

Air Quality & Recycling Survey

Report of Results

2011

Prepared by:



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Executive Summary

Survey Background and Methods

The City of Fort Collins Natural Resources Department contracted with National Research Center, Inc. (NRC) to conduct a survey to assess residents' knowledge, attitudes and perceptions about air quality and recycling. The survey also collected information on resident's awareness and participation in department programs.

The survey was administered by mail in July 2011 to 1,600 randomly selected households known to be located within the City and was received by 1,525 households. A total of 456 completed surveys were returned for a response rate of 30%.

Survey results were weighted so that respondent age, gender, housing tenure (rent or own) and housing unit type (detached or attached) were represented in the proportions reflective of the entire adult population of the City of Fort Collins (as reported in the 2010 U.S. Census).

Survey Highlights

- Residents of Fort Collins were supportive of air quality and recycling programs: about half gave strong support, two-fifths gave moderate support and one-eighth broadly opposed these programs.
- Almost all respondents rated their outdoor air quality as excellent or good and just 34% said they had ever experienced unacceptable air quality in the city.
- Residents were affected by air pollution: 68% said air pollution caused health problems for family members, caused brown clouds, obscured views or affected indoor air quality. Twenty-six percent of respondents report having a family member with a respiratory ailment.
- Most respondents felt a personal obligation to help improve air quality and reduce greenhouse gas emissions. Half or more said they always or frequently tune their vehicle, reduce the number of miles they drive and eliminate unnecessary idling to help reduce air pollution.
- Respondents were concerned about gas and diesel vehicle emissions and supported the vehicle emission testing program.
- Most respondents supported government intervention to address air pollution and climate change: 38% strongly agreed and 32% somewhat agreed that governments should enact legislation and regulations intended to reduce climate change. Additionally, 37% strongly agreed and 41% somewhat agreed that the City should do more to reduce outdoor air pollution.
- Fewer respondents had wood-burning fireplaces and stoves than in 2007 and more had radon mitigation systems.
- Most respondents participated in the curbside recycling program and many would like to see it expanded to multi-family dwellings. Respondents also would like better access to yard waste recycling services.
- A primary source for information was the Utility bill insert, but fewer respondents were receiving these as more turned to online billing.

Prepared by National Research Center, Inc.

Survey Background

Survey Purpose

The City of Fort Collins Natural Resources Department contracted with National Research Center, Inc. (NRC) to conduct a survey to assess residents' knowledge, attitudes and perceptions about air quality and recycling. The survey also collected information on resident's awareness and participation in department programs.

Results of the survey will help staff to set priorities for program and budget decisions and track community opinions about air quality, helping to assure maximum service quality over time.

Survey Methods

All adults in Fort Collins were eligible to participate in the survey. A randomly selected sample of 1,600 households in Fort Collins was mailed the 2011 survey. Of these, 1,525 were delivered to occupied households. To randomly select an adult from within the household, the adult with the most recent birthday, regardless of year, was asked to complete the survey. A total of 456 completed surveys were received, for a response rate of 30%; this is an average response rate compared to those that NRC typically sees for surveys of city residents.

Higher survey response rates are desirable but not achievable given limited budget and time resources, to ensure that surveys remain representative of the population, survey data are weighted. Survey results were weighted so that respondent age, gender, housing tenure (rent or own) and housing unit type (attached or detached) were represented in the proportions reflective of the entire adult population of Fort Collins (as reported from the 2010 U.S. Census).

Survey results from the 2007 iteration of this survey are also provided in this report. The raw data from the 2007 survey was provided to NRC by the City and the 2007 data was weighted so that respondent age, gender, housing tenure were represented in the proportions reflective of the entire adult population of Fort Collins (as reported from the 2006-2009 American Community Survey). Housing unit type was not included in the 2007 weighting scheme as it was not known. Results reported here for 2007 may differ from the report produced in 2007 as the data was not weighted when that report that was completed.

Survey results from the 2004 iteration are not included as only the summary results were available (not the raw data) and these summary results were based on an un-weighted data set. The summary results were thus not directly comparable to the 2007 and 2011 weighted results.

More information about the survey methodology can be found in *Appendix V: Survey Methodology*.

Understanding the Results

How the Results Are Reported

For the most part, frequency distributions (the percent of respondents giving each possible response to a particular question) are presented in the body of the report. A complete set of frequencies for each survey question appears as

The 2011 results are presented along with ratings from 2007 when available. Differences between years, as presented in the body of the report, can be considered statistically significant if they are greater than six percentage points.

Precision of Estimates

It is customary to describe the precision of estimates made from surveys by a "level of confidence" (or margin of error). The 95 percent confidence level for this survey is generally no greater than $\pm 5\%$ around any given percent reported for the entire sample (456). More information about the margin of error can be found in *Appendix V: Survey Methodology*.

Differences between subgroups

When comparing results between subgroups the margin of error (or confidence interval) varies by how many respondents are in each subgroup. Differences in responses between any two groups must be greater than this margin of error to be considered statistically significantly different at the 95 percent confidence level.

- There were 456 respondents in 2011 and 577 in 2007. The margin of error for comparison between these two years is $\pm 6\%$.
- There were 265 respondents in single-family dwelling units and 191 in multi-family dwelling units. The margin of error for comparison between these two subgroups is $\pm 9\%$.

"Don't Know" Responses and Rounding

On many of the questions in the survey, respondents were able to answer "don't know." However, these responses have been removed from the analyses presented in the body of the report. In other words, the majority of the tables and graphs in the body of the report display the responses from respondents who had an opinion about a specific item. The proportion of respondents giving a response of "don't know" is shown in the full set of responses included in *Appendix II: Responses to Survey Questions by Year* and is discussed in the body of this report if it is 20% or greater.

For some questions, respondents were permitted to select more than one option (i.e., a multiple response question). When the total exceeds 100% in a table for a multiple response question, it is because some respondents are counted in more than one category. When a table for a question that only permitted a single response does not total to exactly 100%, it is due to the customary practice of rounding percentages to the nearest whole number.

Prepared by National Research Center, Inc.

Survey Results

Level of Concern about Air Quality in Fort Collins

In 2011, most Fort Collins residents thought that the overall outdoor air quality in the city was excellent (25%) or good (65%). This is an improvement from 2007.

While more respondents rated their outdoor air quality as excellent in 2011 than in 2007, the same proportion (34%) indicated that they had experienced unacceptable outdoor air quality in Fort Collins at some time in the past.

Figure 1: Overall, How Would You Rate the Quality of Outdoor Air In Fort Collins?

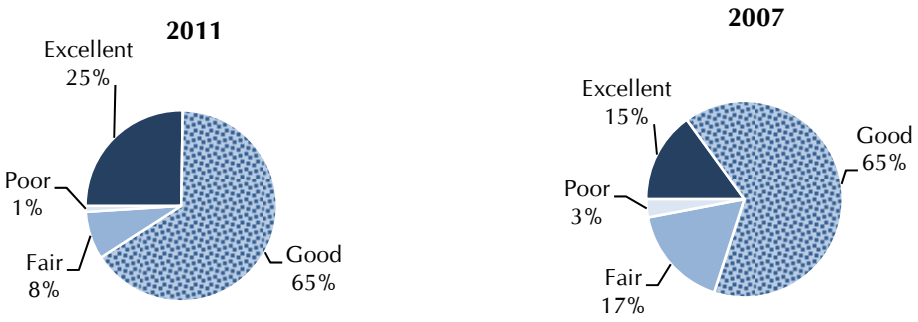
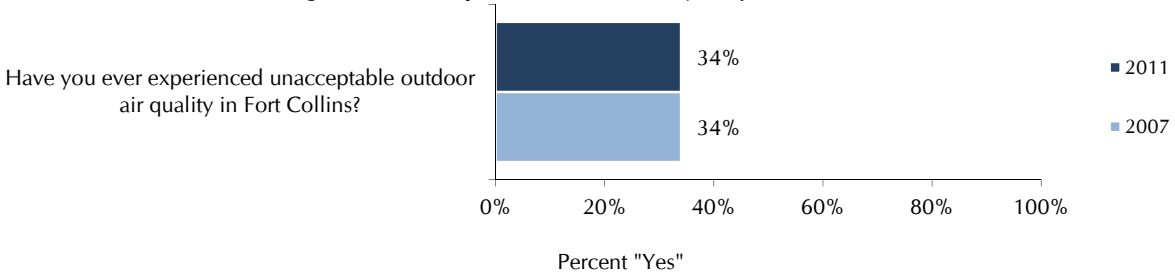


Figure 2: Unacceptable Outdoor Air Quality in Fort Collins



Prepared by National Research Center, Inc.

About one in four families in Fort Collins have members who have a respiratory ailment. The most common ailment is asthma. This held steady from 2007 to 2011.

Figure 3: Does Anyone In Your Family Suffer From Asthma, Emphysema, Heart Disease Or Other Respiratory Ailments?

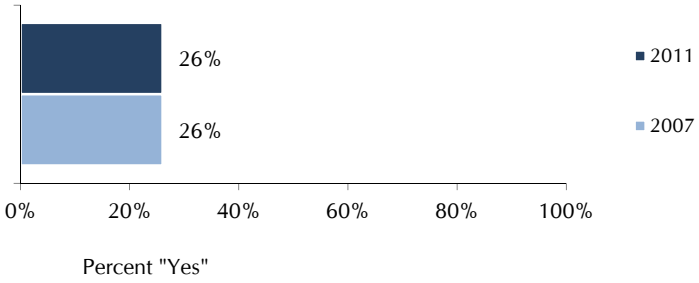
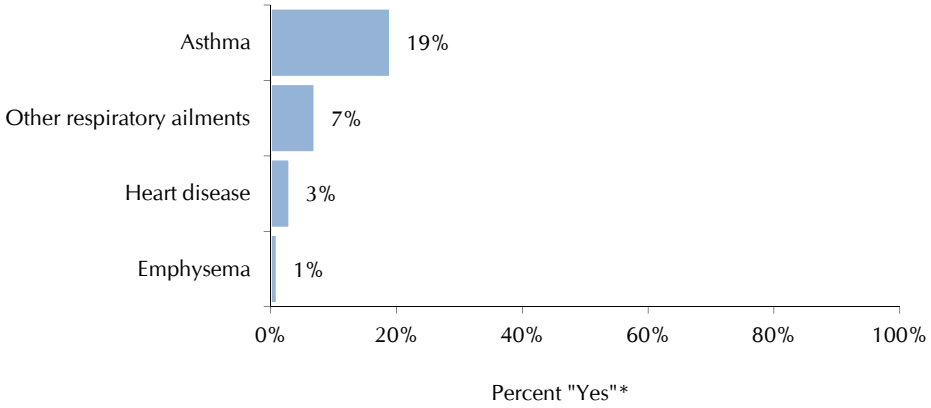


Figure 4: Respiratory Ailments by Type (2011)*



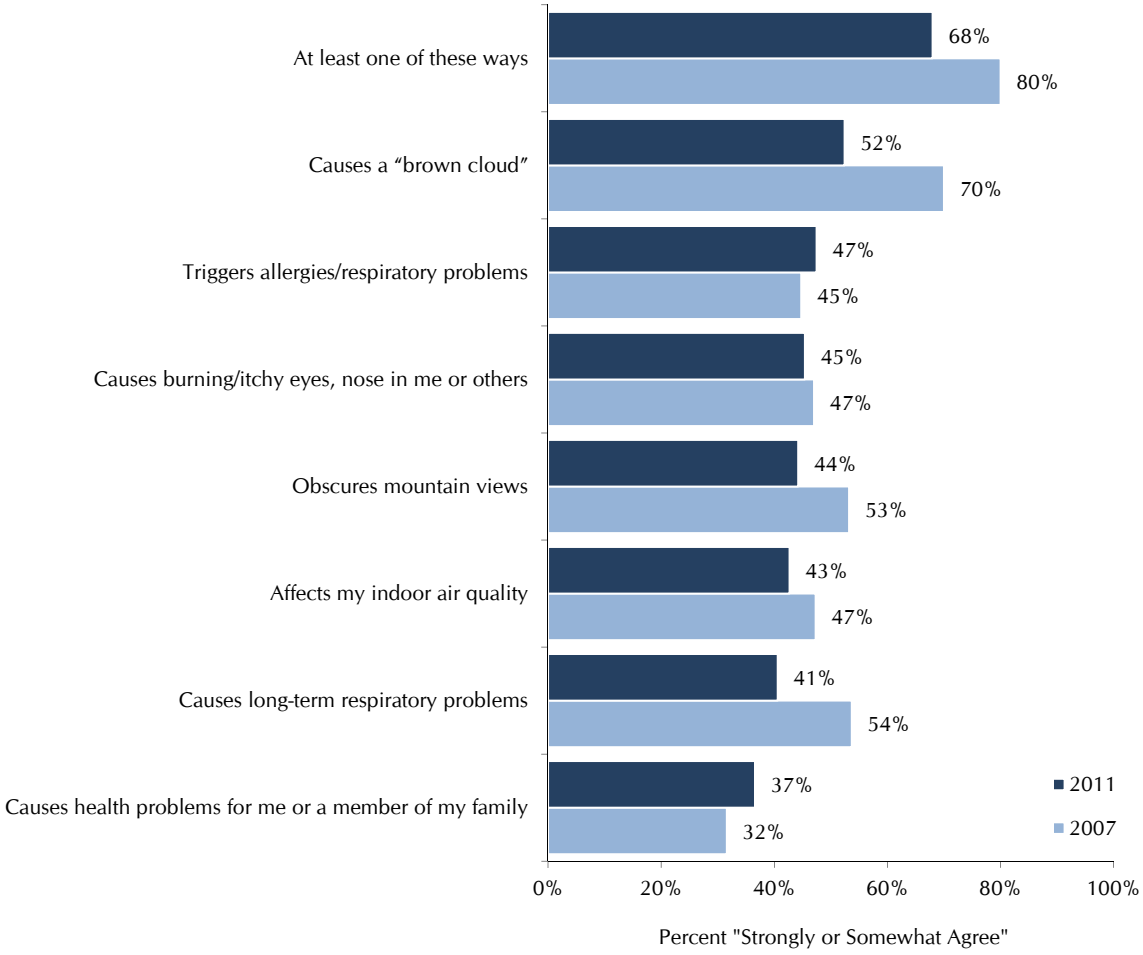
** Asked only of those who had a family member with a respiratory illness.*

Prepared by National Research Center, Inc.

The brown cloud is one of the most visible ways that respondents assess the impact of air pollution and about half of respondents somewhat or strongly agreed that air pollution in Fort Collins created brown clouds. This was down markedly from 2007, when 70% of respondents somewhat strongly agreed that air pollution in Fort Collins created brown clouds.

Overall, 68% of respondents somewhat or strongly agreed that air pollution in Fort Collins affected them in at least one of the ways listed. Forty to fifty percent of respondents were at least somewhat impacted in each of the ways listed.

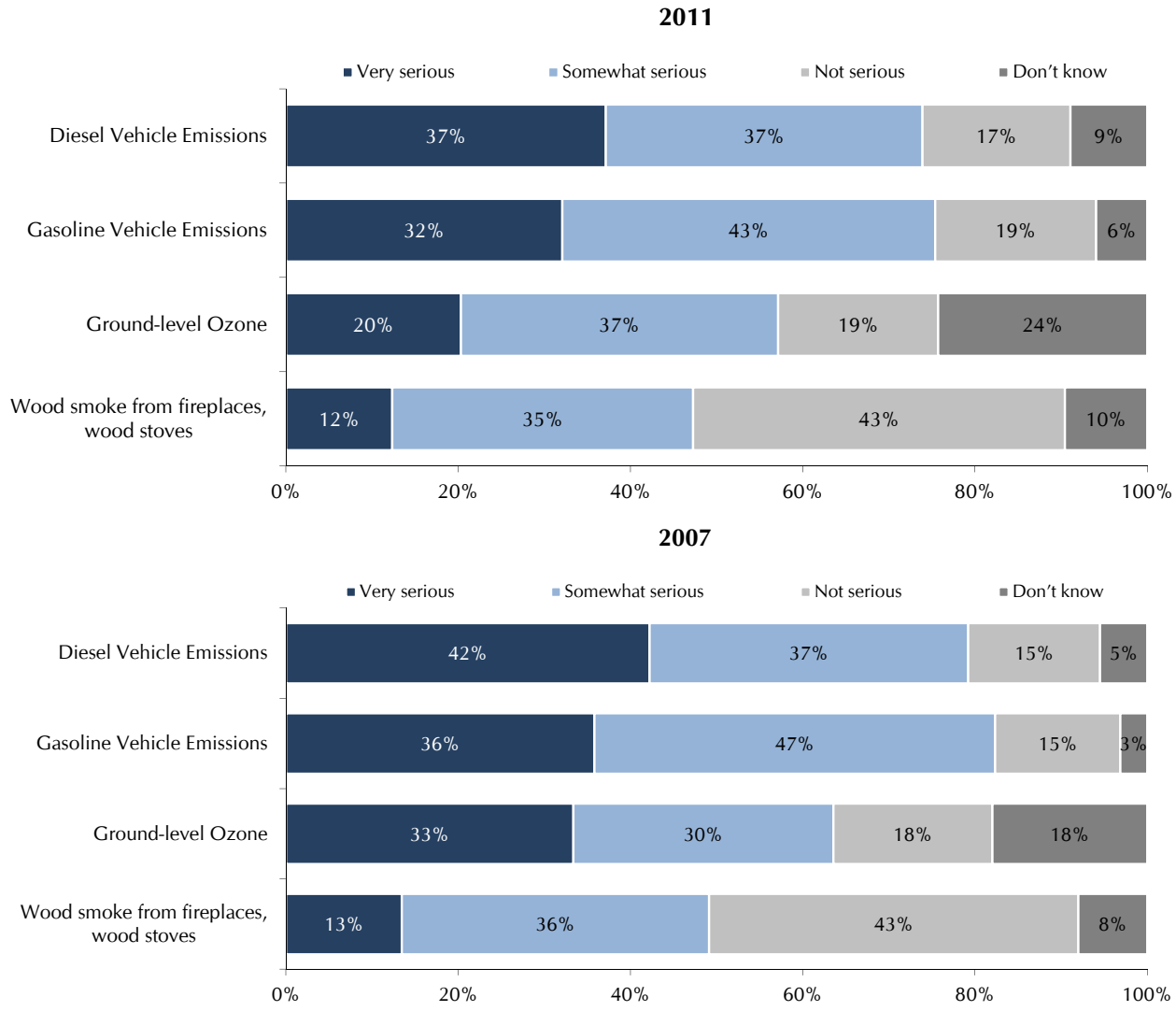
Figure 5: Percent Who Strongly or Somewhat Agree that Air Pollution in Fort Collins Affects Them in the Following Ways



Residents were asked how concerned they were about several types of pollutants as they relate to their day-to-day health and environment. Levels of concern about wood smoke were similar between the years. However, between 2007 and 2011 there was a decrease in certainty of opinion about diesel and gasoline vehicle emissions and ground level ozone. Fewer people in 2011 than 2007 thought diesel and gasoline vehicle emissions and ground level ozone were a very serious concern and more people in 2011 than 2007 did not know if these were a serious concern.

While the magnitude of concern changed slightly, in 2011 the majority (about three-quarters) of respondents still felt that diesel and gasoline vehicle emissions were a somewhat or very serious concern related to their heath, and about half of respondents thought ground level ozone was a somewhat or very serious concern.

Figure 6: Please Rate Your Concern for the Pollutants Listed as They Relate to you and Your Family's Day-to-Day Health and Environment:



Prepared by National Research Center, Inc.

Awareness of and Participation in Programs

Most respondents (82%) had heard of the Christmas tree recycling program, but only 26% had participated in it. It should be noted that the proportion of households that have a Christmas tree each year is not known.

The second most visible program was radon testing and mitigation; 62% knew about it and 16% had participated. About half of respondents knew about the "Breathe Easy" anti-idling school signs, posters, ads or articles and 19% said they participated in this campaign. Forty-three percent saw the "No Idle Zone Signs at schools. All other programs were known by less than half of respondents, although 20% of respondents did participate in the "I Recycle" campaign.

Figure 7: The City Offers a Variety of Specific Programs and Events to Address Air Quality and Environmental Issues. Do You Recall Hearing About, or Participating In, Any of the Following? (2011)

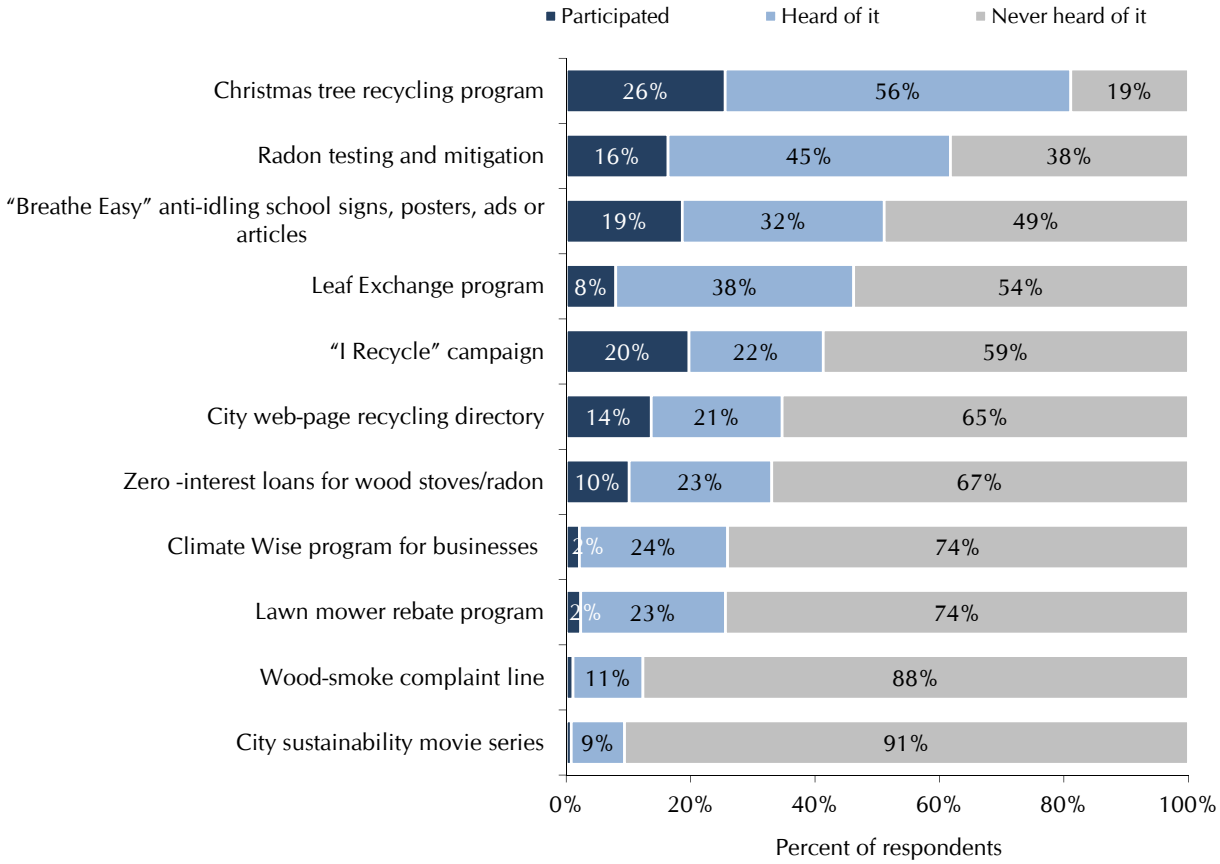
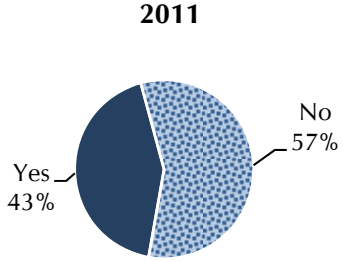


Figure 8: Have You Seen or Heard About the "No Idle Zone" Signs at Schools?



