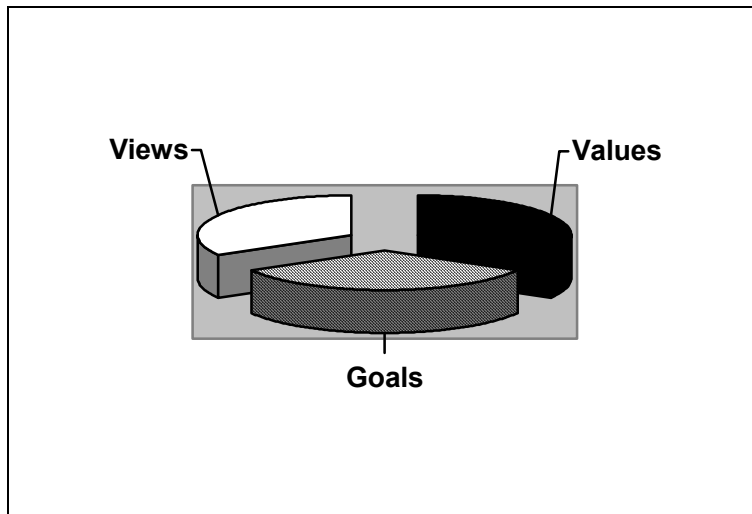
To review, ratings of approval and effectiveness of the six possible management interventions were gathered. Signs received the highest approval rating overall, but was ranked 3<sup>rd</sup> in expected effectiveness (*table 5*). Closure of some areas was expected to be the most effective. Banning mechanically based uses was the least approved of, and expected to be the least effective of the six interventions. Ratings of interventions are fairly similar to those reported by Winter and Knap (2001), based on a recreationist survey on National Forests in southern California. It should be noted however that effectiveness ratings are quite close to each other numerically, and percentages in the lowest ratings for approval and effectiveness (1 through 3) tended to be low across all six interventions.

**Table 5.** Summary of Rank Ordering of Management Interventions

| Rank<br>(1=highest<br>approval/effectiveness) | Approval                    | Mean | Effectiveness               | Mean |
|---|-----------------------------|------|-----------------------------|------|
| 1   | Signs at recreation sites   | 7.4  | Closure of some areas       | 6.3  |
| 2   | Closure of some areas       | 6.6  | Controlled burns            | 6.3  |
| 3   | Restrictions on use         | 6.3  | Signs at recreation sites   | 6.1  |
| 4   | Controlled burns            | 6.3  | Restrictions on use         | 6.0  |
| 5   | Chipping/mechanical means   | 5.8  | Chipping/mechanical means   | 5.6  |
| 6   | Ban mechanically based uses | 5.7  | Ban mechanically based uses | 5.5  |

### *Perceived Value Similarity and Trust*

The Shared Values Similarity Model (Earle and Cvetkovich 1995) was adapted for this survey and explored the respondents' perceived similarity between themselves and the Forest Service regarding how forest fires should be managed based on values, goals, and views. The model suggests that the determination of trust depends in a large part upon perceptions of shared salient values regarding the topic of interest (*fig. 7*). That is, the more a respondent perceives his or her own salient values as similar to the Forest Service regarding how forest fires should be managed, the more he or she will trust the Forest Service. Trust in the Forest Service was also queried. Trust judgments and perceived similar values are important because they can reduce the complexity of interactions between the public and the Forest Service. Specifically, those who trust the Forest Service and see themselves as similar are more likely to accept agency actions and initiatives, even when they do not necessarily agree with the specific action.



**Figure 7.** Model of Salient Values Similarity

While some have asserted that trust in government is low, findings to the contrary are readily available (Kasperson, Golding and Kasperson 1999). In fact, recent work suggests that a majority of individuals trust the Forest Service to make land management decisions (Borrie and others 2002, Cvetkovich and Winter 1998, Cvetkovich and Winter 2001, Winter, Palucki and Burkhardt 1999). The latest work suggests that among those who trust the Forest Service, there are some who believe that when/if the agency acts contrary to those salient values, the reasons for this apparent inconsistency are justified (Cvetkovich and Winter 2003). There are others who feel that sometimes those inconsistencies are unjustified. They share values, but find unwarranted inconsistencies between those values and what the agency does; and they tend to trust the Forest Service less. Finally, there are those who distrust the agency and do not perceive any shared salient values with the agency. These are individuals who would be difficult to persuade regarding the merit or value of agency actions. They appear to be a small percentage of respondents whom we have contacted. Unfortunately, extreme instances of distrust in the Forest Service may decrease the likelihood of participation in agency sponsored or agency collected information efforts, making study of the opinions of this particular subset of the public more challenging. While a degree of distrust can serve a positive function, encouraging inquiry and questioning, extreme distrust can be counter-productive because of the impacts on efforts towards effective and timely management and collaboration. New items were added to the 2002 version of the survey to test these patterns of trust and distrust further, and findings are presented below.

#### Values

Respondents rated the similarity of their values to those of the Forest Service (1=does not share your values, 8=shares your values). Variations in shared values by state of residence were not statistically significant

(ANOVA,  $p > .05$ ; *table 6*). Ratings indicate an overall trend towards perceived shared values with the Forest Service (59.1 percent chose 6, 7 or 8 on the values scale).

**Table 6.** Shared Values on How Forest Fires Should be Managed, by State of Residence

| State | Mean | SD  | N     |
|-------|------|-----|-------|
| CA    | 6.2  | 2.0 | 531   |
| AZ    | 6.0  | 2.0 | 372   |
| CO    | 5.9  | 1.9 | 367   |
| NM    | 5.8  | 2.1 | 368   |
| All   | 6.0  | 2.0 | 1,638 |

Variations in shared values were found.

Perceived shared values were highest among respondents who:

- Were less educated (ANOVA,  $F_{(4, 1,628)} = 11.67, p < .05$ );
- Were female (means of 6.1—females versus 5.6—males,  $t = -5.42, p < .05$ ); and
- Were Hispanics/Latinos(as) or Blacks/African Americans (ANOVA,  $F_{(4, 1,543)} = 5.31, p < .05$ ).

Multiple regression was used to examine the ability to predict shared values based on education level, gender, and ethnic/racial group. The regression was significant ( $F_{(3, 1,540)} = 19.71, p < .001$ ), though the amount of variance explained was marginal ( $R^2 = .037$ ). Education level and gender were significant contributors in the regression.

| <i>Variable</i>     | <i>t</i> | <i>p</i> |
|---------------------|----------|----------|
| Education           | -4.95    | <.001*** |
| Gender              | 4.36     | <.001*** |
| Ethnic/racial group | -1.90    | .058     |

### Goals

Shared goals were rated on a scale from 1 to 8, where 1 was equal to “the Forest Service has different goals”, and 8 was equal to “the Forest Service has the same goals.” The majority indicated shared goals for management of forest fires (57.2 percent selected a 6, 7 or 8 on goals). However, variations in shared values by state of residence were statistically significant (ANOVA,  $F_{(3, 1,611)} = 5.76, p < .05$ ), with Californians and Arizonans rating shared goals significantly higher than respondents from New Mexico (Scheffe,  $p < .05$ ; *table 7*).

**Table 7.** Shared Goals on How Forest Fires Should be Managed, by State of Residence

| State | Mean | SD  | N     |
|-------|------|-----|-------|
| CA    | 6.0  | 2.1 | 523   |
| AZ    | 5.9  | 2.1 | 366   |
| CO    | 5.8  | 2.0 | 362   |
| NM    | 5.5  | 2.2 | 364   |
| All   | 5.8  | 2.1 | 1,615 |

Shared goals with the Forest Service were highest among:

- Female respondents (means of 6.1—females versus 5.6—males,  $t = -5.09, p < .05$ ).

Multiple regression was used to examine the ability to predict shared goals based on state and gender. The regression was significant ( $F_{(2, 1,612)} = 13.07, p < .001$ ), though the amount of variance explained was marginal ( $R^2 = .016$ ). Gender was a significant contributor in the regression.

| <i>Variable</i>    | <i>t</i> | <i>p</i> |
|--------------------|----------|----------|
| Gender             | 5.08     | <.001*** |
| State of residence | .61      | .541     |

### Views

Similarity of views was explored. Respondents were asked to rate, on a scale from 1 to 8, to what extent the Forest Service supported their views about management of forest fires (1=the Forest Service opposes your views, 8=the Forest Service supports your views). A majority indicated the Forest Service supports their views about the management of forest fires (58.2 percent chose 6 through 8 on this scale). However, variations in shared views by state of residence were statistically significant (ANOVA,  $F_{(3, 1,586)} = 6.34, p < .05$ ; *table 8*), with Californians rating shared views significantly higher than respondents from New Mexico (Scheffe,  $p < .05$ ).

**Table 8.** Shared Views about Management of Forest Fires, by State of Residence

| State | Mean | SD  | N     |
|-------|------|-----|-------|
| CA    | 6.2  | 1.9 | 511   |
| AZ    | 6.0  | 2.0 | 363   |
| CO    | 5.9  | 1.9 | 363   |
| NM    | 5.7  | 2.0 | 353   |
| All   | 6.0  | 2.0 | 1,590 |

Higher ratings of shared views with the Forest Service were among respondents who:

- Completed the survey in Spanish (means of 5.9—English versus 6.8—Spanish,  $t = -4.80, p < .05$ );
- Were less educated (ANOVA,  $F_{(4, 1,581)} = 6.18, p < .05$ );
- Were female (means of 6.4—females versus 5.7—males,  $t = -7.08, p < .05$ ); and
- Were Hispanic/Latino(a) (ANOVA,  $F_{(4, 1,493)} = 4.58, p < .05$ ).

Multiple regression was used to examine the ability to predict shared views based on state, education level and gender. The regression was significant ( $F_{(5, 1,489)} = 23.26, p < .001$ ), though the amount of variance explained was marginal ( $R^2 = .047$ ). Gender and language of survey were significant contributors in the regression.

| <i>Variable</i>     | <i>t</i> | <i>p</i> |
|---------------------|----------|----------|
| Gender              | 6.28     | <.001*** |
| Language of survey  | 3.14     | <.01*    |
| Education           | -1.74    | .082     |
| Ethnic/racial group | -1.49    | .136     |
| State of residence  | .96      | .339     |

### Trust

Trust in the U.S. Forest Service in their efforts to manage forest fires was rated on a scale from 1 to 8 (1=you do not trust the Forest Service at all, 8=you trust the Forest Service completely). The majority of respondents indicated that they trusted the Forest Service regarding forest fire management (71.1 percent chose a rating of 6, 7 or 8). However, variations in trust by state of residence were statistically significant (ANOVA,  $F_{(3, 1,765)} = 24.57, p < .05$ ), with Californians expressing the highest degree of trust in the Forest Service (*table 9*). Californians' ratings of trust were significantly higher than respondents from the other three states, and Arizonans had higher trust ratings than respondents from New Mexico (Scheffe,  $p < .05$ ).

**Table 9.** Trust in Forest Service, by State of Residence

| State | Mean | SD  | N     |
|-------|------|-----|-------|
| CA    | 6.8  | 1.6 | 584   |
| AZ    | 6.3  | 2.0 | 395   |
| CO    | 6.1  | 1.9 | 398   |
| NM    | 5.8  | 2.0 | 392   |
| All   | 6.3  | 1.9 | 1,769 |

Other variations in trust were also of interest.

Trust ratings were highest among respondents who:

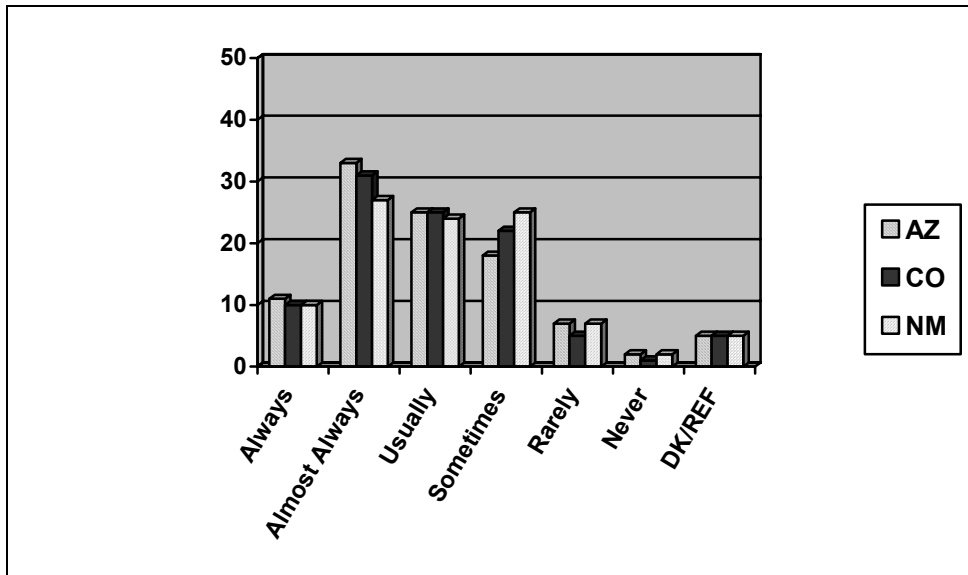
- Participated the least frequently in outdoor recreation (ANOVA,  $F_{(4, 1,762)} = 4.82, p < .05$ );
- Had not visited a National Forest (means of 6.2—visitors and 6.7—non-visitors,  $t = -4.51, p < .05$ );
- Completed the survey in Spanish (means of 6.2—English versus 7.2—Spanish,  $t = -6.53, p < .05$ );
- Had not lived in the US all of their lives (means of 6.2—lifetime residency versus 6.7—non-lifetime residency,  $t = -3.64, p < .05$ );
- Were less educated (ANOVA,  $F_{(4, 1,759)} = 11.41, p < .05$ );
- Were female (means of 6.6— females versus 6.0—males,  $t = -6.18, p < .05$ ); and
- Were Hispanic/Latino(a) or Black/African American (ANOVA,  $F_{(4, 1,660)} = 8.57, p < .05$ ).

Multiple regression was used to examine the ability to predict trust based on the variables presented above. The regression was significant ( $F_{(8, 1,627)} = 12.80, p < .001$ ), though the amount of variance explained was marginal ( $R^2 = .059$ ). Gender, state of residence, education level, and language of survey were significant contributors in the regression.

| <i>Variable</i>                 | <i>t</i> | <i>p</i> |
|---------------------------------|----------|----------|
| Gender                          | 4.94     | <.001*** |
| State of residence              | 3.93     | <.001*** |
| Education                       | -3.11    | <.01**   |
| Language of survey              | 2.21     | .027*    |
| Ethnic/racial group             | -1.83    | .059     |
| Frequency of outdoor recreation | 1.56     | .119     |
| National Forest visitation      | .27      | .791     |
| Lifetime US residency           | .25      | .806     |

### Consistency of FS Decisions and Actions with Salient Values

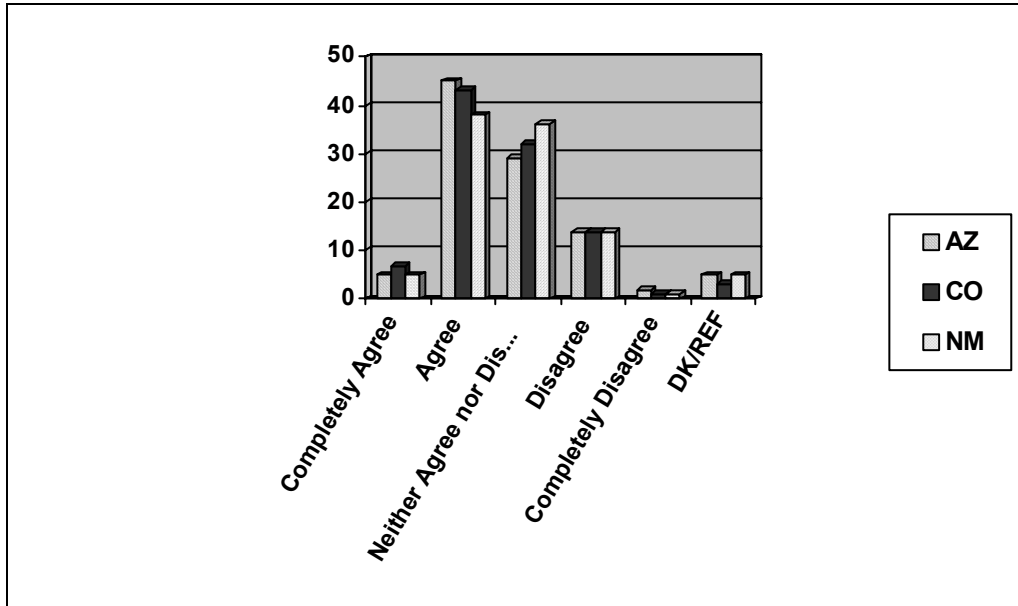
In three of the states (Arizona, Colorado, and New Mexico) respondents were asked how often the Forest Service made decisions and took actions consistent with their own values, goals and views. This item was one of two created to test a new model of trust and distrust introduced by Cvetkovich and Winter (2003). Most expressed the opinion that the Forest Service acts in line with their salient values a majority of the time (*fig. 8*).



**Figure 8.** Frequency of Forest Service's Consistency with Salient Values, by State of Residence

### Validity of Inconsistency with Salient Values

In three of the states (Arizona, Colorado, and New Mexico) respondents were asked whether or not the reasons for the Forest Service making decisions and taking actions inconsistent with salient values, goals and views were valid. This item was the second created to test a new model of trust and distrust introduced by Cvetkovich and Winter (2003). Most expressed the opinion that reasons were valid when the Forest Service behaved in ways inconsistent with their salient values (*fig. 9*). The model introduced by Cvetkovich and Winter suggests further analyses of the relationship between these two new variables, trust, and salient values. However, findings from further testing this model are not presented.



**Figure 9.** Degree of Agreement with Validity of Inconsistency between Forest Service Actions or Decisions and Salient Values, by State of Residence

### Relationship Between Value Items and Trust

The measures of salient values similarity (SVS) and trust were highly correlated with each other, in keeping with results of past studies (e.g., Winter and Knap 2001; *table 10*).

**Table 10.** Pearson Correlations Between Salient Values Similarity Items and Overall Trust

| SVS/Trust Item | Trust              | Views              | Goals           |
|----------------|--------------------|--------------------|-----------------|
| Values         | .593***<br>(1,619) | .694***<br>(1,527) | .673<br>(1,539) |
| Goals          | .547***<br>(1,600) | .672<br>(1,527)    |                 |
| Views          | .614***<br>(1,577) |                    |                 |

Note: \*\*\*= Significant at  $p < .001$ .

A regression was conducted to examine the ability to predict trust based on the three salient values items. The regression was significant ( $F_{(3, 1,465)} = 408.52, p < .001$ ), with a substantial amount of variance explained ( $R^2 = .456$ ). The salient values items and trust were averaged to create a trust scale ( $\alpha = .88$ ). This scale was used in the analyses of ratings on management strategies described below.

| <i>Variable</i> | <i>t</i> | <i>p</i> |
|-----------------|----------|----------|
| Views           | 11.92    | <.001*** |
| Values          | 9.27     | <.001*** |
| Goals           | 5.03     | <.001*** |

### Predicting Reactions to Management Interventions

Reactions to the above six management interventions were further explored through regression analyses. In these analyses we examined a set of key variables as suggested for each intervention discussed above. We also explored the predictive values of concern, and the trust scale for each intervention. Prior to these regressions, we calculated the mean of each intervention's rating of effectiveness and approval, to create an overall rating of each intervention (*table 11*). Each scale had an acceptable alpha for combination.

