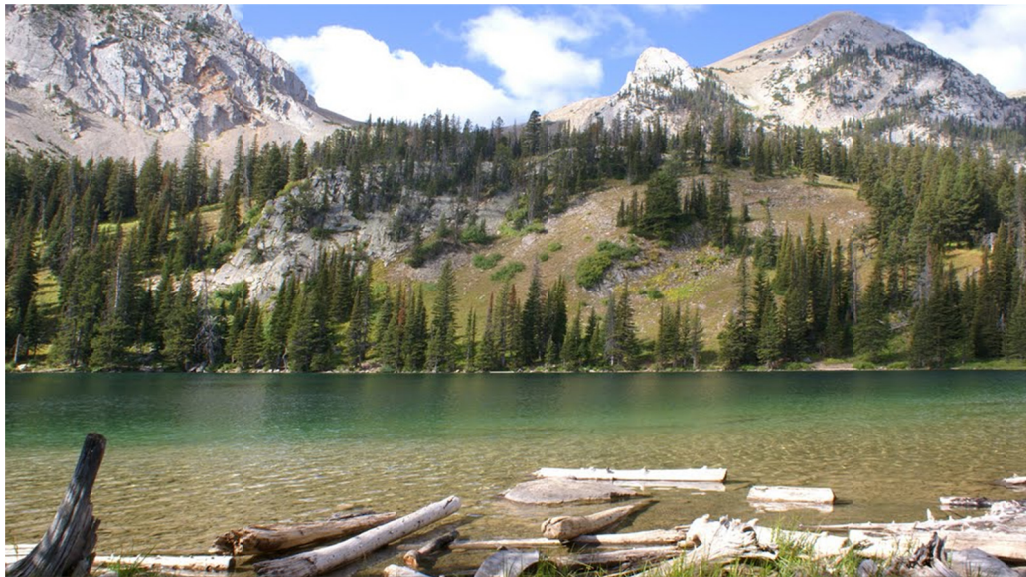




Water Awareness and Conservation Survey

City of Bozeman, Montana



FINAL REPORT

Final Report

November 14, 2014

Water Awareness and Conservation Survey

Prepared for

City of Bozeman
20 East Olive Street
Bozeman, Montana 59771

Prepared by

BBC Research & Consulting
1999 Broadway, Suite 2200
Denver, Colorado 80202-9750
303.321.2547 fax 303.399.0448
www.bbcresearch.com
bbc@bbcresearch.com



Table of Contents

- Summary of Survey Results** 1

- Methodology**
 - Instrument development 2
 - Sample design..... 2
 - Survey implementation 2
 - Survey analysis 2

- Who are the Survey Respondents?**
 - Respondent ages 3
 - Length of residence in Bozeman 3
 - Household size..... 4
 - Educational attainment..... 4
 - Household income..... 5

- Respondent Awareness and Concerns Regarding Water-related Issues**
 - Most important water issues 5
 - Level of concern regarding scarcity 6
 - Attention to own water use 8
 - Changes in water use 9

- Outdoor Water Use**
 - Watering frequency..... 11
 - Watering time of day..... 12

- Awareness and Support for Conservation Measures**
 - Recall of any water conservation messages..... 12
 - Awareness of current Bozeman water conservation measures..... 13
 - Support for potential future conservation measures 13
 - Preferred means of communication 17

The City of Bozeman (the City) retained BBC Research & Consulting (BBC) in late summer 2014 to conduct a telephone survey of its single family residential water customers concerning their opinions, attitudes and awareness regarding water use, water issues and potential water conservation measures. Bozeman is developing an enhanced water conservation program and will use the information from the survey to better understand customer values and to provide a potential benchmark for comparison with future research following education and outreach efforts.

This report documents the customer research and its results.

Summary of Survey Results

The majority of Bozeman residents (59%) are now paying more attention to their water use than they have in the past. A similar proportion of residents (60%) indicate that they have changed how much water they use during the past few years. Concerns about current or future water scarcity and the environmental impacts of water use are the largest factors motivating these changes, but financial motivations (concerns about the cost of water) are also an important consideration for many residents.

Like municipal water customers in other places, when asked about the most important water-related issue in Bozeman, the largest number of customers mentioned water quality at their homes. Although many Bozeman residents are also concerned about water scarcity, particularly to meet the needs of future growth in the city, the emphasis that residents place on water quality is an important reminder that the fundamental purpose of municipal water utilities (at least in the eyes of their customers) is to provide high quality water for drinking and sanitary uses.

Most single family homes in Bozeman now have in ground sprinkler systems (72%). On average, Bozeman households water their yards 2.8 times per week during the summer season. Newer Bozeman residents and younger residents generally water their lawns more frequently than longtime residents and older residents. Overall, about 27 percent of Bozeman households water their yards more than three days per week during the summer season. However, few residents (6%) water their yards during the heat of the day (between 9AM and 5PM).

Slightly more than half (52%) of Bozeman residents indicate that they have seen or heard messages about reducing water use during the past year, but only 20 percent of residents are aware of any water conservation programs offered by the City of Bozeman. Most of the minority of residents who are aware of Bozeman conservation efforts are familiar with the City's toilet replacement program.

Residents were asked about their level of support (or opposition) to 12 potential conservation measures the City may consider in the future. Voluntarily not watering during the hottest part of the day was the most highly supported measure. The next most widely supported measures were a website with water conserving information and toilet replacement rebates. In general, voluntary and informational measures received the most support. With the exception of relatively strong support for changes in the building code to require high efficiency fixtures in all new construction, mandatory changes to building codes and other changes in requirements for new development generally received the least support. Among this latter group of potential

conservation strategies, respondents were most supportive of limiting the percentage of outdoor landscape that can be turf (mean support of 5.57 on 1 to 10 scale), less supportive of requiring high efficiency fixtures when homes are resold (mean support of 4.96) and least supportive of requiring smaller lot sizes for new construction (mean support of 4.16). To the extent that these or similar measures may be important elements of Bozeman's future conservation plans, additional public outreach and education may be useful in further designing these measures and building public support.

Methodology

The methodology for this study involved development of the survey instrument, design of the survey sample, implementation of the telephone survey and analysis of the survey results. Each of these topics is discussed below.

Instrument development. One of the most important aspects of any survey-based study is the development of the survey instrument. For this study, the instrument needed to seek information on several different aspects of public awareness and opinion regarding water and conservation issues within a typical timeframe of about 9 minutes.

The process of developing the survey instrument included the following steps:

- Consultation with the City's water conservation specialist and others regarding the general topics to be covered in the survey;
- Research into the approaches and wording used in related surveys previously conducted by BBC for other municipal water providers;
- Revisions in response to City review and comments on the draft survey instrument; and
- Pretesting of the survey instrument.

