Greater-Flagstaff Omnibus Survey Spring 2006

Greater Flagstaff Forests Partnership (GFFP)

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I. Methodology

Greater Flagstaff Forests Partnership (GFFP) added a series of questions to the annual *Flagstaff Omnibus Survey* conducted by the Social Research Laboratory at Northern Arizona University between April 7th and 10th, 2006. The survey was conducted with 606 randomly-selected residents of the Flagstaff area. A screening question in the beginning of the survey asks whether they consider Flagstaff to be their primary residence. Calling took place Friday to Monday, with morning, afternoon and evening shifts in operation. This allows for the greatest number of residents to participate.

A random-digit dialing (RDD) sampling technique was used to generate a representative sample of households in the Flagstaff area. RDD produces a more representative sample of the population than most other sampling methods because all households with working telephones have an equal chance of being contacted. Listed as well as unlisted residential households have similar probabilities of being included in the RDD study.

The survey was conducted using Computer Assisted Telephone Interviewing (CATI) technology. CATI is a system in which computers are employed to increase the accuracy, flexibility, and efficiency of telephone surveys. The computer system maintains a database of phone numbers, engages the sampling process, schedules call-backs, and records the disposition, or the final outcome, of each call. The computer also contains a copy of the survey and is programmed to automatically include or omit questions as part of a skip pattern to contingency questions. Interviewers are trained on interviewing protocol and use of the CATI system prior to fielding of the survey. Interviewers view the questions on the computer screen in a programmed sequence and record respondents' answers with the use of a mouse and keyboard. Data entry and human error is decreased using this system.

The "sampling error" associated with a 606-person sample drawn from a population of more than 10,000 people is +/- 3.96 percent at a 95 percent confidence level. "Sampling error" is a social science term that describes the probable difference between interviewing everyone in a given population and interviewing a sample drawn from that population. The percentages obtained in telephone surveys such as these are estimates of what the percentage would be if the entire population had been surveyed.

Thus, if 50 percent of those in the sample are found to agree with a particular statement, the actual percentage of agreement in the population from which the sample is drawn would be between 46.04 percent and 53.96 percent (50% +/- 3.96%). The 95 percent confidence level means that this +/- 3.96 percent margin of error would occur in 95 out of 100 samples of this size drawn from the Flagstaff area. Sampling error increases as the sample size is reduced. This must be kept in mind when comparing the responses of different groups within the sample (e.g., men versus women). Smaller numbers of respondents on any question translate into higher margins of error.

Information in this report is presented in both a tabular format and with bar graphs. The total number of respondents (N) identified in each table may vary slightly due to

consideration of some "refused" responses as missing information to allow for easier comparison of valid responses. At times, total percentage of responses may not total 100 percent, due to rounding. For question three, total N is lower (N=545) as this question is a contingency question that was asked of respondents that answered "very supportive" or "somewhat supportive" in the proceeding question (question two). Statistical weighting by gender was performed on the dataset as a standard procedure to correct for differential likelihood of survey participation.

II. Question Module and Responses

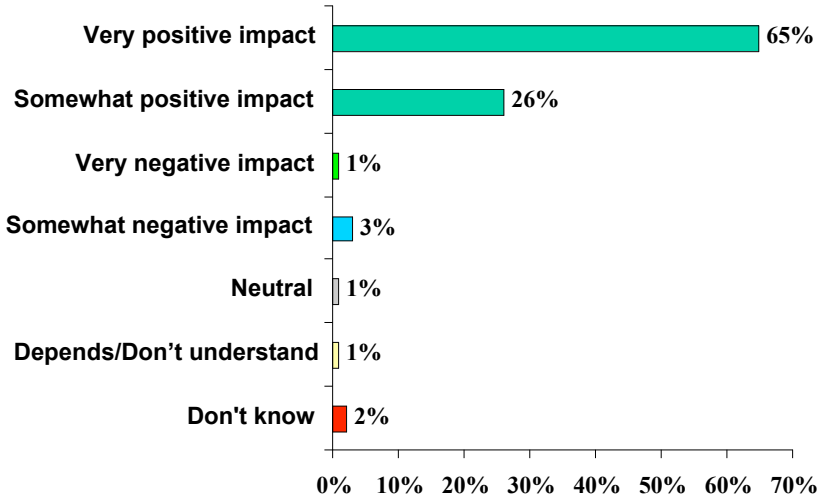
Actual questions that were asked and the corresponding responses from the Spring 2006 *Flagstaff Omnibus Survey* are detailed in the tables and graphs on the following pages. On the last page, crosstablulations with a break down across six demographic variables are presented as a banner table that includes gender, age, income, education, race and number of years living in Flagstaff.

