



CITY OF LETHBRIDGE



# Water Conservation Plan Survey What We Heard Report

FEBRUARY 2024



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## BACKGROUND

The last three years have brought droughts and water shortages to various parts of Alberta, including most of southern Alberta last summer. Compounding this situation, El Niño is producing a warm and dry winter across Canada and more than 70 per cent of the country is experiencing drought conditions.

Alberta relies on melting snow and rain for most of its water. This winter, snowfall has been well below average, many rivers are at or near record lows and multiple reservoirs remain well below capacity. Alberta Environment and Protected Areas has indicated that without significant precipitation, spring water levels are expected to be dire. In response, the City of Lethbridge is preparing a Water Conservation Plan to initiate long-term behavioral changes in water usage and will include an update to the existing Water Rationing Action Plan. The Water Conservation Plan will detail the current water availability situation, opportunities for voluntary water conservation initiatives and regulatory changes to curb water usage behaviour. The Water Conservation Plan will be applicable to all water users within city limits.

The Water Conservation Plan Survey collected feedback from residents and businesses/organizations located within Lethbridge on their current water conservation practices and thoughts on initiatives the City may consider implementing. The survey was open to the public from January 23, 2024 until February 7, 2024

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## COMMUNICATION

The opportunity to engage with the survey was communicated to the public through the following methods:

Method	Details
<b>Meta (Facebook &amp; Instagram) Advertisements</b>	<ul style="list-style-type: none"><li>- Ran from January 26 – February 7</li><li>- Total reach: 32,767 (The number of accounts that saw the ad at least once)</li><li>- Link clicks: 2,777 (The number of clicks on the direct link to the survey site)</li></ul>
<b>Lethbridge Herald Advertisement</b>	The newspaper advertisement appeared four times on the following dates: January 27 & 30 and February 3 & 6.
<b>Digital Traffic Signage</b>	<ul style="list-style-type: none"><li>- Two digital signs on Whoop Up Drive displayed “Future of water survey: <a href="https://getinvolvedlethbridge.ca">getinvolvedlethbridge.ca</a>” from January 29 – February 7</li><li>- Additional digital signs were used on Northbound Mayor Magrath Drive S. and Scenic Drive N. near Legacy Ridge from January 30 – February 7</li></ul>

City of Lethbridge also sent out direct communications about the engagement opportunity to key interested parties in the community. Their feedback paralleled the public response and is reflected in the summaries below.

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## RESULTS

There was a total of 3997 responses to the survey.

Questions in the survey were optional to answer, and so there are varying numbers of responses to each question. **Table 1** displays the survey questions and the number of responses to each question.

**Table 1**

#	Question	# of responses
1	Prior to this point, were you aware of potential water shortage concerns in Lethbridge?	3988
2	Is water conservation a priority for you?	3964
3	What do you currently do to conserve water in your home and/or business? Check all that apply.	3922
4	Do you currently have water conscious fixtures (e.g. low flow showerheads, toilets, kitchen and bathroom faucets) in your home and/or business? Check all that apply.	3509
5	If there were incentive programs available (e.g. subsidies for low flow fixtures, rain barrels, etc.) would you participate in those programs?	3981
6	Are there incentive programs you would like to see made available?	1153
7	Do you have any other comments regarding water conservation initiatives or the Water Conservation Plan?	1473
8	I have answered these survey questions as a: (resident or business/organization representative)	3988
9	I am currently residing in, or my business is located in: (breakdown by neighbourhood)	3932
10	Your property (own or rent)	3961
11	Age range	3967
12	How many people live in your household?	3969

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## AWARENESS AND PRIORITY

**Question 1** asked respondents about their prior knowledge of potential water shortage concerns in Lethbridge. 89.2% said they knew about the potential shortage prior to the survey, and 10.8% said they were not aware (**Figure 1**).