**Table 11.** Summary Statistics for Management Intervention Scales

| <b>Item</b>   | <b>Mean</b> | <b>SD</b> | <b>N</b> | <b>Chronbach's alpha</b> |
|---|-------------|-----------|----------|--------------------------|
| Approval/Effectiveness of Controlled Burns                | 6.31        | 1.86      | 1,779    | .861                     |
| Approval/Effectiveness of Banning Mechanically Based Uses | 5.58        | 2.26      | 1,756    | .836                     |
| Approval/Effectiveness of Restricting Uses                | 6.13        | 1.97      | 1,729    | .828                     |
| Approval/Effectiveness of Signs                           | 6.73        | 1.34      | 1,802    | .599                     |
| Approval/Effectiveness of Closures                        | 6.45        | 1.85      | 1,784    | .816                     |
| Approval/Effectiveness of Chipping or other Mechanical    | 5.69        | 2.19      | 1,632    | .908                     |

### Predicting Ratings of Controlled Burns

Ratings of the approval/effectiveness of controlled burns were significantly predicted by the variables listed below ( $R^2 = .073, F_{(5, 1,639)} = 25.73, p < .001$ ). The trust scale was the most significant predictor of ratings of controlled burns.

| <i>Variable</i>            | <i>t</i> | <i>p</i> |
|----------------------------|----------|----------|
| Trust scale                | 8.60     | <.001*** |
| Ethnic/racial group        | 3.46     | <.01**   |
| Age                        | 3.12     | <.01**   |
| National Forest visitation | -2.60    | <.01**   |
| Concern                    | 1.80     | .072     |

### Predicting Ratings of Banning Mechanically Based Uses

Ratings of approval/effectiveness ratings of banning mechanically based recreation uses on forest lands was significantly predicted by the variables listed below ( $R^2 = .116, F_{(6, 1,703)} = 37.22, p < .001$ ). The trust scale contributed the most to the regression.

| <i>Variable</i>            | <i>t</i> | <i>p</i> |
|----------------------------|----------|----------|
| Trust scale                | 8.40     | <.001*** |
| Age                        | 7.72     | <.001*** |
| Gender                     | 4.33     | <.001*** |
| Concern                    | 3.50     | <.001*** |
| State of residence         | -3.14    | <.01**   |
| National Forest visitation | 2.61     | <.01**   |

### Predicting Ratings of Restrictions on Uses

Ratings of the approval/effectiveness of restrictions on uses were significantly predicted by the variables listed below ( $R^2 = .101$ ,  $F_{(4, 1,702)} = 47.59$ ,  $p < .001$ ). The trust scale was the most significant predictor of ratings on restrictions of uses.

| <i>Variable</i>              | <i>t</i> | <i>p</i> |
|------------------------------|----------|----------|
| Trust scale                  | 11.37    | <.001*** |
| Gender                       | 2.92     | .004**   |
| Concern                      | 2.83     | .005***  |
| Frequency outdoor recreation | 1.85     | .065     |

### Predicting Ratings of Signs at Recreation Sites

Ratings of the approval/effectiveness of signs were significantly predicted by the variables listed below ( $R^2 = .129$ ,  $F_{(10, 1,644)} = 24.42$ ,  $p < .001$ ), with the trust scale as the most significant contributor in the prediction of ratings of signs.

| <i>Variable</i>              | <i>t</i> | <i>p</i> |
|------------------------------|----------|----------|
| Trust scale                  | 9.62     | <.001*** |
| Concern                      | 4.16     | <.001*** |
| Language of survey           | 3.99     | <.001*** |
| Education                    | -2.39    | <.02*    |
| Ethnic/racial group          | -2.31    | <.03*    |
| State of residence           | 2.09     | <.05*    |
| Gender                       | 1.62     | .106     |
| Lifetime US residency        | -.69     | .488     |
| National Forest visitation   | -.56     | .574     |
| Frequency outdoor recreation | .25      | .802     |

### Predicting Ratings of Closure of Some Areas

Ratings of the approval/effectiveness of closing some areas were significantly predicted by the variables listed below ( $R^2 = .096$ ,  $F_{(3, 1,759)} = 62.10$ ,  $p < .001$ ). The trust scale contributed the most to the regression.

| <i>Variable</i> | <i>t</i> | <i>p</i> |
|-----------------|----------|----------|
| Trust scale     | 10.91    | <.001*** |
| Gender          | 4.75     | <.001*** |
| Concern         | 2.32     | <.05*    |

### Predicting Ratings of Chipping or Other Mechanical Means

Ratings of the approval/effectiveness of chipping or other mechanical means were significantly predicted by the variables listed below ( $R^2 = .091$ ,  $F_{(2, 1,610)} = 80.99$ ,  $p < .001$ ). The trust scale contributed the most to the regression.

| <i>Variable</i> | <i>t</i> | <i>p</i> |
|-----------------|----------|----------|
| Trust scale     | 8.88     | <.001*** |
| Concern         | 7.21     | <.001*** |

In sum, all of the six regression equations predicting approval/effectiveness were significant. The total percent of variance explained ranged between 7 and 13 percent, leaving a large percent of variance unaccounted for in each case. The trust scale was the most important variable, as the strongest contributor to variance in each of the regressions. Concern about wildland and wilderness fires in the state of residence also contributed to each of the six regressions and was an important indicator of how individuals responded to the management interventions presented. The other indicators were significant in some regressions, but not all.

### Description of Respondents

Respondents to the survey were randomly selected residents contacted via telephone by the research team at San Diego State University. Telephone surveys were completed by individuals who were 18 years of age or older. Total respondents to the survey included:

| <i>Total</i> | <i>State</i> |
|--------------|--------------|
| 606          | California   |
| 402          | Arizona      |
| 402          | Colorado     |
| 401          | New Mexico   |

By design, approximately equal numbers of males and females completed the survey (*table 12*). This gender distribution approximates Census 2000 data for individuals age 18 or older.

**Table 12.** Gender of Respondents, by State of Residence

|                         | ALL     | CA   | AZ   | CO   | NM   |
|-------------------------|---------|------|------|------|------|
|                         | Percent |      |      |      |      |
| Male                    | 49.8    | 49.5 | 50.0 | 50.0 | 49.6 |
| Female                  | 50.2    | 50.5 | 50.0 | 50.0 | 50.4 |
| <i>Census 2000</i>      |         |      |      |      |      |
| <i>Male<sup>4</sup></i> |         | 49.3 | 49.4 | 50.0 | 48.5 |
| <i>Female</i>           |         | 50.7 | 50.6 | 50.0 | 51.5 |

The vast majority of the surveys were completed in English (*table 13*). Language of survey completion varied by state of residence, and differences were statistically significant ( $\chi^2_{(3, n=1,811)} = 13.34, p < .05^5$ ). Contrasts by state for number of Spanish speakers in Census 2000 suggests that Spanish speakers were a bit underrepresented among the responses for California and New Mexico. The effort to gain statewide samples, with respondents from the major regions of each state, may have affected the percentage of Spanish speakers. Some state regions have a higher proportion of Spanish speakers than do other regions. In addition, language of respondent was not one of the sampling criteria.

**Table 13.** Language of Survey Completed, by State of Residence

|                                 | ALL     | CA                | AZ   | CO   | NM   |
|---------------------------------|---------|-------------------|------|------|------|
|                                 | Percent |                   |      |      |      |
| English                         | 92.9    | 91.1              | 90.8 | 95.3 | 95.5 |
| Spanish                         | 7.1     | 8.9               | 9.2  | 4.7  | 4.5  |
| <i>Census 2000</i>              |         |                   |      |      |      |
| <i>Percent Spanish Speakers</i> |         | 13.7 <sup>6</sup> | 9.2  | 5.1  | 9.4  |

The majority of respondents had attended college, reflecting a well-educated set of respondents (*table 14*). Variation in education level by state was significant ( $\chi^2_{(12, n=1,806)} = 31.71, p < .05$ ). Colorado had the greatest percentage of respondents with a Bachelor's degree or higher.

<sup>4</sup> Data is from U.S. Census Bureau, Census 2000, based on distribution of males and females 18 years and over.

<sup>5</sup> All p values represent a Bonferroni adjusted alpha. Further details can be obtained from the author.

<sup>6</sup> Data is from U.S. Census Bureau, Census 2000, based on primary language spoken at home. Percent is those who are Spanish speaking, and speak English less than "very well". This is based on population 5 years of age and over.

**Table 14.** Highest Level of Education Completed, by State of Residence

|  | ALL            | CA   | AZ   | CO   | NM   |
|--|----------------|------|------|------|------|
| <b>Education Level</b>                             | <b>Percent</b> |      |      |      |      |
| Middle school or less                              | 7.2            | 7.6  | 10.2 | 4.0  | 7.0  |
| A high school degree (or G.E.D.)                   | 18.9           | 20.0 | 16.4 | 18.7 | 20.0 |
| At least 1 year of college/trade/vocational school | 34.3           | 33.2 | 39.8 | 31.3 | 32.9 |
| Graduated college with Bachelor's degree           | 19.4           | 20.7 | 16.2 | 23.9 | 16.5 |
| At least 1 year of graduate work beyond Bachelor's | 19.9           | 18.4 | 17.2 | 21.9 | 23.2 |
| Don't know/refused                                 | .3             | .1   | .2   | .2   | .5   |

Education level of respondents varied by ethnic/racial group. Respondents who were age 25 or older and identified themselves as Asian/Pacific Islander were most likely to have a Bachelor's degree or some graduate education (60.4 percent), followed by Whites/Caucasians (47.9 percent), Native Americans (31.1 percent), Hispanics/Latinos(as) (20.7 percent), and Blacks/African Americans (20.0 percent).

Based on respondents age 25 or older, a comparison with Census 2000 revealed that respondents were more educated than the statewide population. This was particularly the case at the higher education levels (*table 15*).

**Table 15.** Percent of Respondents with BA Degree or Higher, by State of Residence

| State | Respondents | Census<br>2000 |
|-------|-------------|----------------|
|       | Percent     |                |
| CA    | 42.8        | 26.6           |
| AZ    | 35.9        | 23.5           |
| CO    | 48.0        | 32.7           |
| NM    | 42.1        | 23.5           |

Ages of respondents varied, with the majority between 25 and 54 years (*table 16*). The minimum age for survey participation was 18. Variation in number of respondents by age group across states was statistically significant ( $\chi^2_{(15, n=1,807)} = 46.08, p < .05$ ). California had the most respondents within the two younger age groups (18 to 34).

Percentage of respondents within each age group mirrored Census 2000 fairly well, with differences of 5 percent or less between each state's population and number of respondents. The exception to this was New Mexico, which had fewer respondents in the youngest age category than what would match that state's adult population (6.7 percent fewer), and more respondents in the 55 to 64 category than would be expected (6.9 percent more).

**Table 16.** Age Group of Respondents, by State of Residence

|                    | CA             | AZ   | CO   | NM   |
|--------------------|----------------|------|------|------|
| <b>Age Group</b>   | <b>Percent</b> |      |      |      |
| 18 to 24           | 12.5           | 8.2  | 5.5  | 7.0  |
| 25 to 34           | 20.4           | 15.2 | 17.4 | 14.0 |
| 35 to 44           | 21.9           | 21.1 | 25.1 | 19.5 |
| 45 to 54           | 22.0           | 20.1 | 21.1 | 23.7 |
| 55 to 64           | 10.8           | 15.7 | 14.4 | 19.0 |
| 65 or over         | 12.1           | 19.2 | 16.4 | 17.0 |
| Don't know/refused | .4             | .5   | n/a  | n/a  |

The vast majority had lived in the United States all of their lives (83.8 percent; *table 17*). The number of lifetime/non-lifetime residency in the US varied significantly by state ( $\chi^2_{(3, n=1,808)} = 20.46, p < .05$ ). The greatest proportions of non-lifetime residency were from California and Arizona.

**Table 17.** Lived in United States Entire Life, by State of Residence

|  | ALL     | CA   | AZ   | CO   | NM   |
|--|---------|------|------|------|------|
|  | Percent |      |      |      |      |
| Yes  | 83.8    | 78.9 | 80.8 | 87.1 | 89.3 |
| No   | 16.1    | 20.9 | 18.7 | 12.9 | 10.7 |
| Don't know/refused                                       | .2      | .2   | .5   | n/a  | n/a  |
| <i>Census 2000</i><br><i>% Foreign Born</i> <sup>7</sup> |         | 26.2 | 12.8 | 8.6  | 8.2  |

Those who had not been in the United States all of their lives had lived here an average of 22.2 to 26.0 years (*table 18*); California respondents had the shortest tenure in the US. However, differences by state were not statistically significant (ANOVA,  $p > .05$ ).

**Table 18.** Number of Years in United States, by State of Residence

| State | Mean | SD   | N   |
|-------|------|------|-----|
| CA    | 22.2 | 15.5 | 120 |
| AZ    | 24.2 | 19.9 | 75  |
| CO    | 26.0 | 18.0 | 52  |
| NM    | 25.1 | 17.1 | 43  |
| All   | 23.8 | 17.4 | 290 |

Annual household income varied with more than half reporting \$35,000 or greater per year (*table 19*). Broader categories for the higher income levels than for the lower categories should be noted. The refusal rates between 12 and 16 percent were expected, as individuals tend to be somewhat uncomfortable providing income information, even when categories are provided.

**Table 19.** Annual Household Income, by State of Residence

|  | CA      | AZ   | CO   | NM   |
|--|---------|------|------|------|
| Income                                       | Percent |      |      |      |
| Under \$5,000                                | 2.6     | 2.5  | 1.7  | 2.5  |
| \$5,000 up to (but not including) \$10,000   | 4.4     | 4.5  | 1.5  | 4.0  |
| \$10,000 up to (but not including) \$15,000  | 4.7     | 4.5  | 3.7  | 6.5  |
| \$15,000 up to (but not including) \$25,000  | 9.8     | 10.0 | 7.2  | 11.2 |
| \$25,000 up to (but not including) \$35,000  | 8.4     | 10.7 | 10.9 | 15.0 |
| \$35,000 up to (but not including) \$50,000  | 13.2    | 15.4 | 16.9 | 14.0 |
| \$50,000 up to (but not including) \$75,000  | 17.0    | 17.4 | 19.7 | 18.7 |
| \$75,000 up to (but not including) \$100,000 | 10.7    | 11.2 | 14.4 | 6.7  |
| \$100,000 or more                            | 13.9    | 7.7  | 11.2 | 9.5  |
| Don't know/refused                           | 15.4    | 16.2 | 12.7 | 12.0 |

A majority of respondents were White/Caucasian or Hispanic/Latino(a) (*table 20*). Respondents could select multiple categories, though they were asked to choose the category that best described them.

<sup>7</sup> Data from U.S. Census Bureau, Census 2000, based on all ages.

**Table 20.** Ethnic/Racial Categories of Respondents, by State of Residence

|                                  | CA                         | AZ   | CO   | NM   |
|----------------------------------|----------------------------|------|------|------|
| <b>Ethnicity/Race</b>            | <b>Percent<sup>1</sup></b> |      |      |      |
| White or Caucasian               | 61.9                       | 70.6 | 78.9 | 61.3 |
| Hispanic or Latino(a)            | 21.6                       | 17.2 | 13.7 | 28.4 |
| Asian or Pacific Islander        | 7.3                        | 2.2  | 1.5  | 1.2  |
| Black or African American        | 4.5                        | 2.5  | 2.5  | 1.0  |
| Native American or First Nations | 3.8                        | 5.5  | 2.5  | 7.0  |
| Another ethnic/racial group      | 1.7                        | .7   | 0    | .2   |
| Missing                          | 2.6                        | 2.5  | 2.2  | 2.0  |

<sup>1</sup>Percent will not add to 100 when respondents selected more than one ethnic/racial category (3.2 percent for California, 2.5 percent for Arizona, 1.7 percent for Colorado, and 2.0 percent for New Mexico).

Few respondents reported memberships in environmental organizations. However, when an environmental organization was named, the Sierra Club and Nature Conservancy were most often mentioned (*table 21*). Organizations were sometimes mentioned that do not have environmental concerns within their primary missions; they were excluded from further analysis.

**Table 21.** Respondents' Memberships in Environmental Organizations, by State of Residence

|   | CA             | AZ  | CO   | NM   |
|---|----------------|-----|------|------|
| <b>Environmental Organization<sup>1</sup></b> | <b>Percent</b> |     |      |      |
| Sierra Club                                   | 2.9            | 1.2 | 3.7  | 2.7  |
| Greenpeace                                    | 1.6            | .5  | .5   | .5   |
| World Wildlife Federation                     | 1.6            | .5  | .7   | 1.2  |
| Audubon Society                               | 1.3            | .5  | 1.2  | .7   |
| Nature Conservancy                            | 1.3            | 3.2 | 3.0  | 2.2  |
| Defenders of Wildlife                         | .3             | 1.0 | .2   | 0    |
| Percent Listing Any Membership                | 10.4           | 7.7 | 13.7 | 10.2 |

<sup>1</sup>Only organizations reported by 1 percent or more of respondents from any one state are listed.

Respondents were asked about their visits to National Forests in each state. Variations by state were statistically significant ( $\chi^2_{(3, n=1,786)} = 38.18, p < .05$ ), with Colorado residents most likely to report visiting a National Forest (*table 22*).

**Table 22.** Ever Visited National Forest in State, by State of Residence

|                    | ALL            | CA   | AZ   | CO   | NM   |
|--------------------|----------------|------|------|------|------|
|                    | <b>Percent</b> |      |      |      |      |
| Yes                | 80.1           | 73.3 | 77.9 | 89.8 | 81.8 |
| No                 | 18.6           | 24.9 | 20.1 | 9.2  | 17.7 |
| Don't know/refused | 1.4            | 1.8  | 2.0  | 1.0  | .5   |

The number of times that respondents had visited a National Forest in the past twelve months also varied by state, with Californians having the lowest average (*table 23*). However, these variations were not statistically significant (ANOVA,  $p > .05$ ). Given the high standard deviations for each state, medians are also presented in the table, confirming the lack of difference between states.

**Table 23.** Number of Visits to National Forest in State in Past Twelve Months, by State of Residence

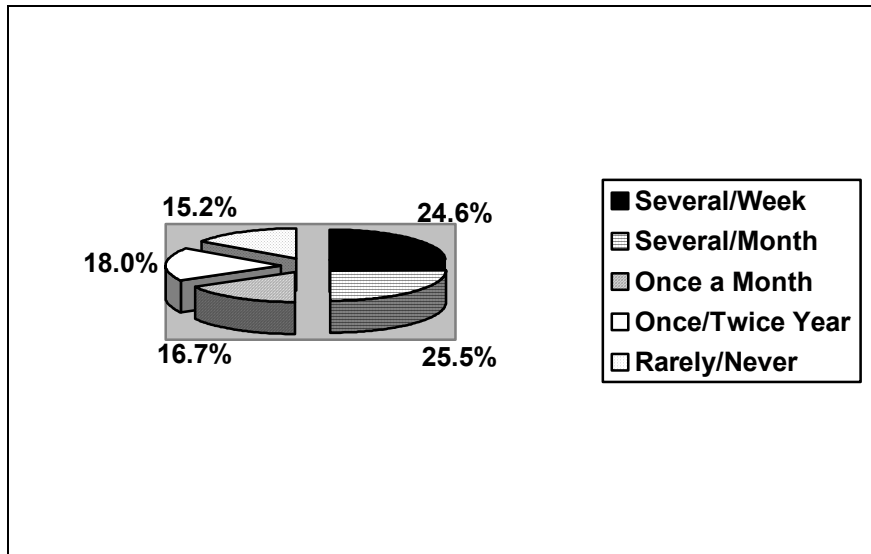
| State | Mean | SD   | Median | N     |
|-------|------|------|--------|-------|
| CA    | 5.1  | 28.8 | 1      | 439   |
| AZ    | 10.8 | 37.7 | 2      | 305   |
| CO    | 11.9 | 41.2 | 3      | 359   |
| NM    | 13.4 | 47.6 | 2      | 327   |
| All   | 9.9  | 38.9 | -      | 1,430 |

The number of years since the respondents first visited a National Forest in their state varied (*table 24*). These variations were statistically significant (ANOVA,  $F_{(3, 1,418)} = 5.81, p < .05$ ). Given the high standard deviations for each state, medians are also presented in the table, revealing the uniqueness of Arizonans on this item.