Prepared by National Research Center, Inc.

Most respondents (80%) have seen or heard about the billboards and signs at railroad crossings that encourage people to turn off their engines while waiting for the train to pass; this is an increase from 65% in 2007. Many (57%) said that they always or frequently turn off their engines while stopped at a train.

Those who didn't routinely turn off their engine were asked why: 31% said they didn't think of it, 25% wanted to maintain in-cab comfort, 20% believed it would use less fuel to just keep the engine running than to stop and start, and 18% thought the train is too short to be worth turning the engine off.

Figure 9: Have You Seen or Heard about the Billboards and/or Signs at Railroad Crossings Encouraging You to Turn Off Your Engine While a Train Passes?

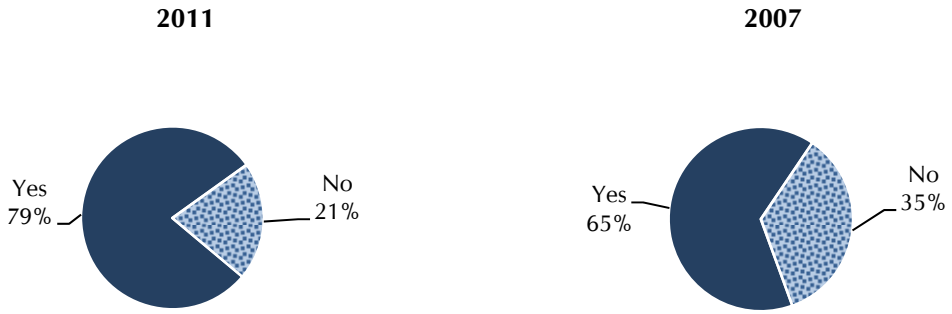
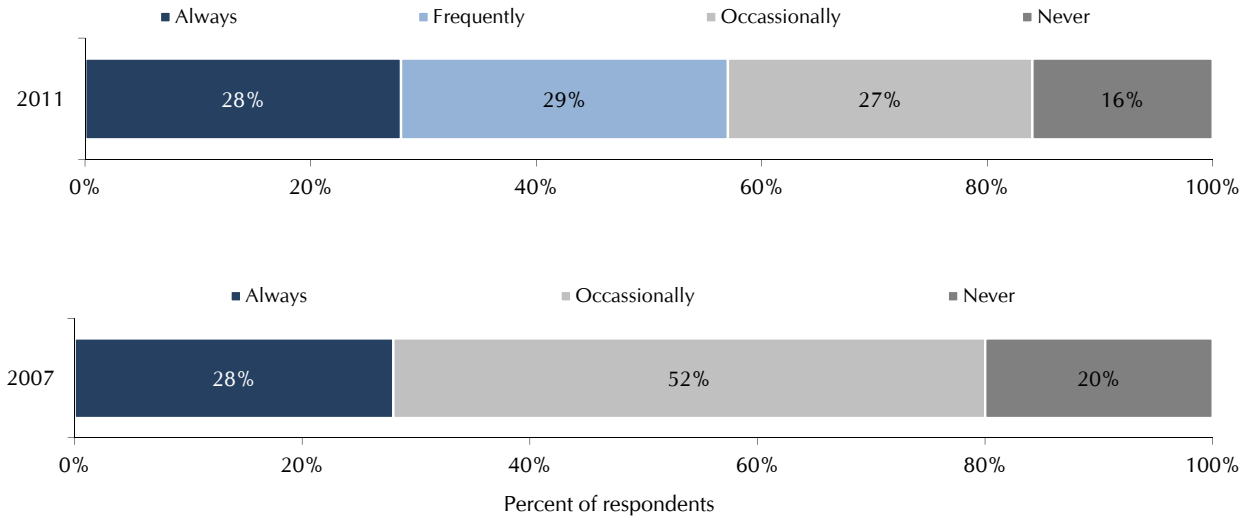


Figure 10: Do you ever turn off your vehicle engine while stopped and waiting for a train to pass?



Note: In 2007 "Frequently" was not included as a response option.

Prepared by National Research Center, Inc.

Table 1: If you do not routinely turn your engine off while stopped and waiting for a train to pass, why not?

Reason	Percent of Respondents
It doesn't occur to me	31%
To maintain in-cab comfort	25%
Believe it will use less fuel to just keep the engine running than to stop and start	20%
Train is too short	18%
Concerned about damaging the engine by re-starting	10%
Never have to wait for a train or don't have a car	4%
Hybrid car (takes care of it already)	3%
Other (please describe)	3%
Not sure engine will restart	2%
Don't care/unconcerned	2%
Don't know how long the train will be	1%
Total	100%

Note: Not asked in 2007

About half of respondents did not warm up their cars on winter mornings before driving away (52% of all respondents and 48% of respondents who commute by car). Of those who did warm up their cars, half do so for two minutes or less and the rest idle for longer.

Table 2: On winter mornings, how long do you typically warm up your car before driving away?

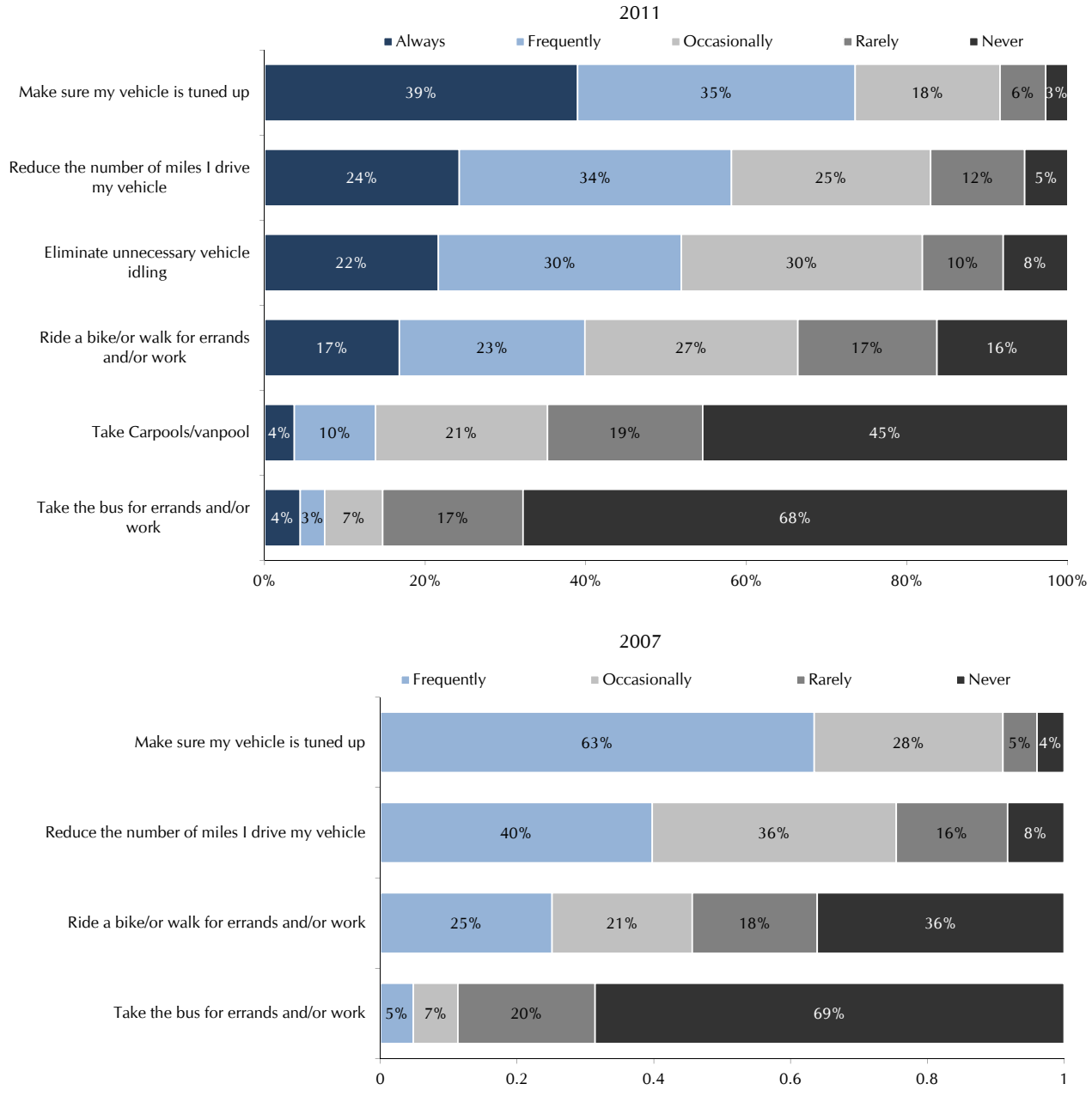
	2011	2007
I do not have a car	2%	NA
I do not commute by car	6%	NA
I do not warm up my car and it is parked outside	13%	20%
I do not warm up my car as it is parked in a garage	31%	33%
0-2 minutes	24%	22%
3-5 minutes	18%	20%
6-10 minutes	5%	5%
More than 10 minutes	1%	0%
Total	100%	100%

Note: In 2007 the question did not include the following response options "do not have car" and "do not commute by car"

When asked if they made sure their vehicles were tuned up to help reduce air pollution, 74% of respondents said they did so always or frequently. This is down from 63% in 2007 who did so frequently, but this difference may be due to a change in the response scale from 2007 to 2011 (in 2007 the response scale did not include "always").

Fewer people, but still a majority, always or frequently reduced the number of miles they drive (58%) or eliminate unnecessary vehicle idling (52%). Less than half always or frequently biked or walked for errands (40%), car or van pooled (14%) or took the bus (7%).

Figure 11: How Frequently, if Ever, Do You Do the Following to Help Reduce Air Pollution in the City of Fort Collins?



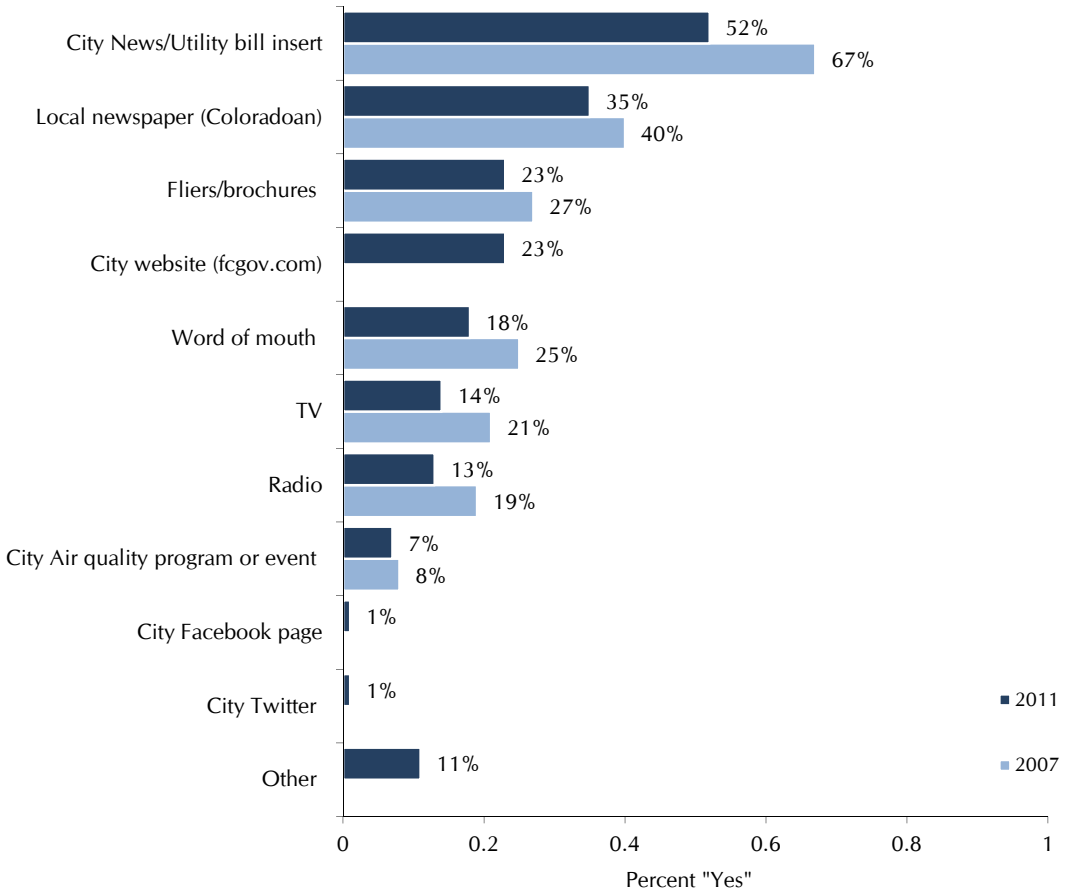
Note: In 2007 "Always" was not included as a response option.

Prepared by National Research Center, Inc.

Information Sources

The most common source of information about air pollution in Fort Collins was the City news insert in the utility bill, with 52% of respondents finding information in there. This was a decrease from 2007, but may be due to an increase in paperless billing. The next most used sources were the local newspaper, fliers and brochures or the city website.

Figure 12: Please Check All the Sources Where You Have Seen Information About Air Pollution in Fort Collins.



Note: The following categories were not included in 2007: "City website (fcgov.com)," "City Facebook page," "City Twitter" and "Don't know."

Prepared by National Research Center, Inc.

While 25% of respondents saw information about air pollution in Fort Collins on the City website, only 5% had ever visited the new environment website (fcgov.com/green). Of the few who had visited, 70% thought it was good, 15% thought it was excellent, 16% thought it was fair and no one rated it as poor.

Figure 13: Have You Ever Visited the City's New Environment Website (fcgov.com/green)?

2011

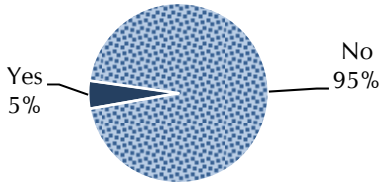
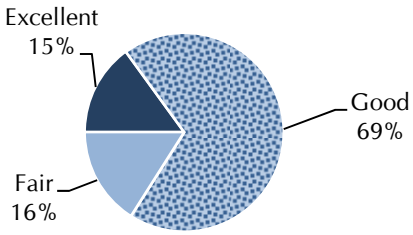


Figure 14: If yes, How Would You Rate the Usefulness of the Information Provided on this Website (fcgov.com/green)?

2011



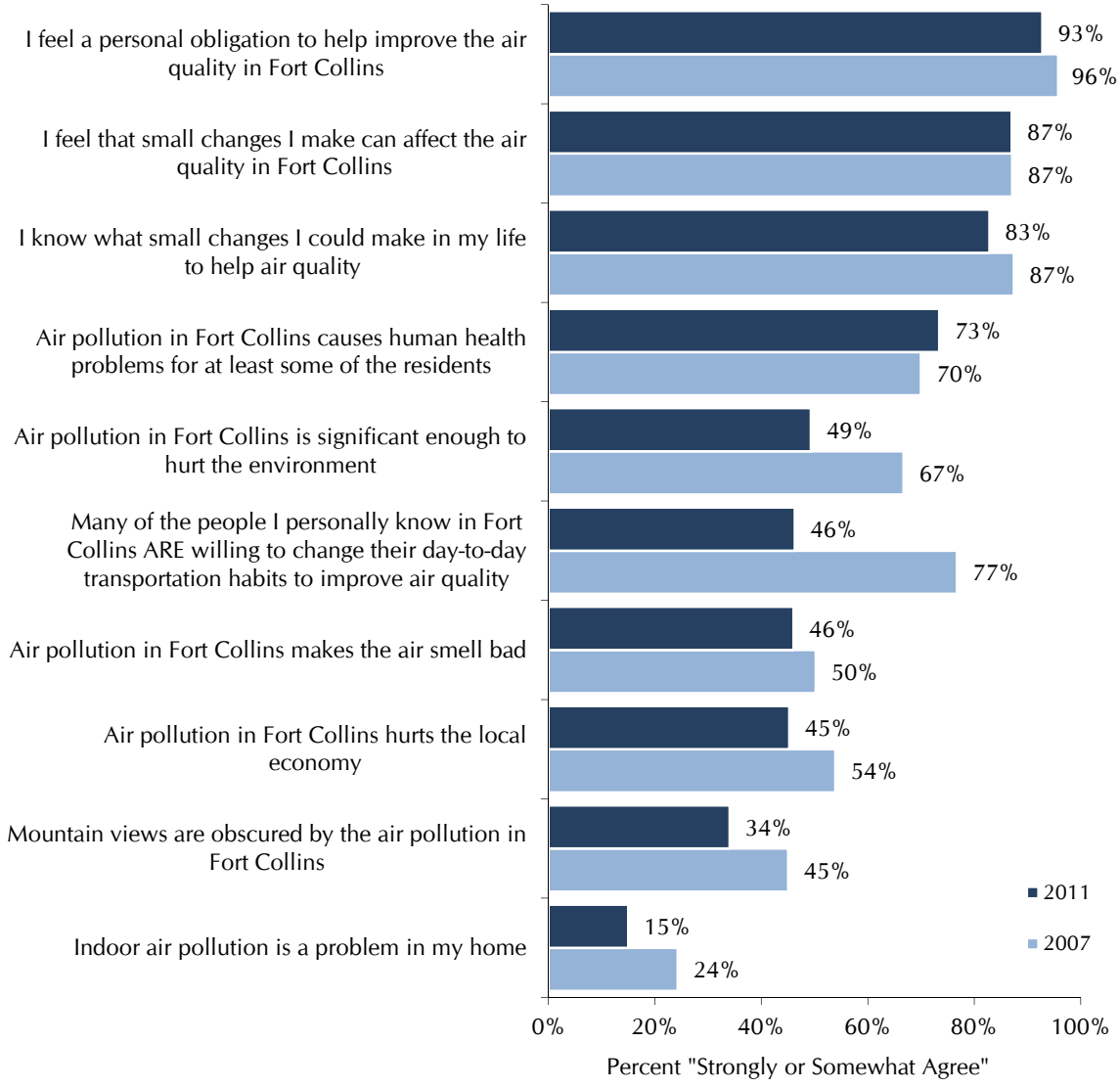
Note: Only 23 respondents had ever visited the website and were able to rate the website, this sample size is too small for the data to be statistically representative of the larger population of website users.

Attitudes and Opinions about Air Quality Issues

Most respondents believed that air pollution causes human health problems for at least some residents in Fort Collins and they felt a personal obligation to help improve the air quality in their city. Half of respondents agreed that air pollution in Fort Collins was significant enough to hurt the environment and most were not concerned about indoor air quality in their homes.

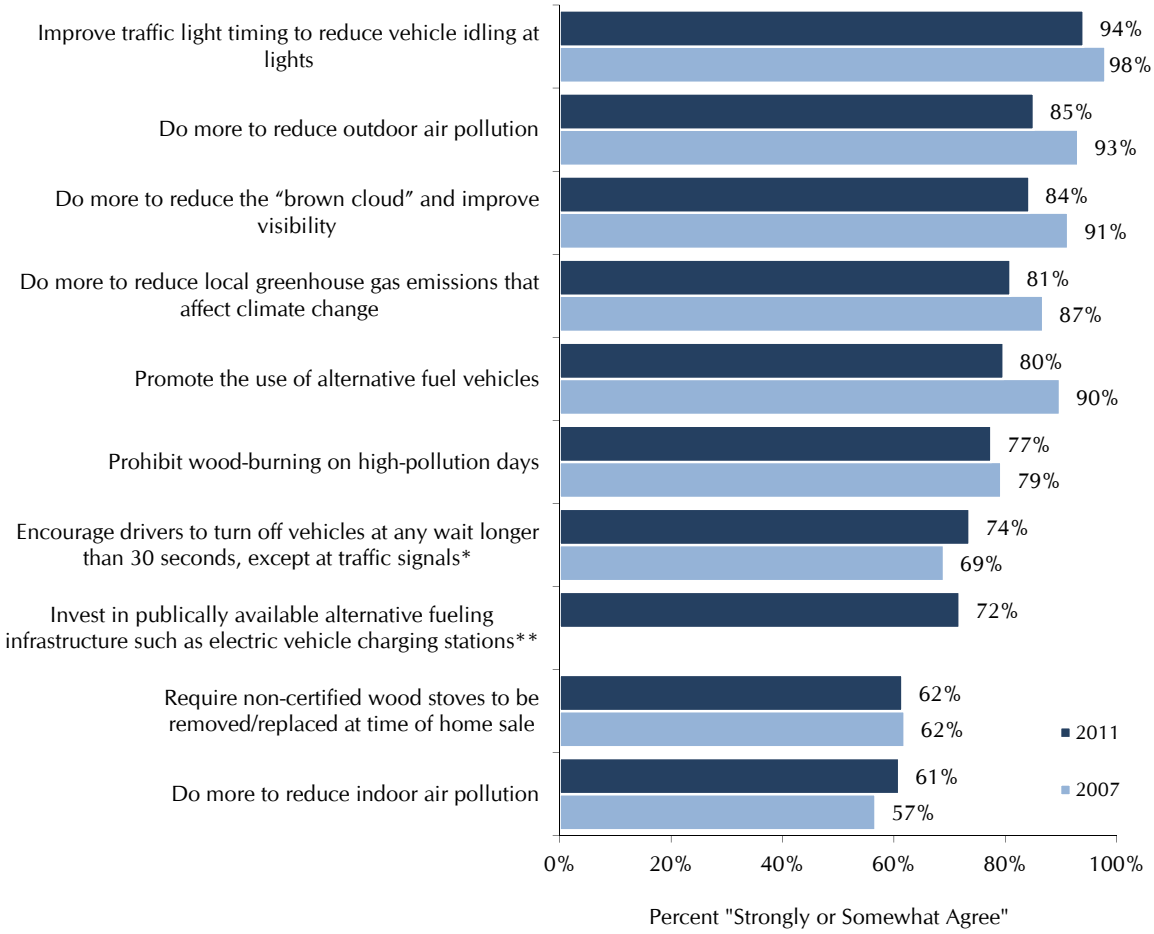
Respondents generally agreed that they could make small changes to help improve air quality, but fewer thought that the people they knew in the city were willing to change day-to-day transportation habits to improve air quality.

Figure 15: Percent Who Strongly or Somewhat Agree with Statements about Air Pollution



Respondents generally supported the City government's involvement in activities that would reduce air pollution. Almost all would like to see improved traffic light timing to reduce vehicle idling at lights. Four out of five, or more, at least somewhat agreed that the City should do more to reduce outdoor air pollution and local greenhouse gases and most supported the promotion of alternative fuel vehicles and the infrastructure to sustain them.