The final telephone survey instrument is provided in Attachment A to this report.

Sample design. The City sought the input from a representative sample of its single-family residential customers from the telephone survey. The City provided BBC with a database containing contact information for all of its single family residential customers. BBC's subcontractor, Davis Research, selected a random sample of single family customers to contact for this research.

Survey implementation. The telephone survey was conducted in September 2014. Davis Research completed 400 telephone surveys with Bozeman households. Further information regarding the demographics of the sample is provided later in this report.

Survey analysis. Results from the survey were analyzed for the sample as a whole and for selected demographic subgroups. In particular, the analysis compares survey responses from younger residents (respondents under 45) to those of older residents and responses from residents that have lived in Bozeman for less than 10 years to those that have lived in Bozeman for 10 years or more.

To provide additional context in a few instances, BBC has provided comparisons between the responses from Bozeman residents and responses of residents in other locations to identical questions. Those comparisons draw upon a statewide survey BBC conducted in Colorado in 2012-2013, a survey of residential water customers in Fort Worth in 2012-2013, and a survey of Denver Water residential customers in 2009.

Who are the Survey Respondents?

During September 2014, telephone surveys were completed with adult individuals living in 400 different Bozeman households. Fifty-four percent of survey respondents were male, 46 percent were female.

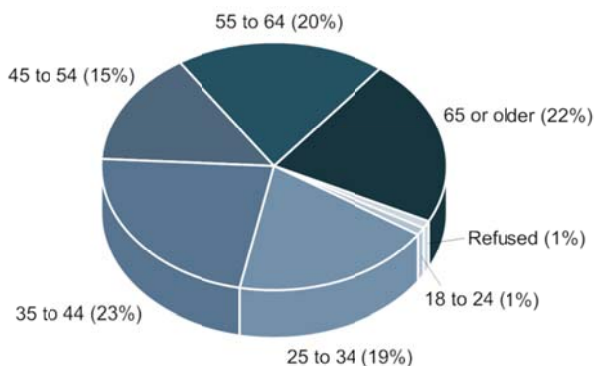
The survey was specifically targeted at Bozeman's single family residential water customers (and the sample was developed from Bozeman's corresponding water billing data). Not surprisingly, 88 percent of the respondents described their home as a detached, single family residence. The remaining respondents indicated they lived in a townhome (8%), duplex (2%) or a condo or other type of home (2%). Almost all of the respondents (98%) indicated that they, or their family, owned their home.

Respondent ages. While very few individual respondents were under the age of 25 (less than one percent), 43 percent of the individuals responding to the survey were under the age of 45. Thirty-five percent of respondents were between the ages of 45 and 64, and 22 percent of respondents were age 65 and older. Figure 1 provides a graphic depiction of the age distribution of survey respondents.

Figure 1.
Age distribution of survey respondents

Note:
N=400.
Numbers may not add to 100% due to rounding.

Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.



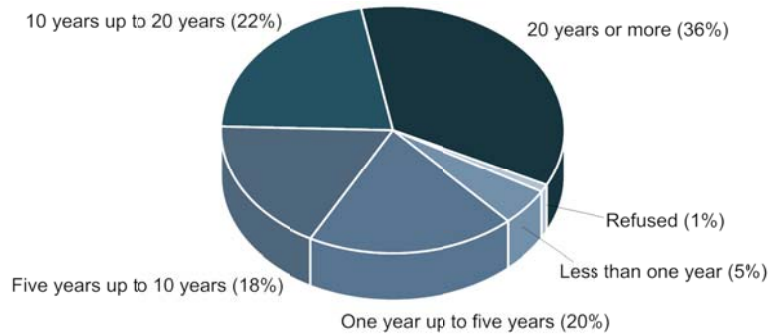
The age distribution of survey respondents is similar to overall 2010 Census data on the characteristics of homeowners in Bozeman. Based on the 2010 Census, 42 percent of Bozeman homeowners were under the age of 45, 38 percent were between 45 and 64 and 20 percent were age 65 and older.

Length of residence in Bozeman. Survey respondents were asked how long they had lived in the Bozeman area. Figure 2 summarizes this information. Most of the survey respondents (58%) had lived in Bozeman for 10 years or more. Thirty-eight percent of the respondents had lived in Bozeman for more than one, but less than ten years. Five percent of the respondents had lived in Bozeman for less than one year. The last proportion is similar to data from the 2012 American

Community Survey 3-year estimates (ACS) which indicated that 5.5 percent of Bozeman residents had moved to Bozeman from outside the county in the prior year.

Figure 2.
How long have respondents lived in the Bozeman area?

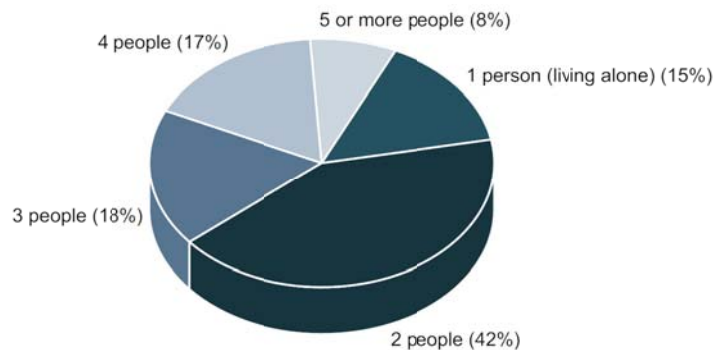
Note:
N=400.
Numbers may not add to 100% due to rounding.
Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.



Household size. Figure 3 depicts the distribution of household sizes among the survey respondents. Two person households were the most common (42 percent of all households in survey). Approximately 8 percent of the households surveyed had more than four residents. On average, the households participating in the survey had 2.65 residents. This average household size is somewhat larger than the overall average size of 2.37 for Bozeman households that own their own homes reported in the 2012 ACS. This difference results from the relative small number of one person households among the survey respondents (15%) compared to the overall frequency of one person households (that own their own homes) reported by the ACS (23%).

Figure 3.
Number of residents in respondents' households

Note:
N=400.
Numbers may not add to 100% due to rounding.
Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.