**Table 24.** Number of Years Since First Visit to a National Forest, by State of Residence

| State | Mean | SD   | Median | N     |
|-------|------|------|--------|-------|
| CA    | 24.7 | 16.0 | 24     | 436   |
| AZ    | 23.0 | 15.6 | 20     | 306   |
| CO    | 27.1 | 16.8 | 27     | 354   |
| NM    | 27.6 | 16.3 | 26.5   | 326   |
| All   | 25.6 | 16.3 |        | 1,422 |

Participation in outdoor recreation varied, though half reported engaging in activities several times a month or more frequently (*fig. 10*). This question included any type of outdoor recreation, engaged in on or off forest lands. Respondents reported somewhat less frequent participation than a national survey on outdoor recreation conducted for the Recreation Roundtable (Roper Starch 2000). In that study, two-thirds of respondents engaged in outdoor recreation several times a month or more frequently.



**Figure 10.** Participation in Outdoor Recreation, All Respondents

Variations in outdoor recreation participation by state were statistically significant ( $\chi^2_{(12, n=1,808)} = 45.02, p < .05$ ). Arizona and New Mexico respondents tended to have less frequent outdoor recreation participation rates (*table 25*).

**Table 25.** Participation in Outdoor Recreation on an Annual Basis, by State of Residence

|                            | CA             | AZ   | CO   | NM   |
|----------------------------|----------------|------|------|------|
| <b>Participation Level</b> | <b>Percent</b> |      |      |      |
| Several times a week       | 27.7           | 18.9 | 28.0 | 21.5 |
| Several times a month      | 21.8           | 24.5 | 34.5 | 22.2 |
| About once a month         | 17.4           | 17.6 | 13.0 | 18.7 |
| Once or twice a year       | 16.9           | 21.2 | 14.3 | 19.9 |
| Rarely or never            | 16.0           | 17.4 | 10.2 | 17.4 |
| Don't know/refused         | .2             | .3   | 0    | .2   |

Outdoor recreation participation was examined by ethnic/racial identity. This contrast became important, because significant variations arose that were linked to both to recreation participation and ethnic/racial identity when predicting ratings of management interventions. Whites/Caucasians and Native Americans tended to participate in outdoor recreation more frequently than did the other ethnic/racial groups (*table 26*).

**Table 26.** Frequency of Outdoor Recreation Participation, by Ethnic/Racial Group

|                                      | White/<br>Caucasian | Hispanic/<br>Latino(a) | Asian/<br>Pacific<br>Islander | Native<br>American | Black/<br>African<br>American |
|--------------------------------------|---------------------|------------------------|-------------------------------|--------------------|-------------------------------|
| <b>Participation Level</b>           | <b>Percent</b>      |                        |                               |                    |                               |
| Frequent <sup>1</sup>                | 72.5                | 53.4                   | 51.6                          | 63.3               | 56.9                          |
| Infrequent <sup>2</sup>              | 27.5                | 46.6                   | 48.4                          | 36.6               | 43.1                          |
| n                                    | 1,220               | 369                    | 64                            | 82                 | 51                            |
| Chi-Square Significant? <sup>3</sup> | Yes                 | Yes                    | No                            | No                 | No                            |

<sup>1</sup> Includes the categories of several times a week, several times a month, and once a month.

<sup>2</sup> Includes the categories of once/twice a year and rarely/never.

<sup>3</sup> For each ethnic/racial group, a chi-square was computed based on a variable indicating whether or not the respondent was a member of each group.

Among those who participated in outdoor recreation at least part of the year (1,505 respondents), a wide variety of activities was reported. The most frequently reported activities included hiking, camping, walking, freshwater fishing, and group sports (*table 27*). These activities were listed in response to an open-ended request for the top three outdoor recreational activities engaged in most often.

**Table 27.** Outdoor Recreational Activities

| Activity           | Number of<br>Respondents | Percent of Those Participating in<br>Outdoor Activities |
|--------------------|--------------------------|---|
| Hiking             | 642                      | 42.6  |
| Camping            | 395                      | 26.2  |
| Walking            | 342                      | 22.7  |
| Freshwater fishing | 330                      | 21.9  |
| Group Sports       | 225                      | 15.0  |
| Swimming           | 143                      | 9.5   |
| Hunting            | 135                      | 9.0   |
| Street biking      | 126                      | 8.4   |
| Mountain biking    | 122                      | 8.1   |
| Snow skiing        | 121                      | 8.0   |
| Running            | 115                      | 7.6   |
| Sightseeing        | 108                      | 7.2   |
| Picnicking         | 108                      | 7.2   |

## **Discussion and Conclusions**

Respondents to this survey of opinions regarding wildland and wilderness fires and fire management in the southwest were residents age 18 and older, contacted by telephone in 2001 or 2002. The cooperation rate was high. The sample of respondents was random, and appears to be sociodemographically similar to data from the 2000 Census. They tend to be somewhat more educated however than the residents they are assumed to represent from their state. The data were weighted for appropriate geographic distributions within the state. All of these attributes make the findings of great interest, since they can be taken as representative of the general sentiments of residents regarding fire and fire management.

A majority agreed that some fires have to be allowed to burn, but that residents have to be protected. Californians were more likely to suggest that fires should be extinguished regardless of cost, a point of concern for fire management in that state.

Most respondents were fairly concerned about fire, though they viewed others as less so. They were not particularly confident in their knowledge about fire, though many still selected a higher rating on the scale. Most trusted the Forest Service in its efforts to manage fires, and perceived similar salient values between themselves and the agency regarding fire management. They tended to think that the Forest Service acted consistently with those salient values, and that when it did not, the reasons were justified. This was the case for a majority, however, exceptions were found in levels of trust and these should be noted because of the implications for communication and collaboration efforts between agency and public.

Signs and area closure were the most approved of interventions, though closure and controlled burns were expected to be the most effective. The least approved of, and least effective ratings were given to banning specific uses on forestlands. The reaction to bans mirrors opposition to bans found by the author in her recent inquiries into methods to address threatened and endangered species. Trust and concern appear to be of great importance in understanding how people will view proposed and actual management interventions.

Age, National Forest visitation, outdoor recreation experience, education, and aspects of acculturation (language, and time in the US) were important influences in viewing differences on the true/false statements that were presented. These should considerations should probably be taken into account when forming messages about fire and fire management, and adjustments made to the message based on intended recipients of each message. Given the statewide variations in these characteristics, it would also seem prudent to tailor messages to the particular population characteristics of each state.

It appears that education will play an important role in the relationship between the Forest Service and the public concerning fire and fire management. The findings of higher concern and lower knowledge, paired with a trend towards trust and shared values, point to an open door for communication and education efforts with publics. The determination of which fires are to be allowed to burn once ignited, how fires are managed or controlled, and when suppression is the strategy of choice could be a focus of messages to publics.

It is important to note however that education efforts do not necessarily produce agreement with agency plans or actions. A wide variety of publics are represented among the survey respondents, as well as in the public at large. Explanations that take into account bases of concern, levels of understanding, and present the logic behind choices will probably be received better than standard messages that gloss over detail and treat all audiences as similar. Recent work suggests that management presentation of technical aspects of fire management conflicts with public information needs and interests, exacerbating confusion and creating conflict. Such findings are reflective of the larger work in risk management that shows a distance between expert and public knowledge and understanding, and the necessity of blending both for effective decisions. Establishing and maintaining trust requires agency interactions that are sensitive to these information needs and interests over time.

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*Appendix A: Counties Within Each Regional Division by State<sup>8</sup>*

**California**

Bay Area

Alameda  
Contra Costa  
Marin  
Napa  
San Francisco  
San Mateo  
Santa Clara  
Solano  
Sonoma

Central Coast

Monterey  
San Luis Obispo  
Santa Barbara  
Santa Cruz  
Ventura

Central Valley

Butte  
Colusa  
Fresno  
Glenn  
Kern  
Kings  
Lake  
Madera  
Merced  
Sacramento  
San Benito  
San Joaquin  
Shasta  
Siskiyou  
Stanislaus  
Sutter  
Tehama  
Trinity  
Tulare  
Yolo  
Yuba

Inland Empire

Imperial  
San Bernardino  
Riverside

Los Angeles

Los Angeles

---

<sup>8</sup> Divisions are approximate because sampling was by telephone numbers within regions. For some planning purposes counties are grouped in other ways.

North Coast/Sierra  
Alpine  
Amador  
Calaveras  
Del Norte  
El Dorado  
Humboldt  
Inyo  
Lassen  
Mariposa  
Mendocino  
Modoc  
Mono  
Nevada  
Placer  
Plumas  
Sierra  
Tuolumne

Orange County  
Orange

San Diego County  
San Diego

**Arizona**

Southeastern Region  
Cochise  
Graham  
Greenlee  
Santa Cruz

Pima Region  
Pima

Western Region  
La Paz  
Mohave  
Yuma

Central Region  
Gila  
Pinal

Maricopa Region  
Maricopa

Northern Region  
Apache  
Coconino  
Navajo  
Yavapai

**Colorado**

Region 1: Northeast Colorado Association of Local Governments

Logan  
Morgan  
Phillips  
Sedgwick  
Washington  
Yuma

Region 2: (no COG at this time)

Larimer  
Weld

Region 3: Denver Region Council of Governments ([www.drcog.org](http://www.drcog.org))

Adams  
Arapahoe  
Boulder  
Clear Creek  
Denver  
Douglas  
Gilpin  
Jefferson

Region 4: Pikes Peak Area Council of Governments

El Paso  
Park  
Teller

Region 5: East Central Council of Governments

Cheyenne  
Elbert  
Lincoln  
Kit Carson

Region 6: Southeast Council of Governments

Baca  
Bent  
Crowley  
Kiowa  
Otero  
Prowers

Region 7: Pueblo Area Council of Governments

Pueblo

Region 8: San Luis Valley Development Resource Group

Alamosa  
Conejos  
Costillo  
Mineral  
Rio Grande  
Saguache

Region 9: Economic Development District of Southwest Colorado

Archuleta  
Dolores  
La Plata  
Montezuma  
San Juan

Region 10: League for Economic Assistance and Planning, Inc.

Delta  
Gunnison  
Hinsdale  
Montrose  
Ouray  
San Miguel

Region 11: Associated Governments of Northwest Colorado

Garfield  
Mesa  
Moffat  
Rio Blanco

Region 12: Northwest Colorado Council of Governments

Eagle  
Grand  
Jackson  
Pitkin  
Routt  
Summit

Region 13: Upper Arkansas Area Council of Governments

Chaffee  
Custer  
Fremont  
Lake

Region 14: South Central Council of Governments

Huerfano  
Los Animas

**New Mexico**

Northwest Region

Cibola  
McKinley  
San Juan

North Central Region

Colfax  
Los Alamos  
Mora  
Rio Arriba  
San Miguel  
Santa Fe  
Taos

Middle Rio Grande Region

Bernalillo  
Sandoval  
Torrance  
Valencia

Eastern Plains Region

Curry  
DeBaca  
Guadalupe  
Harding  
Quay  
Roosevelt  
Union

Southwest Region

Catron  
Grant  
Hidalgo  
Luna

Southeast Region

Chaves  
Eddy  
Lea  
Lincoln  
Otero

Southcentral Region

Dona Ana  
Sierra  
Socorro

**Appendix B-1: Residential Zip Codes of California Respondents Grouped by Region**

| <b>Region</b> | <b>Zip</b>  | <b>City</b>   | <b>n</b> |
|---------------|-------------|---------------|----------|
| Bay Area      | 94002       | Belmont       | 1        |
|               | 94010       | Burlingame    | 1        |
|               | 94014       | Daly City     | 2        |
|               | 94015       | "             | 2        |
|               | 94018       | El Granada    | 1        |
|               | 94019       | Half Moon Bay | 1        |
|               | 94020       | La Honda      | 1        |
|               | 94022       | Los Altos     | 1        |
|               | 94062       | Redwood City  | 1        |
|               | 94063       | "             | 1        |
|               | 94065       | "             | 1        |
|               | 94086       | Sunnyvale     | 1        |
|               | 94087       | "             | 2        |
|               | 94089       | "             | 1        |
|               | 94102       | San Francisco | 1        |
|               | 94109       | "             | 1        |
|               | 94112       | "             | 1        |
|               | 94117       | "             | 2        |
|               | 94123       | "             | 1        |
|               | 94129       | "             | 1        |
|               | 94134       | "             | 2        |
|               | 94306       | Palo Alto     | 1        |
|               | 94402       | San Mateo     | 1        |
|               | 94501       | Alameda       | 3        |
|               | 94502       | "             | 3        |
|               | 94513       | Brentwood     | 2        |
|               | 94521       | Concord       | 1        |
|               | 94523       | Pleasant Hill | 2        |
|               | 94533       | Fairfield     | 1        |
|               | 94536       | Fremont       | 2        |
|               | 94538       | "             | 1        |
|               | 94544       | Hayward       | 3        |
|               | 94546       | Castro Valley | 3        |
|               | 94547       | Hercules      | 1        |
|               | 94549       | Lafayette     | 1        |
|               | 94550       | Livermore     | 1        |
|               | 94553       | Martinez      | 1        |
|               | 94560       | Newark        | 1        |
|               | 94564       | Pinole        | 1        |
|               | 94565       | Pittsburg     | 2        |
| 94568         | Dublin      | 2             |          |
| 94571         | Rio Vista   | 1             |          |
| 94572         | Rodeo       | 1             |          |
| 94577         | San Leandro | 2             |          |
| 94580         | San Lorenzo | 2             |          |
| 94588         | Pleasanton  | 2             |          |

|               |                           |               |   |
|---------------|---------------------------|---------------|---|
| Bay Area      | 94590                     | Vallejo       | 1 |
|               | 94601                     | Oakland       | 1 |
|               | 94602                     | "             | 1 |
|               | 94605                     | "             | 2 |
|               | 94607                     | "             | 1 |
|               | 94610                     | "             | 1 |
|               | 94611                     | "             | 2 |
|               | 94618                     | "             | 1 |
|               | 94621                     | "             | 1 |
|               | 94649                     | "             | 1 |
|               | 94660                     | "             | 1 |
|               | 94702                     | Berkeley      | 2 |
|               | 94705                     | "             | 2 |
|               | 94706                     | Albany        | 1 |
|               | 94707                     | Berkeley      | 1 |
|               | 94708                     | "             | 1 |
|               | 94904                     | Greenbrae     | 1 |
|               | 94930                     | Fairfax       | 1 |
|               | 94952                     | Petaluma      | 2 |
|               | 94954                     | "             | 1 |
|               | 95008                     | Campbell      | 1 |
|               | 95020                     | Gilroy        | 2 |
|               | 95032                     | Los Gatos     | 1 |
|               | 95035                     | Milpitas      | 2 |
|               | 95050                     | Santa Clara   | 1 |
|               | 95051                     | "             | 1 |
|               | 95111                     | San Jose      | 1 |
|               | 95112                     | "             | 1 |
|               | 95116                     | "             | 1 |
|               | 95118                     | "             | 1 |
|               | 95123                     | "             | 3 |
|               | 95124                     | "             | 1 |
|               | 95125                     | "             | 1 |
|               | 95126                     | "             | 1 |
|               | 95127                     | "             | 3 |
|               | 95129                     | "             | 2 |
|               | 95148                     | "             | 1 |
|               | 95403                     | Santa Rosa    | 1 |
|               | 95409                     | "             | 1 |
|               | 95425                     | Cloverdale    | 1 |
| 95442         | Glen Ellen                | 1             |   |
| 95492         | Windsor                   | 1             |   |
| 95687         | Vacaville                 | 1             |   |
| 95688         | "                         | 2             |   |
| 95812         | [Invalid for this region] | 1             |   |
| Central Coast | 91320                     | Newbury Park  | 2 |
|               | 91360                     | Thousand Oaks | 2 |
|               | 91362                     | Thousand Oaks | 3 |

|                |           |                           |   |
|----------------|-----------|---------------------------|---|
| Central Coast  | 93001     | Ventura                   | 1 |
|                | 93003     | "                         | 2 |
|                | 93010     | Camarillo                 | 1 |
|                | 93015     | Fillmore                  | 1 |
|                | 93030     | Oxnard                    | 1 |
|                | 93033     | "                         | 1 |
|                | 93035     | "                         | 1 |
|                | 93060     | Santa Paula               | 2 |
|                | 93065     | Simi Valley               | 2 |
|                | 93101     | Santa Barbara             | 1 |
|                | 93103     | "                         | 2 |
|                | 93105     | "                         | 1 |
|                | 93401     | San Luis Obispo           | 2 |
|                | 93420     | Arroyo Grande             | 1 |
|                | 93422     | Atascadero                | 1 |
|                | 93442     | Morro Bay                 | 1 |
|                | 93455     | Santa Maria               | 1 |
|                | 93461     | Shandon                   | 1 |
|                | 93901     | Salinas                   | 1 |
|                | 93905     | "                         | 1 |
|                | 93906     | "                         | 1 |
|                | 93907     | "                         | 3 |
|                | 93960     | Soledad                   | 1 |
|                | 95033     | Los Gatos                 | 1 |
|                | 95064     | Santa Cruz                | 1 |
|                | 95073     | Soquel                    | 1 |
|                | 95076     | Watsonville               | 2 |
| Central Valley | 92209     | Invalid zip code          | 1 |
|                | 92306     | "                         | 1 |
|                | 92365     | [Invalid for this region] | 1 |
|                | 92704     | [Invalid for this region] | 1 |
|                | 93205     | Bodfish                   | 1 |
|                | 93212     | Corcoran                  | 1 |
|                | 93215     | Delano                    | 1 |
|                | 93225     | Frazier Park              | 1 |
|                | 93230     | Hanford                   | 1 |
|                | 93247     | Lindsay                   | 1 |
|                | 93257     | Porterville               | 1 |
|                | 93304     | Bakersfield               | 3 |
|                | 93305     | "                         | 1 |
|                | 93306     | "                         | 2 |
|                | 93309     | "                         | 3 |
|                | 93611     | Clovis                    | 2 |
|                | 93612     | "                         | 1 |
|                | 93620     | Dos Palos                 | 1 |
|                | 93625     | Fowler                    | 1 |
| 93630          | Kerman    | 1                         |   |
| 93631          | Kingsburg | 1                         |   |

|                |                           |                 |   |
|----------------|---------------------------|-----------------|---|
| Central Valley | 93635                     | Los Banos       | 2 |
|                | 93637                     | Madera          | 1 |
|                | 93638                     | "               | 1 |
|                | 93643                     | North Fork      | 1 |
|                | 93701                     | Fresno          | 1 |
|                | 93702                     | "               | 1 |
|                | 93704                     | "               | 2 |
|                | 93710                     | "               | 1 |
|                | 93711                     | "               | 1 |
|                | 93726                     | "               | 1 |
|                | 93727                     | "               | 1 |
|                | 95023                     | Hollister       | 1 |
|                | 95204                     | Stockton        | 1 |
|                | 95205                     | "               | 1 |
|                | 95207                     | "               | 2 |
|                | 95209                     | "               | 1 |
|                | 95210                     | "               | 1 |
|                | 95213                     | "               | 1 |
|                | 95242                     | Lodi            | 1 |
|                | 95301                     | Atwater         | 1 |
|                | 95307                     | Ceres           | 1 |
|                | 95340                     | Merced          | 3 |
|                | 95348                     | "               | 1 |
|                | 95358                     | Modesto         | 1 |
|                | 95368                     | Salida          | 1 |
|                | 95616                     | Davis           | 3 |
|                | 95621                     | Citrus Heights  | 3 |
|                | 95624                     | Elk Grove       | 1 |
|                | 95627                     | Esparto         | 1 |
|                | 95630                     | Folsom          | 1 |
|                | 95670                     | Rancho Cordova  | 3 |
|                | 95673                     | Rio Linda       | 1 |
|                | 95691                     | West Sacramento | 1 |
|                | 95695                     | Woodland        | 1 |
|                | 95815                     | Sacramento      | 1 |
|                | 95818                     | "               | 1 |
|                | 95819                     | "               | 2 |
|                | 95820                     | "               | 1 |
|                | 95821                     | "               | 2 |
|                | 95824                     | "               | 1 |
| 95831          | "                         | 1               |   |
| 95832          | "                         | 1               |   |
| 95835          | "                         | 1               |   |
| 95901          | Marysville                | 2               |   |
| 95906          | Invalid zip code          | 1               |   |
| 95926          | Chico                     | 3               |   |
| 95928          | "                         | 3               |   |
| 95936          | [Invalid for this region] | 1               |   |