Question 1

Flagstaff residents were asked if they think forest management projects have a positive or negative impact on forest health:

"Now I'd like to ask you some questions about forests in the Flagstaff area. As you may know, many forest management projects are occurring in the Flagstaff area. These projects include thinning of trees, prescribed burns, forest restoration, and fuel reduction. Overall, do you think these actions have a positive impact or a negative impact on the health of the forests?"

Figure 1. Do forest management projects have a positive or negative impact on the health of forests?



An overwhelming majority of respondents (91%) believe that forest management projects have a positive impact on the health of the forests (See Figure 1 and Table 1). While a very small portion of Flagstaff residents (4%) believe these projects negatively impact forests' health. One percent of the respondents selected a neutral response to the question.

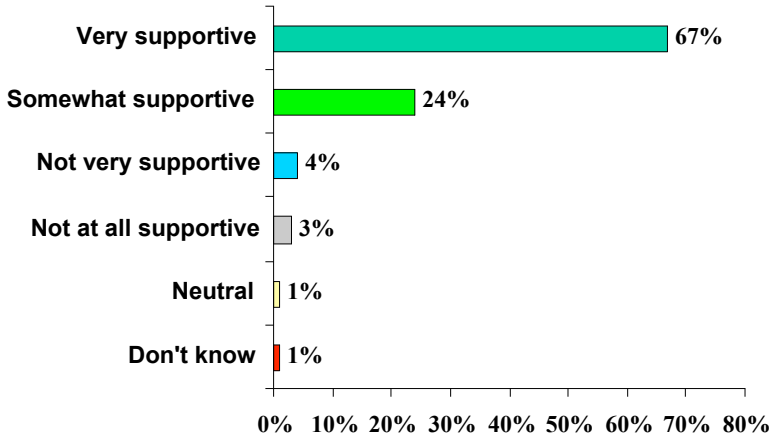
Table 1	**N**	**%**
Very positive impact	395	65%
Somewhat positive impact	159	26%
Very negative impact	8	1%
Somewhat negative impact	18	3%
Neutral -- neither positive nor negative	6	1%
Depends/Don't understand	5	1%
Don't know	13	2%
Total	**604**	**99%**

Question 2

A second question asked respondents about their support for prescribed burning in the Flagstaff area:

"Many agencies and organizations are using prescribed burns to lower the risk of catastrophic wildfires in the Flagstaff area. At times, smoke from these fires is noticeable around Flagstaff. Knowing that smoke is produced from prescribed burning, how supportive are you of agencies conducting prescribed burns in the Flagstaff area? Are you very supportive, somewhat supportive, not very supportive, or not at all supportive of these prescribed burns?"

Figure 2. Do you support agencies conducting prescribed burns in the Flagstaff area?



An overwhelming majority of Flagstaff residents (91%) also said they are either "very supportive" (67%) or "somewhat supportive" (24%) of prescribed burns in the Flagstaff area (See Figure 2 and Table 2). Only a small percentage of residents (7%) are not supportive of prescribed burning in the Flagstaff area.