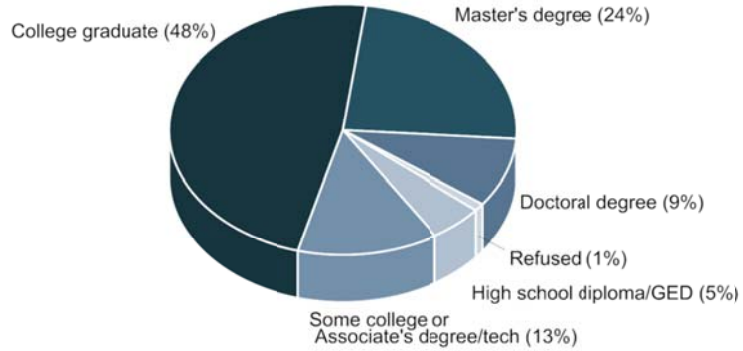


Educational attainment. Figure 4 depicts the educational attainment of the survey respondents. Most survey respondents were college graduates, and many had further advanced degrees. Only 18 percent of respondents indicated they had less than a college degree, while 33 percent had either a masters or doctoral degree. This information suggests the survey respondents were better educated than average among Bozeman homeowners. The 2012 ACS reported that 58 percent of Bozeman homeowners had a bachelors or more advanced degree.

Figure 4.
Educational attainment of survey respondents

Note:
N=400.
Numbers may not add to 100% due to rounding.

Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.

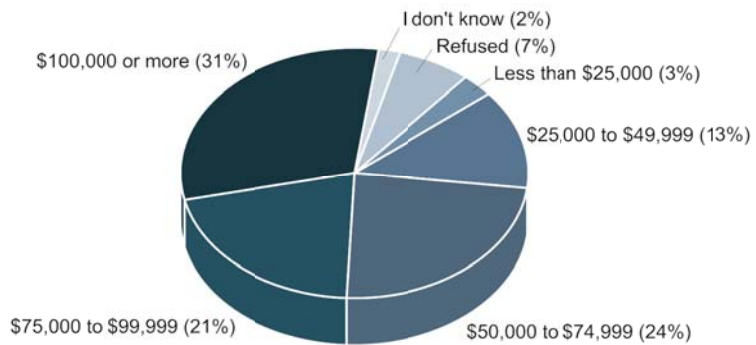


Household income. Survey respondents also had somewhat higher incomes than average. Figure 5 depicts the distribution of household incomes among the respondents. Over 50 percent of survey respondents reported that their household income was over \$75,000. This proportion can be compared to the ACS estimate that 44 percent of Bozeman households that own their own homes had incomes above \$75,000 in 2012. On the other end of the spectrum, only 3 percent of survey respondents indicated their household income was under \$25,000, while the ACS estimated that 15 percent of Bozeman households that own their homes had incomes under \$25,000.

Figure 5.
Household incomes of survey respondents

Note:
N=400.
Numbers may not add to 100% due to rounding.

Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.



In sum, the survey respondents are generally representative of the population of single family homeowners in Bozeman. The survey, however, captured relatively small proportions of younger homeowners in Bozeman, and homeowners with less educational attainment and lower income levels. Although Davis Research uses state of the art techniques in their efforts to ensure that survey responses are as representative as possible, these populations are frequently underrepresented in surveys and other forms of communication. Bozeman might wish to consider further outreach to these populations in the future.

Respondent Awareness and Concerns Regarding Water-related Issues

Several questions in the survey explored respondents' awareness and concerns regarding water-related issues in Bozeman.

Most important water issues. The first question asked in the survey (to avoid influencing responses based on subsequent questions) was what the respondent felt were the most important water issues in Bozeman. As shown in Figure 6, the responses to this question were

dominated by water quality considerations and concerns about the need to conserve water and potential shortages in the quantity of available water. The cost of water and concerns about pollution, runoff and water quality in local streams were also frequent responses.

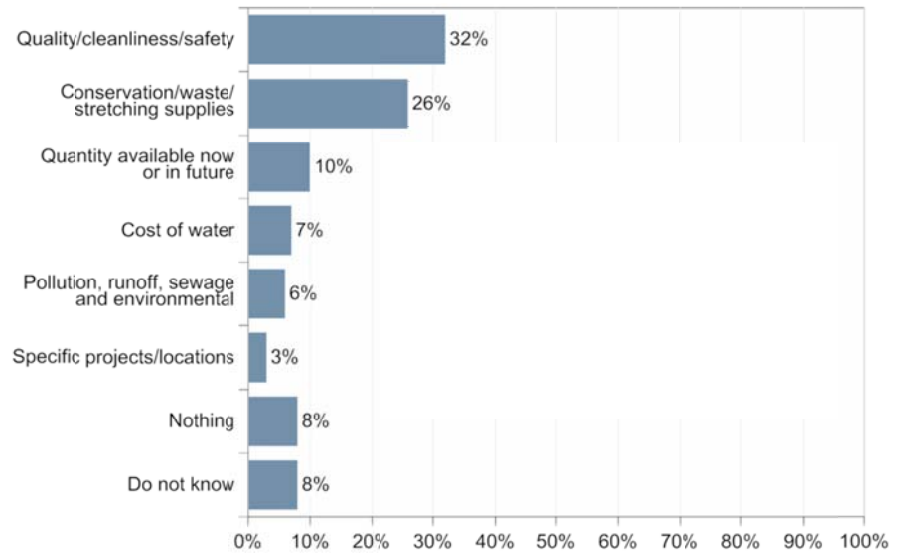
Figure 6.
What are the most important water issues in Bozeman?

Note:

Respondents were allowed to provide multiple responses to this question. Proportions of all responses have been normalized to sum to 100 percent for this analysis. Numbers may not add to exactly 100% due to rounding.

Source:

BBC Research & Consulting from household telephone survey conducted September, 2014.