|                |       |                           |   |
|----------------|-------|---------------------------|---|
|                | 95948 | Gridley                   | 1 |
|                | 95963 | Orland                    | 1 |
|                | 95966 | Oroville                  | 1 |
| Central Valley | 95968 | Palermo                   | 1 |
|                | 95969 | Paradise                  | 2 |
|                | 95982 | Sutter                    | 1 |
|                | 95991 | Yuba City                 | 1 |
|                | 96003 | Redding                   | 5 |
|                | 96080 | Red Bluff                 | 2 |
| Inland Empire  | 91709 | Chino Hills               | 2 |
|                | 91710 | Chino                     | 2 |
|                | 91711 | [Invalid for this region] | 1 |
|                | 91739 | Rancho Cucamonga          | 1 |
|                | 91752 | Mira Loma                 | 1 |
|                | 91762 | Ontario                   | 1 |
|                | 91764 | "                         | 2 |
|                | 91784 | Upland                    | 1 |
|                | 91786 | "                         | 1 |
|                | 92201 | Indio                     | 3 |
|                | 92223 | Beaumont                  | 1 |
|                | 92243 | El Centro                 | 1 |
|                | 92260 | Palm Desert               | 1 |
|                | 92263 | Palm Springs              | 1 |
|                | 92270 | Rancho Mirage             | 1 |
|                | 92311 | Barstow                   | 1 |
|                | 92314 | Big Bear City             | 1 |
|                | 92324 | Colton                    | 2 |
|                | 92335 | Fontana                   | 1 |
|                | 92342 | Helendale                 | 1 |
|                | 92345 | Hesperia                  | 1 |
|                | 92346 | Highland                  | 1 |
|                | 92354 | Loma Linda                | 1 |
|                | 92358 | Lytle Creek               | 1 |
|                | 92363 | Needles                   | 1 |
|                | 92373 | Redlands                  | 3 |
|                | 92377 | Rialto                    | 1 |
|                | 92392 | Victorville               | 1 |
|                | 92399 | Yuciapa                   | 1 |
|                | 92404 | San Bernardino            | 1 |
|                | 92501 | Riverside                 | 2 |
|                | 92503 | "                         | 1 |
|                | 92504 | "                         | 2 |
|                | 92505 | "                         | 1 |
|                | 92506 | "                         | 2 |
|                | 92508 | Riverside                 | 1 |
|                | 92509 | "                         | 2 |
|                | 92545 | Hemet                     | 2 |
|                | 92555 | Moreno Valley             | 2 |

|               |       |                     |   |
|---------------|-------|---------------------|---|
|               | 92557 | "                   | 3 |
|               | 92562 | Murrieta            | 2 |
|               | 92567 | Nuevo               | 1 |
|               | 92570 | Perris              | 1 |
| Inland Empire | 92582 | San Jacinto         | 1 |
|               | 92592 | Temecula            | 2 |
|               | 92595 | Wildomar            | 1 |
|               | 92860 | Norco               | 1 |
|               | 92880 | Corona              | 1 |
|               | 92882 | "                   | 1 |
|               | 92883 | "                   | 1 |
|               | 93391 | Invalid zip code    | 1 |
| Los Angeles   | 90002 | Los Angeles         | 1 |
|               | 90006 | "                   | 2 |
|               | 90008 | "                   | 2 |
|               | 90011 | "                   | 4 |
|               | 90016 | "                   | 1 |
|               | 90018 | "                   | 1 |
|               | 90023 | "                   | 1 |
|               | 90025 | "                   | 2 |
|               | 90026 | "                   | 2 |
|               | 90031 | "                   | 1 |
|               | 90032 | "                   | 1 |
|               | 90034 | "                   | 1 |
|               | 90037 | "                   | 3 |
|               | 90046 | "                   | 2 |
|               | 90059 | "                   | 1 |
|               | 90060 | "                   | 1 |
|               | 90061 | "                   | 1 |
|               | 90063 | "                   | 2 |
|               | 90065 | "                   | 1 |
|               | 90066 | "                   | 2 |
|               | 90069 | West Hollywood      | 1 |
|               | 90201 | Bell                | 1 |
|               | 90207 | Invalid zip code    | 1 |
|               | 90220 | Compton             | 1 |
|               | 90221 | "                   | 1 |
|               | 90232 | Culver City         | 1 |
|               | 90240 | Downey              | 2 |
|               | 90241 | "                   | 1 |
|               | 90247 | Gardena             | 4 |
|               | 90250 | Hawthorne           | 2 |
|               | 90254 | Hermosa Beach       | 1 |
|               | 90255 | Huntington Park     | 1 |
|               | 90260 | Lawndale            | 1 |
|               | 90275 | Rancho Palos Verdes | 1 |
|               | 90277 | Redondo Beach       | 1 |
|               | 90280 | South Gate          | 1 |

|             |                 |                           |   |
|-------------|-----------------|---------------------------|---|
| Los Angeles | 90291           | Venice                    | 2 |
|             | 90301           | Inglewood                 | 1 |
|             | 90302           | "                         | 1 |
|             | 90444           | Invalid zip code          | 1 |
|             | 90603           | Whittier                  | 1 |
|             | 90604           | "                         | 1 |
|             | 90638           | La Mirada                 | 2 |
|             | 90640           | Montebello                | 1 |
|             | 90650           | Norwalk                   | 4 |
|             | 90660           | Pico Rivera               | 1 |
|             | 90670           | Santa Fe Springs          | 1 |
|             | 90706           | Bellflower                | 1 |
|             | 90715           | Lakewood                  | 2 |
|             | 90717           | Lomita                    | 1 |
|             | 90723           | Paramount                 | 1 |
|             | 90740           | [Invalid for this region] | 1 |
|             | 90745           | Carson                    | 2 |
|             | 90746           | "                         | 1 |
|             | 90802           | Long Beach                | 1 |
|             | 90803           | "                         | 1 |
|             | 90805           | "                         | 1 |
|             | 90806           | "                         | 1 |
|             | 90807           | "                         | 1 |
|             | 90808           | "                         | 3 |
|             | 90814           | "                         | 1 |
|             | 91001           | Altadena                  | 1 |
|             | 91024           | Sierra Madre              | 1 |
|             | 91030           | South Pasadena            | 3 |
|             | 91042           | Tujunga                   | 1 |
|             | 91046           | Verdugo City              | 1 |
|             | 91106           | Pasadena                  | 1 |
|             | 91108           | San Marino                | 1 |
|             | 91201           | Glendale                  | 1 |
|             | 91205           | "                         | 2 |
|             | 91206           | "                         | 2 |
|             | 91214           | La Crescenta              | 1 |
|             | 91302           | Calabasas                 | 2 |
|             | 91316           | Encino                    | 3 |
|             | 91326           | Northridge                | 1 |
|             | 91342           | Sylmar                    | 1 |
|             | 91343           | North Hills               | 2 |
| 91344       | Granada Hills   | 3                         |   |
| 91352       | Sun Valley      | 1                         |   |
| 91355       | Valencia        | 1                         |   |
| 91356       | Tarzana         | 1                         |   |
| 91403       | Sherman Oaks    | 2                         |   |
| 91406       | Van Nuys        | 2                         |   |
| 91601       | North Hollywood | 4                         |   |

|                    |       |                           |   |
|--------------------|-------|---------------------------|---|
|                    | 91602 | "                         | 3 |
|                    | 91606 | "                         | 1 |
|                    | 91702 | Azusa                     | 1 |
|                    | 91722 | Covina                    | 1 |
|                    | 91732 | El Monte                  | 2 |
|                    | 91776 | San Gabriel               | 1 |
| Los Angeles        | 91790 | West Covina               | 1 |
|                    | 91791 | West Covina               | 1 |
|                    | 93534 | Lancaster                 | 1 |
| North Coast/Sierra | 95252 | Valley Springs            | 1 |
|                    | 95255 | West Point                | 1 |
|                    | 95357 | [Invalid for this region] | 1 |
|                    | 95415 | Boonville                 | 1 |
|                    | 95437 | Fort Bragg                | 1 |
|                    | 95482 | Ukiah                     | 1 |
|                    | 95503 | Eureka                    | 1 |
|                    | 95521 | Arcata                    | 1 |
|                    | 95540 | Fortuna                   | 1 |
|                    | 95602 | Auburn                    | 1 |
|                    | 95642 | Jackson                   | 1 |
|                    | 95650 | Loomis                    | 1 |
|                    | 95678 | Roseville                 | 1 |
|                    | 95703 | Applegate                 | 1 |
|                    | 95709 | Camino                    | 1 |
|                    | 95726 | Pollock Pines             | 1 |
|                    | 95746 | Granite Bay               | 2 |
|                    | 95945 | Grass Valley              | 1 |
|                    | 95949 | "                         | 3 |
|                    | 96101 | Alturas                   | 1 |
|                    | 96130 | Susanville                | 1 |
|                    | 96146 | Olympic Valley            | 1 |
|                    | 96151 | South Lake Tahoe          | 1 |
| Orange County      | 90630 | Cypress                   | 2 |
|                    | 90631 | La Habra                  | 1 |
|                    | 90638 | [Invalid for this region] | 1 |
|                    | 90680 | Stanton                   | 1 |
|                    | 90720 | Los Alamitos              | 1 |
|                    | 90740 | Seal Beach                | 2 |
|                    | 92222 | [Invalid for this region] | 1 |
|                    | 92618 | Irvine                    | 1 |
|                    | 92627 | Costa Mesa                | 2 |
|                    | 92646 | Huntington Beach          | 3 |
|                    | 92647 | "                         | 1 |
|                    | 92651 | Laguna Beach              | 1 |
|                    | 92656 | Aliso Viejo               | 1 |
|                    | 92660 | Newport Beach             | 1 |
|                    | 92672 | San Clemente              | 2 |
|                    | 92677 | Laguna Niguel             | 1 |

|               |                  |                    |                |
|---------------|------------------|--------------------|----------------|
|               | 92691            | Mission Viejo      | 2              |
|               | 92692            | "                  | 1              |
|               | 92703            | Santa Ana          | 1              |
|               | 92704            | "                  | 2              |
|               | 92705            | "                  | 1              |
|               | 92777            | Invalid zip code   | 1              |
| Orange County | 92804            | Anaheim            | 1              |
|               | 92807            | Anaheim            | 2              |
|               | 92821            | Brea               | 2              |
|               | 92823            | "                  | 1              |
|               | 92833            | Fullerton          | 1              |
|               | 92840            | Garden Grove       | 1              |
|               | 92843            | "                  | 1              |
|               | 92845            | "                  | 1              |
|               | 92887            | Yorba Linda        | 1              |
|               | San Diego County | 91932              | Imperial Beach |
| 91935         |                  | Jamul              | 1              |
| 91942         |                  | La Mesa            | 1              |
| 91945         |                  | Lemon Grove        | 1              |
| 91950         |                  | National City      | 1              |
| 92007         |                  | Cardiff by the Sea | 1              |
| 92008         |                  | Carlsbad           | 3              |
| 92020         |                  | El Cajon           | 1              |
| 92021         |                  | "                  | 1              |
| 92024         |                  | Encinitas          | 1              |
| 92027         |                  | Escondido          | 1              |
| 92040         |                  | Lakeside           | 1              |
| 92054         |                  | Oceanside          | 2              |
| 92056         |                  | "                  | 3              |
| 92064         |                  | Poway              | 1              |
| 92065         |                  | Ramona             | 3              |
| 92069         |                  | San Marcos         | 2              |
| 92071         |                  | Santee             | 1              |
| 92075         |                  | Solana Beach       | 1              |
| 92082         |                  | Valley Center      | 1              |
| 92083         |                  | Vista              | 2              |
| 92084         |                  | "                  | 1              |
| 92103         |                  | San Diego          | 1              |
| 92104         |                  | "                  | 2              |
| 92105         | "                | 3                  |                |
| 92106         | San Diego        | 1                  |                |
| 92107         | "                | 2                  |                |
| 92109         | "                | 3                  |                |
| 92110         | "                | 1                  |                |
| 92111         | "                | 2                  |                |
| 92114         | "                | 2                  |                |
| 92115         | "                | 4                  |                |
| 92118         | Coronado         | 1                  |                |

|  |       |           |   |
|--|-------|-----------|---|
|  | 92122 | San Diego | 1 |
|  | 92123 | "         | 1 |
|  | 92139 | "         | 1 |
|  | 92154 | "         | 2 |

**Appendix B-2: Residential Zip Codes of Arizona Respondents Grouped by Region**

| Region       | Zip   | City             | n |
|--------------|-------|------------------|---|
| Southeastern | 85543 | Pima             | 1 |
|              | 85546 | Safford          | 1 |
|              | 85552 | Thatcher         | 1 |
|              | 85602 | Benson           | 2 |
|              | 85603 | Bisbee           | 2 |
|              | 85605 | Bowie            | 1 |
|              | 85616 | Huachuca City    | 2 |
|              | 85621 | Nogales          | 1 |
|              | 85635 | Sierra Vista     | 2 |
|              | 85643 | Willcox          | 1 |
| Pima         | 85321 | Ajo              | 1 |
|              | 85614 | Green Valley     | 1 |
|              | 85629 | Sahuarita        | 2 |
|              | 85634 | Sells            | 1 |
|              | 85641 | Vail             | 2 |
|              | 85701 | Tucson           | 1 |
|              | 85704 | "                | 2 |
|              | 85705 | "                | 6 |
|              | 85706 | "                | 5 |
|              | 85710 | "                | 8 |
|              | 85711 | "                | 4 |
|              | 85712 | "                | 1 |
|              | 85713 | "                | 3 |
|              | 85715 | "                | 1 |
|              | 85716 | "                | 1 |
|              | 85718 | "                | 4 |
|              | 85719 | "                | 3 |
|              | 85730 | "                | 3 |
|              | 85734 | "                | 1 |
|              | 85736 | "                | 1 |
|              | 85737 | "                | 2 |
|              | 85739 | "                | 1 |
|              | 85741 | "                | 3 |
|              | 85742 | "                | 2 |
|              | 85743 | "                | 1 |
|              | 85745 | "                | 5 |
|              | 85746 | "                | 3 |
|              | 85747 | "                | 2 |
|              | 85748 | "                | 2 |
| 85749        | "     | 1                |   |
| Western      | 85349 | San Luis         | 1 |
|              | 85350 | Somerton         | 1 |
|              | 85352 | Tacna            | 1 |
|              | 85364 | Yuma             | 3 |
|              | 85365 | "                | 3 |
|              | 85367 | "                | 1 |
|              | 86021 | Colorado City    | 1 |
|              | 86401 | Kingman          | 2 |
|              | 86403 | Lake Havasu City | 1 |
|              | 86404 | "                | 2 |
|              | 86406 | "                | 1 |
|              | 86413 | Golden Valley    | 2 |
|              | 86426 | Fort Mojave      | 1 |
|              | 86434 | Peach Springs    | 1 |

|          |       |                 |   |
|----------|-------|-----------------|---|
|          | 86436 | Topock          | 1 |
| Western  | 86440 | Mohave Valley   | 1 |
|          | 86442 | Bullhead City   | 2 |
| Central  | 85208 | Mesa            | 2 |
|          | 85217 | Apache Junction | 1 |
|          | 85218 | "               | 1 |
|          | 85220 | "               | 1 |
|          | 85222 | Casa Grande     | 3 |
|          | 85228 | Coolidge        | 2 |
|          | 85232 | Florence        | 1 |
|          | 85235 | Hayden          | 1 |
|          | 85239 | Maricopa        | 1 |
|          | 85241 | Picacho         | 1 |
|          | 85279 | Florence        | 1 |
|          | 85284 | Tempe           | 1 |
|          | 85291 | Valley Farms    | 1 |
|          | 85502 | Globe           | 1 |
|          | 85539 | Miami           | 1 |
|          | 85541 | Payson          | 2 |
| Maricopa | 85003 | Phoenix         | 1 |
|          | 85006 | "               | 5 |
|          | 85007 | "               | 1 |
|          | 85008 | "               | 6 |
|          | 85009 | "               | 1 |
|          | 85014 | "               | 2 |
|          | 85015 | "               | 1 |
|          | 85016 | "               | 2 |
|          | 85017 | "               | 2 |
|          | 85019 | "               | 2 |
|          | 85020 | "               | 4 |
|          | 85021 | "               | 4 |
|          | 85022 | "               | 8 |
|          | 85023 | "               | 1 |
|          | 85027 | "               | 7 |
|          | 85028 | "               | 2 |
|          | 85029 | "               | 2 |
|          | 85031 | "               | 4 |
|          | 85032 | "               | 5 |
|          | 85033 | "               | 4 |
|          | 85037 | "               | 1 |
|          | 85040 | "               | 6 |
|          | 85041 | "               | 4 |
|          | 85042 | "               | 4 |
|          | 85044 | "               | 2 |
|          | 85048 | "               | 4 |
|          | 85050 | "               | 1 |
|          | 85051 | "               | 7 |
|          | 85053 | "               | 2 |
|          | 85054 | "               | 1 |
|          | 85085 | "               | 1 |
|          | 85201 | Mesa            | 1 |
|          | 85202 | "               | 4 |
|          | 85203 | "               | 6 |
|          | 85204 | "               | 1 |
|          | 85205 | "               | 4 |
|          | 85206 | "               | 5 |
|          | 85207 | "               | 1 |

|          |               |                 |   |
|----------|---------------|-----------------|---|
| Maricopa | 85208         | Mesa            | 5 |
|          | 85210         | "               | 4 |
|          | 85212         | "               | 2 |
|          | 85213         | "               | 7 |
|          | 85215         | "               | 1 |
|          | 85219         | Apache Junction | 1 |
|          | 85220         | "               | 1 |
|          | 85224         | Chandler        | 2 |
|          | 85225         | "               | 4 |
|          | 85226         | "               | 2 |
|          | 85233         | Gilbert         | 5 |
|          | 85234         | "               | 4 |
|          | 85248         | Chandler        | 1 |
|          | 85249         | "               | 1 |
|          | 85250         | Scottsdale      | 1 |
|          | 85251         | "               | 4 |
|          | 85253         | Paradise Valley | 1 |
|          | 85255         | Scottsdale      | 1 |
|          | 85258         | "               | 6 |
|          | 85262         | "               | 1 |
|          | 85268         | Fountain Hills  | 4 |
|          | 85281         | Tempe           | 4 |
|          | 85282         | "               | 1 |
|          | 85284         | "               | 1 |
|          | 85301         | Glendale        | 6 |
|          | 85302         | "               | 2 |
|          | 85303         | "               | 2 |
|          | 85304         | "               | 2 |
|          | 85306         | "               | 1 |
|          | 85307         | "               | 1 |
|          | 85308         | "               | 8 |
|          | 85323         | Avondale        | 6 |
|          | 85326         | Buckeye         | 1 |
|          | 85331         | Cave Creek      | 2 |
|          | 85335         | El Mirage       | 1 |
|          | 85338         | Goodyear        | 1 |
|          | 85342         | Morristown      | 1 |
|          | 85345         | Peoria          | 6 |
|          | 85351         | Sun City        | 1 |
|          | 85353         | Tolleson        | 1 |
| 85355    | Waddell       | 1               |   |
| 85361    | Wittmann      | 1               |   |
| 85374    | Surprise      | 5               |   |
| 85375    | Sun City West | 1               |   |
| 85377    | Carefree      | 1               |   |
| 85379    | Surprise      | 2               |   |
| 85381    | Peoria        | 2               |   |
| 85382    | Peoria        | 4               |   |
| 85383    | "             | 1               |   |
| Northern | 85901         | Show Low        | 1 |
|          | 85911         | Cibecue         | 1 |
|          | 85936         | Saint Johns     | 1 |
|          | 85937         | Snowflake       | 1 |
|          | 86001         | Flagstaff       | 1 |
|          | 86004         | "               | 2 |
|          | 86025         | Holbrook        | 1 |
| 86033    | Keyenta       | 2               |   |

|          |             |                 |   |
|----------|-------------|-----------------|---|
| Northern | 86040       | Page            | 1 |
|          | 86042       | Polacca         | 1 |
|          | 86045       | Tuba City       | 1 |
|          | 86046       | Williams        | 1 |
|          | 86301       | Prescott        | 1 |
|          | 86303       | "               | 2 |
|          | 86305       | "               | 2 |
|          | 86314       | Prescott Valley | 3 |
|          | 86320       | Ash Fork        | 1 |
|          | 86323       | Chino Valley    | 2 |
|          | 86324       | Clarkdale       | 1 |
|          | 86325       | Cornville       | 1 |
|          | 86326       | Cottonwood      | 3 |
|          | 86327       | Dewey           | 2 |
|          | 86331       | Jerome          | 1 |
|          | 86332       | Kirkland        | 1 |
|          | 86335       | Rimrock         | 1 |
|          | 86336       | Sedona          | 1 |
|          | 86507       | Lukachuki       | 1 |
|          | 86514       | Teec Nos Pos    | 1 |
| 86515    | Window Rock | 1               |   |