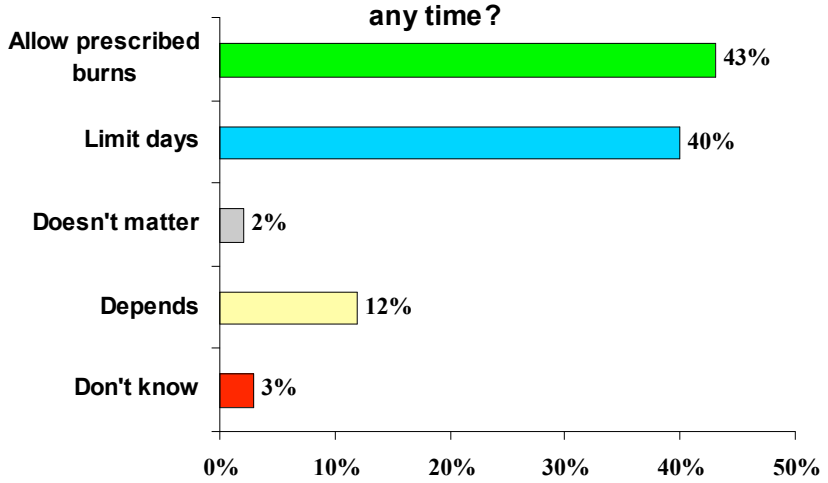
Table 2	**N**	**%**
Very supportive	405	67%
Somewhat supportive	142	24%
Not very supportive	24	4%
Not at all supportive	19	3%
Neutral -- neither supportive nor unsupportive	8	1%
Do not understand the issue	1	--
Don't know	6	1%
Total	**605**	**100%**

Question 3

The next question was asked only of respondents who had indicated their support ("very supportive" or "somewhat supportive") for prescribed burning in question two:

"As you may know, prescribed burns help restore forest health and protect our community from wildfires. Within a prescribed burning season that typically occurs in the spring and fall, do you think forest managers should be allowed to conduct prescribed burns at any time, or should the number of days when burning takes place be limited?"

Figure 3. Do you think forest managers should be allowed to conduct prescribed burns at any time?



Forty-three percent of people who support prescribed burns believe that the burns should be allowed at any time, while almost the same amount of respondents (40%) think that the number of days on which prescribed burns take place should be limited (See Figure 3 and Table 3). Twelve percent think that this depends on the risk of wildfire at the time.

Table 3	**N**	**%**
Allow prescribed burns at any time	234	43%
Limit number of days	220	40%
Don't think it matters	9	2%
Depends on the risk of wildfire at the time	65	12%
Don't know	17	3%
Total	**545**	**100%**

Question 4

The final survey question asked Flagstaff area residents to assess the overall effectiveness of forest management activities in reducing the risk of catastrophic wildfire in the area:

"In thinking about forest management activities that have occurred in the Flagstaff area, how effective have these been in reducing the risk of catastrophic wildfire in the area?"

A majority of respondents (81%) believe that forest management activities have been effective *in reducing the risk of catastrophic wildfire* around Flagstaff, while only six percent think that they have not been effective (See Figure 4 and Table 4). Nine percent said "don't know" and three percent were either neutral (1%) or they did not understand the issue (2%).

Figure 4. How effective are management activities in reducing risk of catastrophic fire in the area?

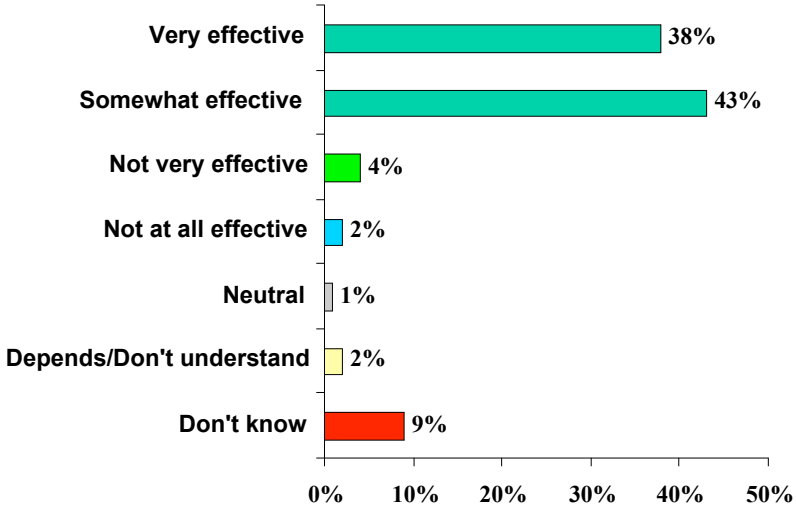


Table 4	N	%
Very effective	231	38%
Somewhat effective	261	43%
Not very effective	22	4%
Not at all effective	10	2%
Neutral -- neither effective nor ineffective	6	1%
Depends on the location of the forest(s)	2	--
Do not understand the issue	15	2%
Don't know	54	9%
Total	**601**	**99%**

Summary

In summarizing the responses to the questions, it is evident that the residents in the City of Flagstaff support forest management projects and activities by stating: 1) Flagstaff residents believe that forest management projects have a positive impact on the health of the forests (91%); 2) residents are supportive of prescribed burning in the area (91%) and; 3) Flagstaff citizens believe that forest management activities are reducing the risk of catastrophic wildfire (81%). The question that showed a noticeable discrepancy within the response categories (question 3), asked respondents if they thought prescribed

burning should be allowed at any time or, if the number of days should be limited. Respondents split the responses with 43% stating that burning should be allowed any time and 40% responding that the number of days should be limited.