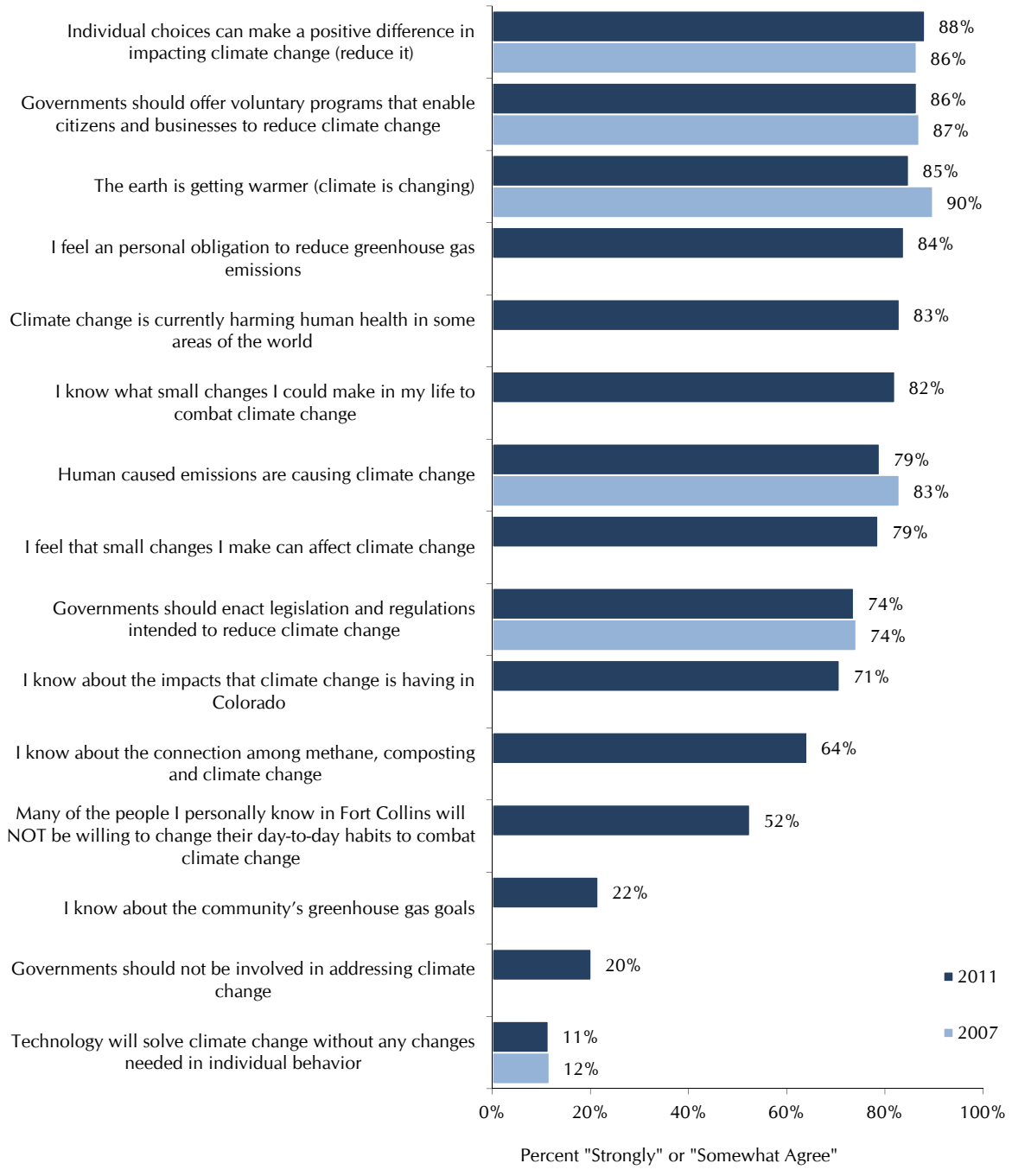
Figure 16: Percent Who Strongly or Somewhat Agree that the City Should Do the Following to Help Improve Air Quality



**In 2007, question "any wait longer than 60 seconds"*
***Was not included in 2007 survey.*

Only 2 in 10 respondents did not see a place for government in addressing climate change, while about 9 in 10 thought individuals could make choices to reduce climate change and governments should encourage voluntary programs to enable individuals and businesses to reduce climate change. Few people thought technology would solve the problem of climate change and most did not know about the City's greenhouse gas goals.

Figure 17: Percent Who Strongly or Somewhat Agree With the Following Statements about Climate Change:



Note: Several categories were added in 2011, if 2007 data is missing it is because the category was not included in 2007.

Most respondents somewhat or strongly agreed that the City should develop plans to adapt to a change in climate; only 19% disagreed.

Respondents were also supportive of the motor vehicles emissions testing program. In 2007, 57% said they would like to see an emissions testing program in Fort Collins even if it was no longer required by the federal government and in 2011 68% said they supported the emissions testing program that was instituted to bring the region into compliance with the ozone standard.

Figure 18: How Strongly Do You Agree or Disagree that the City Should Develop Plans to Adapt to a Change in Climate?

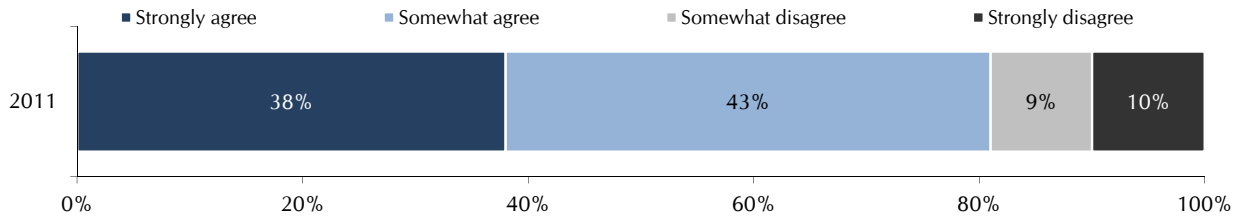
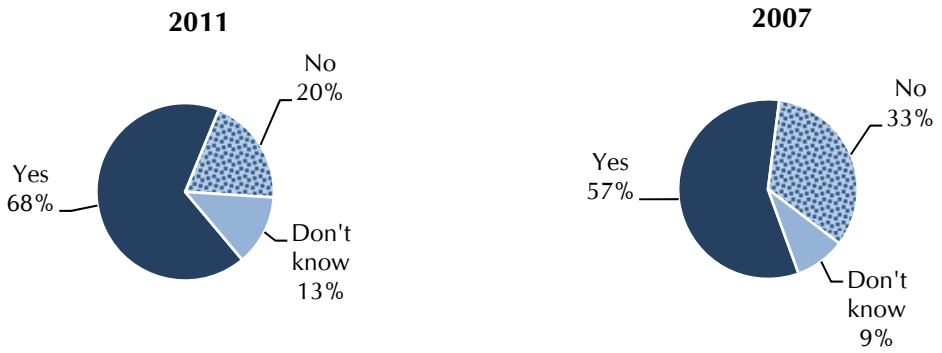


Figure 19: Resident Supports the Motor Vehicle Emissions Testing Program



Note: The wording for this questioning 2011 was "The motor vehicle emissions testing program returned to the North Front Range, including Fort Collins, in November 2010 as part of the State-approved plan to reduce ground-level ozone pollution and bring the region into compliance with the ozone standard. Do you support the return of the vehicle emissions program to Fort Collins?" and in 2007 "Would you support having a mandatory vehicle emissions program in Fort Collins even though the federal government no longer requires it?'

Air Quality and the Home

Radon

The proportion of people who said their home had a radon mitigation system increased from 14% in 2007 to 23% in 2011, and a few more had homes that had been tested for radon (39% in 2011 compared to 34% in 2007) or knew that new homes in Fort Collins had to be tested (33% in 2011 compared to 29% in 2007).

Figure 20: Does Your Home Have a Radon Mitigation System?

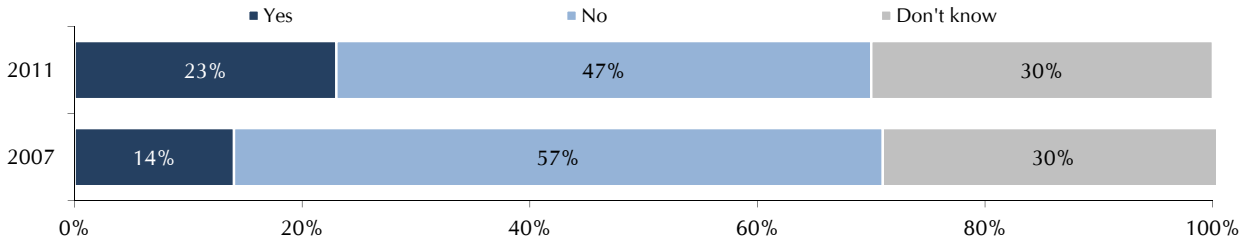


Figure 21: Has Your Home Ever Been Tested for Radon?

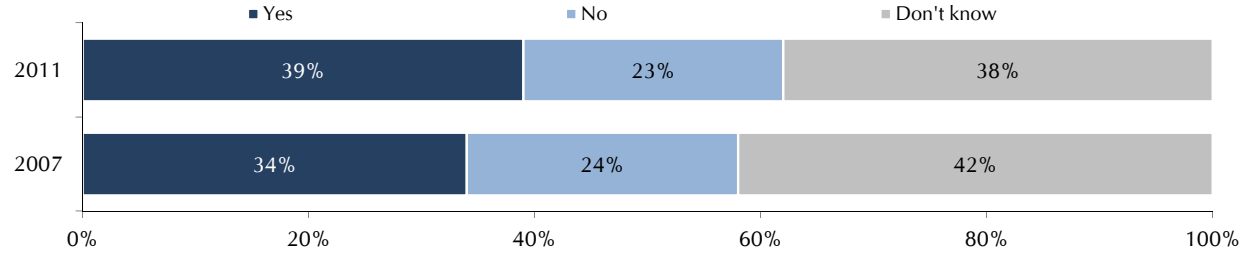
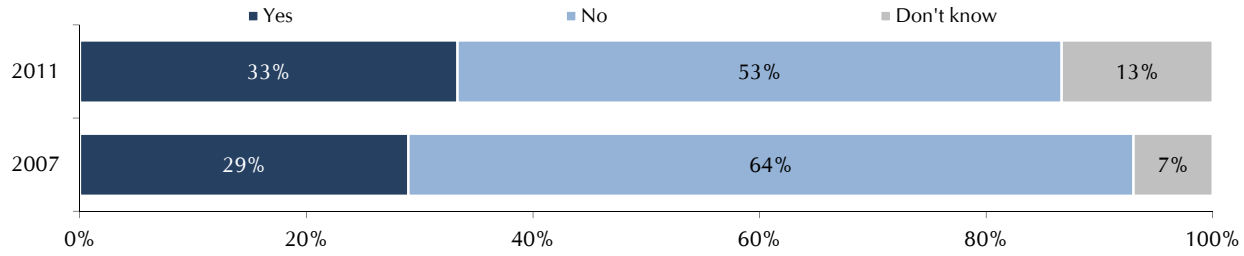


Figure 22: Are You Aware that New Homes Built in Fort Collins are NOW Required to Have a Radon Mitigation System Built In?



Prepared by National Research Center, Inc.

Most people had not purchased a home in the four months before the survey. Of the few who had, 25% said they had received a brochure about radon. (Note that because so few had bought a home in the months before the surveys, the difference between the years is not statistically different).

Figure 23: Did You Purchase a Home in the Past Four Months in the Fort Collins Area?

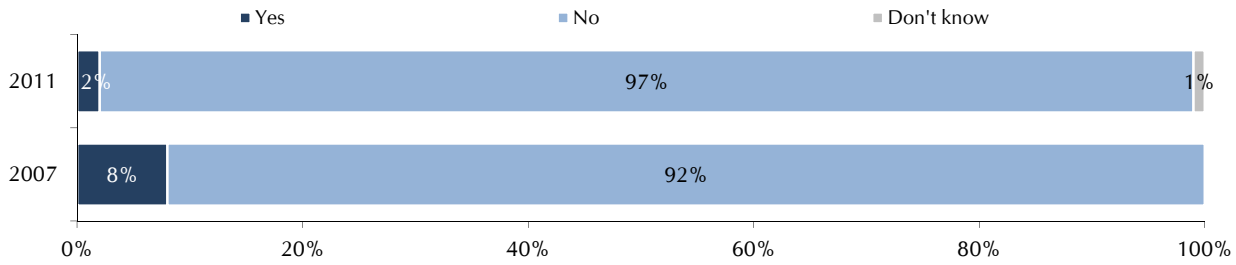


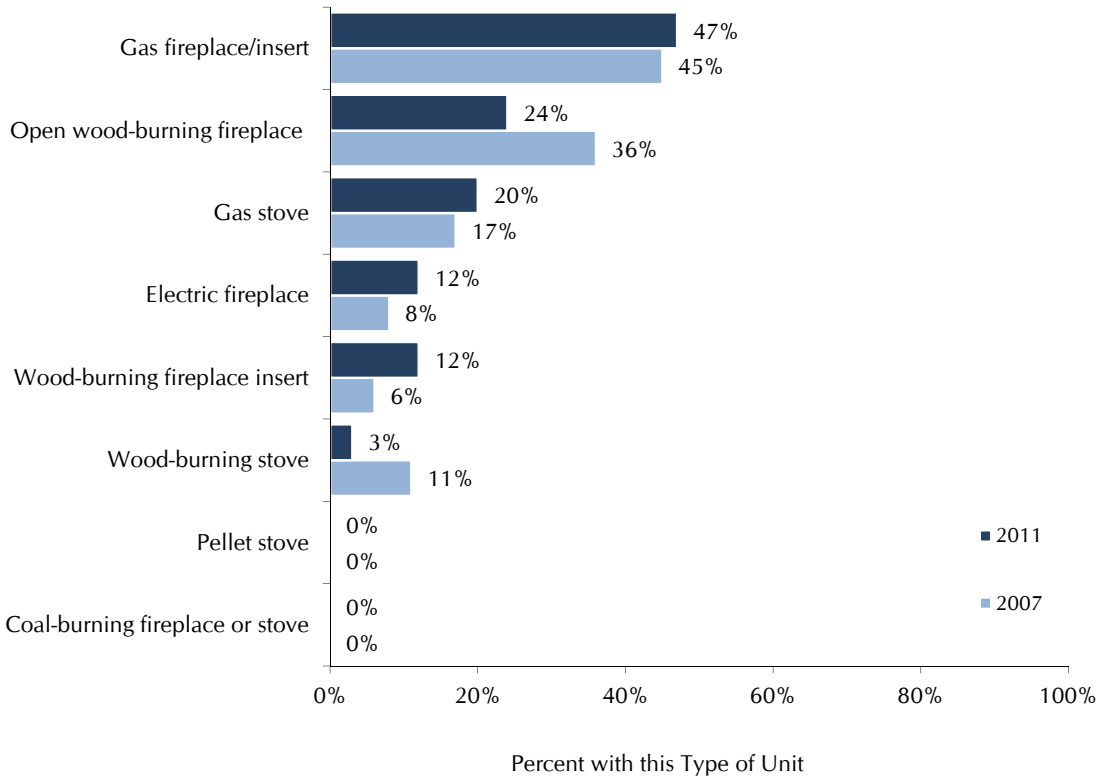
Table 3: If "Yes", Did You Receive a Brochure With Information About Radon?

	2011	2007
Yes	25%	40%
No	61%	40%
Don't know	13%	21%
Total	100%	100%

Additional Heating Units

Respondents were asked if they had any heating units, additional to a central furnace, in their home. In 2011, almost half of the homes had a gas fireplace or insert, similar to 2007. The proportion of homes with an open wood-burning fireplace or wood-burning stove decreased from 2007 to 2011.

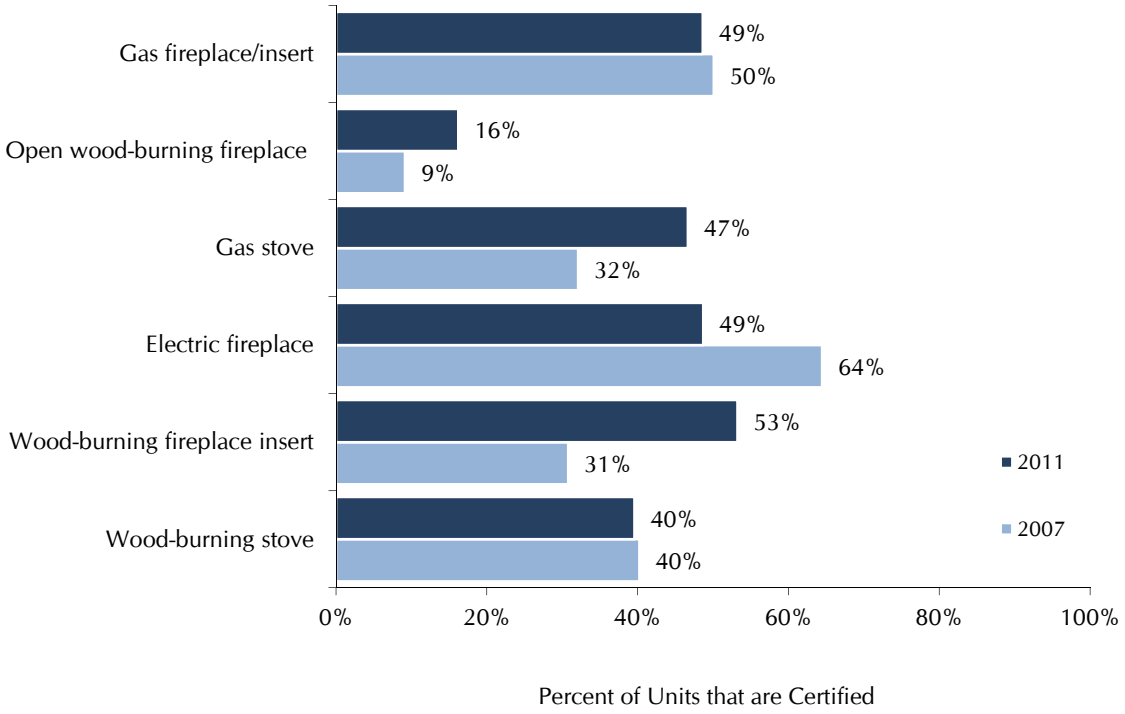
Figure 24: Does Your Home have any of the Units Listed?



Prepared by National Research Center, Inc.

Most of these units were not thought to be ceritified. About half of the gas fireplaces and inserts, wood-burning fireplace inserts and electric fireplaces were certified, but less than half of the other units were certified. Given the small numbers of respondents with gas stoves, electric fireplaces and wood-burning fireplace inserts, the changes (from 2007 to 2011) in the proportions that were certified cannot be said to be statistically significant.

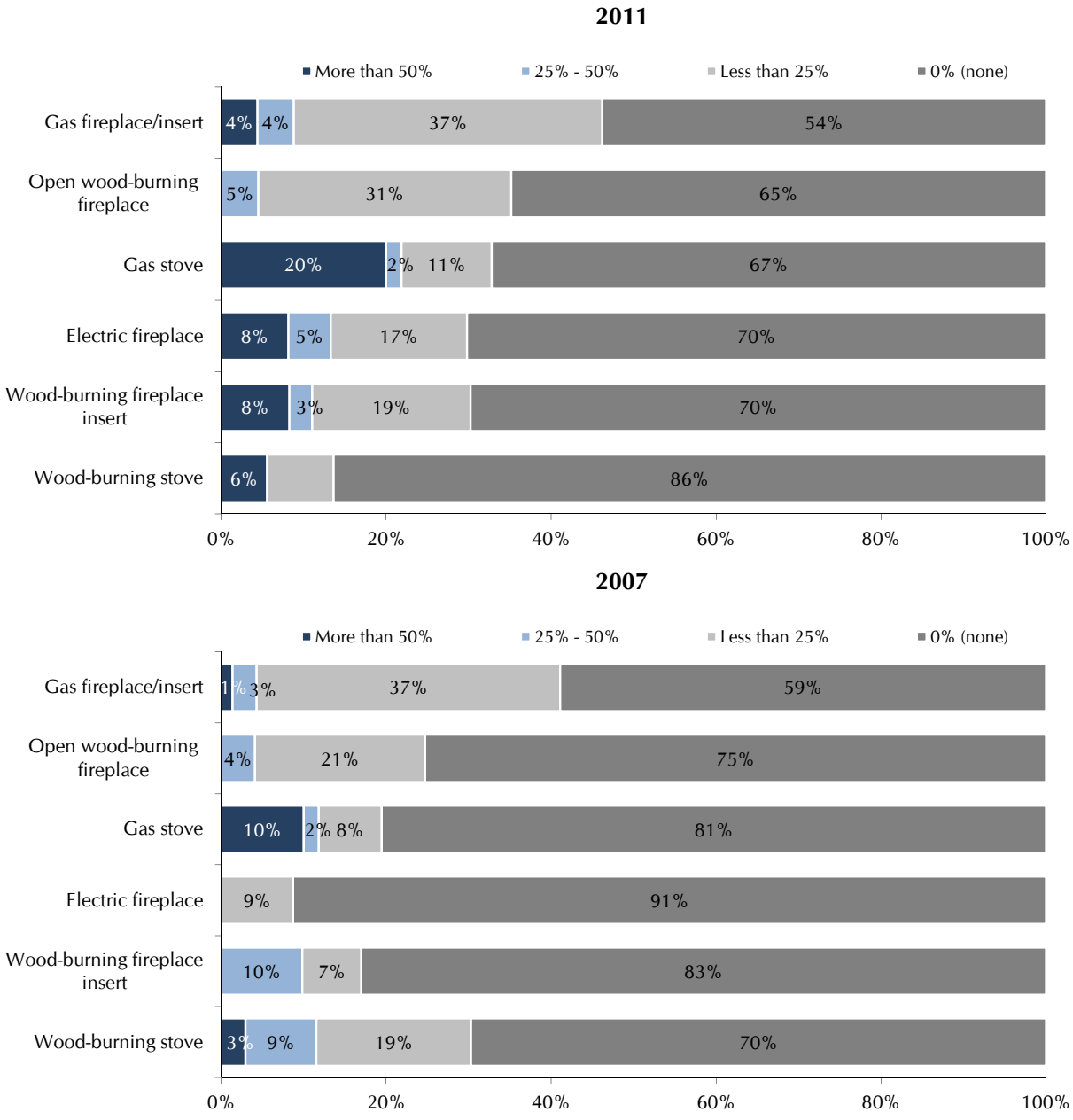
Figure 25: Percent of Units that were Certified:



Prepared by National Research Center, Inc.

The households that had these additional units generally did not use them for much of their heating. If respondents did use them for any heating, they met less than 25% of their overall heating needs. Gas stoves were most commonly used for significant heating (20% of gas stove owners used the stoves for more than half their heating needs). About 20% of households had gas stoves (see Figure 24).