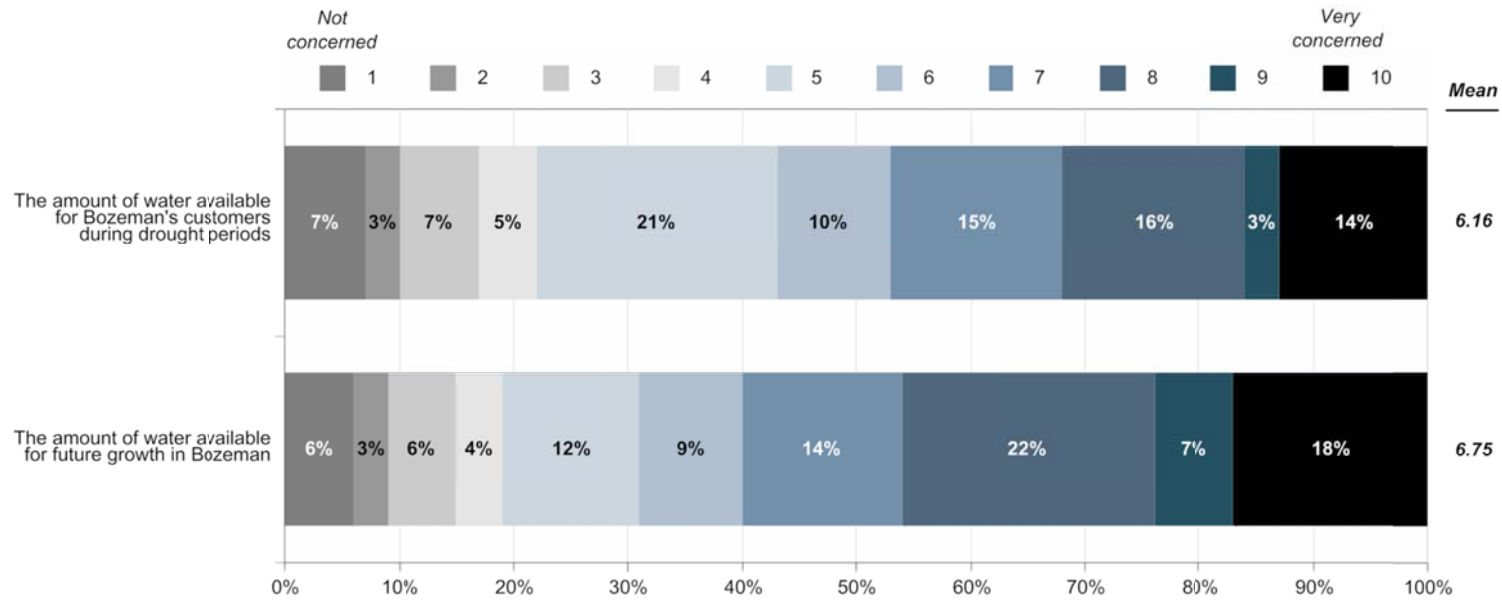


Identification of tap water quality as the most important water-related issue for many residents may seem surprising, but is consistent with BBC’s prior surveys of residential water users in other places. In BBC’s 2012-2013 survey of nearly 2,000 residents throughout Colorado for the Colorado Water Conservation Board (CWCB), home water quality was also identified as the most important issue by survey respondents. Although the quality of municipal tap water is generally better today than it has ever been in the past, these responses are an important reminder that the fundamental purpose of municipal water utilities (at least in the eyes of their customers) is to provide high quality water for drinking and sanitary uses.

Level of concern regarding scarcity. Respondents were also asked to rate their level of concern regarding potential water scarcity on a scale of 1 to 10, where 1 meant they were not concerned at all and 10 meant they were very concerned. Respondents were asked about their level of concern regarding the amount of water available for Bozeman’s customers during drought periods and asked about their level of concern regarding the amount of water available for future growth in Bozeman. The sequence of these two questions was randomly varied between surveys.

As shown in Figure 7, respondents generally indicated a higher level of concern regarding the amount of water available for future growth than regarding the amount of water currently available during drought periods. The average level of concern regarding the amount of water available for future growth was 6.75, compared to an average level of concern of 6.16 regarding the amount of water available during drought periods.

Figure 7.
Water-related concerns



Note: N = 400. Numbers may not add to 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Attention to own water use. Respondents were asked whether they pay more or less attention to their own water use today than they had in the past. Overall, 59 percent of respondents said that they pay more attention to their water use now than they had previously. Most of the remainder (37%) said they pay the same amount of attention to their water use now as in the past. For purposes of comparison, in BBC's 2012-13 survey of Colorado residents, 73 percent of respondents said they now pay more attention to their own water use than they had in the past.

As shown in Figure 8, older Bozeman residents (individuals age 45 and older) were more likely to indicate they now pay more attention to their water use than they had in the past, though the difference in responses was not statistically significant. Younger respondents, and respondents who had moved to Bozeman within the past 10 years, were more likely to say that they now pay **less** attention to their water use than they had in the past. While the differences in response between these newer and longtime residents were statistically significant, the proportion of residents providing this response was very small for all groups.

Figure 8.
Do You Pay More or Less Attention to Your Own Water Use than You Have in the Past?

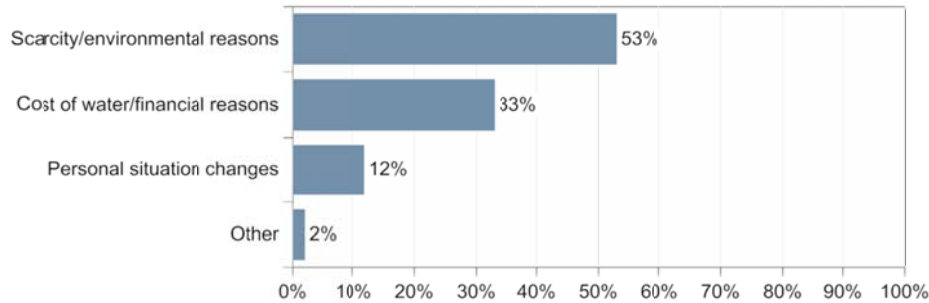
	All Respondents	Residency		Respondent Age	
		Newer Residents (<10yrs)	Longtime Residents (10+yrs)	Younger (<45)	Older (>=45)
More	59%	59%	59%	54%	62%
Same	37%	36%	39%	40%	35%
Less	2%	4%	1% **	4%	1%
Don't know	2%	2%	1%	2%	1%
<i>n=</i>	400	169	229	171	225

Note: **Statistically significant difference in responses at 95% confidence level.
Numbers may not add to 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Respondents who said they now pay more attention to their water use than they had in the past were asked why. As shown in Figure 9, concerns about current or future water scarcity and the environmental impacts of water use were the most frequent reasons cited by respondents for paying greater attention to their water use, but financial motivations were an important consideration for many respondents as well.

Figure 9.
Reasons why Bozeman residents pay more attention to water use than in the past



Note: Respondents were allowed to provide multiple responses to this question. Proportions of all responses have been normalized to sum to 100 percent for this analysis. Numbers may not add to exactly 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Changes in water use. Respondents were also asked whether they had made any changes in how much water they use over the past few years. Sixty percent of respondents said they had made such changes, with 54 percent saying they now use less water and 6 percent saying they now use more water than in prior years. As shown in Figure 10, older residents and longtime Bozeman residents were more likely to indicate they had changed their water use than were younger residents and people who had moved to Bozeman more recently.

Figure 10.
Have you made any changes in how much water you use in the past few years?