**Appendix B-3: Residential Zip Codes of Colorado Respondents Grouped by Region**

| Region   | Zip       | City                   | n |
|----------|-----------|------------------------|---|
| Region 1 | 80654     | Wiggins                | 1 |
|          | 80701     | Fort Morgan            | 4 |
|          | 80720     | Akron                  | 1 |
|          | 80723     | Brush                  | 1 |
|          | 80751     | Sterling               | 1 |
| Region 2 | 80504     | Longmont               | 1 |
|          | 80505     | Invalid zip code       | 1 |
|          | 80517     | Estes Park             | 1 |
|          | 80521     | Fort Collins           | 2 |
|          | 80524     | "                      | 2 |
|          | 80525     | "                      | 5 |
|          | 80526     | "                      | 2 |
|          | 80528     | "                      | 1 |
|          | 80530     | Frederick              | 1 |
|          | 80537     | Loveland               | 1 |
|          | 80538     | "                      | 3 |
|          | 80543     | Milliken               | 1 |
|          | 80545     | Red Feather Lakes      | 1 |
|          | 80549     | Wellington             | 1 |
|          | 80550     | Windsor                | 2 |
|          | 80610     | Ault                   | 1 |
|          | 80620     | Evans                  | 2 |
|          | 80621     | Fort Lupton            | 1 |
|          | 80631     | Greeley                | 4 |
|          | 80634     | "                      | 3 |
| Region 3 | 80002     | Arvada                 | 1 |
|          | 80003     | "                      | 6 |
|          | 80004     | "                      | 2 |
|          | 80005     | "                      | 2 |
|          | 80007     | "                      | 1 |
|          | 80010     | Aurora                 | 2 |
|          | 80011     | "                      | 5 |
|          | 80012     | "                      | 2 |
|          | 80013     | "                      | 6 |
|          | 80014     | "                      | 2 |
|          | 80015     | "                      | 8 |
|          | 80018     | "                      | 1 |
|          | 80020     | Broomfield             | 3 |
|          | 80021     | Broomfield/Westminster | 3 |
|          | 80022     | Commerce City          | 3 |
|          | 80026     | Lafayette              | 2 |
|          | 80027     | Louisville             | 1 |
|          | 80030     | Westminster            | 3 |
|          | 80031     | "                      | 2 |
|          | 80033     | Wheat Ridge            | 2 |
|          | 80102     | Bennett                | 1 |
|          | 80104     | Castle Rock            | 1 |
|          | 80108     | "                      | 1 |
|          | 80109     | "                      | 1 |
|          | 80110     | Englewood              | 1 |
|          | 80112     | "                      | 1 |
|          | 80116     | Franktown              | 1 |
| 80120    | Littleton | 7                      |   |
| 80121    | "         | 5                      |   |

|          |           |                 |   |
|----------|-----------|-----------------|---|
| Region 3 | 80122     | Littleton       | 6 |
|          | 80123     | "               | 1 |
|          | 80126     | "               | 3 |
|          | 80127     | "               | 1 |
|          | 80128     | "               | 5 |
|          | 80129     | "               | 1 |
|          | 80130     | "               | 1 |
|          | 80134     | Parker          | 3 |
|          | 80138     | "               | 1 |
|          | 80203     | Denver          | 2 |
|          | 80204     | "               | 5 |
|          | 80206     | "               | 5 |
|          | 80207     | "               | 2 |
|          | 80209     | "               | 2 |
|          | 80210     | "               | 2 |
|          | 80211     | "               | 1 |
|          | 80212     | "               | 3 |
|          | 80214     | "               | 2 |
|          | 80215     | "               | 5 |
|          | 80216     | "               | 2 |
|          | 80219     | "               | 6 |
|          | 80220     | "               | 1 |
|          | 80221     | "               | 6 |
|          | 80223     | "               | 2 |
|          | 80224     | "               | 1 |
|          | 80227     | Denver/Lakewood | 2 |
|          | 80228     | Denver          | 2 |
|          | 80229     | "               | 6 |
|          | 80231     | "               | 6 |
|          | 80232     | "               | 3 |
|          | 80233     | "               | 2 |
|          | 80236     | "               | 2 |
|          | 80239     | "               | 2 |
|          | 80241     | "               | 2 |
|          | 80246     | "               | 2 |
|          | 80249     | "               | 1 |
|          | 80260     | "               | 2 |
|          | 80301     | Boulder         | 3 |
|          | 80302     | "               | 2 |
|          | 80304     | "               | 1 |
|          | 80305     | "               | 5 |
|          | 80321     | "               | 1 |
|          | 80401     | Golden          | 3 |
| 80433    | Conifer   | 1               |   |
| 80439    | Evergreen | 2               |   |
| 80465    | McCoy     | 5               |   |
| 80501    | Longmont  | 5               |   |
| 80503    | "         | 3               |   |
| 80504    | "         | 1               |   |
| 80516    | Erie      | 1               |   |
| 80601    | Brighton  | 2               |   |
| 80640    | Henderson | 1               |   |
| Region 4 | 80132     | Monument        | 2 |
|          | 80420     | Alma            | 1 |
|          | 80421     | Bailey          | 1 |
|          | 80808     | Calhan          | 1 |
|          | 80814     | Divide          | 2 |

|           |       |                  |   |
|-----------|-------|------------------|---|
| Region 4  | 80816 | Florissant       | 1 |
|           | 80817 | Fountain         | 1 |
|           | 80829 | Manitou Springs  | 1 |
|           | 80831 | Peyton           | 1 |
|           | 80863 | Woodland Park    | 1 |
|           | 80864 | Yoder            | 1 |
|           | 80903 | Colorado Springs | 2 |
|           | 80904 | "                | 1 |
|           | 80906 | "                | 4 |
|           | 80907 | "                | 2 |
|           | 80908 | "                | 4 |
|           | 80909 | "                | 2 |
|           | 80910 | "                | 2 |
|           | 80911 | "                | 3 |
|           | 80913 | "                | 1 |
|           | 80915 | "                | 2 |
|           | 80916 | "                | 1 |
|           | 80917 | "                | 3 |
|           | 80918 | "                | 5 |
|           | 80919 | "                | 2 |
|           | 80920 | "                | 4 |
|           | 80922 | "                | 3 |
|           | 80925 | "                | 1 |
| Region 5  | 80107 | Elizabeth        | 2 |
|           | 80836 | Stratton         | 2 |
| Region 6  | 81003 | Pueblo           | 1 |
|           | 81047 | Holly            | 1 |
|           | 81050 | La Junta         | 2 |
|           | 81052 | Lamar            | 1 |
|           | 81067 | Rocky Ford       | 2 |
| Region 7  | 81001 | Pueblo           | 5 |
|           | 81003 | "                | 1 |
|           | 81004 | "                | 4 |
|           | 81006 | "                | 1 |
|           | 81007 | "                | 2 |
|           | 81008 | "                | 1 |
| Region 8  | 81101 | Alamosa          | 2 |
|           | 81140 | La Jara          | 1 |
|           | 81144 | Monte Vista      | 1 |
|           | 81151 | Sanford          | 1 |
|           | 81154 | South Fork       | 1 |
| Region 9  | 81301 | Durango          | 2 |
|           | 81303 | "                | 2 |
|           | 81321 | Cortez           | 2 |
|           | 81323 | Dolores          | 1 |
|           | 81326 | Hesperus         | 1 |
| Region 10 | 81230 | Gunnison         | 1 |
|           | 81401 | Montrose         | 3 |
|           | 81413 | Cedaredge        | 1 |
|           | 81416 | Delta            | 1 |
|           | 81428 | Paonia           | 1 |
| Region 11 | 81501 | Grand Junction   | 1 |
|           | 81503 | "                | 3 |
|           | 81504 | "                | 3 |
|           | 81505 | "                | 1 |
|           | 81506 | Grand Junction   | 1 |
|           | 81520 | Clifton          | 1 |

|           |       |                  |   |
|-----------|-------|------------------|---|
| Region 11 | 81521 | Fruita           | 1 |
|           | 81525 | Mack             | 1 |
|           | 81527 | Whitewater       | 1 |
|           | 81601 | Glenwood Springs | 1 |
|           | 81623 | Carbondale       | 3 |
|           | 81635 | Parachute        | 1 |
|           | 81641 | Meeker           | 1 |
|           | 81652 | Silt             | 1 |
| Region 12 | 80447 | Grand Lake       | 1 |
|           | 81611 | Aspen            | 3 |
|           | 81631 | Eagle            | 1 |
|           | 81675 | Invalid zip code | 1 |
| Region 13 | 81201 | Salida           | 1 |
|           | 81211 | Buena Vista      | 2 |
|           | 81212 | Canon City       | 4 |
|           | 81215 | "                | 1 |
|           | 81226 | Florence         | 1 |
|           | 81240 | Penrose          | 1 |
| Region 14 | 81027 | Branson          | 1 |
|           | 81055 | La Veta          | 1 |
|           | 81082 | Trinidad         | 1 |
|           | 81089 | Walsenburg       | 1 |

**Appendix B-4: Residential Zip Codes of New Mexico Respondents Grouped by Region**

| Region            | Zip           | City            | n        |
|-------------------|---------------|-----------------|----------|
| Northwest         | 87014         | Cubero          | 1        |
|                   | 87020         | Grants          | 2        |
|                   | 87021         | Milan           | 1        |
|                   | 87045         | Prewitt         | 1        |
|                   | 87104         | Albuquerque     | 1        |
|                   | 87301         | Gallup          | 6        |
|                   | 87316         | Fort Wingate    | 1        |
|                   | 87320         | Mexican Springs | 1        |
|                   | 87321         | Ramah           | 1        |
|                   | 87323         | Thoreau         | 3        |
|                   | 87327         | Zuni            | 1        |
|                   | 87328         | Navajo          | 2        |
|                   | 87364         | Sheep Springs   | 1        |
|                   | 87401         | Farmington      | 7        |
|                   | 87402         | "               | 3        |
|                   | 87410         | Aztec           | 7        |
|                   | 87413         | Bloomfield      | 5        |
|                   | 87416         | Fruitland       | 1        |
|                   | 87417         | Kirtland        | 1        |
|                   | North Central | 87015           | Edgewood |
| 87047             |               | Sandia Park     | 1        |
| 87327             |               | Zuni            | 1        |
| 87501             |               | Santa Fe        | 3        |
| 87502             |               | "               | 2        |
| 87505             |               | "               | 8        |
| 87506             |               | "               | 1        |
| 87507             |               | "               | 6        |
| 87508             |               | "               | 2        |
| 87522             |               | Chimayo         | 4        |
| 87527             |               | Dixon           | 2        |
| 87529             |               | El Prado        | 1        |
| 87530             |               | El Rito         | 1        |
| 87532             |               | Espanola        | 1        |
| 87537             |               | Hernandez       | 3        |
| 87539             |               | La Madera       | 1        |
| 87543             |               | Llano           | 1        |
| 87544             |               | Los Alamos      | 5        |
| 87549             |               | Ojo Caliente    | 1        |
| 87552             |               | Pecos           | 1        |
| 87556             |               | Questa          | 1        |
| 87557             |               | Ranchos De Taos | 1        |
| 87566             |               | San Juan Pueblo | 1        |
| 87567             |               | Santa Cruz      | 1        |
| 87569             |               | Serafina        | 1        |
| 87571             |               | Taos            | 2        |
| 87575             |               | Tierra Amarilla | 1        |
| 87579             |               | Vadito          | 1        |
| 87701             |               | Las Vegas       | 5        |
| 87722             |               | Guadalupita     | 1        |
| 87723             | Holman        | 1               |          |
| 87728             | Maxwell       | 1               |          |
| 87740             | Raton         | 2               |          |
| 87742             | Rociada       | 1               |          |
| Middle Rio Grande | 87002         | Belen           | 2        |

|                   |             |                      |    |
|-------------------|-------------|----------------------|----|
| Middle Rio Grande | 87006       | Bosque               | 3  |
|                   | 87015       | Edgewood             | 2  |
|                   | 87016       | Estancia             | 1  |
|                   | 87025       | Jemez Springs        | 1  |
|                   | 87031       | Los Lunas            | 8  |
|                   | 87032       | McIntosh             | 1  |
|                   | 87035       | Moriarty             | 1  |
|                   | 87043       | Placitas             | 3  |
|                   | 87048       | Corrales             | 2  |
|                   | 87052       | Santo Domingo Pueblo | 2  |
|                   | 87059       | Tijeras              | 3  |
|                   | 87062       | Viguita              | 1  |
|                   | 87102       | Albuquerque          | 5  |
|                   | 87104       | "                    | 1  |
|                   | 87105       | "                    | 7  |
|                   | 87106       | "                    | 4  |
|                   | 87107       | "                    | 8  |
|                   | 87108       | "                    | 14 |
|                   | 87109       | "                    | 5  |
|                   | 87110       | "                    | 5  |
|                   | 87111       | "                    | 13 |
|                   | 87112       | "                    | 10 |
|                   | 87113       | "                    | 3  |
|                   | 87114       | "                    | 9  |
|                   | 87118       | "                    | 1  |
|                   | 87120       | "                    | 13 |
|                   | 87121       | "                    | 7  |
|                   | 87122       | "                    | 3  |
|                   | 87123       | "                    | 13 |
|                   | 87124       | "                    | 8  |
| 87144             | Rio Rancho  | 2                    |    |
| 87192             | Albuquerque | 1                    |    |
| Eastern Plains    | 88101       | Clovis               | 9  |
|                   | 88130       | Portales             | 8  |
|                   | 88134       | Taiban               | 1  |
|                   | 88401       | Tucumcari            | 1  |
| Southwest         | 88435       | Santa Rosa           | 1  |
|                   | 87829       | Quemado              | 2  |
|                   | 88030       | Deming               | 8  |
|                   | 88031       | "                    | 1  |
|                   | 88038       | Gila                 | 1  |
| Southeast         | 88061       | Silver City          | 1  |
|                   | 88062       | "                    | 1  |
|                   | 88201       | Roswell              | 8  |
|                   | 88202       | "                    | 1  |
|                   | 88203       | "                    | 5  |
|                   | 88210       | Artesia              | 6  |
|                   | 88220       | Carlsbad             | 8  |
|                   | 88230       | Dexter               | 2  |
|                   | 88240       | Hobbs                | 6  |
|                   | 88260       | Lovington            | 1  |
|                   | 88265       | Monument             | 1  |
|                   | 88267       | Tatum                | 1  |
| 88310             | Alamogordo  | 8                    |    |
| 88317             | Cloudcroft  | 1                    |    |
| 88340             | Mescalero   | 1                    |    |
| 88345             | Ruidoso     | 1                    |    |

|              |       |                           |   |
|--------------|-------|---------------------------|---|
| Southeast    | 88352 | Tularosa                  | 2 |
| Southcentral | 87801 | Socorro                   | 1 |
|              | 87823 | Lemitar                   | 1 |
|              | 87828 | Polvadera                 | 1 |
|              | 87901 | Truth Or Consequences     | 1 |
|              | 87940 | Rincon                    | 1 |
|              | 88001 | Las Cruces                | 6 |
|              | 88002 | White Sands Missile Range | 1 |
|              | 88003 | Las Cruces                | 2 |
|              | 88005 | "                         | 9 |
|              | 88007 | "                         | 1 |
|              | 88008 | Santa Teresa              | 1 |
|              | 88011 | Las Cruces                | 4 |
|              | 88012 | "                         | 1 |
|              | 88021 | Anthony                   | 3 |
|              | 88027 | Chamberino                | 1 |
|              | 88046 | Mesilla                   | 1 |
|              | 88047 | Mesilla Park              | 3 |
|              | 88048 | Mesquite                  | 1 |
|              | 88063 | Sunland Park              | 5 |
|              | 88081 | Chaparral                 | 1 |

***Appendix C-1: Open Ended Comments of California Respondents***

**Question:** Is there anything you would like to tell us about this survey or your experiences on wildlands and wilderness areas?

---

I don't think I'm qualified to answer these questions.

I think they're great; I hope we always have them.

Support controlled burns: better than out-of-hand.

I own property in Malibu; seems like the Forest Service does not know what the Coastal Commission is doing as far as planting trees; I think the two agencies should work together.

Reword some of the questions.

Some questions need to be revised: not very clear.

I wish they had more off-road parks.

Questions need to be more precise.

I would like to know the results of this study, maybe you could post it on the internet; I would like to broaden my knowledge on these issues and would like any brochures that might be available to the public.

A lot of fires in Idaho due to lightning; it's really good firefighters keep sharp on fighting fires.

Survey is well intended but a bit ambiguous; questions beg the issue; assumes public is knowledgeable about Forest Service; public does not know how much control other agencies have over the Forest Service.

I'm glad we've got forests.

Leave them alone, keep them open: no more closure of lands.

Good in one way, access to places I liked to go to shut down, some valid and others invalid.

Let stuff burn.

Survey was fine.

I have been a journalist for many years and I have interviewed many people about this subject so I am quite knowledgeable.

I think it was an interesting survey and they should do more of them.

I just love the wildlands and wilderness areas; I think they should stick around.

I enjoy wildland areas; they need to be conserved for our youngsters.

I wish they would make areas more protected across the United States: they are tearing down a lot of our nation's mountain ranges.

Like to go camping; Crater Lake has burn scars but it is getting green again; Mom worked in timber management and Dad was in fire suppression.

No experience in wildland and wilderness areas; information is from articles read and newscasts.

The Forestry Service does not make it accessible enough to get the wood for burning; I would like to see the forestry cut wood, leave it in piles and allow people to get them to burn, it would be much quicker; do not shut the forest down.

Glad Forest Service does controlled burns; concerned about the population of really big trees.

I wish I was more informed about this issue.

Some questions should be more defined: worded better.

Survey is good.

I think this is great.

Wish I knew more about it.

Would like to have more information about wildlands because I don't know enough about the parks and places to visit.

Survey is too long.

Some of my viewpoints on burns are swayed by TV.

I don't get to visit it enough, it's getting too overpopulated.

Survey is confusing.

I'm opposed to the U.S. Forest Service's policy of allowing fires to burn uncontrolled; I support the California Department of Forestry and Fire Protection policy on wildland fires.

Survey would go faster if you only read 1-8 scale once.

It could be expanded to provide a couple of more options for answering.

Heartbroken to see them burning down all over the place instead of before when government let them have proper tree farming and underbrush; rather see properly forested than burning.

There is a need to preserve them.

Leave them alone.

Corporate logging should be strictly controlled by the U.S. Forest Service.

Building too much, not enough wildlife anymore.

I think they should be left alone; let the animals have their space.

We are in the hands of idiots; nobody really cares (the Forest Service).

Hopefully I was helpful.

E-mail the questionnaire.

Stop building homes in wildland and wilderness areas.

I think the survey is very worthwhile; I hope that it is helpful in preventing fires.

Good survey; I don't have much experience with wildlands, but all of us must give our support.

Controlled burns should have been done before now so the fires wouldn't have started in the first place; I'm glad to see that the Forest Service decided to take care of the problem.

People should recognize that is necessary to take care of the forest.

Survey gave me limited knowledge.

Enjoy taking hikes and walks around wilderness areas and parks.

I appreciate them and U.S. Forest Service does a fantastic job with national parks; we've visited almost all of them.

Forest fires are the way nature cleans itself.

There are a lot of smokers and people like that who are going to disregard any signs you put up; also I lived in an area where there were a lot of fires and it is very unnerving.