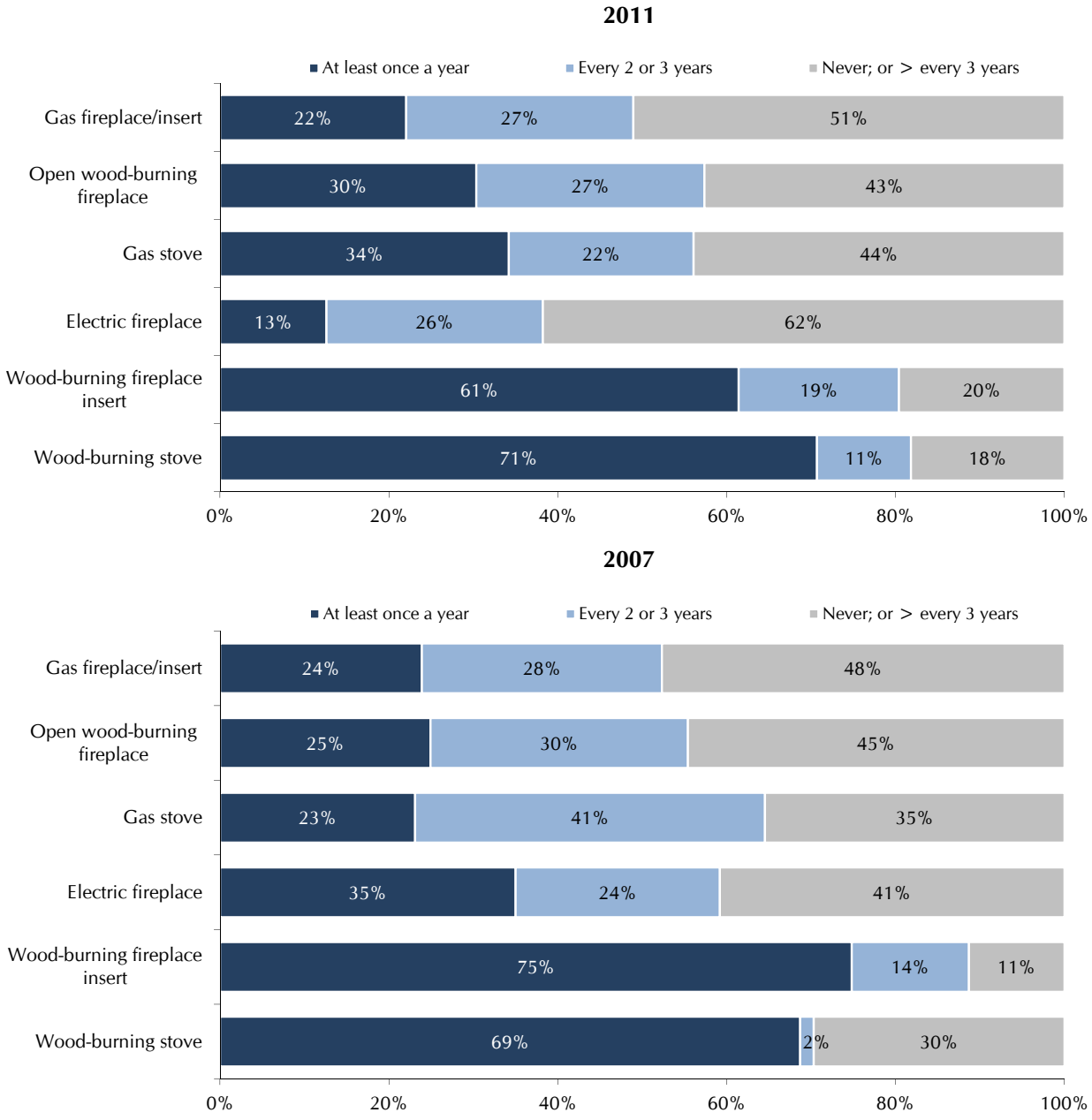
Figure 26: Percentage of Your Heating Needs that each Unit Supplies;



Prepared by National Research Center, Inc.

Respondents with additional heating units in their homes were most likely to have yearly inspections if that unit was wood-burning. About half of the homes with non-wood-burning units had them inspected every one to three years and half said they were inspected never, or greater than a three year frequency.

Figure 27: Frequency that Unit is Inspected or Cleaned (Either by You or by Professionals):



Most wood-burning devices were in the home for 10 years or more; only 10% had been added in the past 9 years. This attrition in adding wood-burning devices may be due to their minimal use. More than half of the households (60%) burned no wood in their devices in the previous winter and 19% burned less than a quarter cord of wood.

Table 4: If You Have a Wood-Burning Device, Approximately How Many Years Old Is It?

	2011
10 or more years old	90%
6 to 7 years old	5%
4 to 5 years old	3%
8 to 9 years old	1%
2 to 3 years old	1%
1 year or less	0%
Total	100%

Table 5: If You Have a Wood-Burning Device, About How Much Wood Did You Burn this Last Winter?

	2011	2007
None - Did not use	60%	66%
Less than ¼ of a cord	19%	15%
¼ to ½ of a cord	3%	9%
More than ½, but less than 1 cord	8%	3%
1 to 2 cords	8%	5%
More than 2 cords	2%	3%
Total	100%	100%

Recycling

About 20% of respondents did not use (or did not know about) the curbside recycling program; for half of these it was not available. Other programs had a much lower usage rate: 36% recycled yard trimmings, 39% recycled electronic waste and 35% used the city's drop off site at Rivendell School.

Table 6: I Recycle at the Following Level: (2011)

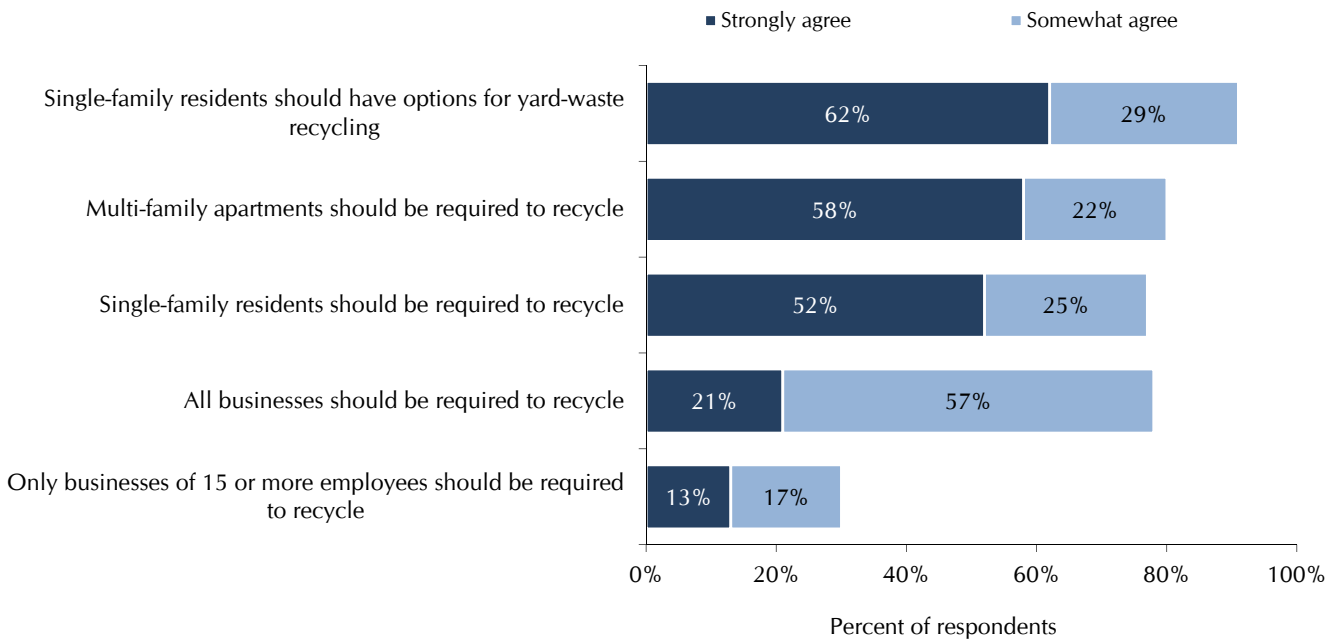
2011	Curbside recycling program	Yard trimmings	Electronic waste	Drop-off site at Rivendell School
Twice a month or more	75%	16%	2%	4%
Once a month	4%	5%	2%	7%
Less than once a month	1%	15%	35%	24%
Never, but it is available	4%	22%	18%	35%
Can't, it is not available	10%	20%	15%	4%
Don't know	5%	23%	27%	25%

Table 7: I Recycle at the Following Level: (2007)

2007	Curbside recycling program	Yard trimmings	Electronic waste
Always	61%	36%	44%
Sometimes	16%	27%	22%
Never, but it is available	14%	18%	15%
Can't/Don't know	9%	19%	19%

Support for recycling in Fort Collins was strong. Most residents in Fort Collins (about 80%) somewhat or strongly agreed that businesses and residents in both single and multi-family dwellings should be required to recycle. About 90% of respondents would like to see yard waste recycling options for single-family residences. Most do not think that smaller businesses should be exempt from recycling requirements.

Figure 28: To Help Increase Recycling I Think: (2011)



Support for Environmental Initiatives in Fort Collins

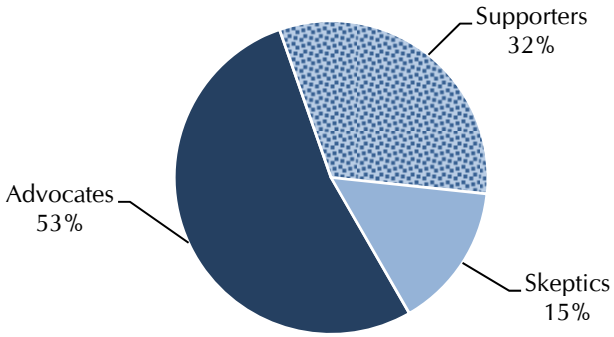
To better understand the profile and belief systems of Fort Collins residents, data were analyzed using a technique referred to as cluster analysis. The analysis sorts respondents into the "clusters," that is, groups in which respondents' responses statistically are most similar to other respondents within the same group and most different from respondents' responses in other groups. (See *Appendix V: Survey Methodology f*or more information about the cluster analysis.)

Responses from four multipart questions (12, 13, 17 and 27) were used in the cluster analysis. In these four questions, respondents were asked how strongly they agreed or disagreed about 40 statements related to climate change, air pollution and recycling (e.g., if these issues were a problem in Fort Collins; how much of an impact they thought they could personally make to reduce pollution and climate change; and if they thought their government should intervene on their behalf to provide services or mandate standards to address these issues).

Respondents had to answer all 40 parts of the four questions to be included in the cluster analysis, 75% of respondents had answered all 40 question parts. To include respondents who had missed some of the question parts, missing data for a question part was replaced with the respondent's average response to all parts of that question, if the respondent had responded to at least 80% of the question parts. Twenty-three respondents (5%) who had not responded to at least 80% of the question parts were excluded from the cluster analysis.

Three groups emerged from the cluster analysis: Advocates, Supporters and Skeptics.

Figure 29: Environmental Cluster Groups:



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Advocates: On average, this group strongly agreed that the earth is getting warmer and were the least likely to think technology could solve this problem. Advocates strongly believed that they personally had a responsibility to change their own behaviors to reduce pollution and greenhouse gases and they strongly believed that the government should intervene to try to improve environmental outcomes.

Supporters: On average, this group somewhat agreed that the earth is getting warmer and somewhat disagreed that technology could solve this problem. Supporters somewhat believed that they personally had a responsibility to change their own behaviors to reduce pollution and greenhouse gases and they somewhat believed that the government should intervene to try to improve environmental outcomes.

Skeptics: On average, this group disagreed that climate change was human caused, somewhat disagreed that the earth was getting warmer and somewhat disagreed that technology could solve this problem. They somewhat disagreed that they had a personal obligation to reduce greenhouse gas emissions but were a little more supportive of the idea that they should help improve air quality. They were not convinced that small changes they make could reduce greenhouse gas emissions or air pollution. Skeptics did not think that government should intervene to try to improve environmental outcomes and they did not think recycling should be mandated.

The table on the following page shows each cluster's average level of agreement (where 100 = strongly agree, 67 = somewhat agree, 33 = somewhat disagree and 0 = strongly disagree) with selected statements about environmental issues.

Table 8: Average Level of Agreement with Statements about Environmental Issues by Cluster

Statements	Clusters		
	Advocates	Supporters	Skeptics
Personal Responsibility			
I feel an personal obligation to reduce greenhouse gas emissions	87	63	36
I feel a personal obligation to help improve the air quality in Fort Collins	88	70	59
I feel that small changes I make can affect climate change	81	61	32
I feel that small changes I make can affect the air quality in Fort Collins	84	72	48
Many of the people I personally know in Fort Collins will NOT be willing to change their day-to-day habits to combat climate change	49	47	72
Government Responsibility			
Governments should not be involved in addressing climate change.	12	28	68
Governments should offer voluntary programs that enable citizens and businesses to reduce climate change	85	66	51
Governments should enact legislation and regulations intended to reduce climate change	87	57	12
[The City should] Do more to reduce local greenhouse gas emissions that affect climate change	89	63	24
[The City should] Do more to reduce outdoor air pollution	87	70	31
[The City should] Do more to reduce indoor air pollution	63	55	21
[The City should] Promote the use of alternative fuel vehicles	86	69	31
Beliefs about Climate Change and Pollution			
Human caused emissions are causing climate change	90	62	19
Individual choices can make a positive difference in impacting climate change (reduce it)	91	72	37
The earth is getting warmer (climate is changing)	94	68	41
Air pollution in Fort Collins is significant enough to hurt the environment	63	41	14
Technology will solve climate change without any changes needed in individual behavior	13	22	25
Support for Recycling			
Single-family residents should have options for yard-waste recycling	91	82	60
Single-family residents should be required to recycle	88	68	31
Multi-family apartments should be required to recycle	89	74	39
All businesses should be required to recycle	90	73	33

Note: average level of agreement where 100 = strongly agree, 67 = somewhat agree, 33 = somewhat disagree and 0 = strongly disagree.

The Skeptics were more likely to rate current air quality in Fort Collins as excellent and less likely to have experienced unacceptable outdoor air quality or have a person in their household who suffers from a respiratory ailment.

Table 9: Overall Rating of the Quality of Outdoor Air in Fort Collins by Cluster

	Advocates	Supporters	Skeptics
Excellent	24%	21%	37%
Good	66%	66%	59%
Fair	9%	10%	4%
Poor	1%	2%	0%
Total	100%	100%	100%

Table 10: Experience of Air Quality Issues by Cluster

	Advocates	Supporters	Skeptics
Has experienced unacceptable outdoor air quality in Fort Collins	40%	32%	18%
Someone in family suffers a respiratory ailments	28%	26%	19%

As we would expect, the Advocates were the most likely to have heard of or participated in Fort Collins air quality programs and the Skeptics were least likely. However, 75% of the Skeptics have participated in curbside recycling and 42% always or frequently turn off their vehicle engines while stopped and waiting for a train to pass.

Table 11: Awareness, Support and Participation in Programs by Cluster

	Advocates	Supporters	Skeptics
Has seen or heard about the "No Idle Zone" signs at schools	50%	38%	28%
Has seen or heard about the billboards and/or signs at railroad crossings encouraging you to turn off your engine while a train passes	82%	76%	77%
Always or frequently turn off your vehicle engine while stopped and waiting for a train to pass	68%	47%	42%
Has participated in the curbside recycling program	90%	81%	75%
Supports the return of the vehicle emissions program to Fort Collins	93%	71%	38%
Has visited the City's new environment website (fcgov.com/green)	6%	2%	7%

Skeptics were most likely to live in a single family residence, more likely to own it and, on average, lived in Fort Collins longer than the Advocates and Supporters.

Table 12: Years Lived in Fort Collins by Cluster

	Advocates	Supporters	Skeptics
How many years have you lived in Fort Collins?	12.5	13.0	20.3

Table 13: Housing Type by Cluster

	Advocates	Supporters	Skeptics
Single-Family	60%	51%	70%
Multi-Family	40%	49%	30%
Total	100%	100%	100%

Table 14: Housing Tenure by Cluster

	Advocates	Supporters	Skeptics
Rented	48%	46%	30%
Owned	52%	54%	70%
Total	100%	100%	100%

Advocates and Supporters were, on average, the younger than Skeptics and more Advocates and Supporters were female than were male. Skeptics were much more likely to be male and in the older age groups.

Table 15: Age Level by Cluster

	Advocates	Supporters	Skeptics
18 to 34	54%	51%	21%
35 to 54	28%	27%	42%
55 +	18%	22%	37%
Total	100%	100%	100%

Table 16: Gender by Cluster

	Advocates	Supporters	Skeptics
Female	54%	57%	24%
Male	46%	43%	76%
Total	100%	100%	100%

As the Skeptic group tended to be older, they also were more likely to be retired and less likely to be students.

The Supporters had the lowest average incomes, followed by the Advocates, with the Skeptics more likely to be in the higher income ranges.

Table 17: Employment Status by Cluster

	Advocates	Supporters	Skeptics
Employed full-time	56%	57%	57%
Employed part-time	13%	12%	5%
Student	12%	7%	0%
Retired	10%	13%	25%
Unemployed	4%	4%	9%
Homemaker	6%	8%	3%
Total	100%	100%	100%

Table 18: Household Income by Cluster

	Advocates	Supporters	Skeptics
Under $34,999	34%	37%	23%
$35,000-$74,999	32%	33%	28%
$75,000-$149,999	28%	24%	38%
$150,000 or more	6%	6%	12%
Total	100%	100%	100%

Appendix I: Respondent Demographics

Characteristics of the survey respondents are displayed in the tables below and on the following page. These are not weighted. For a discussion of weighting see *Appendix V: Survey Methodology*.

When comparing results between subgroups the margin of error (or confidence interval) varies by which groups are compared and how many respondents are in each subgroup. There were 439 respondents in 2011 and 547 in 2007. The margin of error for comparison between these two years is ±6%. Differences in responses between any two groups must be greater than the margin of error in order to be considered a statistically significant different at the .95 confidence level.

Demographic Item 1				
How many years have you lived in Fort Collins?	2011		2007	
	Number	Percent	Number	Percent
2 or less years	61	14%	79	14%
3-5 years	69	16%	58	11%
6-10 years	76	17%	94	17%
11-20 years	86	20%	121	22%
21 or more years	147	33%	195	36%
Total	439	100%	547	100%

Demographic Item 1 - Average				
How many years have you lived in Fort Collins?	2011		2007	
	Number	Average number of years	Number	Average number of years
	439	16.4	547	18.8

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Demographic Item 2					
Including yourself, how many people living with you are in each of the following age brackets?		2011		2007	
		Number	Percent	Number	Percent
0 to 17 years old	0	304	76%	NA	NA
	1	50	13%	NA	NA
	2	31	8%	NA	NA
	3	13	3%	NA	NA
	4	1	0%	NA	NA
	Total	399	100%	NA	NA
18 to 64 years old	0	66	17%	NA	NA
	1	115	29%	NA	NA
	2	173	44%	NA	NA
	3	38	10%	NA	NA
	4	5	1%	NA	NA
	Total	397	100%	NA	NA
65 years or older	0	319	80%	NA	NA
	1	49	12%	NA	NA
	2	31	8%	NA	NA
	Total	399	100%	NA	NA
Total number of people in household	1	120	30%	132	25%
	2	165	42%	248	46%
	3	59	15%	59	11%
	4	37	9%	67	13%
	5	10	3%	23	4%
	6	6	2%	7	1%
	Total	397	100%	536	100%
In 2007, age categories were not asked, only total number of people.					

Demographic Item 2 - Average				
Including yourself, how many people living with you are in each of the following age brackets?	2011		2007	
	Number	Average number of people	Number	Average number of people
0 to 17 years old	399	.4	NA	NA
18 to 64 years old	397	1.5	NA	NA
65 years or older	399	.3	NA	NA
Total number of people in household	397	2.2	536	2.3
In 2007, age categories were not asked, only total number of people in household.				

Prepared by National Research Center, Inc.

Demographic Item 3				
Which category contains your age?	2011		2007	
	Number	Percent	Number	Percent
18 to 24	49	11%	43	8%
25 to 34	85	19%	85	16%
35 to 44	64	14%	75	14%
45 to 54	81	18%	113	21%
55 to 64	84	19%	128	24%
65-74	38	9%	47	9%
75+	44	10%	50	9%
Total	445	100%	541	100%

Demographic Item 4				
Is your home...	2011		2007	
	Number	Percent	Number	Percent
Rented for cash or occupied without cash payment	139	33%	138	24%
Owned by you or someone in this house with a mortgage or free and clear	286	67%	430	76%
Total	425	100%	568	100%

Demographic Item 5				
What is your highest level of education?	2011		2007	
	Number	Percent	Number	Percent
12th grade or less, no diploma	8	2%	9	2%
High school diploma	21	5%	50	9%
Some college, no degree	60	14%	97	18%
Associate's degree (e.g. AA, AS)	37	8%	23	4%
Bachelor's degree (e.g. BA, AB, BS)	161	36%	173	32%
Graduate degree or professional degree	156	35%	191	35%
Total	443	100%	543	100%

Demographic Item 6				
What is your gender?	2011		2007	
	Number	Percent	Number	Percent
Female	259	58%	345	61%
Male	185	42%	221	39%
Total	444	100%	566	100%

Prepared by National Research Center, Inc.

Demographic Item 7 (2011 only)		
Which of the following best describes you?	Number	Percent
Employed full-time	207	48%
Employed part-time	52	12%
Homemaker	28	7%
Retired	94	22%
Student	34	8%
Unemployed, looking for work	11	3%
Unemployed, not looking for work	4	1%
Total	430	100%
2007 employment categories do not match 2011 and are not included in this report		

Demographic Item 8 (2011 only)		
Please indicate your household's annual income.	Number	Percent
Under $15,000	43	11%
$15,000-$24,999	42	11%
$25,000-$34,999	30	8%
$35,000-$49,999	62	16%
$50,000-$74,999	70	18%
$75,000-$99,999	54	14%
$100,000-$149,999	64	16%
$150,000-$199,999	15	4%
$200,000 or more	19	5%
Total	399	100%
2007 income categories did not match 2011 categories and are not included in this report		

Demographic Item 9 (2011 only)		
What is your race?*	Number	Percent
American Indian or Alaskan Native	14	3%
Asian, Asian Indian or Pacific Islander	16	4%
Black or African American	4	1%
Spanish, Hispanic or Latino	17	4%
White	383	91%
Other	8	2%
Total	422	100%
*Not asked in 2007		

Appendix II: Responses to Survey Questions by Year

The following pages contain a complete set of responses to each question on the survey. These data are weighted to better reflect the population norms in the City of Fort Collins.

When comparing results between subgroups the margin of error (or confidence interval) varies by which groups are compared and how many respondents are in each subgroup. There were 439 respondents in 2011 and 547 in 2007. The margin of error for comparison between these two years is ±6%. Differences in responses between any two groups must be greater than the margin of error in order to be considered a statistically significant different at the .95 confidence level.