	All Respondents	Residency		Respondent Age	
		Newer Residents (<10yrs)	Longtime Residents (10+yrs)	Younger (<45)	Older (>=45)
Yes	60%	55%	64% *	56%	64%
No	39%	44%	35% *	44%	34% **
Don't know	1%	1%	1%	0%	2%
<i>n=</i>	400	169	229	171	225

Note: *Statistically significant difference at 90% confidence level.
 **Statistically significant difference in responses at 95% confidence level.
 Numbers may not add to 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

By way of comparison, in a 2012-2013 BBC survey of Fort Worth residents, only 51% of respondents indicated they had made changes in their water use in recent years. When BBC surveyed Denver Water residential customers in 2009, 64% of respondents indicated recent changes in their water use.

Bozeman respondents who indicated they had changed their water use in recent years were asked what changes they had made. As shown in Figure 11, behavioral changes were more common than structural changes.

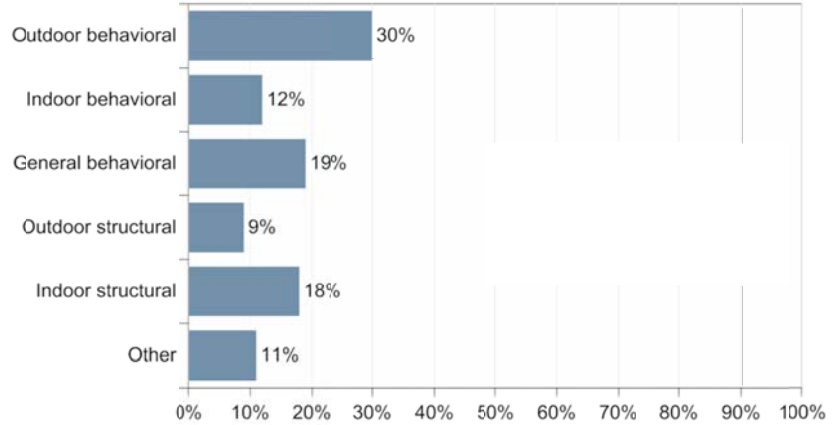
Figure 11.
What changes have you made?

Note:

Respondents were allowed to provide multiple responses to this question. Proportions of all responses have been normalized to sum to 100 percent for this analysis. Numbers may not add to exactly 100% due to rounding.

Source:

BBC Research & Consulting from household telephone survey conducted September, 2014.

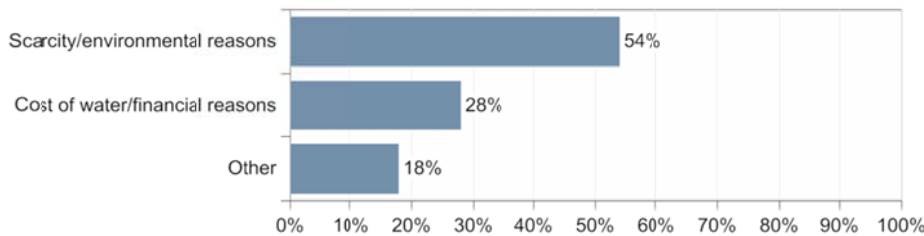


Examples of outdoor behavioral changes cited by respondents included watering their yard or plants less often and watering at night. Indoor behavioral changes mentioned by respondents included shorter showers, not running the faucet when brushing their teeth, flushing their toilets less often and only running their clothes or dishwashers when they were full.

Outdoor structural changes mentioned by respondents included installing water saving sprinklers, planting low water use landscaping or removing turf, and having a rain collection system. Indoor structural changes included installing water saving toilets or faucets and general references to low water use appliances.

Respondents who indicated they had changed their water use in recent years were also asked what motivated them to make those changes. Much like the responses to the question about why respondents are paying more attention to water issues than they had in the past (shown previously in Figure 9), most respondents indicated concerns about water scarcity and the environment as their primary motivator. Financial considerations and concerns about the cost of water were also important. These results are depicted in Figure 12.

Figure 12.
What motivated you to make changes in your water use?



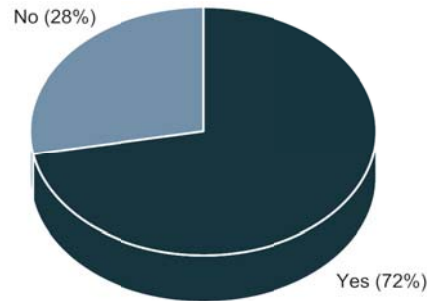
Notes: Respondents were allowed to provide multiple responses to this question. Proportions of all responses have been normalized to sum to 100 percent for this analysis. Numbers may not add to exactly 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Outdoor Water Use

For purposes of helping Bozeman develop and focus its future conservation efforts, the survey was also designed to gather information about outdoor water use by Bozeman residents. Respondents were asked whether or not they had an in-ground sprinkler system. As shown in Figure 13, 72 percent of respondents indicated their home did have such a system.

Figure 13.
Does your home have an in-ground sprinkler system?



Note:
N=400.

Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.

Watering frequency. Respondents were also asked how many days per week they water their yard during the summer. Overall, respondents water their yards an average of 2.8 times per week. However, there is wide variation in watering habits. At the extremes, 17 percent of respondents stated that they do not water their yards at all, while 11 percent of respondents indicated they water their yards 7 days per week in the summer.

Figure 14 summarizes the frequency with which respondents water their yards during the summer, and compares responses between younger and older residents and longtime and newer residents of Bozeman.

Figure 14.
About how many days each week do you water your lawn during the summer?

Days/week	All Respondents	Residency		Respondent Age	
		Newer Residents (<10yrs)	Longtime Residents (10+yrs)	Younger (<45)	Older (>=45)
0	17%	16%	17%	13%	19%
1	12%	6%	16%	9%	14%
2	15%	14%	16%	15%	16%
3	27%	25%	28%	25%	28%
4	11%	15%	8%	15%	8%
5	4%	4%	5%	6%	3%
6	1%	1%	1%	1%	0%
7	11%	17%	6%	15%	8%
Don't know	3%	3%	3%	1%	4%
More than 3	27%	36%	20% **	37%	19% **
n=	400	169	229	171	225

Note:
**Statistically significant difference in responses at 95% confidence level. Numbers may not add to 100% due to rounding.

Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.

As shown in Figure 14, newer Bozeman residents and younger residents generally water their lawns more frequently than longtime residents and older survey respondents. Overall, 36 percent of residents that have moved to Bozeman within the past 10 years water their lawns more than three days per week, compared to 20 percent of longtime residents. The differences

between residents under the age of 45 and those 45 and older were comparable to those between newer and longtime Bozeman residents.

Watering time of day. Respondents were also asked what time of day they typically water. As shown in Figure 15, most respondents (72%) water between the hours of midnight and 8 AM. Eighteen percent of respondents water between 6 PM and midnight. Only six percent of respondents stated that they typically water during the hottest part of the day (between 9 AM and 5 PM), while four percent of respondents indicated they did not know.

