

## **APPENDIX B**

### **WOOD BURNING SURVEY**

**SUMMARY OF SURVEY RESULTS**

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<u>Survey</u> <u>Number</u>	<u>Fireplaces</u>		<u>FP Inserts</u>		<u>Wood Stoves</u>		<u>Cert. Stoves</u>	
	<u>#</u>	<u>Cords/yr</u>	<u>#</u>	<u>Cords/yr</u>	<u>#</u>	<u>Cords/yr</u>	<u>#</u>	<u>Cords/yr</u>
<u>Single Family Residents</u>								
55	8	0.83	2	5.3	45	4.3	3	2.5
<u>Apartments &amp; Mobile Homes</u>								
24	0	0	0	0	20	2.5	0	0
<u>Condominiums</u>								
1,894	1,469	1.27	198	1.27	227	1.27	0	0

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Raw data is on file with the District.

**ESTIMATE OF WOOD USAGE ON PEAK DAYS**  
**Mammoth Lakes - Based on Survey Results**

Condos (Responded to Survey)

NO. UNITS	Winter Occupancy Rate			AVG DAYS	NUMBER OF CORDS	VOL <sub>y</sub> WOOD ft <sup>3</sup> /unit	TOTAL VOL ft <sup>3</sup>
	HOLIDAYS	WEEKENDS	WEEKDAYS				
44.00	0.95	0.85	0.60	103.20	1.00	0.78	34.11
52.00	1.00	0.80	0.50	92.00	1.50	1.30	67.83
19.00	0.95	0.90	0.10	48.20	0.50	0.83	15.77
80.00	1.00	1.00	0.40	84.80	1.00	0.94	75.47
12.00	0.75	0.50	0.05	30.60	1.50	3.92	47.06
56.00	1.00	0.95	0.50	95.00	1.00	0.84	47.16
82.00	0.95	0.75	0.10	45.20	2.00	3.54	290.27
46.00	1.00	0.50	0.05	35.60	1.50	3.37	155.06
78.00	0.98	0.70	0.30	67.20	1.00	1.19	92.86
41.00	1.00	1.00	0.50	96.00	2.00	1.67	68.33
27.00	0.80	0.80	0.50	88.00	2.00	1.82	49.09
4.00	1.00	1.00	1.00	152.00	2.00	1.05	4.21
33.00	1.00	1.00	0.50	96.00	2.00	1.67	55.00
210.00	1.00	1.00	0.50	96.00	1.50	1.25	262.50
56.00	0.60	0.40	0.20	42.40	0.50	0.94	52.83
10.00	1.00	0.80	0.20	58.40	1.00	1.37	13.70
32.00	0.90	0.75	0.25	61.00	0.75	0.98	31.48
100.00	0.98	0.98	0.60	106.40	1.50	1.13	112.78
51.00	0.85	0.75	0.30	65.60	1.50	1.83	93.29
61.00	1.00	1.00	0.30	73.60	2.00	2.17	132.61
10.00	1.00	1.00	0.20	62.40	2.00	2.56	25.64
24.00	1.00	1.00	0.70	118.40	2.50	1.69	40.54
109.00	0.90	0.78	0.40	78.40	1.00	1.02	111.22
133.00	1.00	0.90	0.30	71.60	1.50	1.68	222.91
39.00	0.99	0.95	0.40	83.60	1.50	1.44	55.98
37.00	0.80	0.70	0.10	41.20	0.50	0.97	35.92
56.00	0.90	0.80	0.20	56.40	0.50	0.71	39.72
80.00	0.80	0.80	0.30	65.60	2.00	2.44	195.12
48.00	0.90	0.90	0.15	52.80	1.00	1.52	72.73
128.00	1.00	0.90	0.60	105.20	1.50	1.14	146.01
<hr/>						47.76	2647.18
1758.00							

Average wood use for condos = 1.51 ft<sup>3</sup>/day/unit

Single Family Residence/Mobile Homes & Apartments

NO. UNITS	Winter Occupancy Rate			AVG DAYS	NUMBER OF CORDS	VOL <sub>y</sub> WOOD ft <sup>3</sup> /unit	TOTAL VOL ft <sup>3</sup>
	HOLIDAYS	WEEKENDS	WEEKDAYS				
<u>Single Family Residence</u>							
<u>Fireplace</u>							
324.00	1.00	0.50	0.00	30.00	0.83	2.20	712.80
<u>Conventional Wood Stove</u>							
861.00	1.00	1.00	0.80	129.60	4.30	2.65	2285.37
<u>Certified Wood Stove</u>							
55.00	1.00	1.00	0.80	129.60	2.50	1.54	84.88
<u>Fireplace Inserts</u>							
55.00	1.00	1.00	0.80	129.60	5.30	3.27	179.94
<u>Mobile Homes &amp; Apartments</u>							
<u>Conventional Wood Stoves</u>							
240.00	1.00	1.00	0.80	129.60	2.50	1.54	370.37
<hr/>						11.20	4262.99
1535.00							

Average wood use for SFR/Mbl. Homes & Apts = 2.78 ft<sup>3</sup>/day

MAMMOTH WOOD HEATING SURVEY

The Federal Environmental Protection Agency (EPA) has required that Mammoth reduce particulate air pollution. The Great Basin Air Pollution Control District will be doing computer modeling of pollution from wood burning in order to predict the effects of suggested controls.