Question 1

Overall, how would you rate the quality of outdoor air in Fort Collins?	2011		2007	
	Number	Percent	Number	Percent
Excellent	112	25%	82	15%
Good	289	64%	365	64%
Fair	36	8%	94	17%
Poor	5	1%	19	3%
Don't know	9	2%	6	1%
Total	450	100%	566	100%

Question 2

Have you ever experienced unacceptable outdoor air quality in Fort Collins?	2011		2007	
	Number	Percent	Number	Percent
Yes	149	34%	170	34%
No	295	66%	336	66%
Total	444	100%	505	100%
Note: In 2007, respondents could also say "Don't know". These responses were excluded for comparison to 2011				

Question 3 (2011 only)

Does anyone in your household suffer from the following respiratory ailments?	Number	Percent
Asthma	87	19%
Emphysema	5	1%
Heart disease	15	3%
Other respiratory ailments	31	7%
None of these	329	73%
Total	448	100%

Question 3

	2011	2007
Does anyone in your family suffer from asthma, emphysema, heart disease or other respiratory ailments?	26%	26%

Question 4					
The City offers a variety of specific programs and events to address air quality and environmental issues. Do you recall hearing about, or participating in, any of the following?		2011		2007	
		Number	Percent	Number	Percent
"Breathe Easy" anti-idling school signs, posters, ads or articles (in 2007, was "anti-idling campaign"	Participated	83	19%	8	1%
	Heard of it	144	32%	81	14%
	Never heard of it	217	49%	475	85%
	Total	444	100%	562	100%
Lawn mower rebate program	Participated	17	4%	7	1%
	Heard of it	153	34%	83	15%
	Never heard of it	278	62%	477	84%
	Total	447	100%	567	100%
Climate Wise program for businesses	Participated	18	4%	4	1%
	Heard of it	122	27%	119	21%
	Never heard of it	307	69%	445	78%
	Total	447	100%	568	100%
Wood-smoke complaint line	Participated	3	1%	8	1%
	Heard of it	60	13%	54	10%
	Never heard of it	384	86%	502	89%
	Total	447	100%	563	100%
Zero -interest loans for wood stoves/radon	Participated	1	0%	101	18%
	Heard of it	63	14%	169	30%
	Never heard of it	380	86%	298	52%
	Total	445	100%	568	100%
Christmas tree recycling program	Participated	119	27%	140	25%
	Heard of it	243	54%	322	57%
	Never heard of it	85	19%	107	19%
	Total	447	100%	569	100%
Radon testing and mitigation	Participated	73	16%	NA	NA
	Heard of it	204	45%	NA	NA
	Never heard of it	172	38%	NA	NA
	Total	449	100%	NA	NA
Leaf Exchange program	Participated	26	6%	54	10%
	Heard of it	134	30%	253	45%
	Never heard of it	286	64%	258	46%
	Total	446	100%	565	100%
City web-page recycling directory	Participated	68	15%	71	12%
	Heard of it	108	24%	106	19%
	Never heard of it	272	61%	392	69%
	Total	448	100%	568	100%
"I Recycle" campaign*	Participated	88	20%	NA	NA
	Heard of it	97	22%	NA	NA
	Never heard of it	263	59%	NA	NA
	Total	448	100%	NA	NA

Question 4					
The City offers a variety of specific programs and events to address air quality and environmental issues. Do you recall hearing about, or participating in, any of the following?		2011		2007	
		Number	Percent	Number	Percent
City sustainability movie series*	Participated	4	1%	NA	NA
	Heard of it	38	9%	NA	NA
	Never heard of it	405	91%	NA	NA
	Total	446	100%	NA	NA

Question 5 (2011 only)		
Have you seen or heard about the "No Idle Zone" signs at schools?	Number	Percent
Yes	193	43%
No	260	57%
Total	454	100%

Question 6				
Have you seen or heard about the billboards and/or signs at railroad crossings encouraging you to turn off your engine while a train passes?	2011		2007	
	Number	Percent	Number	Percent
Yes	359	79%	365	65%
No	94	21%	196	35%
Total	453	100%	561	100%

Question 7				
Do you ever turn off your vehicle engine while stopped and waiting for a train to pass?	2011		2007	
	Number	Percent	Number	Percent
Always	124	28%	160	28%
Frequently	131	29%	NA	NA
Occasionally	121	27%	290	52%
Never	74	16%	112	20%
Total	451	100%	561	100%
Note: In 2007 "Frequently" was not included as a response option				

Question 8 (2011 only)		
If you do not routinely turn your engine off, why not?	Number	Percent
Don't care/unconcerned	5	2%
Concerned about damaging the engine by re-starting	26	10%
Believe it will use less fuel to just keep the engine running than to stop and start	55	20%
It doesn't occur to me	83	31%
To maintain in-cab comfort	69	25%
Train is too short	49	18%
Never have to wait for a train or don't have a car	12	4%
Don't know how long the train will be	2	1%
Hybrid car (takes care of it already)	9	3%
Not sure engine will restart	6	2%
Other (please describe)	7	3%
Total	273	100%

Question 9				
Please check all the sources where you have seen information about air pollution in Fort Collins.	2011		2007	
	Number	Percent	Number	Percent
City News/Utility bill insert	211	52%	282	67%
Local newspaper (Coloradoan)	143	35%	170	40%
Fliers/brochures	94	23%	115	27%
Word of mouth	75	18%	107	25%
TV	57	14%	91	21%
Radio	53	13%	79	19%
City website (fcgov.com)	96	23%	0	0%
City Air quality program or event	27	7%	34	8%
Don't know	59	14%	0	0%
Other	45	11%	0	0%
City Facebook page	6	1%	NA	NA
City Twitter	4	1%	NA	NA
Total	409	100%	424	100%

Question 10 (2011 only)		
Have you ever visited the City's new environment website (fcgov.com/green)?	Number	Percent
Yes	21	5%
No	428	95%
Total	449	100%

Question 11 (2011 only)		
How would you rate the usefulness of the information provided on this website (fcgov.com/green)?	Number	Percent
Excellent	3	13%
Good	14	62%
Fair	3	15%
Poor	0	0%
Don't know	2	10%
Total	23	100%

Question 12					
How strongly do you agree or disagree with each of the following statements about air pollution?		2011		2007	
		Number	Percent	Number	Percent
I feel a personal obligation to help improve the air quality in Fort Collins	Strongly agree	184	41%	319	56%
	Somewhat agree	224	50%	220	38%
	Somewhat disagree	27	6%	15	3%
	Strongly disagree	5	1%	8	1%
	Don't know	10	2%	9	2%
	Total	450	100%	573	100%
I know what small changes I could make in my life to help air quality	Strongly agree	145	32%	219	38%
	Somewhat agree	198	44%	253	44%
	Somewhat disagree	61	14%	50	9%
	Strongly disagree	10	2%	18	3%
	Don't know	36	8%	32	6%
	Total	449	100%	572	100%
I feel that small changes I make can affect the air quality in Fort Collins	Strongly agree	172	38%	260	46%
	Somewhat agree	202	45%	221	39%
	Somewhat disagree	42	9%	65	12%
	Strongly disagree	13	3%	6	1%
	Don't know	17	4%	11	2%
	Total	446	100%	562	100%
Many of the people I personally know in Fort Collins ARE willing to change their day-to-day transportation habits to improve air quality	Strongly agree	42	9%	142	25%
	Somewhat agree	140	31%	261	46%
	Somewhat disagree	151	34%	89	16%
	Strongly disagree	60	13%	33	6%
	Don't know	54	12%	39	7%
	Total	448	100%	563	100%

Question 12 (Continued)					
How strongly do you agree or disagree with each of the following statements about air pollution?		2011		2007	
		Number	Percent	Number	Percent
Mountain views are obscured by the air pollution in Fort Collins	Strongly agree	39	9%	67	12%
	Somewhat agree	105	24%	172	31%
	Somewhat disagree	147	33%	183	32%
	Strongly disagree	132	29%	108	19%
	Don't know	24	5%	34	6%
	Total	448	100%	564	100%
Indoor air pollution is a problem in my home	Strongly agree	8	2%	33	6%
	Somewhat agree	53	12%	86	15%
	Somewhat disagree	95	21%	155	28%
	Strongly disagree	249	55%	216	38%
	Don't know	46	10%	73	13%
	Total	450	100%	563	100%
Air pollution in Fort Collins hurts the local economy	Strongly agree	37	8%	65	12%
	Somewhat agree	127	28%	178	32%
	Somewhat disagree	113	25%	149	26%
	Strongly disagree	86	19%	59	11%
	Don't know	85	19%	111	20%
	Total	447	100%	562	100%
Air pollution in Fort Collins makes the air smell bad	Strongly agree	52	12%	83	15%
	Somewhat agree	136	30%	189	33%
	Somewhat disagree	107	24%	187	33%
	Strongly disagree	113	25%	83	14%
	Don't know	40	9%	30	5%
	Total	448	100%	572	100%
Air pollution in Fort Collins causes human health problems for at least some of the residents	Strongly agree	112	25%	87	15%
	Somewhat agree	170	37%	248	44%
	Somewhat disagree	62	14%	106	19%
	Strongly disagree	40	9%	38	7%
	Don't know	69	15%	90	16%
	Total	452	100%	569	100%
Air pollution in Fort Collins is significant enough to hurt the environment	Strongly agree	74	16%	127	23%
	Somewhat agree	109	24%	196	36%
	Somewhat disagree	102	23%	116	21%
	Strongly disagree	86	19%	46	8%
	Don't know	80	18%	64	12%
	Total	451	100%	550	100%

Question 13					
How strongly do you agree or disagree that the City should do each of the following to help improve air quality in Fort Collins?		2011		2007	
		Number	Percent	Number	Percent
Do more to reduce indoor air pollution	Strongly agree	59	13%	72	13%
	Somewhat agree	172	38%	207	36%
	Somewhat disagree	95	21%	147	26%
	Strongly disagree	53	12%	66	12%
	Don't know	70	16%	75	13%
	Total	449	100%	567	100%
Do more to reduce outdoor air pollution	Strongly agree	165	37%	253	45%
	Somewhat agree	182	41%	269	47%
	Somewhat disagree	38	8%	24	4%
	Strongly disagree	23	5%	15	3%
	Don't know	40	9%	7	1%
	Total	449	100%	568	100%
Improve traffic light timing to reduce vehicle idling at lights	Strongly agree	295	66%	409	72%
	Somewhat agree	123	27%	138	24%
	Somewhat disagree	17	4%	9	2%
	Strongly disagree	9	2%	2	0%
	Don't know	5	1%	9	2%
	Total	450	100%	567	100%
Encourage drivers to turn off vehicles at any wait longer than 30 seconds, except at traffic signals*	Strongly agree	163	36%	206	36%
	Somewhat agree	155	34%	176	31%
	Somewhat disagree	78	17%	118	21%
	Strongly disagree	36	8%	54	9%
	Don't know	18	4%	16	3%
	Total	450	100%	571	100%
Promote the use of alternative fuel vehicles	Strongly agree	193	43%	343	61%
	Somewhat agree	149	33%	150	27%
	Somewhat disagree	59	13%	48	9%
	Strongly disagree	28	6%	7	1%
	Don't know	17	4%	15	3%
	Total	446	100%	563	100%
Invest in publically available alternative fueling infrastructure such as electric vehicle charging stations	Strongly agree	165	37%	NA	NA
	Somewhat agree	134	30%	NA	NA
	Somewhat disagree	68	15%	NA	NA
	Strongly disagree	49	11%	NA	NA
	Don't know	32	7%	NA	NA
	Total	448	100%	NA	NA

*In 2007, the wording was "Encourage drivers to turn off vehicles at any wait longer than one minute, except at traffic signals"

Question 13 (Continued)						
How strongly do you agree or disagree that the City should do each of the following to help improve air quality in Fort Collins?		2011			2007	
		Number	Percent		Number	Percent
Require non-certified wood stoves to be removed/replaced at time of home sale	Strongly agree	114	25%	164	29%	
	Somewhat agree	130	29%	145	26%	
	Somewhat disagree	78	17%	95	17%	
	Strongly disagree	75	17%	95	17%	
	Don't know	54	12%	58	10%	
	Total	450	100%	557	100%	
Do more to reduce local greenhouse gas emissions that affect climate change	Strongly agree	176	39%	264	46%	
	Somewhat agree	160	36%	213	37%	
	Somewhat disagree	48	11%	38	7%	
	Strongly disagree	31	7%	34	6%	
	Don't know	32	7%	22	4%	
	Total	447	100%	571	100%	
Prohibit wood-burning on high-pollution days	Strongly agree	182	40%	278	49%	
	Somewhat agree	139	31%	159	28%	
	Somewhat disagree	56	12%	73	13%	
	Strongly disagree	37	8%	41	7%	
	Don't know	36	8%	17	3%	
	Total	450	100%	569	100%	
Do more to reduce the "brown cloud" and improve visibility	Strongly agree	186	41%	270	47%	
	Somewhat agree	161	36%	227	40%	
	Somewhat disagree	51	11%	35	6%	
	Strongly disagree	13	3%	13	2%	
	Don't know	39	9%	26	5%	
	Total	450	100%	571	100%	

Question 14					
How strongly do you agree or disagree that air pollution in Fort Collins affects you in the following ways?		2011		2007	
		Number	Percent	Number	Percent
Triggers allergies/respiratory problems	Strongly agree	63	14%	92	17%
	Somewhat agree	130	29%	135	24%
	Somewhat disagree	102	23%	127	23%
	Strongly disagree	112	25%	152	27%
	Don't know	43	10%	48	9%
	Total	451	100%	555	100%
Causes long-term respiratory problems	Strongly agree	56	12%	104	19%
	Somewhat agree	93	21%	141	26%
	Somewhat disagree	125	28%	119	22%
	Strongly disagree	92	21%	92	17%
	Don't know	84	19%	96	17%
	Total	450	100%	551	100%
Causes health problems for me or a member of my family	Strongly agree	49	11%	62	11%
	Somewhat agree	94	21%	91	17%
	Somewhat disagree	124	28%	179	33%
	Strongly disagree	123	27%	152	28%
	Don't know	62	14%	63	12%
	Total	451	100%	547	100%
Causes burning/itchy eyes, nose in me or others	Strongly agree	56	12%	70	13%
	Somewhat agree	130	29%	157	29%
	Somewhat disagree	114	25%	127	23%
	Strongly disagree	109	24%	129	24%
	Don't know	42	9%	62	11%
	Total	452	100%	545	100%
Obscures mountain views	Strongly agree	53	12%	88	16%
	Somewhat agree	135	30%	183	33%
	Somewhat disagree	132	29%	163	30%
	Strongly disagree	105	23%	75	14%
	Don't know	24	5%	40	7%
	Total	449	100%	550	100%
Causes a "brown cloud"	Strongly agree	61	13%	135	24%
	Somewhat agree	154	34%	223	40%
	Somewhat disagree	109	24%	97	18%
	Strongly disagree	86	19%	56	10%
	Don't know	42	9%	44	8%
	Total	452	100%	556	100%
Affects my indoor air quality	Strongly agree	38	8%	53	10%
	Somewhat agree	129	29%	171	31%
	Somewhat disagree	127	28%	148	27%
	Strongly disagree	97	22%	102	18%
	Don't know	59	13%	82	15%
	Total	451	100%	555	100%

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Question 15					
How frequently, if ever, do you do the following to help reduce air pollution in the City of Fort Collins?		2011		2007	
		Number	Percent	Number	Percent
Reduce the number of miles I drive my vehicle	Always	107	24%	NA	NA
	Frequently	149	34%	222	40%
	Occasionally	109	25%	199	36%
	Rarely	52	12%	91	16%
	Never	24	5%	46	8%
	Total	441	100%	559	100%
Make sure my vehicle is tuned up	Always	172	39%	NA	NA
	Frequently	152	35%	356	63%
	Occasionally	80	18%	155	28%
	Rarely	25	6%	28	5%
	Never	12	3%	22	4%
	Total	440	100%	562	100%
Ride a bike/or walk for errands and/or work	Always	74	17%	NA	NA
	Frequently	102	23%	140	25%
	Occasionally	117	27%	114	21%
	Rarely	76	17%	102	18%
	Never	72	16%	201	36%
	Total	440	100%	556	100%
Take the bus for errands and/or work	Always	20	4%	NA	NA
	Frequently	13	3%	27	5%
	Occasionally	32	7%	37	7%
	Rarely	77	17%	113	20%
	Never	301	68%	388	69%
	Total	443	100%	565	100%
Take carpools/vanpool	Always	16	4%	NA	NA
	Frequently	44	10%	NA	NA
	Occasionally	94	21%	NA	NA
	Rarely	85	19%	NA	NA
	Never	200	45%	NA	NA
	Total	439	100%	NA	NA
Eliminate unnecessary vehicle idling	Always	96	22%	NA	NA
	Frequently	134	30%	NA	NA
	Occasionally	133	30%	NA	NA
	Rarely	44	10%	NA	NA
	Never	36	8%	NA	NA
	Total	442	100%	NA	NA

Question 16					
On winter mornings, how long do you typically warm up your car before driving away?		2011		2007	
		Number	Percent	Number	Percent
I do not have a car		10	2%	NA	NA
I do not commute by car		24	6%	NA	NA
I do not warm up my car and it is parked outside		55	13%	110	20%
I do not warm up my car as it is parked in a garage		136	31%	183	33%
0-2 minutes		104	24%	119	22%
3-5 minutes		78	18%	108	20%
6-10 minutes		21	5%	30	5%
More than 10 minutes		4	1%	1	0%
Total		432	100%	552	100%
Note: In 2007 the question did not include the following response options "do not have car" and "do not commute by car"					

Question 17					
How strongly do you agree or disagree with each of the following statements about climate change?		2011		2007	
		Number	Percent	Number	Percent
The earth is getting warmer (climate is changing)	Strongly agree	233	52%	316	56%
	Somewhat agree	125	28%	170	30%
	Somewhat disagree	41	9%	21	4%
	Strongly disagree	23	5%	35	6%
	Don't know	25	6%	27	5%
	Total	447	100%	569	100%
Human caused emissions are causing climate change	Strongly agree	186	42%	269	48%
	Somewhat agree	134	30%	152	27%
	Somewhat disagree	42	9%	33	6%
	Strongly disagree	44	10%	54	10%
	Don't know	41	9%	58	10%
	Total	447	100%	566	100%
Individual choices can make a positive difference in impacting climate change (reduce it)	Strongly agree	217	49%	269	48%
	Somewhat agree	160	36%	181	32%
	Somewhat disagree	19	4%	41	7%
	Strongly disagree	32	7%	30	5%
	Don't know	17	4%	40	7%
	Total	445	100%	561	100%
Technology will solve climate change without any changes needed in individual behavior	Strongly agree	6	1%	10	2%
	Somewhat agree	42	10%	51	9%
	Somewhat disagree	119	27%	165	29%
	Strongly disagree	253	58%	295	52%
	Don't know	20	4%	43	8%
	Total	440	100%	563	100%

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Question 17 (Continued)					
How strongly do you agree or disagree with each of the following statements about climate change?		2011		2007	
		Number	Percent	Number	Percent
Governments should not be involved in addressing climate change	Strongly agree	40	9%	NA	NA
	Somewhat agree	45	10%	NA	NA
	Somewhat disagree	108	25%	NA	NA
	Strongly disagree	228	52%	NA	NA
	Don't know	18	4%	NA	NA
	Total	440	100%	NA	NA
Governments should offer voluntary programs that enable citizens and businesses to reduce climate change	Strongly agree	179	41%	258	46%
	Somewhat agree	185	42%	204	36%
	Somewhat disagree	33	7%	22	4%
	Strongly disagree	24	5%	47	8%
	Don't know	21	5%	33	6%
	Total	442	100%	564	100%
Governments should enact legislation and regulations intended to reduce climate change	Strongly agree	166	38%	253	45%
	Somewhat agree	139	32%	137	24%
	Somewhat disagree	56	13%	51	9%
	Strongly disagree	53	12%	85	15%
	Don't know	27	6%	40	7%
	Total	441	100%	567	100%
I feel an personal obligation to reduce greenhouse gas emissions	Strongly agree	164	37%	NA	NA
	Somewhat agree	190	43%	NA	NA
	Somewhat disagree	40	9%	NA	NA
	Strongly disagree	28	6%	NA	NA
	Don't know	17	4%	NA	NA
	Total	439	100%	NA	NA
I know what small changes I could make in my life to combat climate change	Strongly agree	136	31%	NA	NA
	Somewhat agree	193	44%	NA	NA
	Somewhat disagree	51	12%	NA	NA
	Strongly disagree	21	5%	NA	NA
	Don't know	42	9%	NA	NA
	Total	442	100%	NA	NA
I feel that small changes I make can affect climate change	Strongly agree	131	30%	NA	NA
	Somewhat agree	191	44%	NA	NA
	Somewhat disagree	59	13%	NA	NA
	Strongly disagree	29	7%	NA	NA
	Don't know	27	6%	NA	NA
	Total	437	100%	NA	NA

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Question 17 (Continued)					
How strongly do you agree or disagree with each of the following statements about climate change?		2011		2007	
		Number	Percent	Number	Percent
Many of the people I personally know in Fort Collins will NOT be willing to change their day-to-day habits to combat climate change	Strongly agree	59	13%	NA	NA
	Somewhat agree	140	32%	NA	NA
	Somewhat disagree	129	29%	NA	NA
	Strongly disagree	51	12%	NA	NA
	Don't know	62	14%	NA	NA
	Total	441	100%	NA	NA
I know about the impacts that climate change is having in Colorado	Strongly agree	82	19%	NA	NA
	Somewhat agree	165	38%	NA	NA
	Somewhat disagree	78	18%	NA	NA
	Strongly disagree	24	6%	NA	NA
	Don't know	86	20%	NA	NA
	Total	435	100%	NA	NA
I know about the connection among methane, composting and climate change	Strongly agree	88	20%	NA	NA
	Somewhat agree	121	28%	NA	NA
	Somewhat disagree	78	18%	NA	NA
	Strongly disagree	39	9%	NA	NA
	Don't know	114	26%	NA	NA
	Total	441	100%	NA	NA
I know about the community's greenhouse gas goals	Strongly agree	10	2%	NA	NA
	Somewhat agree	49	11%	NA	NA
	Somewhat disagree	118	27%	NA	NA
	Strongly disagree	97	22%	NA	NA
	Don't know	169	38%	NA	NA
	Total	443	100%	NA	NA
Climate change is currently harming human health in some areas of the world	Strongly agree	199	45%	NA	NA
	Somewhat agree	129	29%	NA	NA
	Somewhat disagree	44	10%	NA	NA
	Strongly disagree	24	5%	NA	NA
	Don't know	48	11%	NA	NA
	Total	443	100%	NA	NA

Question 18 (2011 only)		
How strongly do you agree or disagree that the City should develop plans to adapt to a change in climate?	Number	Percent
Strongly agree	156	35%
Somewhat agree	175	40%
Somewhat disagree	36	8%
Strongly disagree	41	9%
Don't know	33	7%
Total	441	100%

Question 19

Please circle one number for each question below:		2011		2007	
		Number	Percent	Number	Percent
Does your home have a radon mitigation system?	Yes	103	23%	76	14%
	No	211	47%	317	57%
	Don't know	133	30%	167	30%
	Total	446	100%	560	100%
Has your home ever been tested for radon?	Yes	173	39%	194	34%
	No	104	23%	137	24%
	Don't know	170	38%	237	42%
	Total	447	100%	568	100%
Are you aware that new homes built in Fort Collins are NOW required to have a radon mitigation system built in?	Yes	150	33%	163	29%
	No	239	53%	357	64%
	Don't know	58	13%	38	7%
	Total	447	100%	558	100%
Did you purchase a home in the past four months in the Fort Collins area?	Yes	11	2%	45	8%
	No	429	97%	507	92%
	Don't know	5	1%	0	0%
	Total	445	100%	552	100%
If "Yes", did you receive a brochure with information about radon?	Yes	12	25%	43	40%
	No	28	61%	43	40%
	Don't know	6	13%	23	21%
	Total	46	100%	109	100%

Question 20a				
We'd like to know about the ways you heat your home. In the table below, please tell us: (a) If your home has any of the units listed?	2011		2007	
	Number	Percent	Number	Percent
Open wood-burning fireplace	64	24%	126	36%
Wood-burning fireplace insert	31	12%	21	6%
Wood-burning stove	8	3%	40	11%
Coal-burning fireplace or stove	1	0%	1	0%
Electric fireplace	33	12%	26	8%
Gas fireplace/insert	125	47%	159	45%
Gas stove	53	20%	60	17%
Pellet stove	0	0%	1	0%
Total	264	100%	349	100%

Question 20b				
Which of the units you have are certified?	2011		2007	
	Number	Percent of Units	Number	Percent of Units
Open wood-burning fireplace	65	16%	126	9%
Wood-burning fireplace insert	33	53%	21	31%
Wood-burning stove	9	40%	41	40%
Coal-burning fireplace or stove	2	50%	1	0%
Electric fireplace	35	49%	26	64%
Gas fireplace/insert	128	49%	161	50%
Gas stove	55	47%	62	32%
Pellet stove	1	100%	1	100%

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Question 20c					
Your best estimate of the percentage of your heating needs that each unit supplies.		2011		2007	
		Number	Percent	Number	Percent
Open wood-burning fireplace	0% (none)	48	65%	136	75%
	Less than 25%	23	31%	37	21%
	25% - 50%	3	5%	7	4%
	More than 50%	0	0%	0	0%
	Total	74	100%	180	100%
Wood-burning fireplace insert	0% (none)	27	70%	55	83%
	Less than 25%	7	19%	5	7%
	25% - 50%	1	3%	7	10%
	More than 50%	3	8%	0	0%
	Total	38	100%	66	100%
Wood-burning stove	0% (none)	15	86%	58	70%
	Less than 25%	1	8%	16	19%
	25% - 50%	0	0%	7	9%
	More than 50%	1	6%	2	3%
	Total	18	100%	83	100%
Electric fireplace	0% (none)	29	70%	55	91%
	Less than 25%	7	17%	5	9%
	25% - 50%	2	5%	0	0%
	More than 50%	3	8%	0	0%
	Total	41	100%	60	100%
Gas fireplace/insert	0% (none)	67	54%	112	59%
	Less than 25%	47	37%	70	37%
	25% - 50%	5	4%	6	3%
	More than 50%	5	4%	3	1%
	Total	125	100%	190	100%
Gas stove	0% (none)	36	67%	69	81%
	Less than 25%	6	11%	7	8%
	25% - 50%	1	2%	2	2%
	More than 50%	11	20%	9	10%
	Total	53	100%	85	100%