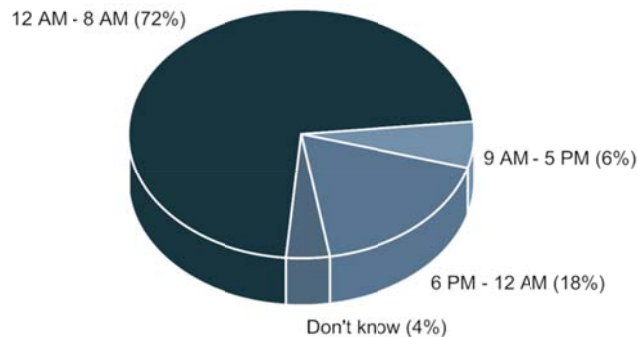
Figure 15.
What time of day do you typically water?

Note:

N=400. Numbers may not add to 100% due to rounding.

Source:

BBC Research & Consulting from household telephone survey conducted September, 2014.



Awareness and Support for Conservation Measures

The final portion of the survey gathered information from respondents regarding their awareness of conservation messaging or current Bozeman conservation efforts and their level of support for potential conservation measures the City might consider in the future.

Recall of any water conservation messages. Respondents were initially asked whether they had seen, heard or read any information about steps they could take to conserve water at their home in the past year. As shown in Figure 16, responses were nearly equally divided on this question, with 52 percent indicating they had encountered such information and 48 percent indicating they had not.

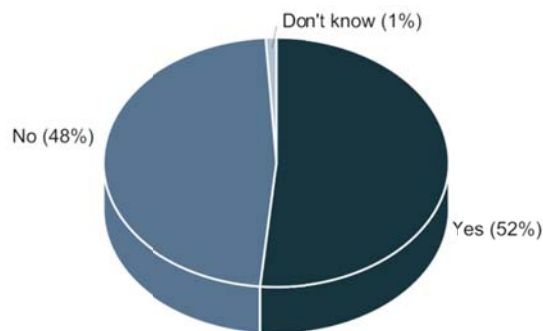
Figure 16.
In the past year or so, have you seen/heard/read any information about saving water at your home?

Note:

N=400. Numbers may not add to 100% due to rounding.

Source:

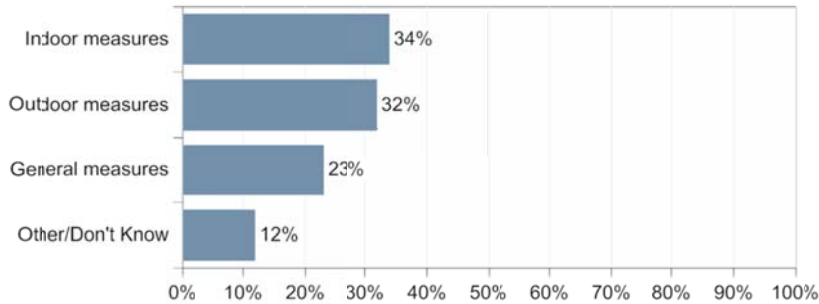
BBC Research & Consulting from household telephone survey conducted September, 2014.



Respondents who indicated they had seen, heard or read information about conserving water were asked what they recalled from that information. As shown in Figure 17, respondents most frequently indicated they recalled messages regarding indoor conservation measures (34%). More specifically, respondents mentioned water saving appliances, installing a water saving faucet, indoor behavioral changes, and installing lower flow toilets. Nearly as many respondents (32%) recalled messages aimed at reducing outdoor water use. Specific responses mentioned

putting sprinklers on a timer or watering at night, xeriscaping (planting low water use vegetation), watering less, having a rain collection system, and installing water saving sprinklers. Most remaining respondents provided less specific detail about what they had heard (23%), while 12% indicated they did not remember or did not know.

Figure 17.
If yes, what do you recall hearing?

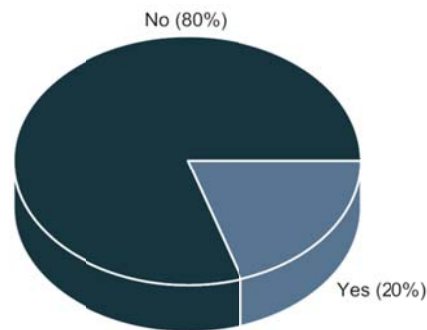


Notes: Respondents were allowed to provide multiple responses to this question. Proportions of all responses have been normalized to sum to 100 percent for this analysis. Numbers may not add to exactly 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Awareness of current Bozeman water conservation measures. Respondents were then asked whether they were aware of any water conservation programs offered by the City of Bozeman. As indicated in Figure 18, 80 percent of respondents were unaware of any Bozeman water conservation measures. The 20 percent of respondents who said they were aware of Bozeman conservation efforts most frequently identified a low flow toilet replacement program as the measure they were aware of (58% of the 20% stating they were aware of a Bozeman conservation measure). The remaining respondents indicating they were aware of Bozeman water conservation efforts cited less specific measures related to general conservation messaging such as pamphlets in their water bills, or messages to encourage customers to limit their water use.

Figure 18.
Are you aware of any water conservation programs offered by City of Bozeman?



