

## Woodburner Survey

February 2016

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### Key Survey Results

- The survey was completed by 1136 people for 1327 properties.
- 941 of those properties do not currently have a working woodburner.
- Of those properties without woodburners, the owners of 597 properties are interested in installing a woodburner in the next two years and 332 are not.
- The number of properties wanting to install new woodburners in each airshed were:
  - 122 in Airshed A (86 preferring NES woodburners)
  - 71 in Airshed B1 (55 preferring NES woodburners)
  - 224 in Airshed B2 (191 preferring NES woodburners)
  - 172 in Airshed C (141 preferring NES woodburners).

### Background

Proposed Plan Change A3 (Woodburners) proposes to make changes to the Nelson Air Quality Plan rules, including allowing a limited number of Ultra Low Emission Burners in Airsheds B2 and C.

On 17 December 2015, Council resolved that, at the time of notification of the proposed plan change, Council officers survey residential landowners without woodburners to indicate the likelihood and preference for installing either a new NES compliant woodburner or an Ultra Low Emission Burning device over the next two years.

From 15 January, the survey was delivered by post to all households in Nelson and to all ratepayers living outside of Nelson. It was included with a letter about the proposed plan change. A link to the survey was also emailed to property managers in Nelson. The survey was open until 17 February.

Maps of Nelson's [airsheds](#) are available on the Nelson City Council website.

The survey included the following information on woodburner types:

### Woodburner Types

#### NES woodburners

NES woodburners meet the National Environmental Standards (NES) for air quality criteria of a maximum of 1.5 grams (lab-tested) of emissions per kilogram of fuel burnt. On average, the real life emissions have been estimated to be approximately 4.5 grams of emissions per kilogram of fuel burnt. There are 240 models available, which vary in heat output from 4 to 24kW. They can be freestanding or inbuilt, and some have a wetback option. Purchase cost ranges from \$2000 to \$5000.



#### ULEB Burners

Ultra-Low Emission Burners have a maximum of 0.5 grams (real life) of emissions per kilogram of fuel burnt.

There are four ULEBs that have been authorised to date, which vary in heat output from 4 to 15kW. They are all freestanding and do not have a wetback option. ULEBs' purchase price currently ranges from \$5500 to \$8000 but prices are projected to reduce in the future.



## Responses

The survey aimed to gauge the level of interest in installing additional woodburners in Nelson, from property owners that don't already have a woodburner.

The total number of households in Nelson without woodburners is not known exactly but 2013 Census results indicate that approximately 13,000 households do not use wood as a heating source for their home.

Responses were received for 941 properties without a working woodburner.

Actual numbers wanting to install a woodburner are likely to be higher due to non-response bias. Reasons for non-response could include property owners who were away at the time, didn't have time, forgot to complete or return the survey, or are not interested in surveys or the topic.

As the respondents were not randomly selected, it is not possible to calculate a margin of error or confidence level or to apply the results to the total Nelson population.

## Next Steps

There will be an independent hearing on the plan change, which will consider formal submissions. This is anticipated to be held in May 2016. The results of the survey will be included in the Officers Report to the Hearing Panel. Evidence and Officers reports will be made available on the Nelson City Council website.

Nelson City Council would like to thank all property owners who took the time to respond to the survey.

## Detailed Results

The survey asked:

- *Is there currently a working woodburner at this property?*
- *Are you interested in installing a new woodburner at this property in the next two years?*
- *Would you prefer to install an Ultra Low Emission Burner (ULEB) or a NES woodburner at this property?*

The survey was completed by 1136 people for 1327 properties:

- 941 properties without a woodburner
  - 597 wanting to install a woodburner
    - 478 preferring to install a NES woodburner
    - 102 preferring to install a ULEB
    - 17 not specified
  - 332 not wanting to install a woodburner
  - 12 with no response about installing a woodburner.
- 386 properties with a woodburner already
  - 125 wanting to replace their woodburner in the next two years
    - 101 preferring to install a NES woodburner
    - 19 preferring to install a ULEB
    - 5 not specified

## Likelihood of installing a new woodburner

Of the 941 properties without a woodburner, 597 owners indicated they are interested in installing a new woodburner in the next two years.

Table 1: Interest in installing a woodburner by airshed for properties without a woodburner

Airshed	Interested	Not interested	No response
A	122	58	1
B1	71	33	2
B2	224	129	1
C	172	110	8
Outside airshed	7	2	0
Airshed unclear	1	0	0
TOTAL	597	335	12

The number of properties wanting to install new woodburners in each airshed were:

- 122 in Airshed A
- 71 in Airshed B1
- 224 in Airshed B2
- 172 in Airshed C

## New woodburner preference: NES woodburner or ULEB

Of the 597 properties which currently don't have a woodburner but are interested in installing one in the next two years, 80 percent would prefer to install an NES woodburner, 17 percent would prefer to install a ULEB and the rest were unspecified.

Table 2: Preferences for woodburner type by airshed for properties without a woodburner but interested in installing one

Airshed	NES	ULEB	No response	TOTAL
A	86	33	3	122
B1	55	13	3	71
B2	191	29	4	224
C	141	25	6	172
Outside airshed	5	1	1	7
Airshed unclear	0	1	0	1
TOTAL	478	102	17	597

### Likelihood and preference for replacing a current woodburner

Of the 386 properties which already have a woodburner, 125 owners indicated they are interested in replacing their woodburner in the next two years.

Table 3: Preferences for woodburner type by airshed for properties with a woodburner but interested in replacing it

Airshed	NES	ULEB	No response	TOTAL
A	18	4	0	22
B1	6	0	1	7
B2	29	3	1	33
C	47	10	3	60
Outside airshed	0	2	0	2
Airshed unclear	1	0	0	1
TOTAL	101	19	5	125