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Question 20d					
How often the unit is inspected or cleaned (either by you or by professionals)?		2011		2007	
		Number	Percent	Number	Percent
Open wood-burning fireplace	At least once a year	17	30%	31	25%
	Every 2 or 3 years	15	27%	38	30%
	Never; or > every 3 years	23	43%	55	45%
	Total	54	100%	124	100%
Wood-burning fireplace insert	At least once a year	13	61%	9	75%
	Every 2 or 3 years	4	19%	2	14%
	Never; or > every 3 years	4	20%	1	11%
	Total	21	100%	13	100%
Wood-burning stove	At least once a year	4	71%	18	69%
	Every 2 or 3 years	1	11%	0	2%
	Never; or > every 3 years	1	18%	8	30%
	Total	5	100%	27	100%
Electric fireplace	At least once a year	3	13%	5	35%
	Every 2 or 3 years	7	26%	3	24%
	Never; or > every 3 years	17	62%	6	41%
	Total	27	100%	14	100%
Gas fireplace/insert	At least once a year	22	22%	33	24%
	Every 2 or 3 years	27	27%	39	28%
	Never; or > every 3 years	51	51%	65	48%
	Total	100	100%	136	100%
Gas stove	At least once a year	13	34%	9	23%
	Every 2 or 3 years	8	22%	16	41%
	Never; or > every 3 years	17	44%	14	35%
	Total	38	100%	39	100%

Question 21				
If you have a wood-burning device, approximately how many years old is it?	2011		2007	
	Number	Percent	Number	Percent
10 or more years old	74	90%	NA	NA
6 to 7 years old	4	5%	NA	NA
4 to 5 years old	2	3%	NA	NA
8 to 9 years old	1	1%	NA	NA
2 to 3 years old	1	1%	NA	NA
1 year or less	0	0%	NA	NA
Total	82	100%	NA	NA

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Question 22					
If you have a wood-burning device, about how much wood did you burn this last winter (2010-2011)? (Note: A cord is a stack 4 feet wide by 4 feet high by 8 feet long.)		2011		2007	
		Number	Percent	Number	Percent
None - Did not use		57	60%	325	66%
Less than ¼ of a cord		18	19%	72	15%
¼ to ½ of a cord		3	3%	43	9%
1 to 2 cords		7	8%	24	5%
More than ½, but less than 1 cord		7	8%	16	3%
More than 2 cords		2	2%	15	3%
Total		94	100%	495	100%

Question 23					
Using the scales shown below, please rate your concern for the pollutants listed as they relate to you and your family's day-to-day health and environment:		2011		2007	
		Number	Percent	Number	Percent
Gasoline Vehicle Emissions	Very serious	143	32%	204	36%
	Somewhat serious	193	43%	265	47%
	Not serious	83	19%	83	15%
	Don't know	26	6%	18	3%
	Total	446	100%	569	100%
Diesel Vehicle Emissions	Very serious	165	37%	241	42%
	Somewhat serious	163	37%	211	37%
	Not serious	76	17%	87	15%
	Don't know	40	9%	31	5%
	Total	443	100%	571	100%
Wood smoke from fireplaces, wood stoves	Very serious	55	12%	76	13%
	Somewhat serious	155	35%	203	36%
	Not serious	192	43%	244	43%
	Don't know	42	10%	46	8%
	Total	444	100%	568	100%
Ground-level Ozone	Very serious	90	20%	189	33%
	Somewhat serious	163	37%	171	30%
	Not serious	82	19%	104	18%
	Don't know	108	24%	102	18%
	Total	444	100%	566	100%

Question 24					
The motor vehicle emissions testing program returned to the North Front Range, including Fort Collins, in November 2010 as part of the State-approved plan to reduce ground-level ozone pollution and bring the region into compliance with the ozone standard. Do you support the return of the vehicle emissions program to Fort Collins?		2011		2007	
		Number	Percent	Number	Percent
Yes		303	68%	327	57%
No		88	20%	189	33%
Don't know		58	13%	53	9%
Total		449	100%	569	100%
In 2007, question wording was "Would you support having a mandatory vehicle emissions program in Fort Collins even though the federal government no longer requires it?"					

Question 26					
I recycle at the following level:		2011		2007	
		Number	Percent	Number	Percent
Curbside recycling program	Can't, it is not available	43	10%	49	9%
	Never, but it is available	18	4%	79	14%
	Less than once a month	3	1%	0	0%
	Once a month	19	4%	90	16%
	Twice a month or more	326	75%	345	61%
	Don't know	23	5%	0	0%
	Total	432	100%	564	100%
Yard trimmings	Can't, it is not available	79	20%	106	19%
	Never, but it is available	85	22%	98	18%
	Less than once a month	58	15%	0	0%
	Once a month	20	5%	150	27%
	Twice a month or more	62	16%	196	36%
	Don't know	90	23%	0	0%
	Total	393	100%	549	100%
Electronic waste	Can't, it is not available	62	15%	106	19%
	Never, but it is available	71	18%	81	15%
	Less than once a month	142	35%	0	0%
	Once a month	7	2%	121	22%
	Twice a month or more	9	2%	239	44%
	Don't know	110	27%	0	0%
	Total	400	100%	547	100%
Drop-off site at Rivendell School, NE corner of Riverside and E. Prospect*	Can't, it is not available	18	4%	NA	NA
	Never, but it is available	140	35%	NA	NA
	Less than once a month	97	24%	NA	NA
	Once a month	29	7%	NA	NA
	Twice a month or more	17	4%	NA	NA
	Don't know	103	25%	NA	NA
	Total	405	100%	NA	NA
2007 had different response categories they matched to 2011 data as follows: "Always" = "Twice a month or more, "Sometimes" = "Once a month", "Never" = "Never", "Can't/Don't know" = "Can't, it is not available					

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Question 27 (2011 only)			
To help increase recycling I think:		Number	Percent
All businesses should be required to recycle	Strongly agree	256	57%
	Somewhat agree	95	21%
	Somewhat disagree	46	10%
	Strongly disagree	44	10%
	Don't know	6	1%
	Total	447	100%
Only businesses of 15 or more employees should be required to recycle	Strongly agree	54	13%
	Somewhat agree	75	17%
	Somewhat disagree	116	27%
	Strongly disagree	161	37%
	Don't know	24	6%
	Total	430	100%
Multi-family apartments should be required to recycle	Strongly agree	258	58%
	Somewhat agree	98	22%
	Somewhat disagree	34	8%
	Strongly disagree	46	10%
	Don't know	10	2%
	Total	445	100%
Single-family residents should be required to recycle	Strongly agree	230	52%
	Somewhat agree	111	25%
	Somewhat disagree	41	9%
	Strongly disagree	53	12%
	Don't know	10	2%
	Total	445	100%
Single-family residents should have options for yard-waste recycling	Strongly agree	273	62%
	Somewhat agree	129	29%
	Somewhat disagree	9	2%
	Strongly disagree	19	4%
	Don't know	13	3%
	Total	443	100%

Appendix III: Verbatim Responses to Open-ended Survey Questions

Following are verbatim responses to open-ended questions as written on the survey in the respondents' own words, which have not been edited for spelling or grammar. Within each question, the responses are in alphabetical order.

Question 25: Are there any suggestions you have to help improve air quality in Fort Collins?

Comments related to education/promotion

- 1. Promote hybrid and electric vehicles usage, 2. Increase / enact legislation and regulations across state, 3. Invest in clean energy heavily and mass communication to educate and promote.
- Aggressive education about what individuals can do to help.
- Allow public use of the cities liquefied / compressed natural gas fueling station. The closest alternative is Cheyenne. Even just on some days. Demand/use will be low initially but it's a chicken / egg thing. Who would buy a CNG car when the closest station is one hour's drive away.
- Come in to schools & present.
- Continue and escalate programs to educate the public of ways & combat pollution.
- Continue educating public in these economic times I'd think Ft Co has more pressing financial than developing a plan to fight climate change.
- Continue to post signs, educate residents and have great bike transportation options as well as recycling bins.
- Don't know - maybe more education in small segments on TV and radio.
- Encourage energy education in local high schools as part of a broader civics curriculum. If the youth understand the issue, they can learn and develop good habits from the beginning. The students should be presented the issue from all sides (including business/economic interests).
- I recommend that you advertise the use of transport to the community. Promote and suggest that more city citizens use alternate transportation for work, errands or play. Less cars, more alternate transport in Fort Collins.
- Please send more info about programs in flier or better label to find on website. Start a program in Loveland - the land waste recycle program.
- Require high school students to take a class that informs them about climate change and ways to help.
- So much of this we are not even aware of so making the community more aware in a way they will absorb the information.
- Very impressed w/ awareness in Ft Collins compared to other cities population 150,000 when lived in Texas. Keep on educating! Prove that this is or will be affecting their lives and generations to come!
- A compost options for businesses. Better info about yard trimming recycling.

Comments related to wood and cigarette smoke

- Currently the only time our family has trouble with the air is when there is a forest fire.
- Encourage landlords of rental properties to make sure property does not have outdoor burn pit/fire ring - I often smell smoke in my neighborhood from backyard fire pits.
- I don't think we should allow any wood burning fire places inside house - difficult to be outside at these times. It doesn't happen much in my neighborhood but it is not fair to pollute air to the point you can't go outside. (Milk wood fires).
- I live in an apartment. My next door neighbor smokes outside my window. This maybe shouldn't be permitted.

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- I wish these were a way to legally exclude smoking in condos and apartments (shared residences) cigarette smoke is one of the most damaging pollutants with little legal ability to control it. I very much appreciate what Ft Collins does do to control this issue.
- I would like to know more about if there are rules concerning fire pits and if there is a hotline to call to complain about neighbors who don't comply.
- Less people who smoke, especially in apartments.
- Smoking outside of public places.
- Wood burning fire pits in area create smoke in my home if I run my attic fan - some are so cheap & light weight that a strong wind could topple them & start a fire that could destroy homes.

Comments related to traffic flow

- 1. Get rid of the red light Cameras, 2. Change the traffic light time; it takes me less than 10 minutes to go to work in the morning and anywhere from 35-40 minutes to come home after work.
- Build bridges over major intersections where the trains run.
- Have better timed traffic signals especially at Lemay & Vine!!!!
- I believe there are more important issues the city needs to be concerned about within the city. I.e. maintaining roads, undoing w/ roads/pavement, installation of roundabouts (no need), short circuiting of left hand very lanes, buying of open space increasing additional costs, building bike lines.
- I think we should have one "No drive voluntary day" each month! Give rewards/incentives offer free bus rides to/from park n rides for visitors that day.
- Replace traffic lights with traffic circles.
- Reroute semi traffic on Hwy 287 around old town low speeds and lights cause more pollution.
- Reroute the trains.
- Roundabouts / Traffic circles.
- Stop running trains thru town.
- Time traffic lights. Increase time to clear intersection increase left-turn light time during busy periods. Construct night-turn "lamb chops" where possible (timberline & horse tooth).

Comments related to bus and bicycle options

- bicycle/bus
- Better bicycle lanes priority given to cyclists & pedestrians.
- Better east/west bike routes.
- Bike/car crossings should have stoplights, not just warning lights for cars. Make college 1 lane S & N from the River to Mulberry. Increase hub service for downtown, mid-town, south-side public/commercial areas for buses & bicycles. Obtain all electricity (either as generated or as conserved) within 50 miles of Fort Collins.
- Changing commuting options in Ft. Collins is unrealistic as long as transit is the only public transportation. We don't have the money or infrastructure to run it in a way where people can get to their destination timely using transport. Until then, pushing public transportation is a misuse.
- Continue to work on biker friendly trails and bike lanes need to educate some on bike lanes (some drivers do not understand) improve public transportation and work with other front range communities for regional transportation - i.e. Rail-light or high speed.
- Develop a useable bus system - possibly smaller vans running grid patterns - frequently - instead of those hard to use, convoluted routes we have now. It would take me about 1 1/2-2 hrs. to get downtown from my house in south FC.
- Divert funding of this program to mass transit and homelessness programs.
- Emphasizing biking to work and public transportation. Incentives for reduced emissions (personal).
- Encourage alternate transportation - bicycle, bus. Continue to improve & extend bike paths. Extend/add benefits to home owners for improvements to energy use within the home.
- Encourage trans-fort/light-rails make a bus or group-pooling a good experience, people have the outlook poor people only ride them, or students in my case.
- Expand bike usage programs.
- Expand bus service/Local public transportation. Have sister cities like Greeley improve their air. It makes Fort Collins smell horrible.

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- Expand public transit service.
- Get working on more mass transit and the mason corridor project!!
- Give local business tax breaks when they have employees that frequently ride bikes to work.
- If there were a bus system that ran on a grid system with frequent service, so that it could get one close to any destination within a reasonable amount of time, I might try to use it but my prior attempts to figure out how to get somewhere from my house have resulted in exasperation. It's faster to walk most of the time!
- Improve bus transit times/locations w/in Ft. Collins, & between Ft. Collins & surrounding areas particularly Greely & Windsor.
- Improve the bike lanes around town, and encourage move pedestrian activity with more paths and better sidewalks.
- Increase bus system making it more accessible to everyone and get the word out about public transit. Increase bike path system and continue building new path ways for bikes off the street.
- Increase public transportation options. More bus routes, light rail (old town - Harmony), rail along Front Range, etc.
- Make the bus system, a more reasonable replacement for personal transportation. 60 minute stops are hard to work with. Later service world help too.
- More bike paths so that one go across town easier. Better transit.
- More bus service especially to the south (Harmony & Ziegler).
- Please oh please make the bus service broader & more convenient!
- Provide functional bus service. (It shouldn't take 45 min to ride bus from old town to Harmony)
- Public Trans.
- Public transportation (Bus system) does not make it convenient enough for me to use. High speed transit from North to South & East to West would help.
- Reduce use by everyone provide acceptable alternatives - bus system inadequate.
- RTD/Train along 1-25 corridors.
- Use bus, bike or walk.
- We support a light rail system in the Northern Colorado area & would it on a daily basis to get around town, co mute to work (Greasy & Denver) & Snowboard on winter weekends.
- Yes, provide bus service to the Southern and Eastern parts of the city. In fact, provide any kind of service to these areas.

Comments related to emissions

- Although the vehicle emissions program provides employment for a few, I feel it has questionable impact on the overall pollution levels. The vehicles with the worst non-compliance still continue to operate.
- Become stricter with emissions. The unnecessary diesel trucks with multiple/large pipes should be fined, especially if they aren't work trucks.
- Continue traveling vans that do random checking.
- Diesel fuel trucks/buses/vans. Belching belch smoke can't possibly be a good thing. How about some enforcement on these? These fumes are a much bigger annoyance then any auto I've seen and smelled.
- Do something about trucks & other vehicles that spew block smoke - stop them - fine them!
- Eliminate the addition of ethanol to gasoline facts have proved emissions (pollution) are not reduced but MPA is reduced by the addition of ethanol.
- Eliminate the use of coal - this will clear about 60% of air pollution. Short town rawhide. Port gas at 12.00/gal & people would stop hiring.
- I believe the auto emissions testing is not necessary in this area, and our air quality nearly always passes, it is just another way to mandate higher costs for owners & revenue for the government.
- I preferred getting emissions tests here in town from private garages.
- I still, in 2011, continue to see old vehicles or large trucks emitting huge clouds of black - I don't understand how these vehicles are still allowed to operate - I thought emissions testing was supposed to eliminate those vehicles when they register?
- I strongly feel the police should pull over and issue citations to drivers whose vehicles are emitting excess or discolored exhaust, especially diesel pickups.

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- I want it to go back to our own mechanics certifying our cars and giving the stickers.
- Improve Denver's air before the pollution blows up here. Make the vintage vehicle exemption 25-35 years, at least. These cars meet no emissions standards and pollute > 10 times as much!
- Night time (illegal?) emissions from industries in the area need to be investigated & stopped.
- Reduce home & park use of gasoline grass cutting on a weekly base. Grass should grow longer; lawn services emit huge amounts of gas exhaust. Bi-weekly, cutting to reduce lawn growing by gas lawnmower, support more plantings & landscaping. More public support needed!
- Require emissions for cars older than XX years - waive for newer cars.
- Require gas pumps to have the fume vapor loss nozzles require motor cycles to pass emissions outlaw all 2 - stroke engine - Lawnmowers weed eaters scooters require some sort of tax if you own grazing animals like cows that produce a lot of meats in.
- Start ticketing smoking vehicles within Ft Collins.
- Take some of these ancient cars spewing smoke off the roads! Or ticket them!
- The motor vehicle emissions testing program is nothing more than a drive by tax.
- The vehicle emissions program never did get on keep the waist pollution vehicles - those burning oil & visibly smoking - off the roads on out of use - like everything else the gov't does - ineffective and a detriment to the very system it was designed to improve. How much wasted of our united resources to sustain this program. That is unnecessary.
- Ticket smoking diesels.
- Vehicle emissions testing for cars older than 10 yrs., with a cap on spent for repairs.
- Yes. I notice that FED EX and UPS frequent my neighborhood every day. (Diesel trucks!) I suggest that they use gas (C3H8) or electric vehicles, since they are stopping and idling actually every block!!
- Hybrid as fuel cell cars for FT. Collins city workers.

General (uncategorized) comments

- 1. More compost education and low cost compost equipment purchase, 2. Enforce animal manure management for dogs. Our neighbors have 4 dogs in old town the animals cause air quality probs.
- Be aware of the need to be a good steward of all that I do and that others do.
- Climate change occurs naturally and I cannot speak as to whether human involvement has a significant impact on that occurrence. What I know is the climate will change eventually and we need to be prepared for it.
- Encourage line drying clothing. Encourage air conditioning settings that use less energy - even one degree higher. Encourage turning off A/C when not needed.
- Fort Collins is so far ahead of other communities it's amazing. Climate wise is a super program!
- Garbage collection should be a city program. Too many independent contractors on the same street. The worst continuously running vehicles are those of workers doing street paving! Monitor city vehicles before looking at individual citizens!
- I do think we should have safety inspections for lights, brakes, tires etc.
- Keep up the good work!
- Lower the population density by requiring larger lots for new homes.
- Make sure our power plants are non-coal burning plants.
- Make the assumption that those residents that do not a survey feel similar to me. Only a few will actually respond.
- More incentives for people to participate in reducing energy via and greenhouse gas emissions. Ecosystem services program.
- More wind to blow the brown cloud away. We live in a Valley.
- Push to support local growing/farming to reduce footprint bring back rebates for tank less water heaters & appliances.
- Radon mitigation - more emphasis.
- Reduce growth. More people = more emissions.
- Wood, central air conditioning & other issues.
- Why do I see so many city vehicles with only one person in them?
- I should do more, stop idling @ RR crossings, drive less, bike more, walk more, and combine errands. Encourage young adult children to recycle; apartments do not have recycling bins.

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- Outlaw wood burning. Outlaw gas-powered lawn mowers & other lawn-care power tools. Put out educational materials to get people to stop using dryer sheets. (I have a neighbor who is sickened when other neighbors are using them & it comes out the vent.). Outlaw spray deodorants in school locker rooms. (My kids tell me "Axe" is especially bad.). Post red light durations so drivers can turn off cars during long lights. Build more bike paths where bikes are separated from cars. (Various bikes vs. car accidents have convinced my family it is unsafe to bike on roods with cars.). Solar-powered electric car changing stations. Solar panels on buses. Mini-van public transportation that can go more frequently & more places than by buses.

Comments expressing disagreement

- 1. I believe climate change has been occurring long before man was able to affect it, if he does have any effect. If the city is really concerned they should spend less on bike paths, row landscaping and more on traffic system streamlining it to move vehicles more efficiently through the city.
- Do not allow chicken in city limits. They are disgusting and smell horrible for surrounding neighbors. Eggs are not expensive!
- Do something = move government regulations!! 2 thumbs up! Vote [redacted] out of office!!
- Get off the global warming kick - - in the real world climate changes... That's what climate is. The city looks like a bunch of fools with all their global warming programs.
- Get rid of republicans living in Larimer County / TLA particles - they have the planet.
- I do not believe there is an air quality issue in Fort Collins. We have been coming out of an ice age for the last million years. We do not control this.
- I was contacted by phone to participate in this study. I refused to participate because the city of Fort Collins was not identified the sponsor, and I refuse to participate in surveys unless I know the sponsor. Think about changing your practice. Also, some of these questions are biased (meaning they are designed either poorly or to elicit a specific answer).
- In a time when the economy is relatively weak, I feel the government, at all levels, should make financial conservation a priority and not seek ways to increase spending.
- Keep government out of people's lives.
- Keep the city out of this and quit killing trees w/ all the stupid branches that you send out how much money did we spend on this survey?
- No; But I do wonder why these surveys are being sent out of state instead of being surveyed right here in CO???
- That government which governs least also governs best! Get out of the way!!
- The air-quality in Ft. Collins is fine as far as I am concerned!

Question 28: Please tell us if there are any parts of the recycling system in Fort Collins that don't work for you or that you would like to see changed.

Comments related to cost

- 1. City should provide low-cost drop-off recycling of E-waste, Incl. Batteries, 2. City should provide free drop-off recycling of scrap metal.
- Curb side free service good.
- Free curbside.
- Free yard waste & other house hold recycling.
- I like the free recycling program with Gallegos sanitation. If yard waste has free as well that would be great.
- I take my recycling to work and deposit in their bins. I think FTC should have a free location to drop off.
- I think it's great! The only thing that may not work for some people is the cost. I feel really good filling my recycle bin full every 2 WKS!
- If you make the recycle program voluntary and no cost. People will use it I believe
- Need to have our company offer more pickups at curbside recycle without charging.

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- Recycling, including yard waste should be free. Curbside City should pick up leaves raked into street in fall for compost (free).
- The Taft hill land fill requires residents to pay too electronic and non-paper waste. Bad Bad policy!!
- Too expensive.
- Too many containers for amount of storage area at residence - also too expensive.
- We need a higher return like California or Michigan, than people will recycle, & it's all about money.
- We recycle as long as it is free of charge. It currently is free through our waste removal company.
- Would like to see no charge for electronic waste recycle. For you can trough/piece into the dump at a time.

Comments related to single or multi stream

- 1. Attract markets to purchase recycled water, 2. Reduce contamination in single.
- Curbside recycling is co-mingled. Rivendell has too many separated bins - makes it a pain to have 5! Bins at my house. Rivendell should have one co-mingled at least.
- Looks like a very inefficient process to co-mingle all recyclables only to have to separate them later.
- Paper should probably be separated rather than dumped in with everything else as it used to be.
- Separate bins for plastics & glass composting bins would be good too.
- Single-stream trash/recycle should be implemented.
- The curbside recycle program should require better sorting - it seems that most of the material is being contaminated by broken glass & errant additions.
- The drop-off site near riverside should be single-stream!