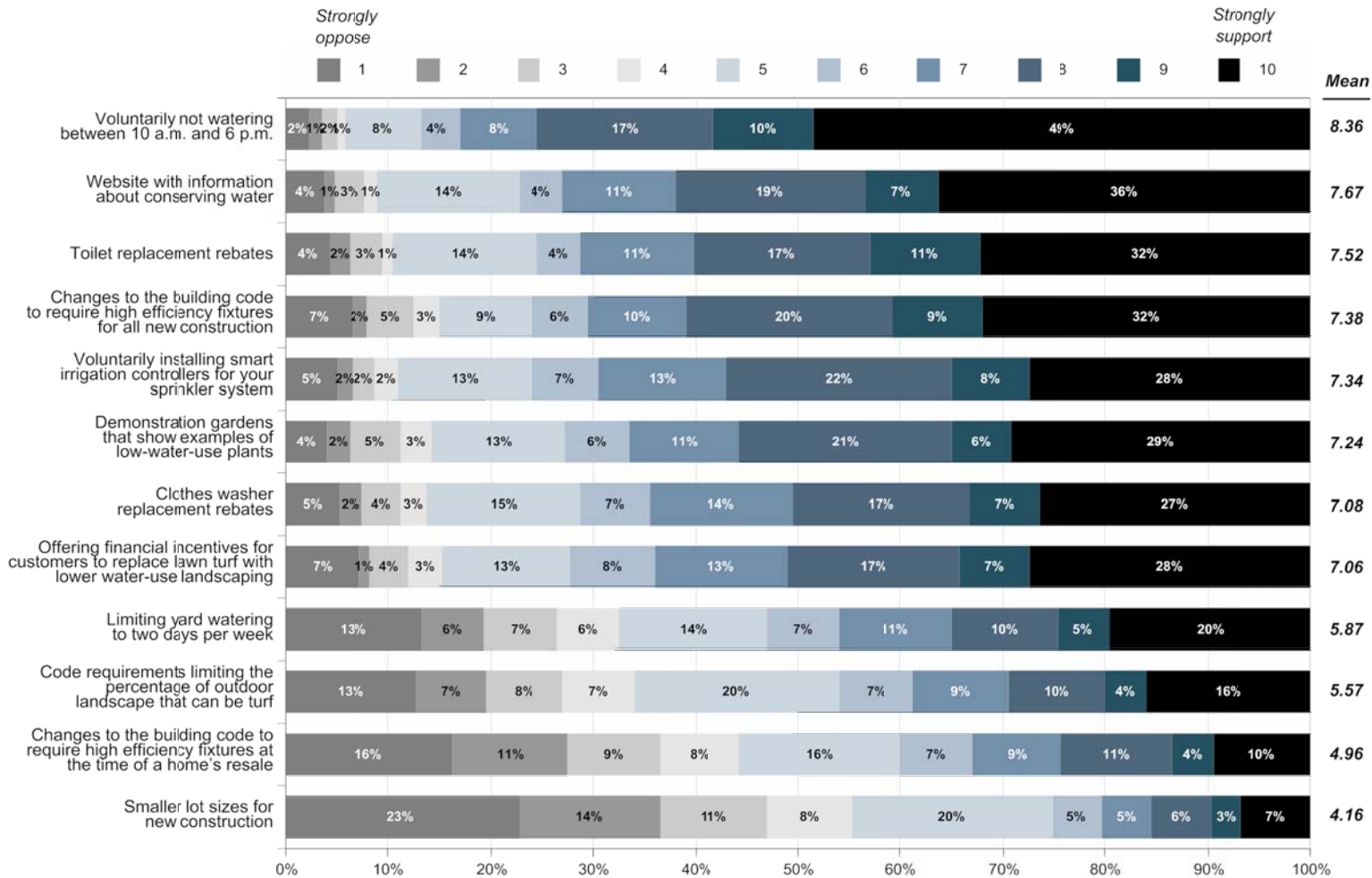
Note:
 N=400.
 Numbers may not add to 100% due to rounding.

Source:
 BBC Research & Consulting from household telephone survey conducted September, 2014.

Support for potential future conservation measures. The City of Bozeman is in the early stages of considering potential future measures to conserve water. The survey next asked respondents to rate their level of support for each potential measure on a scale of 1 to 10 — with 10 meaning they strongly support the potential measure and 1 meaning they were strongly opposed to the potential measure.

Figure 19 shows the support of survey respondents for each of the potential measures, with the measures sorted from most supported to least supported. Voluntarily not watering during the hottest part of the day was the most highly supported measure (though as shown earlier in Figure 15, relatively few residents appear to water during the heat of the day at present). The next most widely supported measures were a website with water conserving information and toilet replacement rebates. In general, voluntary and informational measures received the most support. With the exception of relatively strong support for changes in the building code to require high efficiency fixtures in all new construction, mandatory changes to building codes and other changes in requirements for new development generally received the least support. Among this latter group of potential conservation strategies, respondents were most supportive of limiting the percentage of outdoor landscape that can be turf (mean support of 5.57 on 1 to 10 scale), less supportive of requiring high efficiency fixtures when homes are resold (mean support of 4.96) and least supportive of requiring smaller lot sizes for new construction (mean support of 4.16). To the extent that these or similar measures may be important elements of Bozeman's future conservation plans, additional public outreach and education may be useful in further designing these measures and building public support.

Figure 19.
Level of support for potential conservation measures.



Note: Numbers may not add to 100% due to rounding.

Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

Figure 20 compares the level of support (based on the average rating) for each of the potential conservation measures between newer Bozeman residents and longtime residents, and between younger survey respondents and older respondents.

Figure 20.
Mean level of support for potential conservation measures among different demographic groups in Bozeman

Potential Measure	All Respondents	Residency		Respondent Age	
		Newer Residents (<10yrs)	Longtime Residents (10+yrs)	Younger (<45)	Older (>=45)
Voluntarily not watering between 10 a.m. and 6 p.m.	8.36	8.44	8.30	8.42	8.32
Website with information about conserving water	7.67	7.92	7.48	7.81	7.53
Toilet replacement rebates	7.52	7.61	7.47	7.77	7.36
Changes to the building code to require high efficiency fixtures for all new construction	7.38	7.63	7.21	7.51	7.31
Voluntarily installing smart irrigation controllers for your sprinkler system	7.34	7.46	7.26	7.40	7.29
Demonstration gardens that show examples of low-water-use plants	7.24	7.15	7.29	7.22	7.28
Clothes washer replacement rebates	7.08	7.14	7.06	7.54	6.74 **
Offering financial incentives for customers to replace law turf with lower water-use landscaping	7.06	7.25	6.97	7.43	6.80 **
Limiting yard watering to two days per week	5.87	5.57	6.09 *	5.58	6.12 *
Code requirements limiting the percentage of outdoor landscape that can be turf	5.57	5.67	5.52	5.75	5.47
Changes to the building code to require high efficiency fixtures at the time of a home's resale	4.96	5.20	4.79	5.30	4.74 *
Smaller lot sizes for new construction	4.16	4.09	4.21	4.05	4.26
	<i>n=</i> 400	169	229	171	225

Note: **Statistically significant difference in responses at 95% confidence level.

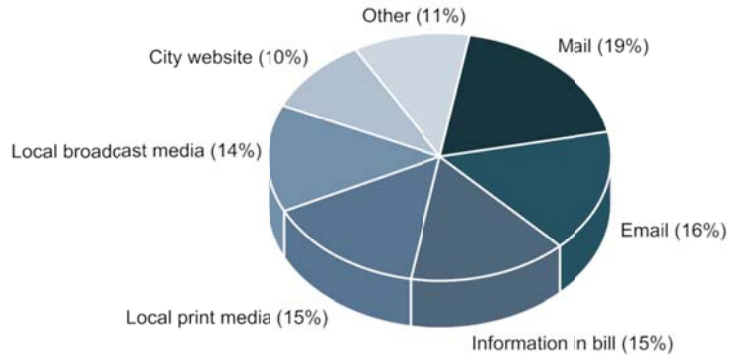
Source: BBC Research & Consulting from household telephone survey conducted September, 2014.