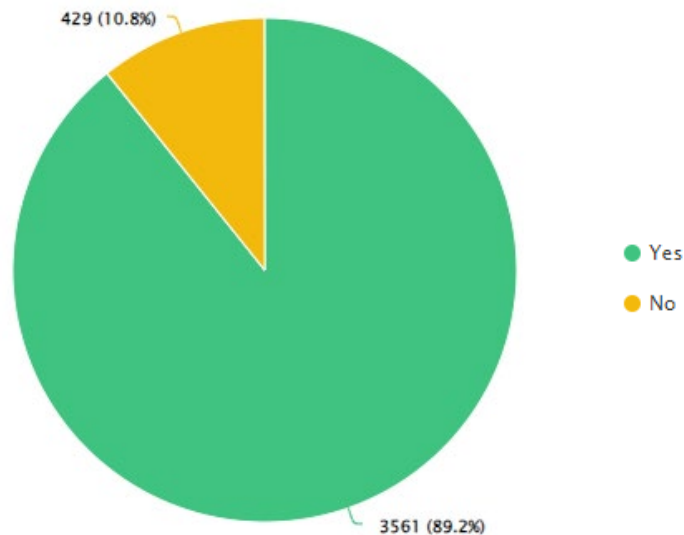


Figure 1 Prior awareness of potential water shortage concerns in Lethbridge

**Question 2** asked respondents if water conservation is a priority. 87.9% of respondents recognize that water conservation is a priority, and 12.1% said it is not currently a priority for them (**Figure 2**).

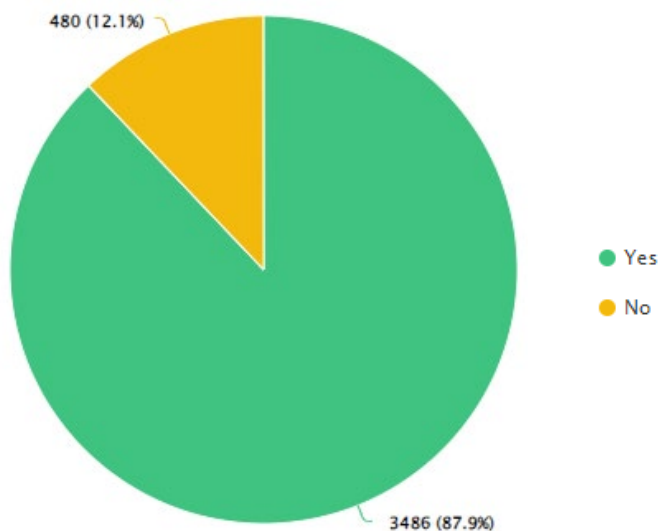


Figure 2 Water conservation as a priority

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## CURRENT WATER CONSERVATION EFFORTS

**Question 3** asked respondents to list the current ways in which they conserve water at home or at their place of work. **Figure 3** displays the results. The majority of respondents conserve water by only running full loads of laundry and dishes, followed by minimizing running tap water while brushing teeth, cleaning dishes, etc. Xeriscape landscaping and capturing rainwater ranked at the bottom of this list.

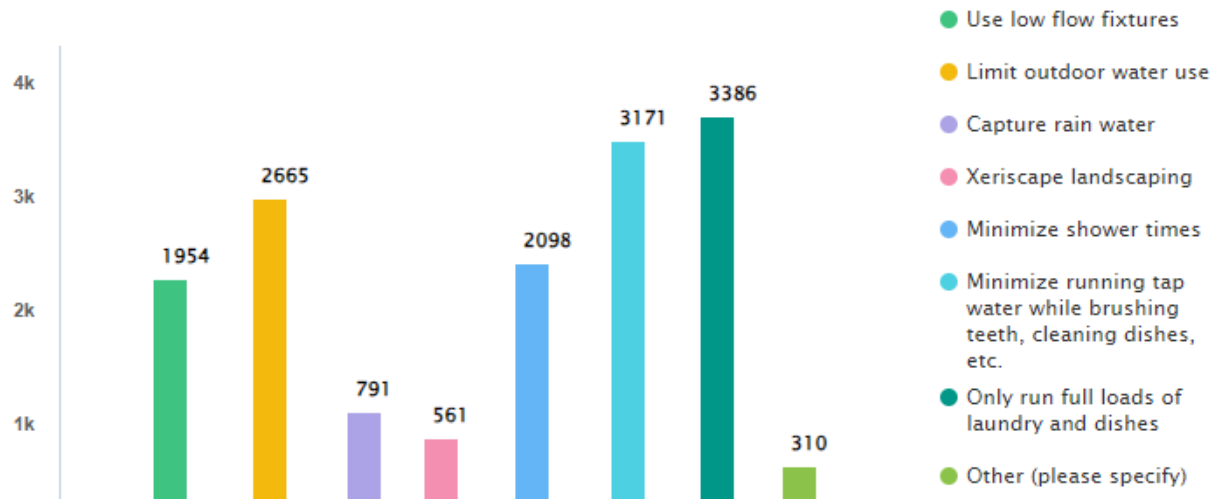
There were 310 responses in the “other” category. Respondents who selected “other” mentioned:

- collecting unused water for other purposes. For example, collecting tap water while waiting for water to heat, collecting water in the shower, and using leftover water from cooking to water plants.
- using grey water such as bath water and dish water for watering gardens or flushing toilets.
- using watering timers, drip irrigation systems, and water capture systems such as rain barrels in their garden.
- mulching gardens to retain moisture.
- limiting lawn watering.
- limiting baths and showers and minimizing shower time.
- limiting car washes.
- limiting laundry washes by re-wearing clothes if they are clean.
- limiting toilet flushes (“If it’s yellow, let it mellow...”).
- eating a vegetarian or vegan diet, as animal agriculture uses large amounts of water.
- moving shoveled snow onto garden beds and around trees.
- redirecting rainwater from down spouts towards trees and gardens.

Some responses in the “other” category mentioned handwashing dishes instead of using their dishwasher. With dishwashers becoming more efficient, there is evidence that high-efficiency dishwashers use less water than handwashing dishes<sup>1</sup>. This may be an education piece the City could highlight in future campaigns.

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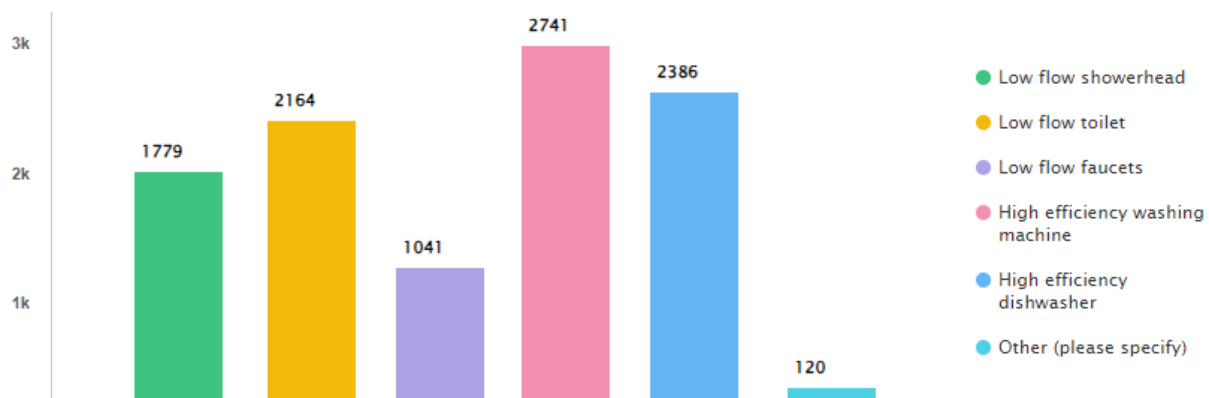
<sup>1</sup> Natural Resources Canada. “Use your dishwasher more efficiently for big savings”. <https://natural-resources.canada.ca/energy-efficiency/spotlight-energy-efficiency/2020/08/01/use-your-dishwasher-more-efficiently-for-big-savings/22947>



**Figure 3** Current efforts to conserve water

**Question 4** asked respondents if they currently use water conscious fixtures in their home or business/organization. **Figure 4** displays the results. Of the 3509 respondents, 2741 use high efficiency washing machines and 2386 use high efficiency dishwashers. 2164 respondents have low flow toilet(s) installed, and 1779 use low flow showerheads. Only 1041 respondents reported having low flow faucets installed in their home or place of work.