I think they are doing a good job; dogs are restricted from too many areas; I wish they would open Point South which is a beautiful beach; I think it is great that you guys are doing the study.

It's important to preserve what we have.

Wildlands should be preserved and we should do all we can to keep the timber industry out of them.

Boring survey; I wasn't interested in the topic.

We should protect the wildlands and wilderness more.

We should be able to give an explanation when asked a yes or no question because some of the questions are ambiguous.

The survey is somewhat informative, remembering what I know of the Forest Service; as far as I know the Forest Service is doing a fine job.

There is a good care of wildlands and people in charge of the forest always give help and instructions to visitors like what to do with the fire rings after camping.

Ecosystem is affected very much by smoke; animals go down the hills to eat when there has been a fire; we suffer from smoke after a fire, it's a continuing process.

Appreciate survey; glad to take the time.

It's good to get other people's opinions.

I'd like them to stay open as long as off-roaders behave themselves, but when they tear up the wilderness they of course need to be controlled; fewer rules seems to promote more freedom to enjoy wildlands, but people need to respect.

The U.S. Forest Service should take good care of the forests and animals in extinction.

Survey is erroneous and doesn't mean anything; general public is not privy to the forest service's goals; when going fishing expect clean campground.

It's a very interesting and tough survey.

Pleased to participate in the survey; it's good that someone is taking care of all the wildland and wilderness areas.

Forest areas and the management of fires is well taken care of by the Forest Service team.

I don't have a lot of knowledge.

The questions are interesting and good so that people know that something is actually being done in order to preserve our nature.

People who haven't lived around fires do not appreciate firefighters enough; people living in cities don't appreciate forests enough, and should leave alcohol home (don't make campfires while drinking!).

It's an interesting survey, but it's frustrating because the questions presuppose knowledge.

The chipping procedures are done by people so poorly trained that they are trying to work out community service time; this won't work having dumb convicts to help to improve the forest.

I'd like to learn more about wildlands from printed material by mail or a website that educates about wildlife because in society we only have knowledge about wildlife from Smokey the Bear.

Because they don't put out porta-potties, people tend to defecate not only in the creeks but in areas near the creeks, putting other people at risk; I don't eat fresh water fish any more because of that.

Need to be more educated.

Hope that wildspace is protected; understand it has to be eliminated; should be our top priority; highly opposed to drilling in National Forests; Clinton was on the right track.

Haven't had much experience on that but really liked the forests when I had the chance to visit them and study about them in high school.

I used to backpack a lot in other states such as Washington and used to be a firefighter here in Atascadero up until last year, so I'm very aware of danger.

We need to protect wildland areas at all cost so we can have our future generations enjoy them too.

Not always cognizant of what designation of the wilderness area is state, national, city, etc.

It is something that I think we should preserve for people who like to camp and fish.

Used to be a wildland firefighter for California Department of Forestry.

Used to live in mountains; need common sense; nice experience; beautiful country when comes to Forest Service; good experience for our children.

Montana controlled burn upset me and concerned me; needs to be more highly monitored.

It's an interesting survey and I've enjoyed it, but I am not a camper; sightseeing and occasional picnics are my only enjoyment of the wilderness, so it's really hard to see the encroachment of development and seeing it go up in smoke.

Question validity on study of this nature based on questions.

It's sad that the few abuse the wildlands and make it difficult for those that don't abuse.

This survey should be slightly shorter.

The questions were so vague that one person could say yes and another no; forests are important to the human; wildlands in Alaska should be protected against destruction lauded by government for commercial gain.

Round up all these guys committing crimes and not working and train them to make firebreaks or other work to prevent fires.

We strongly support fire prevention; we experienced a fire close to our home.

Informative.

More areas for extinct-bound animals; nothing too controlled.

There's a lot of them around me; we have a state park about a few miles away from here.

Interviewer should have a clearer voice.

Keep it well managed.

I like the questions because they are very informative.

Good idea to see what people have to say about these type of questions.

Should give information so people could make more educated responses.

I really appreciate it and I feel grateful that we live in an area where people care about it and are doing things to protect it.

Very enjoyable wilderness areas.

Want forest rangers to patrol forest more.

I liked how a deer or a tarantula was taken care of when I was on base; other states should try to do the same thing.

Love wildlife and natural life.

I would like for the U.S. Forest Service to use more helicopters that contain water to extinguish mountain fires.

Please do this survey before 8 p.m.

Smokers are still irresponsible; I recently saw two people discard their cigarettes out of the window of their car while driving through a forest area.

These surveys are really important to improve people's lives.

Survey good.

It's a good survey.

Forestry should do a better job protecting the land; people are too inconsiderate and the forestry should do something about it.

Forest Service needs to do more public education and outreach; not a native Californian, but have seen things that make me think if I was a native, I should know better, such as people throwing cigarette butts out the window.

I live in Sacramento, I love nature and I do everything I can to bring nature to my back yard; they should ban vehicles in Yosemite.

Some of my answers depend on my very narrow exposure to the circumstances.

Condense interviews.

I think it is important to conserve our wildlands; it is good to have them to escape to.

I do not visit forest areas as often as others, however, when I do, I think about how important it is to keep our earth clean and also how important it is to control fire when it occurs by natural causes or by people; I like this survey.

Everything you mentioned except for fires are a natural part of life.

Until now it is good that you are doing surveys to better the environment and to help control fires.

In California we have to buy a National Forest Pass now, for parking; I believe \$30 is a large amount, but it is not explained to account for where the money is going; how about an explanatory brochure.

Federal land management sucks, shut majority of desert down.

Used to camp a lot.

It is good that you are doing the survey, even though I don't know all that much about wildlands or wilderness areas.

My husband is a fireman so I think I have lots of information on that; probably if I was not so in touch with involved people I would not know much about it, or wouldn't care as much.

Get rid of the Venture Pass; permits to be in wildland forests.

Mechanical things out of areas, if combustible.

If they have a pamphlet describing the techniques that might increase the knowledge of people; more information for the public.

Nothing is done in order to prevent fires, and when there's a fire here everything burns up too fast because houses and buildings are wood-based; in my country they make excavations or fire breaks to help prevent fires.

I worry more about wetlands because the wildlife uses these areas and the more we build the less area wildlife has to survive; fires also occur in wetlands and that concerns me too.

Survey assumes previous knowledge and creates inaccuracies; more specific backgrounds on questions.

Not interesting topic but still important; need nature; too much pollution especially in air; stop throwing cigarettes on ground, can cause fire; teach more about nature.

There are absolutely very beautiful wildland areas around California and people should visit those places.

Hope it's beneficial for research.

Think California is doing a great job with management of forest fires on our wildland.

Survey is great; here in California, campsites, trailheads, signs are appropriate to maintain forests.

Tone down language in survey because somebody with a lesser education wouldn't understand it.

Q13: think Forest Service has to take "weather" into consideration in conducting controlled burns;  
Q20(4): fire is natural except for man-made ones; Forest Service needs to get on the fire more quickly.

Like doing activities on our wildlands and national forests so do not agree with the process of closing some parts of the forests to the public; violators of any forest should be punished.

Opposed to nature walkers having to be walked through the woods.

Love to go up and enjoy the mountains, my favorite activity and wouldn't want anyone treading on rights to enter that area, or drive through it; volunteers in a cleanup effort out there also.

I hope I answered everything right and answered correctly.

Currently a little unhappy with Forestry not receiving more money from the government and not being able to keep forest roads open (fire lanes) because of lack of funding; would like government to go back to giving them the funding needed.

I wish I was more experienced in it; we do all kinds of things outside; I don't do Yosemite, which I will do when my kids are older; we live in a controlled area; I do watch TV about fires.

Support burning of areas of need; fire brush problems.

They've been good all my life.

It's good to spend time on trying to improve the conditions of wildland and wilderness areas.

The rating questions are tricky; ask the true and false questions first.

People mess it up, that's what it amounts to; there'll be fire and so forth it's sad but that's how we are; I'd like to think someone is doing something good and cleaning it up.

There is obviously a lot of information about managing fires but the general public is not aware of them: they should be addressed better; we should manage the fires by thinning our forests.

Forest Service is inept in controlled burns and there is no recourse for the people whose lives they damage; I feel like they should not be allowed to manage the forest.

I believe that roads to wildlands cause long-term harm; our forests are not in good hands with the Forestry Department in certain portions of our country such as Alaska, which are being exploited by loggers.

There is too much trash, and too many lazy employees in forest services with unpleasant attitudes; they are not very cordial to visitors.

I am very anti-Sierra Club and fellow travelers.

We should go back to the practices of the Native Americans regarding controlled burns: it was more effective.

Apologize for not knowing more about this kind of information.

Interesting survey; not specific enough and clear; skipped ones due to unclarity.

It's a good thing to let people spend time in wilderness areas, it's good for them; all the oxygen is good.

Cottage Grove Oregon takes care of their fires by taking care of brush, by thinning dry trees and cutting them down, and here in California we use the forests so much for campfires out in the woods, that we end up creating fires.

Remember our children.

Don't know enough.

Too many questions; questions are too hard to understand.

Forest Service management needs to be more open-minded and have more field training.

People don't take care of fire properly.

People need to let nature take its course; reducing risk by reducing vegetation can be more harmful than good.

Did a similar one not too long ago; I own a ranch; I am an environmentalist myself.

I'm worried about tall, dry grass because people set it on fire.

People have the chance to enjoy the environment, and when there's a fire, which destroys everything, it's a terrible thing; nature is a wonderful thing.

I think you're doing a good job with this survey.

We covered it well.

Just that I just found out I don't know very much and the survey makes me want to find out the answers to these very interesting questions you have posed.

Fires are very dangerous and the houses in California don't have the structure to survive a fire; all measures should be taken to stop and prevent fires.

I appreciate people doing this kind of study to preserve the greenery of nature, especially the hard work of the Forest Service keeping parks healthy for public to see.

If they explain more clearly the questions they would get better answers from me; they should allow you to explain it to us.

This survey has made me more aware of the importance of taking care of our wildland and wilderness areas.

Must protect the land from fires to protect the natural resources because they are the most important thing for supporting the population.

Need to be more specific.

My only concern is that the U.S. Forestry Service be working for California and not big business interests, and I am waiting to see how this manifests in the future; I think this is the source of my recent swing to mistrust.

Some of the questions need to be more specific; trash in wildlife places was not even brought up.

We need to understand how to take care of the wilderness areas and take a little better care of them.

I am an agronomist; for proper management of forest, it's necessary to clear underbrush and maintain health of forest by methods mentioned earlier; these are what I'd like to see done to maintain the health of forests and prevent fires.

Keep up the good work.

I think everyone needs to take care of the forest so our future generations can have the opportunity to visit these beautiful areas.

I appreciate that they preserve wildlife and wildlands.

Wilderness areas should not be developed so that services should charge money for people to look at it; that takes away where nature should be; public is overusing and destroying the forests; there's a limit to what the forest could take.

I feel they are being too restricted to the general public; it's our land and we should have access to it; overall, we try to manipulate mother nature quite a bit; more should be available; too much emphasis on keeping people out.

History has shown that controlled burns can get out of control: a good thing if done right.

Important to protect wildland and wilderness areas.

I've spent a lot of time in the mountains and I've noticed that people are not too destructive; I don't believe they should seal off the land to all the people; I think the Forest Service people are idiots.

The fire department and the Forest Service do a wonderful job out here; we had a forest fire about a month ago and they brought it under control in half an hour; they were there five minutes after it started.

Haven't used the facilities that much.

Forest Service is inept and inefficient, not enough funding or manpower to enforce rules; alternative methods should be used in addition to controlled burns; people only care about fires when it affects them personally; educate people.

Believe U.S. Forest Service allows too much logging.

Not fond of multiple choice questions: sometimes misleading.

Fire Department does a fantastic job and I applaud them for their effort; without them my house would be gone.

Prescribed fires are a valuable tool; should be carefully done.

Forests should be open for free without fees; fees should be eliminated; more trash cans.

Tahoe National Forest: needs cleaning out because of dead wood on trails.

I hope it helps so people can continue to enjoy it in a safe manner.

Generally impressed with Forest Services and areas; I think the question about motor vehicles is not fair because motor vehicles should not be used but bikes and such should.

I enjoy the wilderness and visit quite often.

Keep the parks open to responsible parties; open for everyone to enjoy.

Very concerned about the management of the forests: too much politics involved in decisions and the Forest Service doesn't do a good job.

Controlled burns: excellent method for bringing back natural wildlife and deterring from fires at inopportune times.

I'm against the closing of national forests; the people in favor of closing the forests are closed-minded to other solutions, like education.

Really opposed to what lumber companies are doing and getting away with, present great threat to California heritage.

Some of those questions were very confusing because they were so similar.

I don't like it when the off-road vehicles tear up the mountainside; they leave scars on the terrain.

Survey is frustrating because of exceptions; human beings do not have any more rights to property than animals; fires are a natural part of process and need to burn out except when life is at stake; nature needs to choose when there are fire.

I'd like to see it improve, a little more focus on it.

Fire management needed; too much littering.

I really appreciate camping areas; also the low cost of camping.

I have deer hunted after forest fires and if anyone has seen the damage that was done, they would support stopping the fires as soon as they could.

At the beginning I thought there was excessive care in the forest but now I understand that it's necessary.

A lot of people build where they shouldn't build and it's just tough that fire gets their building; if fire takes place naturally from lightning area needs to be cleaned of brush but starting them on purpose isn't the best solution.

Seems like the U.S. Forest Service is doing a good job of managing fires.

Glamis area: they're trying to save some cactus in this area by making the area completely off-limits to off-road vehicles; I think they should meet us halfway because some areas they want to make off-limits don't even have that cactus.

Basically this survey calls for conjecture and the questions are not clearly defined; education is the best method to teach the public to prevent forest fires: I was an Eagle Scout, also scoutmaster for 11 years.

Forest Service considers "Safety First" its motto when fighting fires; after five years as a firefighter for the Forest Service on the front lines, I am impressed with the job they are doing.

Interesting survey however I was not interested in wildlands; I appreciate that we are doing it and it was a great experience for me.

I used to visit all of the parks to enjoy fishing.

I think that parking passes suck.

Respect the outdoors; leave it alone for the animals; people go and have no respect for the wildlife and their environment; areas should be fenced off and people should not be allowed to go in and disrupt the area.

There should be enough budget for educating the public about forest fire prevention, even on TV programs; if Department of Forestry would have such a program, including brochures about fire safety, everyone could enjoy the peace and beauty.

We should do everything we can to preserve wildland; being lost and too developed; support controlled burns.

***Appendix C-2: Open Ended Comments of Arizona Respondents***

**Question:** Is there anything you would like to tell us about this survey or your experiences on wildlands and wilderness areas?

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Am a great lover of wildlife; the people that are supposed to protect the wildlife need to be more open to suggestions.

Am very much in favor of protecting the environment.

Approve of tree thinning, beneficial to economy; controlled burns are good; survey needs to be more specific (where National Forest Service stands).

As radiation protection tech, endangered species foolish to Native American eyes; little understanding of environmental issues both sides; species loss is nature's way, nukes worse.

Ask environmental groups what to do with cooked spotted owls and if they are going to give them to the needy.

Assumes the goals of the agency are known; I don't have a clue what they are.

Back in 1985 I was involved in a shelter wood cut; clear cut areas for the purpose of preventing fires, coerced the Fire Service into cutting shelter wood areas to prevent camps.

Belong to Rocky Mountain Foundation, Arizona Wild Federation, Arizona Elk Society; these are not environmental organizations, they are conservation organizations.

Beneficial survey; we need to seriously apply what we know about controlled burns; because this was not done we just lost our cabin; teach awareness of arson, fire prevention.

Best way to stop fires is to prevent one.

Building too many homes up in the mountains and natural areas and the wildlife don't have anywhere to go; they need to stop development in those areas.

Citizens should keep areas clean, organized; more recycling.

Close to fire in Northeastern Arizona; know first-hand how devastating it could be; need some type of management within forest.

Closed some here but we didn't appreciate it and now they are reopening them; a lot of beautiful places to see in the U.S., especially the Oregon area.

Closing areas is a complex issue in our democracy.

Controlled burns help and should be conducted more often; environmentalists are wrong on this issue.

Current forest administration is not doing a good job on the management of forest lands.

Devastating fire this year in Arizona required evacuation of entire family; regulations limiting cooperation of authorities with local volunteers too rigid.

Difficult to maintain balance between people's usage of forests and what is best; we have to focus on natural environment rather than worrying about the usage.

Do a lot of fishing, hiking and camping; need more game wardens out, especially during hunting season; know a lot about fires; they do a pretty good job.

Do not know who to believe; these fires happen and you do not know who to believe about them.

Do not like Forest Service charging fees for recreational use of forests and don't go anymore as a result; wasteful that back east Forest Service spent \$1 million on outhouses.

Enjoyed interview.

Environmentalists control; thank God Bush is not Clinton.

Environmentalists have too much control and I believe we need to protect the wilderness areas; if we had control, then we wouldn't have had the fire.

Environmentalists should allow the Forest Service to manage the trees and lands and should keep their noses out of their business.

Feel the management of the forest is really poor.

Fees they are charging are excessive and discriminatory; motorcycles are charged but bikes are not but all use the same facilities; a lot of people cannot afford to buy passes.

Fire Service conducts controlled burns where I live and I am having hard times especially at night; believe that cutting and chipping are better.

Forest close to my home in Arizona was closed; it was reopened a few weeks ago; even though I go to the forests regularly I disagree with reopening; I think it is too soon.

Forest rangers should be more strict with people who do not follow the rules and give them large fines or more.

Forest Service did a terrific job on Rodeo-Chediski fires this year; everyone was just praying for the success of the firefighters; I support Bush position on clearing for fires.

Forest Service does a good job.

Forest Service does what they can, and I have faith that our views are similar in management; judging by your questions, our goals in resolution of fires is same.

Forest Service engineers built all the picnic areas too far from Roosevelt Lake; made a major mistake; ramps 2 miles from the water: bad planning; adjust dam level; need portapotties.

Forest Service has a responsibility to do what they do; we need more of a balance between them and the radical organizations out there trying to save all the trees.

Forest Service has come a long way since the director.

Forest Service has done things I agree with and disagree with; it cut bigger rather than smaller trees near my house and now animals don't have places to hide; reduce policies.

Forest Service is doing what they can; the only reason they don't do controlled burns is because people complain too much.

Forest Service is trying to do their job protecting the forests and I hope the conservative politics will help them in their efforts.

Forest Service needs to be more active as far as putting the methods into effect; special permits for campgrounds are needed.

Forest Services tried suppression, but fire is a necessary tool they need to use; you have to thin it out forests should be thinned; controlled burns should be conducted; Forest Service should get back to the old system; as a result of environmentalists, we lost many acres of forests.

Generally don't talk to anyone about surveys; it is very important to talk about the forest fires; people should start worrying about our state.

Get environmentalist out of forests so Forest Fire Department can do their jobs better.

Give more information before reading questions: more about chipping and controlled burns; most people don't know about those methods.

Glad that you are doing survey; controlling vegetation around people's property is something Arizona should look into.

Glad to participate; in the wildlands a lot; thanks.

Good questions on the survey.

Good survey.

Good survey; do helicopter/Forest Service support during fire season; ferry men and equipment, drop water, let fire jumpers rappel in for initial attack/recon; public is naïve.

Groups like Sierra Club do more damage by not allowing Forest Service to conduct controlled burns or clean the forests.

Happy about questions on survey; own cabin and would love to see something done about the National Forest.

Happy to see proactive approach taken; happy to participate in survey.

Has been a good experience in most categories except for those times when area is closed.

Hate to see how many are burning; poor services; more needs to be done; thin out the forest.

Hate to see the animals get caught in forest fires.

Have been very concerned about the forests, particularly old growth; I'm against logging of old-growth forests: they need to be preserved; this is a good survey.

Have had some good experiences in the wildlands in the past and I hate to see them ruined.

Hope everyone would take the forests more seriously.

I'm all for conservation; we have quite a fight going about here.

I'm fairly new to the West; fire policy is vitally important out here; Congress does not give it the importance it should in terms of appropriating funds.

I'm glad you are doing the survey.