The banner table on page 10 breaks down responses to these questions by various demographic characteristics. As this is assessed, when comparing the responses of different groups within the sample (e.g., men versus women), the sampling error increases as the sample size is reduced.

Banner Table Summary

Noticeable differences among groups are summarized below:

Question I:
Do forest management projects have a positive or negative impact on forest health?

- Income: As income increases, respondents offering "very positive" increases (under $50K **58%**, $50-75K **67%**, Over $75K **75%**), however as income increases, "somewhat positive" responses decreases (under $50K **30%**, $50-75K **24%**, Over $75K **21%**)

- Education: As education increase, respondents that said "very positive" increases (No college **60%**, Some college **60%**, College grad **70%**)

- Years in Flagstaff: As years in Flagstaff increased from 0-5 to 6-20, residents that replied forest management projects have a "very positive" impact increases, however for residents living in Flagstaff 21 years and over, these responses decrease (0-5 years **60%**, 6-20 years **72%**, 21+ years **65%**). In addition, as years of residence increases, respondents that replied with "somewhat positive," percentage decrease from 0-5 to 6-20 and increase in the 21+ years (0-5 years **31%**, 6-20 years **22%**, 21+ years **27%**).

Question 2:
Do you support agencies conducting prescribed burns in the Flagstaff area?

- Age: As age increases, respondents that said they are "very supportive" of prescribed burns also increase (18-34 **65%**, 35-59 **66%**, 60+ **74%**), however for those that said they are "somewhat supportive," as age increases, these responses decrease (18-34 **29%**, 35-59 **23%**, 60+ **17%**)

- Income: As income increases, respondents offering "very supportive" increases (under $50K **62%**, $50-75K **66%**, Over $75K **78%**), however as income increases, respondents that said "somewhat supportive" decreases (under $50K **27%**, $50-75K **25%**, Over $75K **16%**)

- Education: As education increase, respondents that said "very supportive"

increases (No college **54%**, Some college **65%**, College grad **71%**), while for respondents that were "somewhat supportive," percentages decrease (No college **34%**, Some college **23%**, College grad **22%**)

Question 3:
Do you think forest managers should be allowed to conduct prescribed burns at any time, or should the number of days be limited?

- Gender: A noticeable difference occurred between males and females with 52% of males saying "allow prescribed burns at any time" as compared to 35% of females. Of the respondents that replied "limit number of days," 35% were males and 47% females

- Age: As age increases, respondents that said "allow prescribed burns at any time" decreases (18-34 **50%**, 35-59 **40%**, 60+ **44%**). Similarly, as age increases those that said "limit number of days" decreases (18-34 **43%**, 35-59 **42%**, 60+ **31%**)

- Income: As income increases, respondents that said "allow prescribed burns at any time" increases (under $50K **39%**, $50-75K **46%**, Over $75K **48%**), however as income increases, respondents that said "limit number of days" decreases (under $50K **46%**, $50-75K **35%**, Over $75K **36%**)

- Education: As education increases, respondents that said "allow prescribed burns at any time" also increases (No college **32%**, Some college **36%**, College grad **49%**), however, respondents that said "limit number of days," percentages decrease as education increases (No college **56%**, Some college **45%**, College grad **35%**)

- Years in Flagstaff: As years in Flagstaff increased from 0-5 to 6-20, fewer residents supported burning at any time, while residents of 21+ years were slightly more supportive than those of 6-20 years (0-5 years **50%**, 6-20 years **39%**, 21+ years **42%**). Those that said limit number of days showed no substantial difference between the groups.

Question 4:
How effective are management activities in reducing the risk of catastrophic fire in the area?

- No distinguishable differences between groups