There were 120 respondents who selected “other”. The responses were similar to those in the “other” category of Question 3. Respondents mentioned reusing clean water for watering plants, minimizing lawn watering, using watering timers and drip irrigation systems, mulching gardens, minimizing lawn watering, and handwashing dishes.



**Figure 4** Respondents who currently use water conscious fixtures

## INCENTIVE PROGRAMS

**Question 5** asked respondents for their opinion on a few water conservation initiatives the City is considering implementing. **Figure 5** displays the responses. All three suggested initiatives received support from the majority of respondents. The provision of rain barrels to homeowners and renters was the most popular among respondents.

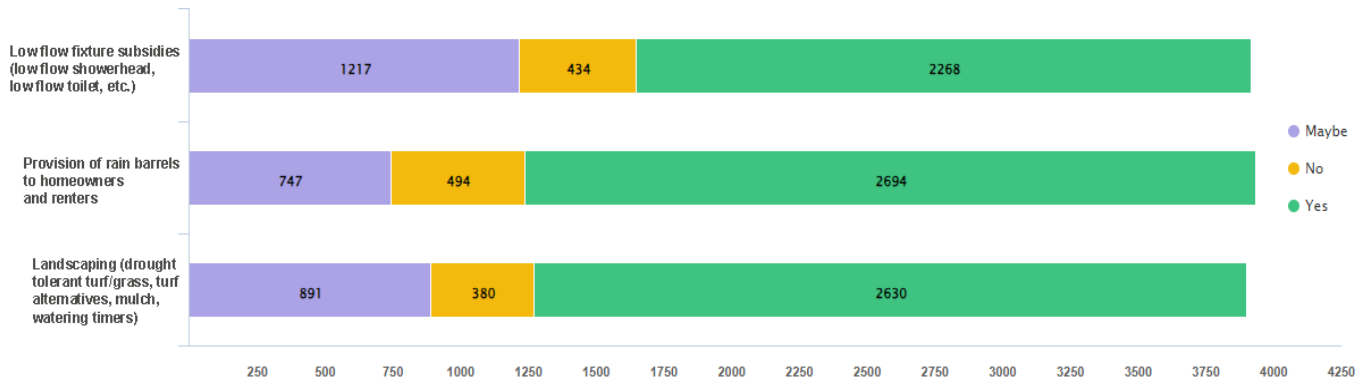


Figure 5 Support for Incentive Programs

**Question 6** was an open question asking respondents if there are incentive programs they would like to see provided by the City. Of the 1153 comments, the top 10 themes were:

### 1. Xeriscaping and lawn alternatives

232 comments supported incentives for xeriscaping and replacing grass lawns with drought-resistant alternatives, such as clover. The cost of xeriscaping is a hindrance to many respondents. Financial support would allow residents to pursue xeriscaping and sustainable landscaping projects when they would otherwise not be able to afford to do so.

Respondents also mentioned wanting educational resources about xeriscaping and lawn alternatives so they can make more informed decisions when replacing lawns themselves.

Some respondents also suggest requiring new developments to xeriscape their green spaces and ban the use of non-native grasses.

*"I would love to get rid of some grass and replace it with drought tolerant landscape. I live on a corner lot and there is so much grass to water. But it's very expensive to redo the yard."*

*"We would like for home owners to have physical and financial support to take out grass lawns. Perhaps grow gardens instead or xeriscape. People need knowledge and support and labor in order to do this."*



*"I would like to see incentive programs to remove residential grass based on square foot. Something like Los Angeles turf replacement rebate which pays residential and commercial customers \$5 dollars per square foot when they replace their lawns with sustainable landscaping."*

## **2. Rain barrels and other water capture equipment**

215 comments supported incentives for rain barrels and other water capturing equipment. Like landscaping, rain barrels are cost prohibitive for many residents. Respondents would like the City to either provide rain barrels to residents for free, or sell them to the public at a discounted price.