I've been through Flagstaff in San Francisco Peaks; it was on fire when I was little; it was a concern; their vegetation is barely coming back.

I am a supporter of controlled burns; responsibilities and risks go with living in/near forests and wildlands; public must learn about and support processes keeping forests healthy.

I am a volunteer fireman and people are the dumbest things that God put on this earth.

I am in favor of controlled burns and closing areas off to campers during fire season, as our family loves to backpack in unspoiled wilderness and want to keep it that way.

I am very concerned about the problems with North and South America, there needs to be a resolution to the burning of the forests; the climate is changing as a result.

I believe the U.S. Forest Service's hands are tied by environmental legislation limiting selective logging and controlled burns.

I do not think the lumber industry needs to be part of decision-making and I do not agree with Bush's plans of allowing them to be part of it.

I don't feel well educated on what the Forest Service policies are; an educational or marketing campaign would be justified.

I don't think the fires that we had had anything to do with controlled fires; it always helps to improve.

I enjoy the wildland areas and hope we continue to preserve them; the Forest Service does a pretty good job.

I feel that this survey is important; I don't fight strong enough for my beliefs; blue-collar level people in the Forest Service are very caring people.

I have no idea what the purpose of the survey is.

I hope it helps to protect the land.

I hope that everyone takes responsibility to care for our National Forests.

I hope the Forest Service gets to continue to manage in Arizona and doesn't get driven out; I think they've done a very good job.

I hope the survey is for a good purpose.

I just think they need to do more controlled burns; be allowed to do their job with less aggravation.

I like nature and especially the Grand Canyon.

I really respect this survey and have no problem answering questions.

I think areas should be open as often as possible; there should be some restrictions on motorized use; I don't think people should take ownership: some things should be open.

I think it would be nice if we were warned of dangerous fires in our areas before evacuating us: more time is needed to pack up important belongings.

I took microbiology and I know a lot about the animals and I like it.

I want Smokey the Bear on TV every day like I had when I was a child: education is the key to be becoming responsible visitors to the forest.

I was close to a fire this season so I witnessed fire first hand.

I wish people were more aware of how effective just using common sense is in preventing fires.

I would like to be free to go where I want other than blazed trails.

I would like to have some of the survey words better defined, such as "manage"; the questions are indefinite.

I would vote for that man in a heartbeat: the man with the National Forest Service that managed Arizona fire.

Is anyone going to look at these survey answers and do what people want or should be done.

It's a difficult telephone survey; structure of the responses and how they corresponded to the number scale was somewhat confusing as to giving the response intended.

It's a good idea to be doing this survey so people can know more about the forest fires and what to do about them.

It's been a tough year.

It's been an abnormally dry summer.

It's been horrible the way people have been starting these fires.

It's interesting that you called back three times considering it's a randomly selected phone number.

It is great you are trying to do something and that something comes out of survey; important to preserve nature; humans encroaching in it too much.

Keep up the good work; we need to take care of our forests.

Keep wildlands wild; give Forest Service more control.

Last fire was a doozy; you can't always trust firefighters; puts a lot of Indian reservation people out of work.

Lawsuits by environmentalists halted controlled burns; huge fire damage could be reduced through thinning Forest Service has done elsewhere; Navajo land suffered due to litigation.

Let people log it.

Live close to Phoenix Mountain Reserve; witness people throwing cigarettes out of window; wonder if fines would be a good idea; reminders through the news about fire risks.

Main concern is threat to humans; need for wildlife habitat to be thinned, controlled-burned; it reduces threat to humans when well managed; not logging, but brush, burned naturally.

Major problems in environment are abundance of people; allow animals and plants more room.

Managers should be allowed to manage without lawsuits because politicians create their own laws. Measures need to be taken to ensure that forests are protected without hindering use of forest by public.

Most of the survey questions are very generic and don't make sense to me.

Most people who use these areas do not use common sense.

My grandson was a National Guardsman at Shallow Rodeo fire; daughter's trailer was caught in a dune fire in desert and they're very concerned about that.

My nephew is a firefighter in California.

Need to develop a plan to help the natural process of fires and have more controlled burns; too busy worrying about the expensive homes in the natural areas and forget what's important.

Need to have more staff members and, as a result, more control in camping areas or inside the forests to monitor people's actions and to prevent fire from spreading.

No problem with fires on wildland until people moved in; demand for wood and residential use has changed dramatically.

Not enough controlled burns; the Forest Service should allow them to be burned more; there should be cleaning of debris and dead grass near roads to prevent man-made fire.

Outdoors a lot; would like to keep it as much as can the way it is.

Own a home that was one of the first homes that the wildfires went through; the Forest Service should screen its employees and have better control.

PBS and books on preserving natural heritage tell how difficult it is to preserve; wish we would put preservation of nature first.

People are very careless: cigarettes; people, especially young people are trashing the environment such as highway; it's a shame.

People shouldn't be there who don't know what they are doing.

People take advantage of forests by not putting out their cigarettes.

Questions should be more defined and less vague.

Raised in Oregon in the forests; surprised questionnaire doesn't ask questions on cutting old growth which is one of crucial issues to fire management.

Recent fire in east Arizona could have been better controlled by the Fire Service if the government and environmentalists did not intrude: the fire would have been better contained.

Recent fires in Arizona are due to the mismanagement of the forest; hopefully a survey like this can make a difference in how the Forest Service does its job.

Reluctant questions; for example, Q13 approve of method and how effective it would be.

Satisfied with Forest Service; abide by the rules; wish more people would as well.

Should be bans on camping when danger of fire is high.

Some of the questions differ based on the year; attitudes change because of biased information from media; people's attitudes will also change because of water situation.

Some questions are not well written; fires are started by people.

Sounds like the survey is kind of dumb.

Survey is a little confusing.

Survey is fine; it is obvious that they need to update laws, as they don't apply to what is going on today; we should not blame environmentalists for the problems we have now.

Survey should include issues on developers; building is out of hand and they are allowed to do what they want: they should have more restrictions and tougher zoning laws.

Survey was too long.

Survey was very thorough; hard to make some of these answers into numerical answers.

Take into account the illegal aliens and drug smugglers in Arizona who travel in remote areas.

Thank God it hasn't burned Williams yet.

There are always ways to prevent fires; agree with Forest Service; they do a good job.

There needs to be more controlled burning in the southwestern states, in winter off-season; environmental and political groups or disapproval of EPA ties things up in court, blocking prescribed burns; I know because I'm Type II firefighter.

There were things I was not sure about and I felt like I had to mediate my answers.

They need to implement a forest management program; they have not done anything to forests where people are likely to be camping and hiking where there's high risk for fires.

They need to start thinning out the forest more.

They need to tone down \$50 words a little bit for simple folks on this survey; some terminology confusing.

They should not have stopped thinning the forest; we are paying for not thinning the forest now.

Think that Fire Service should also pay attention to the potential to make alcohol fuel by chipping/chips.

This survey is good because we have experienced up close what fire can do; thanks for gathering the information for fire prevention.

This survey is helpful.

This topic affects me a lot but what can one do if it is nature; we have to trust the Forestry Service.

Those who are blocking the Forestry Service from doing their job are doing an injustice to the rest of the public; Forestry Service still needs checks and balances.

To some extent the Forest Service is limited by lawsuits in their ability to make decisions, which complicates the issue.

Try to control everything.

Trying to do a good job to keep things nice but some people are trying to leave their trash around.

U.S. Forest Service needs to get busy and get things done; I think they are trying to do a good job; better avoid the influence of environmentalists.

U.S. Forestry Service needs to have more communication with public.

Underbrush should be cleaned up and taken away.

Very 'outdoorsy' person.

Very interesting but the survey should be just for people who are knowledgeable in the topic.

Very much against off-road vehicles in the forests.

Very stupid questionnaire; it leaves out what is important; the important thing is private owner of land is best steward of land; there are other ways to manage fires (i.e. cattle).

Was a chainsaw mechanic, member of a thinning crew, a faller, living right next to a National Forest; worked forest fires; seen it all firsthand.

Was close to a fire last year; luckily firefighters controlled it; it is important that people should care about fires in forest lands.

We as people have to take care of our environment and need to take care of our forests.

We had a cattle ranch in southeast Arizona and California; we worked very closely with the Forest Service and if not for the controlled burns, fires would have done a lot more damage.

We just need more rain.

We love to be there; we love nature.

We need to protect the trees: restrictions are good.

We travel around and we went to Yosemite and the park did not inform us of a fire; they did not inform us that we couldn't see anything and they were still charging people; we had a fire here and the response could have been quicker.

We used to own 12 acres back east and we never had too much trouble because we lived next to a reservoir; we kept the woods clear and we kept the undergrowth clear.

Wish they could find another way to prevent fires rather than trying to keep people away from our forest areas.

Wonderful that you are spending time to get this information; think that Fire Service is doing a wonderful job.

Would like to see environmentalists and Forest Service get together.

***Appendix C-3: Open Ended Comments of Colorado Respondents***

**Question:** Is there anything you would like to tell us about this survey or your experiences on wildlands and wilderness areas?

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A little heart for wilderness.

A lot of the questions are not yes or no questions; I don't think it is an accurate survey.

A lot of the true or false questions are unclear and can't be just answered as true or false.

All of these methods are good ideas and if they could all be done to help with all these fires we've been having.

Appreciate all wilderness areas; wish people were more considerate of nature; education is important; the Forest Service has to rebuild our confidence after this last fire.

Biggest need is to ban off-road vehicles and greatly improve the pollution.

Colorado is very beautiful and has a lot of forests and wildlands. I don't think there is any other place in the country I would rather live.

Congress should develop lands more obtainable to the public, such as less affluent and older citizens, instead of just a chosen few; congressmen opt for way too much land and usage.

Controlled burns: best thing for the forest.

Controlled fires should have been planned better; the weather should have been a factor in it.

Covers quite a bit; thought it was neat.

Don't know a lot about Forest Service policies, philosophies, or procedures; but with the fires we had, it seems they had wanted to do thinning, control burns, but it had been prevented. Why?

Don't use mountains for camping or other things.

Drought made our forests poor this year.

Environmentalists are partly to blame for the fires we've had this year because they're against controlled burns, logging and reduction of fuels.

Environmentalists interfered too much with Forest Service who used to thin by logging: now there are fires; allowed baiting and killing of black bears, which is now restricted; wildland is too over-settled.

Environmentalists prevent proper thinning and removal of underbrush, which would rid forest of deadwood fuels causing wildfire danger; save endangered Girl Scouts, not a few owls.

F.S. does a great job over here. They are not perfect but who is.

Federal government firefighter strategies are correct. Can't beat it

Feel bad for all the fires this year.

Feel sorry for F.S. because of the environmentalists' actions.

Fires are supposed to happen.

Fires over the summer came very close and air was very poor; prevent now rather than letting nature takes its course.

Forest fires are ugly; people need to be more informed.

Forest Service actions tend to support cutting big trees and logging companies don't want small trees; they seem to be caving in to logging companies; we need a balance.

Forest Service had let us know that they were going to charge fees to go into Grandlake, which is owned by no one; we were able to fight them on charging fees.

Forest Service is doing a fine job in Colorado; National Forests need to follow more state laws and have more control in cleaning up debris in their forests.

Forest Service is doing ample job; just have to keep a better eye on those employees who started fires in the past year; devastating, considering they're supposed to protect us.

Forest Service is not doing the best job.

Forest Service needs to let the public go in and thin the dead and decayed trees instead of having controlled burns to do the same job: at least the trees will be of good use.

Forest Service should ban further human development in our National Forests and on the fringes of our National Forests: including private residences, ski areas and trails.

Forest Service should clean out dead fallen trees or allow others to do so; fire at Steamboat Springs would not be as serious if there were not so many dead fallen trees there.

Forest Service should have better control of controlled burns in CO; they should also stand their ground when it comes to people wanting to move into the forest.

Forest Service should run fire outlooks.

Forest Service: no complaints about their actions.

Found the survey long and tedious; hopefully it will serve a good purpose; most people don't have this time.

Glad we are doing survey; recent fires have heightened awareness; we should be able to have planes that are designed for this particular use instead of WWII aircraft.

Good idea to clean up the forest and do forest management because it would help a lot to get rid of deadwood; suggestion of prisoners to clean up the forests.

Good luck on surveys; hopefully more men will talk to you.

Good questions.

Good survey; Colorado has had so many problems this summer with forest fires, that getting input from the residences will hopefully help in the future.

Good survey; I hope that the information given from the public will be useful to help prevent fires.

Government needs to remember who these lands belong to; there are too many restrictions and fees.

Had a serious fire this summer; I'm a fire management officer and know a lot about this.

Happy that wilderness is there; glad that people are interviewing.

Have known a lot of firefighters; this topic should be discussed more in schools: school children should be informed of the issues dealing with forests.

Hayman fire came within a half mile of my house; it was educational about wild fires but not fun; learned a lot.

Hayman fire was mishandled: politics colored money utilization; them honoring privateers' contracts delayed calling in military ASAP; not decontaminated before snow: ruined watershed and fishing.

Hope something good comes from your survey.

How is this survey going to help: very concerned.

I've enjoyed the forest; I live within thirty-five minutes from one and an hour and half from another; I enjoy the entire spectrum of the forests such as taking hikes with my children, grandchildren and my pet dog.

I've really enjoyed them; I've lived in the forest or near forests all my life and I have seen gross mismanagement of forests in the last 10 years.

I've seen benefits of wildland fires; some questions in survey are redundant; I've seen forests that are ill from poor lumber harvesting and source extraction.

I am opposed to the effort of environmentalists to modify forest management; they have too much noise in this matter.

I believe that Ralph Nader was hitting the nail on the head when he was talking about roads.

I care about the wildlife: it is beautiful.

I did a paper in college about speed limits: it is amazing how many fires are caused by excessive speed and how many animals are killed as well.

I didn't feel qualified to answer some of the questions since I don't live there.

I don't know enough about the subject.

I don't like the controlled burn idea because I don't like fires; I'm much more in favor of the thinning of brush and deadwood idea to prevent horrible fires; I'm 90 years old.

I don't see what it is going to accomplish, with what I know of the area; I know it has been a waste of my time.

I don't think this survey is going to do much good; it's a waste of time and money.

I enjoy the wildland and I am distressed about all the fires we have had this year; the Forest Service has done the best they can to control it.

I enjoy using public lands; hate for that to stop; have responsibility to participate and take care of those places; thanks to the Forest Service for doing their best with resources.

I enjoyed the survey.

I hate fires because it destroys nature and beauty; wish more people had more sense about forest fires.

I have very little experience.

I hope they get a good profile from this survey and make appropriate changes; Forest Service is in disarray.

I just feel that the forests are over-managed; bureaucracy and signs everywhere; forests must take their natural course and burn; they are going to burn anyway.

I live in an area called Black Forest and each residence has 5-acre plots; no controlled burns have been done and the forest is diseased, so I am for controlled burns.

I live in Black Forest and have major concern for fire; we need more controlled burns in all forest areas.

I live near one; National Forests should allow harvesting by civilians of deadwood for firewood; if supervised, this would thin it for free much better than logging now proposed.

I live very close to the forest areas and this has been a terrible summer with respect to forest fires; it is very scary because a few days ago we lost two pilots fighting with fires; I appreciate that they are doing this survey.

I really don't know that much about it.

I really enjoy them; I live near the wilderness areas; I just don't think the Forest Service is aggressive enough about keeping the undergrowth under control.

I should know more about the wildland and wilderness.

I think a lot of the questions are really biased because you have to pick an answer.

I think it is great that they are conducting a survey; there are hunters that really appreciate what the Forest Service is doing.

I think it should be forbidden for off-road vehicles to go into these areas unless it's for official business.

I think people should be more careful; carelessness creates all these fires; we have to pay more attention.

I think proper care and management of the forest in the past has suffered, and is due to lack of appropriated money; this may now change and I hope it changes, as consequence of recent fires.

I think questions are vague without qualifying statements to go with them.

I think some of the environmental groups are too extreme and should allow preventative measures like thinning; they should lighten up on their opposition; this just makes sense.

I think some of the questions need to be qualified; it would be more helpful if I knew what the values of the Forest Service were before I line them up with my values.

I think the Forest Service has done an excellent job this year dealing with all the forest fires.

I think the questions don't really cover it; successfully ignored logging of forests.

I think they are great here; it is the people who lose control; people smoke where they shouldn't in the forests.

I think they needed to organize their questions a little better; environmentalists have too much control over the forest.

I think they should let fire take its natural course.

I was on the alert list to evacuate; I'm very conscious about this issue because of where I live now.

I wish the Forest Service could do their job and the people back in Washington would allow them; it's all politics.

I wish they would allow fires in campground fire rings.

I worry greatly about the animals, the people who lost their homes, and the fire jumpers.

I would hope that they would have better screening of their employees and have more employees.

I would like to know why there are so many fires going on; there have been two or three in Colorado this year.

I would like to see Forest Service held more responsible for duties; see lots of them riding around saying they are surveying but I don't see them putting in a day's work for pay received.

If they want to clean up the forest, they should try thinning old growth; they should use it rather than burn it; it is a waste of a resource.

Important to preserve forests; U.S. Forest Service is trying to do the right things; there have been mistakes and problems yet the intentions are good.

In a dry season controlled burns are out of the question.

In the beginning some of the questions were hard to answer because I did not know Forest Service policy on fire suppression issues.

It's difficult to track down where fires are; people don't obey rules when you live near fire areas; it's very important to cut down ladder fuels to prevent fires; fires travel uphill.

It has been such an intense fire year; we have seen firsthand all of those techniques; I disapprove of the concern spent on residences and structures as opposed to forests.

It is difficult to manage forest fires; F.S. cannot be everywhere at the same time (logic behind my answer to Q11).

It is so dry here that I feel they should close many areas of the forest during this period.

It is very good to conduct these surveys; fire management techniques change in time and due to situations; F.S. should continue to improve the methods as well.

It seems that there were quite a few questions that were repetitive.

It seems to be a very interesting survey.

Just wish more people would pay attention to the restrictions; the signs here in CO people ignore; also people throw cigarettes out of vehicles, which is hazardous.

Keep them and make sure they stay.

Lately there has been fires and fortunately they controlled all of them; they do the impossible and always manage to turn off all the fires.

Let loggers or the public go into forests that have huge amounts of trees lying on the forest floor decaying: this would mean less fuel in case of a fire.

Let more people cut dead wood to decrease forest fires; spray the beetles that have overrun the forest in some places.

Like the forest, reminds me of my country; mountains and forests are precious; like walking through the forest; appreciate the survey.

Like what they are doing: better than controlled burns.

Management of forest lands by Forest Service: in conflict with, and constrained by, congressional mandate and legislation.

More detailed questions: options should include current, immediate, and future conditions after a fire on true or false questions.

Most surveys, including this one, are poorly written and are designed to get a certain response: I think that the Forest Service is doing a lousy job.

Need to allow logging again; needs to be a method of stopping environmental lawsuits; disagree with those road closures.

New legislation favoring commercial logging threatens old growth which makes the forest prone to fire not for banning existing roads.

Noticed that you were focusing on forest fires; thought it was difficult to answer questions.

Only lived in CO for one year: not familiar with the situation here, but I tried my best; big fire risk of living here; survey was good for people in this environment.

Oppose imposition of monies inflicted by Clinton; they are land grab; see money from CARRA and billions used to force ranchers off property and Forest Service cooperating.

Out-of-state people building in mountains do not understand dangers of living in mountains; keep foreigners out of Colorado.

Overly conservative organizations have inappropriate amount of influence on government policies; these groups are able to shut down citizen access to National Forests.

(Interviewer's name) was very nice.

People need to be more aware of forest fire safety.

People with homes in wildland/wilderness areas need to keep surrounding area clear of fuel; hate to see them lose homes but if they can touch pine trees what can they expect.

Per current news: logging mature trees in wilderness areas to halt fires is not a method I would approve of; should conserve our resources; to an extent I question Bush's policies' wisdom.

Political arena is playing too many games which we have to live with; they are understaffed; not able to take out fallen, decayed and dead trees.

Problem is the environmentalists and the government.

Protect what we have; enhance the support of the programs; admiration for the Forest Service workers, smoke jumpers and nature.