Comments related to item type

- A definitive list of every item that can be recycle, i.e. TV dinner cartons & plastic containers in them-cups (Wendy's) etc.
- Add Styrofoam recycling; allow recycling of plastic food containers if washed.
- Better pet waste recycling easier/better household chemical/hazardous waste recycling.
- Broader scope of curbside recycling (I.E. Styrofoam, electronics) composing should be more encouraged/taught.
- Can't recycle certain plastics, milk & juice cantons covered with plastic coating.
- Electronic recycling is needed, I read the paper and inserts but never see anything.
- Expand plastic recycling to include all types. Add green/composting recycling to single homes.
- For a city this size not to have yard waste drop-off should be felonious!! Idiots!!
- I think it should be easier / encouraged to recycle household batteries.
- I was not aware of the programs how do I recycle office paper all newspapers.
- I was used to separating recyclables & recycling Polystyrene foam that should be available.
- I would like to know where old appliances, old computers, can be recycled.
- I would like to see curbside glass recycle separated from the remaining co-mingled material.
- I would like to see more plastic recycling. Also, I would like a bottle/can deposit to encourage recycling.
- I'd love to know more about electronic waste recycling - I'm not aware of such a program, & we need one!
- I'm perpetually confused by what is recyclable and what is not. Jar lids? Clam shell containers? A good, clear pouch that doesn't change would be great!
- Improve explanation of acceptable items. Put sticker on recycling bins/boxes.
- Is there a better way to recycle clothes paper clips, pencils etc.
- I've heard rumors (from breweries) that the city does not actually recycle glass.
- Knowing how clean items need to be in order to be recycled.
- Milk cartons and the like should be recycled.
- More accessible or better advertised electronics recycling.
- More signs available in stores as to what containers & numbers are accepted in Ft Collins.
- Need info on electronic waste.
- Need option for Styrofoam.
- Need to have recycling available for Styrofoam and yard waste.

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- Plastics are confusing; push for less packaging.
- Please ban Telephone Company from issuing phone books unless requested by customers.
- Styrofoam collection. Reduction in trash cost for recycling implemented. Weekly pickup please.
- Styrofoam recycling should be added.
- Take Styrofoam.
- The descriptions on the Corr. Cardboard & paper board containers at the Rivendell site need better details.
- We should be able to recycle more types of plastic; electronics recycling should be easier to access; should be able to recycle grocery bags in curbside recycle bins.
- We use a lot of waxed cartons & aseptic packages (for tofu & soy milk). I'd like to be able to recycle those. More frequent hazardous or pharmaceutical waste days. (Seems like they happen when I'm out of town).
- What is accepted for recycling can be confusing; would like to drop batteries/electronics somewhere other than landfill.
- Where can we take old TVs and computers for free disposal?
- Would like to recycle Styrofoam.

Comments related to yard waste

- Cheaper, year-long availability of the yard waste cars.
- Drop off for electronic recycling, leaf recycling at parks, branches at parks, used oil at more places, having more drop off days for paint etc.
- Fort Collins should adopt the city of Loveland's yard waste & recycling program.
- Garbage companies provide yard waste pick up as part of package w/o high additional cost.
- Green waste (yard trimming) recycling should be easier.
- I don't know but the yard trimmings program.
- I have no obvious direction to go with yard waste.
- I have to pay for yard trimmings at Hageman's about 3 or 4 times a year - I wish our neighbor would have a method of doing this.
- I would like to see more yard waste recycling options since we don't compost.
- In spring & fall, the city of Ft. Collins should have some type of tax break for private waste trash services to pick up residential yard trimmings & leaves at no cost to residents.
- Love the curbside recycling. Curbside - or at least easy - yard waste would be helpful.
- Need year-round curbside recycling for yard waste.
- No yard waste available in F.C.
- Offer free yard waste recycling - possibly once per month.
- Only small amount yard waste - would not deliver container for it pick up.
- Please please please add a free yard waste/recycle program it would help everyone and make for the city.
- Residential curbside yard waste recycling would be great. We even had that in Kentucky. Also, I don't think anyone should be required to recycle. But there should be incentives.
- The yard waste (above) would be great - Also a composting option!
- What about composting or the programs in Boulder for compost in public buildings?
- Would like to have a yard waste site to dispose of tree branches etc. available.
- Yard trimming recycle sites are avail. But, for a cost. I don't mind recycling yard trimmings, but I will not pay for it.
- Yard trimmings - I'm not sure how/where to recycle my yard debris.
- Yard waste recycling is good, saves Lar. Co money and improves land fill life and quality. Make it free, it'll get used more.
- Yard waste recycling would be good if it was a reasonable cost.

Comments related to increasing service (pickup, hours or locations)

- Either extended hours or one extra Saturday per month to drop off electronics recycling the WM facility.
- Have to drive several miles to recycle oil, antifreeze or pay extra for yard trimmings.

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- I fill up my recycle more than my trash, but it only comes every other week. It should be switched with trash pick-up.
- I use Gallegos sanitation & they only pick up recycle cars every other week. Recycle cars should be picked up every week.
- I would recycle but unaware of location at City Park & Elizabeth St. Convenient enough to walk trash too. It breaks my heart, really.
- Instead of every two weeks pick up make it every week because it fills up too fast.
- Larger recycling containers, our 95-gellon overflows at each every-other-week pickup.
- More drop-off site for E-waste. No change on yard training.
- More drop-offs for e-waste & household hazardous waste (Batteries, CFLS, etc.).
- More electronic waste (ex. Batteries) drop-off sites.
- More info & options on how to dispose of odd things I.E. Paint, Batteries.
- More recycling.
- Our bin gets too full and not everyone uses it properly.
- Pick up once a week instead of every other week.
- Plastic bag recycling needs to increase & be easier to access & do recycling pickups should be more frequent in "non-home" areas (i.e. apartments, condos).
- Recycling seems limited and not well known, provide better labels for what is recyclable & build more infrastructures to support additional types of recycling.
- See that everybody has access to a recycling system.
- Some areas in Fort Collins don't supply recycle bins to use.
- The number of trucks that come down the street.
- The public parks & Downtown should have recycling bins attached to or next to (important that they are next to each other) the trash.
- There could be more recycling bins in public areas / the biggest problem in this town is traffic congestion and noise from traffic.
- They cut down recycling pick up to every other week instead of weekly. So it gets too full.
- We as a sustainable city need! need! Recycle cans/bins in the old town area. I'm always looking but they are not there.
- We fill our recycling every two weeks - if it was provided every week we would recycle almost everything.
- We need more "drop off" dates for hazardous waste so people will use it - many won't drive to landfill.
- We would like to see weekly recycling return & the opportunity to recycle electronics & yard waste at least.
- Weekend hours for hazardous waste drop extended more electronic recycle resources.
- Would like weekly pickup.

Comments related to multi-family dwellings

- Awareness of recycling locations for those of us in apt. Complexes with no recycling.
- Condo recycling by contractor.
- Don't have enough room in the can provided at my S-apartment building.
- Feel strongly about recycling not being available in condo/apartment units. It should be available.
- HOAs and condo associations should be required to offer recycling services.
- I would like a recycling bin at our complex.
- If you use a dumpster at a residence, GSI won't pick up recycling.
- Many apartment complexes & do not have recycling bins - OR - the bins provided are too few or in a very poor location.
- Many apt complexes do not make recycling available to tenants.
- More bias at my apartment complex (New Colony).
- Multi-family apartments should be required to offer recycling.
- My condo only provides for newspaper recycling, but everyone puts their cardboard in there anyway. I would like it included.
- My Prop. Management does not provide recycling. It is frustrating!
- Recycle bins at apts. get filled quickly; it would be nice if more bins were provided.

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- There is no recycling option at my apartment complex, a separate GM for recycling would most likely increase expending here.

General (uncategorized) comments

- Container too small - need more frequent pick up.
- Don't know.
- Eliminate vehicle listing cost exclude benefits.
- Fort Collins is great @ recycling!
- I think that people & Business should have the requirement to recycle, but some people can't afford it, they should be able to get assistance for the program.
- Investing in a local recycling plant would cut down on recycle transport costs & provide community jobs.
- I've only lived in Ft. Collins since Sept. 2010 - Thus, I am less knowledgeable than many residents!
- Just moved here from Dallas, TX and compared to there, Y'all's recycling program is outstanding!
- Periodic info re recycling included in utility bills.
- Recycling bins are constantly stolen by drunken college students, but not much can be done about this.
- Recycling mandates similar to the SF Bay area world be great.
- So far, the current recycling system is working great.
- The recycle Karts - Totters are too big we like the smaller 18 gal baskets better.
- Trees in alleys need to be pruned regularly - city worst at it!
- We are satisfied.
- You can't make businesses & families; recycle - We need to continue to educate people through schools & possibly when applying for small business.

Comments expressing disagreement

- City has no business telling/forcing people to recycle.
- I do not like government intervention in every aspect of our lives.
- I don't believe it should cost extra $ and I don't support taxpayer subsidies on this program. If it works economically it must stand on its own.
- Keep it voluntary and keep Government out of my business and my home!! This survey is very slanted!
- Roads & efficient stop lights are much more important to me than this. Personal efforts are important, but government should not spend trying to stop charges in climate. It's a futile waste of money!

Appendix IV: Results by Housing Type (2011 only)

Responses are compared by housing type (single or multi-family dwelling unit) in this appendix.

When comparing results between subgroups the margin of error (or confidence interval) varies by which groups are compared and how many respondents are in each subgroup. There were 265 respondents in single-family dwelling units and 191 in multi-family dwelling units. The margin of error for comparison between these two subgroups is ±9%. Differences in responses between any two groups must be greater than the margin of error in order to be considered a statistically significant different at the .95 confidence level.

Question 1

Overall, how would you rate the quality of outdoor air in Fort Collins?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Excellent	71	27%	41	22%
Good	160	61%	129	69%
Fair	27	10%	9	5%
Poor	2	1%	3	2%
Don't know	4	1%	6	3%
Total	263	100%	188	100%

Question 2

Have you ever experienced unacceptable outdoor air quality in Fort Collins?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Yes	95	37%	54	29%
No	163	63%	132	71%
Total	258	100%	186	100%

Question 3

Does anyone in your household suffer from the following respiratory ailments?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Asthma	59	23%	28	15%
Emphysema	2	1%	3	2%
Heart disease	9	4%	6	3%
Other respiratory ailments	22	9%	9	5%
None of these	183	70%	146	78%
Total	261	100%	187	100%

Question 3

	Single-Family	Multi-Family
Does anyone in your family suffer from asthma, emphysema, heart disease or other respiratory ailments?	29%	22%

Question 4					
The City offers a variety of specific programs and events to address air quality and environmental issues. Do you recall hearing about, or participating in, any of the following?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
"Breathe Easy" anti-idling school signs, posters, ads or articles	Participated	60	23%	23	12%
	Heard of it	89	34%	55	30%
	Never heard of it	110	43%	107	58%
	Total	259	100%	185	100%
Lawn mower rebate program	Participated	15	6%	2	1%
	Heard of it	100	38%	53	28%
	Never heard of it	146	56%	131	70%
	Total	261	100%	187	100%
Climate Wise program for businesses	Participated	13	5%	5	3%
	Heard of it	74	29%	48	26%
	Never heard of it	172	66%	135	72%
	Total	259	100%	188	100%
Wood-smoke complaint line	Participated	3	1%	0	0%
	Heard of it	39	15%	21	11%
	Never heard of it	218	84%	166	89%
	Total	261	100%	187	100%
Zero -interest loans for wood stoves/radon	Participated	1	1%	0	0%
	Heard of it	44	17%	19	10%
	Never heard of it	213	82%	168	90%
	Total	258	100%	187	100%
Christmas tree recycling program	Participated	87	34%	32	17%
	Heard of it	139	54%	103	55%
	Never heard of it	32	13%	52	28%
	Total	259	100%	188	100%
Radon testing and mitigation	Participated	52	20%	22	11%
	Heard of it	130	50%	74	39%
	Never heard of it	79	30%	93	49%
	Total	261	100%	188	100%
Leaf Exchange program	Participated	21	8%	5	3%
	Heard of it	96	37%	38	20%
	Never heard of it	142	55%	144	77%
	Total	260	100%	186	100%
City web-page recycling directory	Participated	43	16%	26	14%
	Heard of it	65	25%	43	23%
	Never heard of it	153	59%	119	63%
	Total	261	100%	187	100%

Question 4 (Continued)					
The City offers a variety of specific programs and events to address air quality and environmental issues. Do you recall hearing about, or participating in, any of the following?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
"I Recycle" campaign	Participated	64	24%	25	13%
	Heard of it	47	18%	50	27%
	Never heard of it	151	58%	112	60%
	Total	261	100%	187	100%
City sustainability movie series	Participated	1	0%	3	1%
	Heard of it	27	11%	11	6%
	Never heard of it	230	89%	174	93%
	Total	259	100%	188	100%

Question 5				
Have you seen or heard about the "No Idle Zone" signs at schools?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Yes	122	46%	71	38%
No	142	54%	118	62%
Total	265	100%	189	100%

Question 6				
Have you seen or heard about the billboards and/or signs at railroad crossings encouraging you to turn off your engine while a train passes?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Yes	220	83%	139	74%
No	44	17%	50	26%
Total	265	100%	189	100%

Question 7				
Do you ever turn off your vehicle engine while stopped and waiting for a train to pass?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Always	77	29%	47	25%
Frequently	79	30%	53	28%
Occasionally	75	29%	46	24%
Never	32	12%	42	23%
Total	263	100%	188	100%

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Question 8				
If you do not routinely turn your engine off, why not?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Don't care/unconcerned	3	2%	3	2%
Concerned about damaging the engine by re-starting	10	7%	16	13%
Believe it will use less fuel to just keep the engine running than to stop and start	31	20%	24	20%
It doesn't occur to me	42	27%	42	35%
To maintain in-cab comfort	41	27%	28	24%
Train is too short	33	21%	17	14%
Never have to wait for a train or don't have a car	3	2%	9	8%
Don't know how long the train will be	2	1%	0	0%
Hybrid car (takes care of it already)	5	3%	4	3%
Not sure engine will restart	3	2%	4	3%
Other (please describe)	3	2%	5	4%
Total	153	100%	119	100%

Question 9				
Please check all the sources where you have seen information about air pollution in Fort Collins.	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
City News/Utility bill insert	134	56%	77	45%
Local newspaper (Coloradoan)	92	38%	51	30%
City website (fcgov.com)	66	27%	30	18%
Fliers/brochures	48	20%	46	27%
Word of mouth	47	20%	28	16%
Don't know	27	11%	32	19%
TV	29	12%	28	16%
Radio	31	13%	22	13%
Other	30	12%	15	9%
City Air quality program or event	15	6%	12	7%
City Facebook page	2	1%	4	2%
City Twitter	0	0%	4	2%
Total	240	100%	170	100%

Question 10				
Have you ever visited the City's new environment website (fcgov.com/green)?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Yes	16	6%	5	3%
No	248	94%	180	97%
Total	264	100%	185	100%

Question 11					
How would you rate the usefulness of the information provided on this website (fcgov.com/green)?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Excellent		3	19%	0	0%
Good		9	56%	5	75%
Fair		3	21%	0	0%
Poor		0	0%	0	0%
Don't know		1	4%	2	25%
Total		16	100%	7	100%

Question 12					
How strongly do you agree or disagree with each of the following statements about air pollution?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
I feel a personal obligation to help improve the air quality in Fort Collins	Strongly agree	111	43%	73	39%
	Somewhat agree	126	48%	98	52%
	Somewhat disagree	13	5%	14	7%
	Strongly disagree	4	1%	1	1%
	Don't know	7	3%	3	2%
	Total	262	100%	189	100%
I know what small changes I could make in my life to help air quality	Strongly agree	86	33%	58	31%
	Somewhat agree	123	47%	76	40%
	Somewhat disagree	34	13%	27	14%
	Strongly disagree	3	1%	7	4%
	Don't know	15	6%	21	11%
	Total	261	100%	188	100%
I feel that small changes I make can affect the air quality in Fort Collins	Strongly agree	103	40%	68	37%
	Somewhat agree	122	47%	80	43%
	Somewhat disagree	24	9%	18	10%
	Strongly disagree	6	2%	8	4%
	Don't know	5	2%	12	6%
	Total	259	100%	187	100%
Many of the people I personally know in Fort Collins ARE willing to change their day-to-day transportation habits to improve air quality	Strongly agree	18	7%	24	13%
	Somewhat agree	91	35%	49	26%
	Somewhat disagree	94	36%	57	31%
	Strongly disagree	38	15%	22	12%
	Don't know	19	7%	34	18%
	Total	261	100%	187	100%
Mountain views are obscured by the air pollution in Fort Collins	Strongly agree	24	9%	15	8%
	Somewhat agree	64	25%	41	22%
	Somewhat disagree	85	33%	62	33%
	Strongly disagree	77	29%	55	29%
	Don't know	10	4%	14	8%
	Total	261	100%	187	100%

Question 12 (Continued)					
How strongly do you agree or disagree with each of the following statements about air pollution?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Indoor air pollution is a problem in my home	Strongly agree	3	1%	5	2%
	Somewhat agree	37	14%	17	9%
	Somewhat disagree	59	22%	37	20%
	Strongly disagree	145	55%	103	55%
	Don't know	19	7%	26	14%
	Total	263	100%	187	100%
Air pollution in Fort Collins hurts the local economy	Strongly agree	20	8%	17	9%
	Somewhat agree	72	28%	55	29%
	Somewhat disagree	70	27%	42	23%
	Strongly disagree	55	21%	31	16%
	Don't know	42	16%	43	23%
	Total	260	100%	187	100%
Air pollution in Fort Collins makes the air smell bad	Strongly agree	27	10%	24	13%
	Somewhat agree	72	28%	64	34%
	Somewhat disagree	63	24%	45	24%
	Strongly disagree	78	30%	35	19%
	Don't know	22	8%	18	10%
	Total	262	100%	186	100%
Air pollution in Fort Collins causes human health problems for at least some of the residents	Strongly agree	58	22%	53	28%
	Somewhat agree	108	41%	62	33%
	Somewhat disagree	35	13%	26	14%
	Strongly disagree	26	10%	14	7%
	Don't know	37	14%	32	17%
	Total	265	100%	188	100%
Air pollution in Fort Collins is significant enough to hurt the environment	Strongly agree	38	14%	36	19%
	Somewhat agree	73	28%	36	19%
	Somewhat disagree	60	23%	42	23%
	Strongly disagree	54	20%	32	17%
	Don't know	39	15%	41	22%
	Total	264	100%	188	100%

Question 13					
How strongly do you agree or disagree that the City should do each of the following to help improve air quality in Fort Collins?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Do more to reduce indoor air pollution	Strongly agree	40	15%	19	10%
	Somewhat agree	94	36%	78	42%
	Somewhat disagree	51	20%	44	23%
	Strongly disagree	34	13%	19	10%
	Don't know	42	16%	28	15%
	Total	261	100%	188	100%
Do more to reduce outdoor air pollution	Strongly agree	92	35%	74	40%
	Somewhat agree	111	42%	72	38%
	Somewhat disagree	22	8%	16	8%
	Strongly disagree	15	6%	8	4%
	Don't know	23	9%	18	10%
	Total	262	100%	187	100%
Improve traffic light timing to reduce vehicle idling at lights	Strongly agree	190	73%	105	56%
	Somewhat agree	56	21%	67	36%
	Somewhat disagree	8	3%	9	5%
	Strongly disagree	6	2%	3	2%
	Don't know	2	1%	4	2%
	Total	262	100%	188	100%
Encourage drivers to turn off vehicles at any wait longer than 30 seconds, except at traffic signals	Strongly agree	102	39%	61	32%
	Somewhat agree	85	32%	70	37%
	Somewhat disagree	44	17%	34	18%
	Strongly disagree	23	9%	14	7%
	Don't know	9	3%	10	5%
	Total	263	100%	188	100%
Promote the use of alternative fuel vehicles	Strongly agree	112	43%	81	43%
	Somewhat agree	88	34%	60	32%
	Somewhat disagree	28	11%	31	16%
	Strongly disagree	21	8%	8	4%
	Don't know	9	4%	8	4%
	Total	258	100%	188	100%
Invest in publically available alternative fueling infrastructure such as electric vehicle charging stations	Strongly agree	97	37%	68	37%
	Somewhat agree	81	31%	52	28%
	Somewhat disagree	39	15%	29	16%
	Strongly disagree	27	10%	22	12%
	Don't know	17	7%	15	8%
	Total	262	100%	186	100%

Question 13 (Continued)					
How strongly do you agree or disagree that the City should do each of the following to help improve air quality in Fort Collins?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Require non-certified wood stoves to be removed/replaced at time of home sale	Strongly agree	67	25%	47	25%
	Somewhat agree	75	28%	55	30%
	Somewhat disagree	51	19%	27	14%
	Strongly disagree	44	17%	31	17%
	Don't know	27	10%	26	14%
	Total	264	100%	187	100%
Do more to reduce local greenhouse gas emissions that affect climate change	Strongly agree	103	40%	73	39%
	Somewhat agree	86	33%	74	39%
	Somewhat disagree	34	13%	14	8%
	Strongly disagree	22	8%	9	5%
	Don't know	16	6%	16	9%
	Total	260	100%	187	100%
Prohibit wood-burning on high-pollution days	Strongly agree	114	44%	68	36%
	Somewhat agree	79	30%	60	32%
	Somewhat disagree	28	11%	28	15%
	Strongly disagree	24	9%	13	7%
	Don't know	17	7%	19	10%
	Total	263	100%	188	100%
Do more to reduce the "brown cloud" and improve visibility	Strongly agree	108	41%	78	42%
	Somewhat agree	92	35%	68	37%
	Somewhat disagree	32	12%	19	10%
	Strongly disagree	9	3%	4	2%
	Don't know	22	8%	17	9%
	Total	264	100%	187	100%

Question 14					
How strongly do you agree or disagree that air pollution in Fort Collins affects you in the following ways?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Triggers allergies/respiratory problems	Strongly agree	39	15%	24	13%
	Somewhat agree	77	29%	53	28%
	Somewhat disagree	55	21%	47	25%
	Strongly disagree	68	26%	44	24%
	Don't know	25	9%	18	10%
	Total	265	100%	186	100%
Causes long-term respiratory problems	Strongly agree	35	13%	21	11%
	Somewhat agree	51	19%	42	22%
	Somewhat disagree	80	30%	45	24%
	Strongly disagree	48	18%	45	24%
	Don't know	50	19%	34	19%
	Total	264	100%	186	100%
Causes health problems for me or a member of my family	Strongly agree	31	12%	18	10%
	Somewhat agree	59	22%	35	19%
	Somewhat disagree	78	29%	46	25%
	Strongly disagree	65	25%	58	31%
	Don't know	32	12%	30	16%
	Total	265	100%	186	100%
Causes burning/itchy eyes, nose in me or others	Strongly agree	33	12%	23	12%
	Somewhat agree	78	29%	53	28%
	Somewhat disagree	69	26%	45	24%
	Strongly disagree	60	23%	49	26%
	Don't know	25	9%	18	10%
	Total	265	100%	187	100%
Obscures mountain views	Strongly agree	33	12%	21	11%
	Somewhat agree	87	33%	48	25%
	Somewhat disagree	65	25%	67	36%
	Strongly disagree	65	25%	40	22%
	Don't know	12	5%	12	6%
	Total	262	100%	187	100%
Causes a "brown cloud"	Strongly agree	37	14%	23	12%
	Somewhat agree	99	37%	55	29%
	Somewhat disagree	58	22%	51	27%
	Strongly disagree	49	18%	37	20%
	Don't know	21	8%	21	11%
	Total	265	100%	187	100%
Affects my indoor air quality	Strongly agree	25	9%	13	7%
	Somewhat agree	80	30%	50	27%
	Somewhat disagree	77	29%	51	27%
	Strongly disagree	52	20%	45	24%
	Don't know	31	12%	27	15%
	Total	265	100%	186	100%