Respondents would also like to see the City use water capture infrastructure, particularly in City parks.

Some respondents expressed concern about the City offering an incentive for rain barrels, as the Lethbridge area does not receive a lot of rain, particularly during the summer months. They believe the cost of a rain barrel incentive may outweigh the benefits and encourage the City to complete a cost-benefit analysis.

*"We are definitely looking at a water barrel so anything we can do to encourage this would be our biggest benefit."*

*"The City of Lethbridge could support homeowners in converting to low-water ground cover plants (for grass/lawn replacement) with information and expertise. Bulk purchase or subsidy of rain barrels would also be helpful. Commercially available rain barrels are very expensive."*

*"Provide rain barrels at reduced cost - somewhat like the previous compost bin program."*

## **3. Utility Bill and Property Tax Incentives**

163 comments expressed support for a financial incentive to reduce water consumption.

Most comments said they would like to see households that use less water charged less on their utility bills, and see large consumers pay a higher rate. This could be done in the form of scaling utility rates or time of use billing. This suggestion was also popular among respondents who are skeptical about incentive programs, as implementing scaling utility rates would be of little cost to the City and could potentially create the biggest impact, as many residents in Lethbridge are money conscious. Scaling utility rates should include the industrial, commercial and institutional sector as well as residential.

A few comments suggest basing water rates off the size of the lot and/or number of residents in the household, to prevent large families from being penalized for using more than a household of one or two residents.

Some respondents suggest creating a property tax rebate for properties that use water conservation tools, such as xeriscaped lawns and low-flow water fixtures.

*"Perhaps rebates or scaling utility rates, use more pay more. Perhaps more programs that are for climate actions, energy efficiency and water conservation as they are all tied together."*

*"I believe larger consumers should pay an increase fee on their city water bill. This would help motivate both residential and commercial water usage to go down."*

*"Incentive programs need to be fair across the board and include incentives for low-income households as well - so incentives for water use reduction would be one of those ideas."*

*"An incentive for staying below a threshold for water use a month would be great so as citizens we feel like we can all help out in our own little ways."*

#### 4. Watering restrictions

149 respondents support implementing watering restrictions. Many of the comments suggest implementing an outdoor watering schedule, setting specific days and times of day when residents can water their lawns. For example, the Town of Okotoks has an outdoor watering schedule that only allows residents with odd numbered houses to water on Sundays and Thursdays, and even numbered houses to water on Wednesday and Saturdays. Residents must water between 6am-9am or 7pm-10pm<sup>2</sup>. Respondents also suggested putting restrictions on car washing when necessary, and banning all outdoor watering during times of severe drought.

Some comments expressed concern about the City's use of water in public spaces, noting that they observed City staff overwatering parks and boulevards during previous summers. They would like the City to set an example and reduce water wherever possible.

Respondents would also like the City to identify large water users in the industrial, commercial and institutional sector and set water restrictions for this sector when appropriate and fine unnecessary large consumers. Multiple comments said that the overwatering of golf courses is a concern for them, and that they would feel frustrated to see golf courses green while their own lawn is brown.

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<sup>2</sup> Town of Okotoks. Outdoor Water Schedule. <https://www.okotoks.ca/your-services/residential-services/water-utilities-sewer/outdoor-watering-schedule>

*"Alternate watering days for outdoor watering. Perhaps one day a week for northside, one day for Southside and then Westside. Don't water parks or greenspaces every day. Once a week should be enough."*

*"There should be restrictions on watering lawns and reduction of the use of sprinklers. The city uses a lot of water for grass and turns on sprinklers when it is windy, that is very wasteful."*

*"Any restrictions put in place have to be mandatory, not voluntary. They also have to apply to all areas of Lethbridge. Golf courses, parks, businesses."*

## **5. Public education**

83 respondents said that they would like to see more educational resources about water conservation available to the public. Respondents would like to see more of the public educated about the current state of water in our region, so more people are aware and motivated to act. Respondents would also like resources on native plants and grasses, drought-resistant landscaping, and ways to reduce water consumption in the home/workplace.