Public is undereducated; they prevent the Forest Service from doing what needs to be done, such as selective logging and controlled burns: all due to inflammatory politics and media coverage.

Question about off-road vehicles is ambiguous: what is an off-road vehicle, is it a bike, is it motorized?

Questions are really redundant, but in general a good survey; it will hopefully help the Forest Service develop a better program.

Questions are too long and confusing: they need to be shorter.

Questions should be designed to get valid answers; there are no anchors between 1 and 8 with detailed explanation; what does race have to do with forest fires?

Raising entry fees to forests: good maintenance funds needed; not in favor of building more roads into forests; more fires if global warming and public ignorance prevail; control burn more.

Recent fires: managed very poorly; military offered to help extinguish fires: Forest Service would not let them help because they had a contract to fill.

Results?

Should be more information regarding fires, etc.

Since I've lived in Colorado there's been a lot of fires.

Some major fires were started by Forest Service personnel or firefighters: really upsetting to us; the earth heals itself amazingly; why not use war money to restore rather than fight.

Some of the questions are not worded correctly; are not realistic questions.

Survey good; leaves a lot of questions open concerning people; people will do what they want, and signs and warnings help but people either care or they don't; leaves a lot of open areas in questions.

Survey had good questions; I enjoyed it.

Survey has too many questions.

Survey is a worthwhile thing to do.

Survey is good but need forest fire expertise to answer well; we need more public education; much stiffer penalties for arson; sad grandkids will never see forests I've lost in 2002.

Survey is too long.

Survey is vague.

Survey lacked questions regarding water resources.

Survey sounds fairly complete; questions seem valid.

Survey was good; I got more information about the U.S. Forest Service.

Survey: easier if could read.

Survey: might not be representative; knowledge of wildland limited in Colorado.

There's a lot of fires around here and fires are very dangerous; smoke is all around and my son has asthma and is affected by this very much.

There should be more maintenance; the parks are too dirty.

They are awfully important to people; need more trails; need more volunteer help: make it known when help is needed.

They came awfully close to where we usually camp for the summer; I think the U.S. Forest Service is doing a good job.

They need to be preserved; concerned with fires in Colorado and the potential for fires in Colorado; scenery has changed drastically.

Think George Bush went a little too far with his newest proposal of how to thin forests.

Thinning is the most effective way to prevent forest fires.

This has become too political: government needs to step back and let the rangers do what they have to do to help our wildlands; should clear underbrush manually.

This is an interesting survey.

Too many environmental groups; they meddle too much; Forest Service knows what's best in terms of forest maintenance; federal government shouldn't listen to environmental groups.

Too many people in National Parks; they should be better managed.

Too much politics involved.

Too much suppression, fire is a natural element.

U.S. Forest Service provides valuable service.

U.S. Forest Service should thin out forest; take out all excess vegetation; maintenance is key.

Use wisdom in fire prevention, like logging in patches and division by restricted access roads as means to safely maintain old growth.

We've got to take a more active role in fire prevention and suppression and not let the radical environmentalist's concerns stop the process.

We enjoy being able to access the areas and hope people will be responsible and take care of it as we do. We have to educate the average person about fire danger.

We have two fires burning within 30 miles of us.

We live in the middle of a wildland and we were just recently in the Iron Mountain fire.

We live on a wildland area so we are very aware; I think the Forest Service has done their best; I don't think we should fight every fire; the survey is hard to answer.

We need to protect our wildlands because we do not have enough wildlands for the bigger population.

We really enjoy going to National Forests; wish people would be more understanding when fire ban is in effect; hope there is enough money for Forest Service to do what they are doing.

We spent a lot of time in wildlands; during the summer season, unfortunately we cannot enjoy them as a result of the fires.

Well worth the time and I hope the effort works.

Whatever the Forest Service needs to do, I support that.

Wilderness area and wildland: have made a very positive experience.

Wonderful that somebody had the foresight to set aside those places; with every privilege comes responsibility; citizens of U.S. have been blessed and we need to take care of it.

Worry how fire is managed, live in forested area; lean toward thinning rather than burns; safety an issue: best if nothing can get out of control; what are forestry values, goals?

Would approve of thinning the forest; more cooperation between local fire districts and the Forest Service; more supervision and enforcement of rules and regulations.

You don't see too many of them out there (Forest Service); it is all about the money and control.

You people are very nice and I appreciate you asking me first.

Your survey seems to be more geared toward ideas and policy as opposed to methods; that is most of my "beef" with the Forest Service.

***Appendix C-4: Open Ended Comments of New Mexico Respondents***

**Question:** Is there anything you would like to tell us about this survey or your experiences on wildlands and wilderness areas?

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A lot of the forest lands have been up for cattle permit and that's a proven way to control fire because the cattle can control the vegetation; ranchers do a lot to prevent fires.

Always enjoyed nature and the wilderness and I think it is great that we are doing something to protect these things; be thoughtful of the people also.

Am extremely in objection with the things environmentalists do.

Appreciate survey; it would benefit the public.

As forester, I see F.S. management hindered by political constraints for 15-20 years; management should mimic nature by selective harvesting; but protect or the stewardship mismanaged for long-term.

Believe U.S. Forest Service has done an effective job in managing fires in New Mexico.

Bigger fires we have here is because of controlled fires and the Forest Service should plan more carefully.

By grazing it reduces the cost for taxpayers; also by grazing there is no need to have controlled burns.

Can see your objective to a certain extent; not sure if this is the way to go about it: these decisions should be common sense; no controlled burns; cut and haul out dead wood/fuel.

Chipping is a good idea; important that Forest Service gets larger; must get quick strike aerials; government must give more money; some of what the eco-folks say is right.

Citizens are responsible for conserving the National Forest.

Citizens need to preserve nature because it brings us health and life.

Common sense for builders and forest keepers; for instance people should keep their area clean.

Consideration should be given for our wildlands; people need to be more aware of their environment and protect it rather than destroy or take advantage of it.

Control burns and cut trees to prevent fires.

Controlled burning is a good way, but sometimes it'll be out of control; mechanical means is far too expensive though highly effective; results of the survey: very concerned.

Controlled burns are good if they are absolutely controlled; forest personnel should be trained better so they won't start fires themselves.

Controlled burns ok, but not if windy conditions blow it out of control, as in the recent Los Alamos fire; in general, I do trust the Forest Service, but question individual judgment calls.

Controlled burns work when moisture on ground, not in summer: fires get out of control; over-grazing is robbing vegetation; let forest residents use forest products/fish at discount.

Controlled fires that get out of control should be a learning experience; lack of communication of Forest Service within itself.

Do not agree with the plan that President Bush came up with; believe that there are better ways than a clear-cut method.

Do not think they should close the forests; place more warning signs especially in high fire danger zones.

Don't approve of people moving into the wilderness areas and when they do move there, bears, cougars, etc., come into their areas and cause trouble as they have no where to go.

Dry spell last summer caused bears to come into residential areas and a few people were killed.

Enjoy the wilderness and nature; people need to be more careful about fires.

Enjoy the wilderness areas; they should be protected, but forest grounds deny access to vehicle traffic where there are already existing roads.

Enjoy wildlife; hate people that hunt for sport.

Environmentalists are way off base; fire is a natural event, the way nature cleanses and replenishes itself; we've been stopping it and now we're paying the price.

Environmentalists need to keep their nose out of where it doesn't belong; can't control Mother Nature.

Everything is good.

Expect fires in the woods when you build a house there.

Feel sorry for inhabitants affected by fires; put more emphasis in saving the humans; manpower for population; use common sense; don't risk firefighter's lives for trees.

Fire people are doing a good job; I don't agree with controlled burns because they turn into larger fires.

Fires are a big concern in our community; I've been fighting fires myself; access to forest is very important too, but must do it in a safe manner.

Fires caused by part-time employees or government employees have caused half the fires in the state.

Fires affect a lot of people with breathing difficulties.

Forest fires kill many animals; fires drive animals out of their areas and animals go into people's backyards and people protect their lives or livestock.

Forest Service definitely needs to be alert for this fire season; humans make mistakes.

Forest Service should do a background check on employees to see who they're dealing with, including firefighters.

Forest Service should give more information to citizens regarding fires.

Get rid of the tree-huggers and environmentalists and we'll be fine; Apache Reservation has logging and they have no major fires.

Give an approximate amount of time it takes; I don't know what survey is for; surveys like this are a waste of time; should have to do with public's good; if they do their job people won't be unhappy.

Glad that someone is asking questions about the forest and fires: taking the time to find out.

Glad you made the survey.

Good survey; enjoyed it.

Good survey; you covered important issues that people should be aware of.

Government needs to get along with the environmentalists because it concerns all of us.

Grade the roads to get up here in the forests; areas need to be patrolled more: hardly ever see anyone patrolling.

Great interview; hope the Forest Service can really help to protect the forests.

High wilderness trails poorly maintained.

Hope it helps our environment.

Hopefully this survey will do some good and will have a positive effect on the management; we need more resources out there to avoid what has been going on with all the fires.

I'm proud of Forest Service, I salute and applaud them; there was a bad fire in Chollo, Arizona that had 4,000 fire fighters; they know what they're doing.

I'm working with some departments of the Forest Service; they seem to be doing a good job managing forest lands.

I've only lived in New Mexico 3 years and I'm 83; don't know as much as I should about forest fires here but love taking drives to see wilderness; Los Alamos fire was devastating!

I agree with the thinning process that President Bush has advocated.

I am concerned about the Corrales Bosque in New Mexico because it gets dry in fire-risk seasons and they close it; brush accumulates because of bad river management.

I am glad that the Forest Service is asking for public opinion.

I am more aware of forest fires and have learned how to protect my home since I live nearby a national forest.

I am very glad I did this survey.

I appreciate you guys doing this survey and calling me back until you got a hold of me.

I don't go to the wilderness areas.

I don't know about forests, I just live in town; I just go to the reservation.

I don't know anything about that stuff; I live in town; I don't go anywhere: I don't drive.

I don't think the survey is very clear.

I enjoy outdoor recreation.

I have had good experiences on wildland and wilderness areas.

I hope the Forest Service is concerned also with noxious weeds; they seem to be doing nothing.

I hope the Forest Service keeps taking care of the forests like they are doing; smoking in the forests and tossing cigarettes from cars should be prohibited.

I hope the survey is put to good use.

I just love the animal kingdom; I wish that I can help the animals by feeding them so they won't come down to people's residences and get killed by them.

I know I need to know more and should raise my awareness and consciousness of fires and wilderness conservation by maybe joining a group; feel public is too ignorant on this topic!

I know they probably could have done better with Los Alamos; the environmentalists caused a major fire; it got really overgrown; it burned a great portion of Los Alamos.

I like preservation of these lands; preservation of animals is important; forests are nice to look at.

I like the study; I think it's important.

I live inside a national forest and I was a firefighter for ten years.

I manage a group that deals with fire suppression; I work for an environmental company.

I really appreciate participating in the study and also for the Forest Service for doing the study.

I think it is a difficult thing to ask people these questions especially if they are not aware of them; U.S. Forest Service is doing a fabulous job.

I think our beautiful country needs to be preserved in any way possible and not built on: save from fires and overbuilding; preserve the water resources; stop issuing so many building permits.

I think some of the questions are skewed towards tester's view.

I think that going back to lumbering would be helpful.

I think the Forest Service is being endured in their mission, but they are having trouble to keep on doing their jobs because of extreme environmental groups, like Forest Guardians.

I think the survey is neat and I'm glad you're doing it.

I think the surveys are valuable for the Forest Service because attention is needed in this area.

I think this is a good survey as far as letting people know what Forest Service does with controlled burns.

I thought this was very well done and I'm interested in the results or talking to whoever designed the questions; thanks for asking me!

I very much appreciate the serenity and beauty of the National Forest and development of park areas; I hope this survey provides information for Forest Service to enable protection.

I was evacuated from the Sierra Grande, but I didn't suffer any personal losses; involved in on-going studies of the Sierra Grande fires; I'm a little more involved than others.  
I worked for the Forest Service for 33 years; I just retired five years ago; I don't know if this will help.

If environmentalists would let the Forest Service do their jobs, clean out and thin out the forests, they wouldn't have the fires that they have.

If people are careful they won't damage the trees.

If they would allow the forests to be logged out or harvest the trees, then there wouldn't be large fires.

If you're going to do research you need to talk to people who live in the areas of the Forest Service, otherwise you're not getting an informed opinion.

In 1995 we had a big fire in N.M., I helped the Red Cross by sheltering people.

In favor of logging and lumbering the forests; national forests should be open to cutting dead and fallen trees.

Individuals in the U.S. Forest Service act beyond their responsibilities and do not understand the country as people do; I have to leave the U.S. because of poor air quality.

It's a good thing you're quite interested in finding out people's opinions on this topic.

It's a pleasure to talk to you.

It's been very helpful, as a survey, to get some of our public opinion recorded and let us know the Forest Service wants us to know what they are thinking of doing.

It's good that we're testing the public's knowledge; it would be good if individuals would make sure their land is clear to prevent fires.

It's odd to call New Mexico because the Forest Service was responsible for the fires that are burning here now.

It is a complicated issue; priorities should be to defend the urban-wildlife interface at the expense of letting the fires burn naturally.

It is an interesting study.

Just wondering why you're doing the survey.

Lil Grande Fire ruined the Piña tree and all these trees are dying and the fire never even touched them; Forest Service conducted these fires.

Live in pasture land and fear grass fires.

Lived in woods in Oklahoma; hopefully we will keep everything beautiful and no one will burn it; let it be.

Living on 5-acre land and always worry about fires, though I love it here; I have some berries in my garden and I don't think anybody should remove them.

Loggers need to go in and clean out the forest to reduce the risk of forest fires.

Love going to mountains; going this year to see Aspen, get fresh air and look at beauty of mountains; in past gone fishing, hunting, trapping, shooting birds.

Love walking in the forest.

Major fires in New Mexico: most caused by man/carelessness; saw museum in Yellowstone; learned about fire: part of nature.

Marvelous survey; leave the Service alone: too much politics.

More firefighters and more training on Indian reservations.

More intelligence needs to be used for controlled burns: don't burn when the wind is blowing 50 miles an hour.

My wife grew up in Los Alamos: had a big impact.

National forests are beautiful and it is sad to see how fires disrupt the vegetation and animal life.

National parks' restrooms are very filthy.

Need to clean up Ruidoso: dead trees and brush; it burns every year.

Need to stop logging so much.

New Mexico is beautiful and I sure hate to see the destruction that is caused by fires.

No cutting down trees.

Not a bad survey: questions make one feel less knowledgeable than first thought; "management" questions depend too much on the intelligence of people using the method and camping in wildlands.

Only reason that I do not approve of controlled burns is that sometimes wind causes a lot of trouble.

People have to try harder to prevent forest fires.

People should be required to obtain a permit before cutting out trees in the forest.

People usually don't pay attention to the restrictions on wildlands and wilderness areas.

Person that made these questions has no idea of what it means to live in the forest; deal with the forest fires in CA; forest fires begin with the forest firefighters.

Q8 and Q9 are too vague.

Questions are fairly complex.

Questions are one way or another; don't allow middle answers.

Really bad fires this year and last.

Relatively objective survey.

Seen many different types of fires and scared with people moving there from the cities; people need to see that fires are a reality; real good survey to show people.

Should ban fireworks, because it adds more danger.

Some questions are cut and dry; Colorado firefighters have made bad decisions in past but it could be the methods that they have used.

Start thinking about people over wildlife when people's homes and lives are in jeopardy; need to thin vegetation before doing controlled burns or it will get out of control.

Support controlled burns but F.S. cannot conduct them effectively; natural burns should be allowed to be burned; take proactive approach for protecting private property.

Survey is a good idea.

Survey is biased: slanted toward the environmental side.

Survey is not complete.

Survey leaves things for questioning.

Survey was different for me, as I have never been asked these questions before.

Survey was very informative; fires are mainly man-made because of careless actions.

Take better care of our land; people need to be more cautious, but I don't know what more can be done when they don't obey the rules that are already in place.

Telephone surveys are biased; interviewers should visit areas adjacent to the forests and take photographs and talk to locals close by in order to learn about fire prevention.

The forests should be cleaned out a little: we must get rid of the dead trees.

The last set of questions had virtually only one answer to them; for example, "on trails and roads after a fire" (Q20, item 7), could only be answered one way.

The overall policy in establishing land use is not in tune with the people who have to live in these areas.

There should be control on woodcutting along with controlled fires, to provide improved habitats for species and also improve revenues for the Forest Service.

There should be more control on fires in N.M.

These issues are really important to us here, something has to be done; the problem with how to manage the land has built up so that now we're having all these fires and it's too late.

They let ranchers on public lands; I believe in the Forest Service; I think they are doing a good job.

They need to do brush thinning, but I don't go along with President Bush on thinning if they want to do clear-cutting; from Mississippi originally: we do need to save the forests.

They should have more open grazing for cattle; make it easier for people to get the dead woods.

They should treat wilderness as wilderness: leave it alone, don't put out fires in wilderness areas; it needs to stay wild and nature knows best; wilderness can't be "managed".

Think environmental people cause more problems than before.

Think the survey is good but it takes too long.

This is a great survey; extreme environmentalists are ruining this country; their ideas are making things worse rather than helping the forests in New Mexico.

This survey does not seem to be biased and it is very straightforward.

Too many people moving into backcountry creates problem with fire management, not the wildfires themselves.

Too much building close to or in forest; fires should be allowed to just burn.

Totally agree with controlled burns: nature will burn it if we don't; overgrown underbrush burns hotter and low to the ground; we're stewards of the land, need balanced approach.

U.S. Forest Service is doing a good job.

U.S. Forest Service tries to control how we use forests and they do a good job but they're trying to do so without a Pentagon budget and they should receive more money.

Very informative, considering my occupation depends on the continued health and renewal of woodland/timberland resources; I am proud to be asked and be part of the study!

Very nice interviewer, enjoys nature.

Way too much involvement by environmentalists: they prohibit methods that could prevent destruction of the land they are trying to protect in the first place.

We could do a better job on controlled burns (New Mexico is very windy); use more sense and remember Los Alamos; thinning is worth a try; we should manage our forests as well as Germany.

We have to control it because there are more people around now than there was a long time ago; there are houses everywhere; we are killing the forests not the fires.

We have to take precautions as individuals when out in wildland and wilderness areas so that we don't cause accidents and ruin what we have left.

We lost our house in the Sierra Grande fire: we are pretty knowledgeable now.

We must preserve the National Forest: stop allowing building in wilderness; treat wildlife tick infestation; get waterholes constructed; stop "political" logging: mudslides follow fires!

We need a good harvest system for the timber that is already there; wilderness areas are neat in several ways but restrictions are way too strict; utilize recreational areas.

We need more controlled burns; we need a healthy forest.

We never go camping or anything.

We own property and are clearing land right now; we are helping out.

We want the Forest Service to be more concerned about timber preservation, not profit; no clear-cutting or old-growth cutting; control burns and employees better (grieving Los Alamos!).

We went up to the mountains the past two weekends and there were fire restrictions; we didn't have fires when we camped and obeyed the rules.

When congress passes laws that allow the Forest Service to use its best land management practices and expertise we'll be a lot better off.

When it's very dry in summer they seal off the hiking paths on trails.

Where I live is very vulnerable to fires; people have taken measures the survey mentioned; it's worked, due to positive view, although costly; great assistance from F.S.: grants save 70% of the cost.

Wilderness is good for the animals; when young I used to go with my family deer hunting, and I'd like to see this way of life be preserved and not lost to future generations.

Wildland and wilderness areas should be improved.

Wild lands are very valuable; we need to take steps to keep them growing and alive and vibrant.

Wish environmentalists would back off and let them do their job.

Wish Forest Service would cooperate with local agencies and use them.

Wish the Forest Service would listen to the people; hard for people to get firewood; we have to buy firewood permits, not easy for working person to get; could we mail them in.

Work with different Forest Services; sometimes services change policies.

Wrote my MA on forest management; control burns and thinning do stop huge fires; more staff to monitor restricted areas; more selective lumbering allows more spacing: healthier trees equals dead fuel.

You can't get valid answers to general and generic questions; they can't be answered intelligently and without any specifications.

You handled the Yellowstone fire rather badly.