Question 15					
How frequently, if ever, do you do the following to help reduce air pollution in the City of Fort Collins?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Reduce the number of miles I drive my vehicle	Always	60	23%	47	26%
	Frequently	103	40%	46	25%
	Occasionally	60	23%	50	27%
	Rarely	25	10%	27	15%
	Never	10	4%	14	7%
	Total	257	100%	183	100%
Make sure my vehicle is tuned up	Always	107	41%	65	36%
	Frequently	90	35%	62	34%
	Occasionally	48	18%	32	17%
	Rarely	10	4%	15	8%
	Never	4	1%	8	5%
	Total	258	100%	182	100%
Ride a bike/or walk for errands and/or work	Always	43	17%	31	17%
	Frequently	66	26%	36	19%
	Occasionally	63	25%	54	29%
	Rarely	44	17%	32	17%
	Never	40	15%	32	17%
	Total	255	100%	185	100%
Take the bus for errands and/or work	Always	8	3%	12	6%
	Frequently	8	3%	6	3%
	Occasionally	18	7%	14	8%
	Rarely	38	15%	39	21%
	Never	186	72%	115	62%
	Total	257	100%	186	100%
Take Carpools/vanpool	Always	6	2%	10	5%
	Frequently	34	13%	10	6%
	Occasionally	48	19%	46	25%
	Rarely	51	20%	33	18%
	Never	116	45%	83	46%
	Total	256	100%	183	100%
Eliminate unnecessary vehicle idling	Always	61	24%	34	19%
	Frequently	83	32%	50	27%
	Occasionally	76	29%	57	31%
	Rarely	20	8%	24	13%
	Never	18	7%	17	9%
	Total	259	100%	183	100%

Question 16				
On winter mornings, how long do you typically warm up your car before driving away?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
I do not have a car	1	0%	10	5%
I do not commute by car	11	4%	13	7%
I do not warm up my car and it is parked outside	28	11%	27	15%
I do not warm up my car as it is parked in a garage	105	42%	31	17%
0-2 minutes	52	21%	52	29%
3-5 minutes	43	17%	35	19%
6-10 minutes	10	4%	11	6%
More than 10 minutes	1	0%	3	2%
Total	250	100%	182	100%

Question 17					
How strongly do you agree or disagree with each of the following statements about climate change?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
The earth is getting warmer (climate is changing)	Strongly agree	147	57%	86	46%
	Somewhat agree	65	25%	60	32%
	Somewhat disagree	28	11%	13	7%
	Strongly disagree	11	4%	12	6%
	Don't know	9	3%	16	8%
	Total	260	100%	187	100%
Human caused emissions are causing climate change	Strongly agree	114	44%	73	39%
	Somewhat agree	69	26%	65	35%
	Somewhat disagree	27	10%	14	8%
	Strongly disagree	31	12%	13	7%
	Don't know	19	7%	22	12%
	Total	260	100%	187	100%
Individual choices can make a positive difference in impacting climate change (reduce it)	Strongly agree	124	48%	93	50%
	Somewhat agree	91	35%	69	37%
	Somewhat disagree	12	5%	7	4%
	Strongly disagree	22	9%	9	5%
	Don't know	9	3%	9	5%
	Total	258	100%	187	100%
Technology will solve climate change without any changes needed in individual behavior	Strongly agree	5	2%	1	0%
	Somewhat agree	24	9%	19	10%
	Somewhat disagree	69	27%	50	27%
	Strongly disagree	151	59%	102	55%
	Don't know	6	2%	13	7%
	Total	255	100%	185	100%
Governments should not be involved in addressing climate change	Strongly agree	25	10%	15	8%
	Somewhat agree	28	11%	17	9%
	Somewhat disagree	64	25%	44	24%
	Strongly disagree	130	51%	98	53%
	Don't know	8	3%	11	6%
	Total	255	100%	184	100%
Governments should offer voluntary programs that enable citizens and businesses to reduce climate change	Strongly agree	102	40%	77	42%
	Somewhat agree	105	41%	80	43%
	Somewhat disagree	20	8%	13	7%
	Strongly disagree	18	7%	6	3%
	Don't know	12	5%	9	5%

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Question 17 (Continued)

How strongly do you agree or disagree with each of the following statements about climate change?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
	Total	257	100%	185	100%
Governments should enact legislation and regulations intended to reduce climate change	Strongly agree	96	37%	70	38%
	Somewhat agree	78	31%	61	33%
	Somewhat disagree	37	14%	19	10%
	Strongly disagree	32	13%	21	11%
	Don't know	12	5%	15	8%
	Total	257	100%	185	100%
I feel a personal obligation to reduce greenhouse gas emissions	Strongly agree	100	39%	64	35%
	Somewhat agree	110	43%	80	44%
	Somewhat disagree	20	8%	19	11%
	Strongly disagree	20	8%	9	5%
	Don't know	6	2%	11	6%
	Total	256	100%	183	100%
I know what small changes I could make in my life to combat climate change	Strongly agree	81	31%	55	30%
	Somewhat agree	116	45%	77	42%
	Somewhat disagree	29	11%	22	12%
	Strongly disagree	15	6%	6	3%
	Don't know	17	7%	24	13%
	Total	258	100%	184	100%
I feel that small changes I make can affect climate change	Strongly agree	81	31%	50	28%
	Somewhat agree	117	45%	75	42%
	Somewhat disagree	33	13%	26	14%
	Strongly disagree	19	7%	10	5%
	Don't know	8	3%	18	10%
	Total	258	100%	179	100%
Many of the people I personally know in Fort Collins will NOT be willing to change their day-to-day habits to combat climate change	Strongly agree	37	14%	22	12%
	Somewhat agree	88	34%	52	28%
	Somewhat disagree	74	29%	55	30%
	Strongly disagree	31	12%	20	11%
	Don't know	27	10%	36	19%
	Total	257	100%	184	100%
I know about the impacts that climate change is having in Colorado	Strongly agree	51	20%	31	17%
	Somewhat agree	106	42%	59	33%
	Somewhat disagree	44	17%	34	19%
	Strongly disagree	14	5%	10	6%
	Don't know	40	16%	46	25%
	Total	255	100%	180	100%

Question 17 (Continued)					
How strongly do you agree or disagree with each of the following statements about climate change?		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
I know about the connection among methane, composting and climate change	Strongly agree	54	21%	35	19%
	Somewhat agree	77	30%	44	24%
	Somewhat disagree	43	17%	36	19%
	Strongly disagree	21	8%	18	10%
	Don't know	63	24%	51	28%
	Total	257	100%	184	100%
I know about the community's greenhouse gas goals	Strongly agree	5	2%	5	3%
	Somewhat agree	32	12%	17	9%
	Somewhat disagree	73	28%	46	25%
	Strongly disagree	51	20%	46	25%
	Don't know	100	38%	69	38%
	Total	260	100%	183	100%
Climate change is currently harming human health in some areas of the world	Strongly agree	116	45%	83	45%
	Somewhat agree	80	31%	49	27%
	Somewhat disagree	24	9%	20	11%
	Strongly disagree	15	6%	9	5%
	Don't know	25	10%	23	13%
	Total	259	100%	184	100%

Question 18				
How strongly do you agree or disagree that the City should develop plans to adapt to a change in climate?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Strongly agree	98	38%	58	32%
Somewhat agree	94	36%	82	45%
Somewhat disagree	21	8%	15	8%
Strongly disagree	27	10%	14	8%
Don't know	19	7%	14	8%
Total	258	100%	183	100%

Question 19					
Please circle one number for each question below:		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Does your home have a radon mitigation system?	Yes	73	28%	29	16%
	No	133	51%	78	42%
	Don't know	54	21%	79	42%
	Total	260	100%	186	100%
Has your home ever been tested for radon?	Yes	130	50%	43	23%
	No	61	23%	43	23%
	Don't know	69	27%	101	54%
	Total	260	100%	187	100%
Are you aware that new homes built in Fort Collins are NOW required to have a radon mitigation system built in?	Yes	91	35%	58	31%
	No	137	53%	102	55%
	Don't know	32	12%	26	14%
	Total	260	100%	187	100%
Did you purchase a home in the past four months in the Fort Collins area?	Yes	4	2%	7	4%
	No	252	97%	177	96%
	Don't know	4	2%	1	0%
	Total	260	100%	185	100%
If "Yes", did you receive a brochure with information about radon?	Yes	7	30%	5	20%
	No	14	61%	15	62%
	Don't know	2	8%	4	18%
	Total	22	100%	24	100%

Question 20a				
We'd like to know about the ways you heat your home. In the table below, please tell us: (a) If your home has any of the units listed?	Housing type			
	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Open wood-burning fireplace	34	20%	29	30%
Wood-burning fireplace insert	22	13%	9	9%
Wood-burning stove	7	4%	1	1%
Coal-burning fireplace or stove	1	1%	0	0%
Electric fireplace	21	13%	12	12%
Gas fireplace/insert	87	52%	38	39%
Gas stove	30	18%	23	24%
Pellet stove	0	0%	0	0%
Total	168	100%	97	100%

Question 20b				
Which of the units you have are certified?	Housing type			
	Single-Family		Multi-Family	
	Number	Percent of Units	Number	Percent of Units
Open wood-burning fireplace	35	17%	29	15%
Wood-burning fireplace insert	23	47%	10	68%
Wood-burning stove	8	34%	1	100%
Electric fireplace	22	39%	13	65%
Gas fireplace/insert	89	50%	39	46%
Gas stove	31	49%	23	43%

Question 20c					
Your best estimate of the percentage of your heating needs that each unit supplies:		Housing type			
		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Open wood-burning fireplace	0% (none)	27	70%	21	59%
	Less than 25%	9	23%	14	39%
	25% - 50%	3	7%	1	2%
	More than 50%	0	0%	0	0%
	Total	38	100%	36	100%
Wood-burning fireplace insert	0% (none)	12	53%	15	94%
	Less than 25%	7	32%	0	0%
	25% - 50%	1	5%	0	0%
	More than 50%	2	10%	1	6%
	Total	23	100%	16	100%
Wood-burning stove	0% (none)	7	75%	8	100%
	Less than 25%	1	15%	0	0%
	25% - 50%	0	0%	0	0%
	More than 50%	1	10%	0	0%
	Total	10	100%	8	100%
Electric fireplace	0% (none)	15	65%	14	76%
	Less than 25%	5	23%	2	9%
	25% - 50%	0	0%	2	12%
	More than 50%	3	12%	1	3%
	Total	23	100%	18	100%
Gas fireplace/insert	0% (none)	46	53%	22	55%
	Less than 25%	35	41%	12	30%
	25% - 50%	4	4%	2	5%
	More than 50%	2	2%	4	10%
	Total	86	100%	39	100%
Gas stove	0% (none)	17	66%	19	68%
	Less than 25%	3	10%	3	12%
	25% - 50%	0	0%	1	4%
	More than 50%	6	23%	5	17%
	Total	26	100%	27	100%

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Question 20d					
How often the unit is inspected or cleaned (either by you or by professionals)?		Housing type			
		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Open wood-burning fireplace	At least once a year	7	24%	9	38%
	Every 2 or 3 years	9	29%	6	25%
	Never; or > every 3 years	15	47%	9	37%
	Total	31	100%	24	100%
Wood-burning fireplace insert	At least once a year	9	61%	4	63%
	Every 2 or 3 years	3	19%	1	20%
	Never; or > every 3 years	3	20%	1	17%
	Total	15	100%	6	100%
Wood-burning stove	At least once a year	4	71%	0	0%
	Every 2 or 3 years	1	11%	0	0%
	Never; or > every 3 years	1	18%	0	0%
	Total	5	100%	0	0%
Electric fireplace	At least once a year	3	14%	1	8%
	Every 2 or 3 years	6	29%	1	16%
	Never; or > every 3 years	11	57%	5	76%
	Total	20	100%	7	100%
Gas fireplace/insert	At least once a year	15	21%	7	24%
	Every 2 or 3 years	18	25%	9	32%
	Never; or > every 3 years	39	54%	12	44%
	Total	72	100%	28	100%
Gas stove	At least once a year	7	34%	6	35%
	Every 2 or 3 years	5	27%	3	16%
	Never; or > every 3 years	8	39%	9	49%
	Total	20	100%	18	100%

Question 21				
If you have a wood-burning device, approximately how many years old is it?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
10 or more years old	46	86%	28	97%
6 to 7 years old	3	6%	1	3%
4 to 5 years old	2	4%	0	0%
8 to 9 years old	1	2%	0	0%
2 to 3 years old	1	2%	0	0%
1 year or less	0	0%	0	0%
Total	53	100%	29	100%

Question 22				
If you have a wood-burning device, about how much wood did you burn this last winter (2010-2011)? (Note: A cord is a stack 4 feet wide by 4 feet high by 8 feet long.)	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
None - Did not use	31	54%	26	71%
Less than ¼ of a cord	9	16%	8	23%
1 to 2 cords	7	13%	0	0%
More than ½, but less than 1 cord	6	10%	1	3%
¼ to ½ of a cord	3	5%	0	0%
More than 2 cords	1	2%	1	3%
Total	58	100%	36	100%

Question 23					
Using the scales shown below, please rate your concern for the pollutants listed as they relate to you and your family's day-to-day health and environment:		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Gasoline Vehicle Emissions	Very serious	83	32%	60	32%
	Somewhat serious	107	41%	86	46%
	Not serious	52	20%	31	17%
	Don't know	18	7%	8	5%
	Total	261	100%	185	100%
Diesel Vehicle Emissions	Very serious	94	36%	70	38%
	Somewhat serious	90	35%	73	39%
	Not serious	47	18%	29	16%
	Don't know	27	11%	12	7%
	Total	259	100%	184	100%
Wood smoke from fireplaces, wood stoves	Very serious	32	12%	23	12%
	Somewhat serious	91	35%	64	35%
	Not serious	112	43%	80	43%
	Don't know	24	9%	18	10%
	Total	260	100%	185	100%
Ground-level Ozone	Very serious	51	20%	39	21%
	Somewhat serious	96	37%	67	37%
	Not serious	53	20%	30	16%
	Don't know	61	23%	47	26%
	Total	260	100%	183	100%

Question 24				
The motor vehicle emissions testing program returned to the North Front Range, including Fort Collins, in November 2010 as part of the State-approved plan to reduce ground-level ozone pollution and bring the region into compliance with the ozone standard. Do you support the return of the vehicle emissions program to Fort Collins?	Single-Family		Multi-Family	
	Number	Percent	Number	Percent
Yes	174	66%	129	70%
No	58	22%	30	16%
Don't know	31	12%	26	14%
Total	264	100%	185	100%

Question 26					
I recycle at the following level:		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
Curbside recycling program	Can't, it is not available	5	2%	38	22%
	Never, but it is available	11	4%	7	4%
	Less than once a month	1	0%	3	2%
	Once a month	14	6%	5	3%
	Twice a month or more	216	84%	110	63%
	Don't know	10	4%	13	7%
	Total	257	100%	176	100%
Yard trimmings	Can't, it is not available	34	14%	45	30%
	Never, but it is available	52	22%	32	21%
	Less than once a month	48	20%	9	6%
	Once a month	18	7%	2	1%
	Twice a month or more	54	22%	8	5%
	Don't know	36	15%	54	36%
	Total	242	100%	151	100%
Electronic waste	Can't, it is not available	28	11%	34	21%
	Never, but it is available	44	18%	27	17%
	Less than once a month	97	40%	45	28%
	Once a month	5	2%	3	2%
	Twice a month or more	7	3%	2	1%
	Don't know	60	25%	50	31%
	Total	240	100%	160	100%
Drop-off site at Rivendell School, NE corner of Riverside and E. Prospect	Can't, it is not available	6	3%	11	7%
	Never, but it is available	86	35%	54	34%
	Less than once a month	68	28%	29	18%
	Once a month	22	9%	8	5%
	Twice a month or more	9	4%	8	5%
	Don't know	52	21%	51	31%
	Total	244	100%	161	100%

Question 27					
To help increase recycling I think:		Single-Family		Multi-Family	
		Number	Percent	Number	Percent
All businesses should be required to recycle	Strongly agree	149	57%	107	58%
	Somewhat agree	55	21%	40	22%
	Somewhat disagree	30	11%	16	9%
	Strongly disagree	27	10%	17	9%
	Don't know	2	1%	4	2%
	Total	263	100%	184	100%
Only businesses of 15 or more employees should be required to recycle	Strongly agree	28	11%	26	15%
	Somewhat agree	43	17%	32	18%
	Somewhat disagree	71	28%	45	25%
	Strongly disagree	96	38%	65	37%
	Don't know	16	6%	8	5%
	Total	253	100%	177	100%
Multi-family apartments should be required to recycle	Strongly agree	149	57%	109	60%
	Somewhat agree	61	23%	37	20%
	Somewhat disagree	21	8%	12	7%
	Strongly disagree	28	11%	18	10%
	Don't know	4	1%	6	3%
	Total	263	100%	183	100%
Single-family residents should be required to recycle	Strongly agree	134	51%	96	53%
	Somewhat agree	70	27%	40	22%
	Somewhat disagree	23	9%	18	10%
	Strongly disagree	31	12%	23	12%
	Don't know	5	2%	5	3%
	Total	263	100%	183	100%
Single-family residents should have options for yard-waste recycling	Strongly agree	161	62%	112	61%
	Somewhat agree	77	30%	52	28%
	Somewhat disagree	6	2%	3	2%
	Strongly disagree	12	5%	7	4%
	Don't know	4	2%	9	5%
	Total	261	100%	182	100%

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Appendix V: Survey Methodology

Developing the Questionnaire/Interview Script

The 2011 Air Quality & Recycling Survey instrument for the City of Fort Collins was developed by starting with the version from the previous survey in 2007. City staff reviewed the instrument and prioritized questions to keep, and identified questions to revise or replace with items that had more current relevance. NRC staff worked with the City staff to add new questions and revise old questions while retaining the ability to measure change in attitudes and behaviors of residents over time. The 2011 survey is thus substantially similar to the 2007 survey.

Sample Selection

All adults in Fort Collins, excluding those in the 80523 zip code (which is exclusively used for Colorado State University) were eligible to participate in the survey. Zip codes that were exclusively for post office boxes (80522 and 80527) were also excluded to avoid duplication as any resident of Fort Collins who had a post office box would also have a resident address in another zip code.

For the 2011 survey, a sample of 10,000 household postal addresses were randomly selected from the following Fort Collins zip codes: 80521, 80524, 80525, 80526 and 80528. To ensure households selected to participate in the survey were within the City of Fort Collins boundaries, the latitude and longitude of each address was plotted to ensure that its location was within the city. Addresses that fell outside of the city boundaries were removed from the sample. A total of 1,600 addresses were then chosen (from those confirmed to be within City limits) to receive survey mailings. Multi-family units within the city were oversampled to compensate for single-family unit residents' tendency to return surveys at a higher rate. An individual within each household was selected using the birthday method. (The birthday method selects a person within the household by asking the "person whose birthday has most recently passed" to complete the questionnaire. The underlying assumption in this method is that day of birth has no relationship to the way people respond to surveys.)

Survey Administration

The 2011 Air Quality & Recycling Survey was administered by mail from June through July of 2011. A total of 1,600 households were sent the survey mailings. Completed surveys were collected over a 5-week period.

All households received three mailings, one week apart. The first mailing was a prenotification postcard announcing the upcoming survey. The other two mailings contained a letter from the City Manager inviting the household to participate, a questionnaire and a postage-paid envelope. About 5% of the surveys were returned as undeliverable because the housing unit was vacant or the postal service was unable to deliver the survey as addressed. Of the 1,525 households that received the survey, 456 respondents completed the survey, providing an overall response rate of 30%. This is an average response rate for a city of Fort Collin's size.

Weighting the Data

The demographic characteristics of the 2011 survey sample were compared to those found in the 2010 U.S. Census estimates for adults in the city.

While NRC did not administer the 2007 survey, the City was able to provide NRC with the raw data from that iteration. Data were not weighted in the 2007 analysis and report. To ensure comparability between the two iterations, NRC weighted the raw data provided from the 2007 survey. The demographic characteristics of the 2007 survey sample were compared to those found in the 2005-2009 American Community Survey (ACS) Census estimates for adults in the city.

For both years, sample results were weighted using the population norms to reflect the appropriate percent of those residents in the city.

The primary objective of weighting survey data is to make the survey sample reflective of the larger population of the community. This is done by: 1) reviewing the sample demographics and comparing them to the population norms from the most recent Census or other sources and 2) comparing the responses to different questions for demographic subgroups. The percentage of residents with demographic characteristics that are least similar to the percentages in the Census and the demographic categories of residents whose opinions are most different from each other are the best candidates for data weighting.

The variables used for weighting the 2011 data were respondent age, gender, housing tenure and housing unit type. The variables used for weighting the 2007 data were respondent age, gender and housing tenure as information on housing unit type was not included in the 2007 iteration. The choice of these weighting variables was based on:

- The disparity between the survey respondent characteristics and the population norms for these variables
- The magnitude of differences of opinion among these subgroups
- Availability of the data

The results of the 2011 and 2007 weighting schemes are presented in the tables below.

Fort Collins 2011 Outdoor Air Quality Survey Weighting Table

Characteristic	Population Norm[1]	Unweighted Data	Weighted Data
Housing			
Single-Family	60%	61%	58%
Multi-Family	40%	40%	42%
Rent home	45%	33%	45%
Own home	55%	67%	55%
Sex and Age			
18-34 years of age	48%	30%	48%
35-54 years of age	30%	33%	30%
55+ years of age	23%	37%	23%
Female	50%	58%	51%
Male	50%	42%	49%

[1] *Source: U.S. Census 2010*

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Fort Collins 2007 Outdoor Air Quality Survey Weighting Table			
Characteristic	**Population Norm[1]**	**Unweighted Data**	**Weighted Data**
Housing			
Rent home	43%	24%	42%
Own home	57%	76%	58%
Sex and Age			
18-34 years of age	49%	24%	49%
35-54 years of age	31%	35%	31%
55+ years of age	19%	42%	20%
Female	50%	62%	51%
Male	50%	38%	49%

[1] *Source: Census 2005-2009 ACS Estimates*

Analyzing the Data

The electronic dataset was analyzed by NRC staff using the Statistical Package for the Social Sciences (SPSS). For the most part, frequency distributions and mean ratings are presented in the body of the report. A complete set of frequencies for each survey question is presented in

Appendix II: Responses to Survey Questions by Year. Also included are results by housing type (*Appendix IV: Results by Housing Type (2011 only)*.

95% Confidence Intervals

The 95% confidence interval (or "margin of error") quantifies the "sampling error" or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any sample size, and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within plus or minus five percentage points of the result that would be found if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite our best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (referred to as non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error). The 95 percent confidence level for the survey is generally no greater than $\pm 5\%$ around any given percent reported for the entire sample. Results for subgroups will have wider confidence intervals.

To compare populations, a confidence interval for the difference between two proportions was constructed. Differences between 2007 and 2011 can be considered "statistically significant" if they are greater than $\pm 6\%$ and differences between single and multi family dwelling unit occupants can be considered "statistically significant" if they are greater than $\pm 9\%$; both with a "p-value" of 0.05 or less. The 95 percent confidence level indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent "real" differences among those populations. The confidence interval calculation assumed that the proportions for each population was

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50% (i.e. p1 = 0.5 and p2 = 0.5). This is the most conservative assumption and will create the widest confidence interval.

Cluster Analysis

The Two Step Cluster Analysis procedure in SPSS was used for the cluster analysis. It is an exploratory tool designed to reveal natural groupings (or clusters) within a dataset that would otherwise not be apparent. The automatic clustering algorithm employed by this procedure was the Bayesian Information Criterion. The distance measure used was likelihood distance. Liklihood distance was used because categorical variables were included in the analysis. The likelihood function was computed using the normal density for continuous variables and the multinomial probability mass.

Responses from four multipart questions (12, 13, 17 and 27) were used in the cluster analysis. Respondents had to answer all 40 parts of the four questions to be included in the cluster analysis, 75% of respondents had answered all 40 question parts. To include respondents who had only missed some of the question parts, missing data for a question part was replaced with the average response to all parts in that question if the respondent had responded to at least 80% of the question parts. The 23 respondents (5%) who had not responded to at least 80% of the question parts were excluded from the cluster analysis.

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Appendix VI: Copy of Survey Questionnaire

The 2011 survey mailing packet appears on the following pages.

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