In general, the pattern of support for the various potential conservation measures was similar among the different demographic groups. Focusing on areas where the differences in responses were statistically significant, younger residents were more supportive of clothes washer replacement rebates and financial incentives to replace turf than older residents. Younger residents were also more supportive of changes to the building code to require high efficiency fixtures at the time of resale. Older residents, and longtime residents of Bozeman, were more supportive of limiting yard watering to two days per week than younger and newer residents.

Preferred means of communication. Finally, Bozeman residents were asked about the best way for the City of Bozeman to get information to them. As depicted in Figure 21, respondents were fairly evenly divided in their preferences between mail, email, and other means of communication.

Figure 21.
What is the best way to get information to you?

Note:
N=400.
Numbers may not add to 100% due to rounding.
Source:
BBC Research & Consulting from household telephone survey conducted September, 2014.





1999 Broadway
Suite 2200
Denver, Colorado 80202-9750
303.321.2547 fax 303.399.0448
www.bbcresearch.com
bbc@bbcresearch.com

BOZEMAN WATER CONSERVATION SURVEY INSTRUMENT

Hello, this is _____, calling on behalf of the City of Bozeman, may I speak to [INSERT SAMPLE NAME] or another adult member of the household?

[ONCE APPROPRIATE PERSON ON PHONE SAY:]

Hello, my name is _____ calling from Davis Research. We are calling on behalf of the City of Bozeman to conduct a brief survey about water. Your responses will help the City of Bozeman meet the city's future water needs. It should take about seven minutes.

[If asked for a contact name/number at the City of Bozeman to verify legitimacy of survey or discuss survey, direct respondent to XXXXX]

1. In your opinion, what are the most important water issues in Bozeman?
2. Do you pay more or less attention to your own water use today than you have in the past?

1 = MORE 2a. If more, ask Why?
2 = LESS
3 = SAME
88 = I don't know
99 = Refused

3. Have you made any changes in how much water you use in the past few years?

1=YES 2=NO

99=Don't know

3a. [IF "YES" TO ABOVE] What changes have you made?

[open-ended, responses coded]

3b. [IF "YES" TO ABOVE] What motivated you to make the changes?

[open-ended, responses coded]

4. What type of home do you live in?

[DO NOT READ]

1=Single-family home

2=Duplex

3=Townhome

4=Condo

5=Apartment

6=Mobile home

7=(Other – Specify)

5. About how many days each week do you water your lawn during the summer?

[RECORD]

6. Typically, what time of day do you water? [RECORD] Hour, AM/PM

7. Do you have an in-ground sprinkler system?

1=Yes

2=No

3=Not applicable/do not have a lawn

88=Don't know

99=Refused

8. Now I'm going to read a list of issues regarding water in Bozeman. After I read each one, please rate your level of concern about that issue on a scale of 1 to 10, where 1 means "you are not concerned at all" and 10 means "you are very concerned." Again, please use any number on the scale that best reflects how concerned you are about the specific issue.

[RANDOMIZE ORDER OF QUESTIONS]

8a. The amount of water available for Bozeman's customers during drought periods

ENTER 1-10

8b. The amount of water available for future growth in Bozeman

ENTER 1-10

9. Are you aware of any water conservation programs offered by the City of Bozeman?

1=Yes, if yes, ask 9a. What programs? [RECORD]

2=No

3= Don't know

10. Bozeman may add more water conservation programs in the future. On a scale of 1 to 10, please tell me how strongly you would support the following potential conservation programs, where 1 means "strongly opposed to the program" and 10 means "strongly support the program." Again, you should feel free to use any number from 1 to 10:

[RANDOMIZE, ENTER 1-10]

10a. Changes to the building code to require high efficiency fixtures for all new construction.

10b. Changes to the building code to require high efficiency fixtures at the time of a home's resale.

10c. Smaller lot sizes for new construction.

10d. Code requirements limiting the percentage of outdoor landscape that can be turf.

10e. Limiting yard watering to two days per week

10f. Demonstration gardens that show examples of low-water-use plants

10g. Voluntarily not watering between 10 a.m. and 6 p.m.

10h. Toilet replacement rebates

10i. Clothes washer replacement rebates

10j. Voluntarily installing smart irrigation controllers for your sprinkler system.

10k. Offering financial incentives for customers to replace law turf with lower water-use landscaping

10l. Website with information about conserving water

11. In the past year or so, have you seen, heard or read any information about steps you can take to conserve water at your home?

- 1=Yes
- 2=No
- 3=Don't know
- 99=Refused

11a. If yes: What do you recall hearing?

12. Think about what the City of Bozeman could do to improve how they get information to you about water issues and water conservation. What is the best way to get information to you? [DO NOT READ, SELECT ALL THAT APPLY]

- 1=Information in my water bill
- 2=Email
- 3=City of Bozeman website
- 4=City of Bozeman Facebook post
- 5=City of Bozeman twitter post
- 6=Local television news
- 7=Local radio news
- 8=Billboard
- 9=Local print newspaper or newspaper website
- 10=Mail
- 11=Other [record]

- 88=Don't know
- 99=Refused

We are almost done. I just have a few questions left to ask for demographic purposes so that we can be sure we're talking to a representative sample of Bozeman residents.

13. Do you own or rent your home?

- 1=Own
- 2=Rent
- 99=Refused

14. How long have you lived in the Bozeman area?

- 1=Less than one year
- 2=One year up to five years
- 3=Five years up to 10 years

4=10 years up to 20 years

5=20 years or more

99=Refused

15. Which of the following categories best describes your age?

1 = 18 to 24

2 = 25 to 34

3 = 35 to 44

4 = 45 to 54

5 = 55 to 64

6 = 65 or older

99=Refused

16. Including yourself, how many people live in your home?

1=1 person (living alone)

2=2 people

3=3 people

4=4 people

5=5 people

6=6 people

7=7 people

8=8 people

9=9 people

10=10 or more people

17. What is the highest level of education you have had the opportunity to complete?

1=Less than high school

2=High school diploma/GED

3=Some college or Associate's degree/technical certification

4=College graduate

5=Master's degree

6=Doctoral degree

99=Refused

18. Which of the following categories best represents your total household income for 2013?

1 = Less than \$25,000

2 = \$25,000 to \$49,999

3 = \$50,000 to \$74,999

4 = \$75,000 to \$99,999

5 = \$100,000 or more

88 = I don't know

99 = Refused

19. Record gender (do not ask)

1 = Male

2 = Female

Thank you very much for participating in this survey!