It is important to everyone that the data used in the model be correct, so that we can avoid costly mistakes, and suggest only those controls that will be effective. Please help us by answering the following questions as fully and accurately as you can. Then fold with our address on the outside and drop in the mail. Thank you.

- 1) Do you  own or  rent your home in Mammoth? *(Please check box in front of answer.)*
- 2) What type of residence is it?  Single Family Home  Apartment  
 Condominium  Mobile Home  Other \_\_\_\_\_
- 3) Is it a  permanent residence,  second home, or  short-term rental?
- 4) If it is a second home, is it occupied on  winter weekends,  holidays  
 winter weekdays,  summer
- 5) Which of the following fuel types do you use to heat your home?  
 Propane  Wood  Electricity  Oil  Solar  
 Other \_\_\_\_\_ *Please specify*

IF YOU BURN WOOD, PLEASE ANSWER THE FOLLOWING QUESTIONS. IF YOU DON'T USE WOOD, PLEASE GO TO QUESTION 19.

- 6) Do you burn wood primarily for your  only source of heat,  main source of heat,  supplemental source of heat, or  enjoyment?
  - 7) How many cords of wood do you burn in an average year? \_\_\_\_\_
  - 8) Which of the following devices do you have, how many of each, and how much wood do you burn in each per year:
- | Device                             | Number | Cords Burned |
|------------------------------------|--------|--------------|
| FIREPLACE (NO INSERT)              | _____  | _____        |
| FIREPLACE WITH INSERT              | _____  | _____        |
| WOODSTOVE                          | _____  | _____        |
| WOODSTOVE WITH CATALYTIC CONVERTER | _____  | _____        |

9) If you have a WOODSTOVE or fireplace insert, in which position is the intake air control set most of the time?

- LOW - 0 to 1/3 open  MEDIUM - 1/3 to 2/3 open  
 HIGH - 2/3 TO fully open

10) What percent of the following types of firewood do you burn most years? (Circle the numbers of all answers that apply and indicate the approximate percent.)

- 1. Jeffrey Pine \_\_\_\_\_%
- 2. Lodgepole Pine \_\_\_\_\_%
- 3. Red or White Fir \_\_\_\_\_%
- 4. Other \_\_\_\_\_% (Identify) \_\_\_\_\_

11) Do you burn ( )trash or ( )coal in your WOODSTOVE? (Check those that apply)

12) How long is your wood seasoned before you burn it? ( )a few weeks  
( )one month ( )a few months ( )six months ( )a year or more  
( )not at all ( )don't know

13) How old is your WOODSTOVE? \_\_\_\_\_years. Do you have any plans to replace it in the next three years? ( )yes ( )no

14) What are the four most frequent times you burn wood? (Please put the corresponding number in the appropriate space below.)

- 1. Midnight to 6 a.m., weekdays
- 2. 6 a.m. to noon, weekdays
- 3. Noon to 6 p.m., weekdays
- 4. 6 p.m. to Midnight, weekdays
- 5. All day, weekdays
- 6. Midnight to 6 a.m. weekends
- 7. 6 a.m. to noon, weekends
- 8. Noon to 6 p.m., weekends
- 9. 6 p.m. to Midnight, weekends
- 10. All day, weekends

MOST FREQUENT TIME \_\_\_\_\_

SECOND MOST FREQUENT TIME \_\_\_\_\_

THIRD MOST FREQUENT TIME \_\_\_\_\_

FOURTH MOST FREQUENT TIME \_\_\_\_\_

15) Approximately how many days did you burn this heating season (October 1987-April 1988) ( )under 60 days ( )60 -99 days ( )100-200 days

16) What was the average time in hours you burned during those days? Include any time there was a fire in your stove.

\_\_\_\_\_ hours

17) Where do you obtain most of your firewood? ( )firewood dealer  
( )cut on private land ( )cut on Forest Service land ( )friends  
( )cut on DWP lands ( )other (Please specify) \_\_\_\_\_

18) Are you saving money on your heating bills by burning wood?  
( )yes ( )no

19) Are you planning to install a new wood heater in your home in the next two years?  
( )yes ( )no

20) If controls must be instituted on wood burning in Mammoth, which of the following would you prefer: (Rank in order of preference, #1 being most preferred - #5 being least preferred)

- \_\_\_ A ban on all burning on days when pollution is predicted to exceed standards.
- \_\_\_ A ban on all burning on days when pollution is predicted to exceed standards, with exemptions for economic hardship, sole source of heat, and certified stoves.
- \_\_\_ A requirement that stoves and fireplaces must be replaced with new clean-burning stoves or inserts when a residence is sold or put up for rent.
- \_\_\_ A ban on fireplaces
- \_\_\_ Other \_\_\_\_\_  
\_\_\_\_\_

21) Is there anything else you would like to tell us about home heating and the use of wood burning equipment?

Thank you for filling out this questionnaire. It is our goal to meet the EPA Clean Air Act requirements while causing the least possible inconvenience and expense to the residents of Mammoth. If you have any suggestions, please write them here. If you have questions, call 872-8211 and ask for Ellen Hardebeck. Please fold this questionnaire with our address out, and drop into the mail.