Some comments suggest including a section on residents' utility bills that compare your water usage to that of similar households.

A few respondents ask that any public education campaigns not be limited to social media as social media campaigns only reach a certain number of people. Some comments also suggest integrating behaviour change into the City's education campaigns by providing tools and incentives for reducing water consumption (e.g. providing residents with shower timers).

*"More public information needs to be made available regarding how serious this situation is. More on water conscious/drought resistant landscaping."*

*"Advertising that educates ideas on how residents can reduce water use/conserve water or informs on where to find information on what small things we can do in our daily routines to conserve water."*

*"Vancouver BC had a program during a drought they had regarding toilets - If it is yellow, let it mellow. Let grass go brown. Literally, if there is a choice between me drinking water and green grass, brown grass it is."*

*"Incentive programs need to be simple, accessible, and people need to be aware of them and why they exist. The lack of water awareness in our area is astounding. A lot of people are not from this region and do not know where water comes from, how it is allocated, and that we all play a role."*

## **6. Low flow fixtures / water efficient appliances**

72 comments supported incentives for low flow water fixtures and water efficient appliances. Respondents would like to see rebates or subsidies for low flow and water efficient fixtures and appliances like toilets, faucets, shower heads, dishwashers, and washing machines.

Some respondents expressed concern over fixtures and appliances that are in good working condition being sent to landfill when they are replaced with low flow and water efficient options. They would like the City to first prioritize households in need of new fixtures.

*"Changing out taps and toilets to help reduce water flow."*

*"Mandatory low flow everything in new construction."*

*"Discounts for low water efficient toilets, taps, shower heads."*

## 7. Native plants

71 comments supported incentives for planting native plants and grasses. Native plants are naturally drought resistant and require less watering than non-native plants. Respondents would like to see the cost of native plants subsidized by the City to encourage more residents to choose these options for their home garden. Respondents would also like to see native plants and grasses used in City parks and boulevards.

Some comments suggest requiring new developments to use native plants in their landscaping.

*"Encourage residents to include native plants and grasses in their yards. These plants survive with little water and resist drought. And look better than a dead brown lawn."*

*"Discount to buy drought tolerant plants."*

*"I think it would be awesome for the provincial and municipal gov, to incentivize transitioning from tradition Kentucky blue grass landscaping to the use of native grasses, flowers and Forbes. To create habitat for small critters, decrease required water to keep yards looking good, and increase carbon sequestration."*

*"Remove or stop planting vegetation in city parks and blvds that are not native to this area. IE spruce trees, etc."*

## 8. No Incentives

51 respondents expressed that they do not support any incentives from the City. The majority of these comments cite the use of taxpayer's money as the reason for not supporting water conservation incentives. They are concerned about the potential increase in taxes to help cover the cost of incentives, stressing that the City's property taxes are already too high. These respondents encourage the City to look at ways to reduce water consumption without spending tax dollars.

*"No. I do not want the government to tax me to give a little back to incentivize me to do common sense actions! Thats the definition of waste."*

*"I don't think taxpayer money should be used to compensate residents to participate in water conservation. I see this as another way property taxes could be raised in a city with high existing taxes."*

*"Government should not provide subsidies - we are taxed too much already. Gov can set the rules e.g.: water restrictions and most will abide by them and cultural influence will change."*

*"Onus should be on homeowner, not subsidized from tax dollars."*

## 9. Watering timers

29 respondents would like to see a rebate for watering timers. These devices attach to outdoor garden hoses and are programmable to automatically shut off the water at a certain time.

*"Timers for watering lawns etc. for homeowners who do not have underground sprinklers."*

*"Add watering timers to the rebate list."*

*"Watering timers. Awareness posters in my neighborhood - lots of people leave their sprinklers running FOREVER and might limit it with some sort of forced awareness."*

## 10. Drip Irrigation Systems

29 comments supported an incentive for drip irrigation systems. Trees, shrubs, and food-producing plants require regular watering to survive. Drip irrigation systems provide a slow release of water delivered directly around the roots of plants. Well designed systems are more efficient than other types of irrigation, particularly sprinkler irrigation. As these systems can be costly to install, respondents would like to see a rebate for these products.


*"Encourage drip irrigation for gardens."*

*"Vegetable gardening is difficult without lots of water for some plants e.g. cucumbers and tomatoes. Kits for drip irrigation systems would be great and likely not too costly."*

*"All of the above. I have been thinking about doing the rain barrels and lawn alternatives the last few years, but it is cost prohibitive, so I have done very little, compared to what I want to do. Something else I want to do is to make my garden more water efficient, with things like deep pipe irrigation or sub-irrigation raise beds, but again, to get that going is more costly at the beginning."*

## Other comments

Other suggestions posed in the comments of Question 6 include:

- Incentives for landlords to make rental properties more water efficient. Renters often do not have any control over making changes to conserve water besides decreasing their own usage.
- A grant for projects that support water conservation.
- Incentive for grey water recycling systems.
- Incentive for tankless water heaters. 
- Incentive for installing synthetic turf.
- Provision of mulch for residents to use in their gardens.
- Promotion of growing food producing plants.
- Rebate for tree root feeders.
- Incentive to plant trees, which will increase shade cover and help decrease urban temperatures.
- Require all new builds to install low flow fixtures and xeriscaped lawns.

**Question 7** asked if respondents had any other comments regarding water conservation or the Water Conservation Plan. The majority of the comments in Question 7 followed the same themes as comments in Question 6, expressing support for xeriscaping, water capture equipment, utility bill incentives, and watering restrictions, as well as comments from those expressing their lack of support.

The three top recurring themes in the comments of Question 7 are:

### City-Led Initiatives

Respondents would like to see the City of Lethbridge to set an example for the rest of the community on conserving water. Many comments complain that they have not seen the City do enough over the years in terms of water conservation. Some respondents noted that they moved to Lethbridge from other jurisdictions with water conservation initiatives and were surprised at the City's lack of effort on this front, especially considering the area's climate.

Respondents ask the City of Lethbridge to embrace its semi-arid climate and look to other jurisdictions in similar climates, like those in Arizona and California, for what they have done to conserve water. There are also examples of jurisdictions within Alberta, such as the Town of Okotoks, that run comprehensive water conservation programs the City of Lethbridge can replicate.

It is important for the City to show residents that we are "practicing what we're preaching" to encourage more uptake of water conservation efforts by the public in their own homes and businesses.

*"Must be city led. Watering sports fields, parks, planting trees that need irrigation, are not indications to citizens that the city is taking water conservation seriously. The city must insist that businesses also must conserve."*

*"Take a look at cities like Kelowna or Palm Springs. They have moved firmly away from grass landscaping. They are beautiful cities. . . Just no lawns."*

*"I am glad the City is undertaking this initiative now but I feel like this is something that should have been done years ago. The warning signs of water shortages have been present for years and the lack of leadership around proactive measures from the City is disappointing."*

*"The city needs to be held responsible as well, no watering during rain.no watering the boulevards when the rest of the city is not allowed to water."*

*"You asked us last year to conserve water and you the CITY was wasting water watering shrubs on boulevards in the industrial area. Water was running over the pavement every day and going down the drains."*

*"The city needs to practice what it preaches. Stop watering city lawns when it is raining, reduce watering."*

## **Public Education**

Respondents are concerned about the lack of education available for residents on the importance of water conservation and what the public can do to conserve water. Many comment that they would like to see the City educate residents about the current state of water in Lethbridge, as they feel there are many in the city who are currently unaware or do not understand the need for water conservation. One commenter suggests reporting our reservoir levels weekly in the local news to highlight the severity of our current situation.

Respondents would also like to see resources on lawn watering, drought-resistant landscaping, native plants, irrigation, and other topics that will aid residents and businesses in making positive changes to their properties.

*"Please consider EDUCATING the residents/public and showing the path where our water comes from and how it has dried (up) and PROPER TREE AND LAWN WATERING. They need to see that it is real and how easily they can make a difference."*

*"Education! Make it an "in" thing to use rain barrels etc."*

*"Educate, educate, educate. It's the only way people will care to make a lasting change. Educate on our watershed. Educate with facts only Educate that more native trees, bushes, crops... means less water needed. Force farmers to collect snow/rain/evaporation water by not turning on irrigation water until later."*

*"I think more public education is needed about how natural water systems work in Southern Alberta, both in regards to the weather, how snow pack affects our water supply in the summer as well as the processes in which water rights are given to cities, farmers, etc."*

*"I think engagement and outreach needs to be much higher, the public is mostly unaware of his serious the situation is. Honest education too, don't tiptoe around it, be accurate in how serious things actually are regarding our water supply."*

*"Educate, educate, educate. People won't buy in unless they understand."*

## **Industrial, Commercial and Institutional Sector**

Respondents would like to see the industrial, commercial, and institutional (ICI) sector reduce their water consumption. Comments highlight businesses such as golf courses, car washes, factories, and industrial farms, which use much more water than the average resident. Many feel that reducing at the residential level is important, but will not be sufficient unless the ICI sector is also on board with water conservation efforts.

Respondents would like the City to identify the large ICI users of water, and to put pressure on these businesses to reduce where possible. Respondents would also like to see the ICI sector included in water restrictions whenever they are required.

*"Look at the parks, cemeteries, and golf courses before you start hitting up residences for 'wasting' water. Less watering means less grass cutting, as well. There are a lot of parks and cemeteries that could benefit from xeriscaping and bringing in natural plants and flowers for our pollinators. The golf courses could also do astroturf for the higher-traffic areas that require more maintenance and watering. Deal with those first and then come knocking on my door."*

*"Until businesses such as car washes, agriculture, livestock operations and food processing get in board with meaningful plans I see residential savings as a drop in the bucket. They use up a majority of treated water compared to water savings from limiting my courtesy flushes."*

*"Just a note that municipal water use is only a fraction of the water used for irrigation and other industries (i.e., potato factories) - and more effort should be placed on the ag and industrial companies to conserve water."*

*"Water Conservation plans need to impact everyone including golf courses, city and private industry, not just home owners. If homeowners are asked to cut 10 percent of volume diverted this should apply to everyone."*

*"While limiting residential water usage makes some sense, I think industrial water usage is likely much higher and more impactful, and should receive restrictions with follow-through regarding any fines or sanctions."*



*“Churches, Industry and Commercial properties consume more than their fair share of water. Start with monitoring them. If people drive around and businesses are full green grasses, you won’t ever have full buy in.”*

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## DEMOGRAPHICS OF RESPONDENTS

**Questions 8 through 12** were demographic questions. 98.4% of the respondents identified as a resident and 1.6% identified as representing a business or organization in Lethbridge. When broken down by area, respondents either reside in or their business/organization is located in:

- West Lethbridge (45.1%)
- South Lethbridge (29.4%)
- North Lethbridge (24.3%)
- Downtown Lethbridge (1.1%)

87.5% of respondents reported that they own their home or business, and 12.5% are renters.

When broken down by age:

- 25.9% are 65 years old or older;
- 35.7% are 45-64 years old;
- 35.1% are 25-44 years old;
- 2.9% are 15-24 years old; and
- 0.5% are under 15 years old.

**Table 2** breaks down the number of people per household:

**Table 2**

Number of people per household	Percentage
1	12.4%
2	44.2%
3	16.1%
4	17.1%
5+	8.9%

The remaining 1.2% of respondents are not applicable as they answered the survey on behalf of a business or organization.