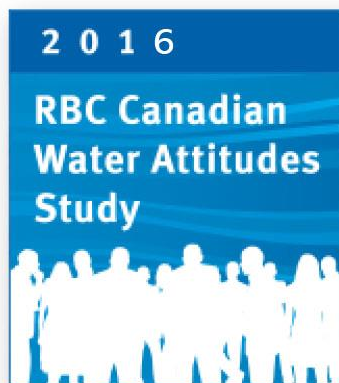


# 2016 RBC Canadian Water Attitudes Study



RBC  
Blue Water  
Project™



# Welcome to the complete findings of the 2016 RBC Canadian Water Attitudes Study

## A message from RBC

In 2007, RBC launched the RBC Blue Water Project, a 10-year, \$50 million charitable commitment to protect the world's freshwater. We soon learned that many Canadians take water for granted. So in 2008, we started polling them about their attitudes towards water—to see if the serious water issues around the world and emerging ones at home were having an impact on how we use and think about this precious resource, and if our grants were making a difference.

I am pleased to provide the results of our ninth annual poll, which is full of interesting information that can hopefully drive meaningful conversations about the value and vulnerability of water in Canada.

For the first time, Canadians ranked climate change as the biggest threat to our freshwater supply. This is not surprising given the events of the past year, including record high temperatures, the historic Paris climate change agreement, the announcement of new carbon regulations in Ontario and Alberta, and a change in federal government that is promising action on climate change.

Other notable findings include that Canadians remain confident in the quality of their drinking water, despite the fact that almost a quarter have experienced boil water advisories. In addition, 83% of Canadians are concerned about water conditions on First Nations reserves, a 12% increase since 2010.

As in past years, we are making the full results of this poll freely available, with the hope that our findings will help inform the work of NGOs, academics, governments and other interested parties. You are welcome to refer to, reprint or redistribute this information. We only ask that you attribute the source as the “2016 RBC Canadian Water Attitudes Study.”

Please visit [rbc.com/bluewater](http://rbc.com/bluewater) for an archive of the RBC Canadian Water Attitude Study results since 2008.

Andrew Craig  
Director, Corporate Environmental Affairs  
RBC



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# Key Findings (1)

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- Fresh water is still seen as Canada's most important natural resource by far (49%, up from 47% in 2013).
- Climate change is seen as the top threat to fresh water in Canada (21% ranking it as the top threat, up from 7% in 2010).
- Canadian opinion is split on exporting water to water-stressed regions such as California where Canada relies on the region to supply fresh food, with 38% of people in favour of this and 30% opposed. The urban/suburban population (42%) is more in favour while the rural population (38%) is opposed to exports.
- Nine in ten Canadians (92%) think that developing stricter rules and standards to manage water use by industry and municipalities is the best way that Canada can protect and manage fresh water better. There is also widespread agreement (90%) that water management decisions should be better informed by science and that commercial enterprises (90%) should pay for the full costs of delivering and treating all of the water that they use as well as ensuring that enterprises (90%) obtain licenses for groundwater use.
- However, agreement with increased consumer delivery costs for water and sewage treatment and household water use as conservation measures are significantly lower (63% and 42% respectively). Consumers appear unwilling to personally absorb the costs for conservation measures and water use/management, with an expectation that industry and municipalities should take the lead and invest more in conservation efforts.
- Almost all respondents (95%) agree that Canada should take responsibility to manage its waters more efficiently and effectively. Almost eight in ten people agree that Canada should make investments to help water technology companies grow internationally.
- Impressions of Canada as an international leader in water and conservation technology remain stable (with seven in ten respondents feeling this way since 2013) but there has been a drop in expectations of Canada to help other countries better manage their water resources (60%, down 14% since 2013).



## Key Findings (2)

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- A majority of Canadians (84%) are “very” and “somewhat” confident in the quality of the tap water in their homes. There has been an increase in participants (four in ten) who say that they are “very confident” in the water quality, with over eight in ten people expressing confidence nationally.
- Almost a quarter of Canadians (24%) have experienced living in an area under a boil water advisory.
- Almost half of respondents are very concerned about the water conditions on First Nations Reserves and there has been a general overall increase in concern since 2015 which has continued upwards since 2010. Over three-quarters of Canadians believe that we should support organizations that address the issue of safe drinking water on First Nations reserves. There has been a continuing decline for support for organizations addressing water in the context of humanitarian concerns abroad.
- A majority of Canadians have never heard information about pharmaceuticals or ingredients from personal care products being found in water systems while four in ten people report hearing about these issues.
- The health of fish and other animals is the greatest concern where pharmaceuticals, ingredients from personal care products or microbeads are found the water system. This is closely followed by the quality of drinking water. There is also a high level of concern for personal health and that of family.
- A majority of Canadians say they would not use or purchase personal care products containing microbeads and take their expired medications back to the pharmacy, and that they are willing to pay more for natural/organic products. An overwhelming majority (around nine in ten) say they would not flush medications down the toilet.
- Water treatment systems to reduce pollution and facilities that maintain the quality of drinking water rank as the highest priorities for government funding, with storm water management and infrastructure to protect against extreme weather and flooding being the lowest priorities.
- Although there has been a slight increase in willingness to pay more tax for infrastructure improvements compared with 2015, slightly less than a third of respondents remain neutral about the issue while a quarter disagree.



## Key Findings (3)

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- Just over half of Canadians have noticed more stories in the news about flooding and drought and there has been a significant increase (50%, up from 28% in 2015) in respondents who have noticed more water quality stories in the news.
- Three-quarters of Canadians do not feel that they live in an area that is vulnerable to flooding and drought.
- Nine in ten Canadians strongly agree that property sellers living in high-risk flood areas should be legally required to fully disclose the risk when selling the property.
- In general, more Canadians claimed to have taken action to prevent water damage outside of their homes compared to 2015, especially for landscaping such as grading (increase of 18%) and replacing paved surfaces with water-permeable materials (increase of 16%). There are also increases in the number of people claiming that they have installed caulking around windows (increase of 15% since 2015) and installing/repairing a sump pump (increase of 12% since 2015).
- Swimming is the most-mentioned activity that Canadians like to do which involves water, followed by spending time on the beach and fishing. Nearly two-thirds of Canadians swim in lakes or rivers at least once per year. Two-thirds of Canadians express concern about the quality of the water in rivers and lakes used for swimming.
- Non-governmental organizations (78%) and conservation authorities (79%) are the most trusted to provide information about water quality and safety in Canada. Government and media are among the least trusted. Municipal websites and information posted near the water are the most-mentioned places where Canadians look to find out about the quality of water in beaches, lakes and rivers.
- Canadians are responsible when it comes to water use when gardening, with almost all respondents (90%) stating that they do not water their garden during a water ban or drought.



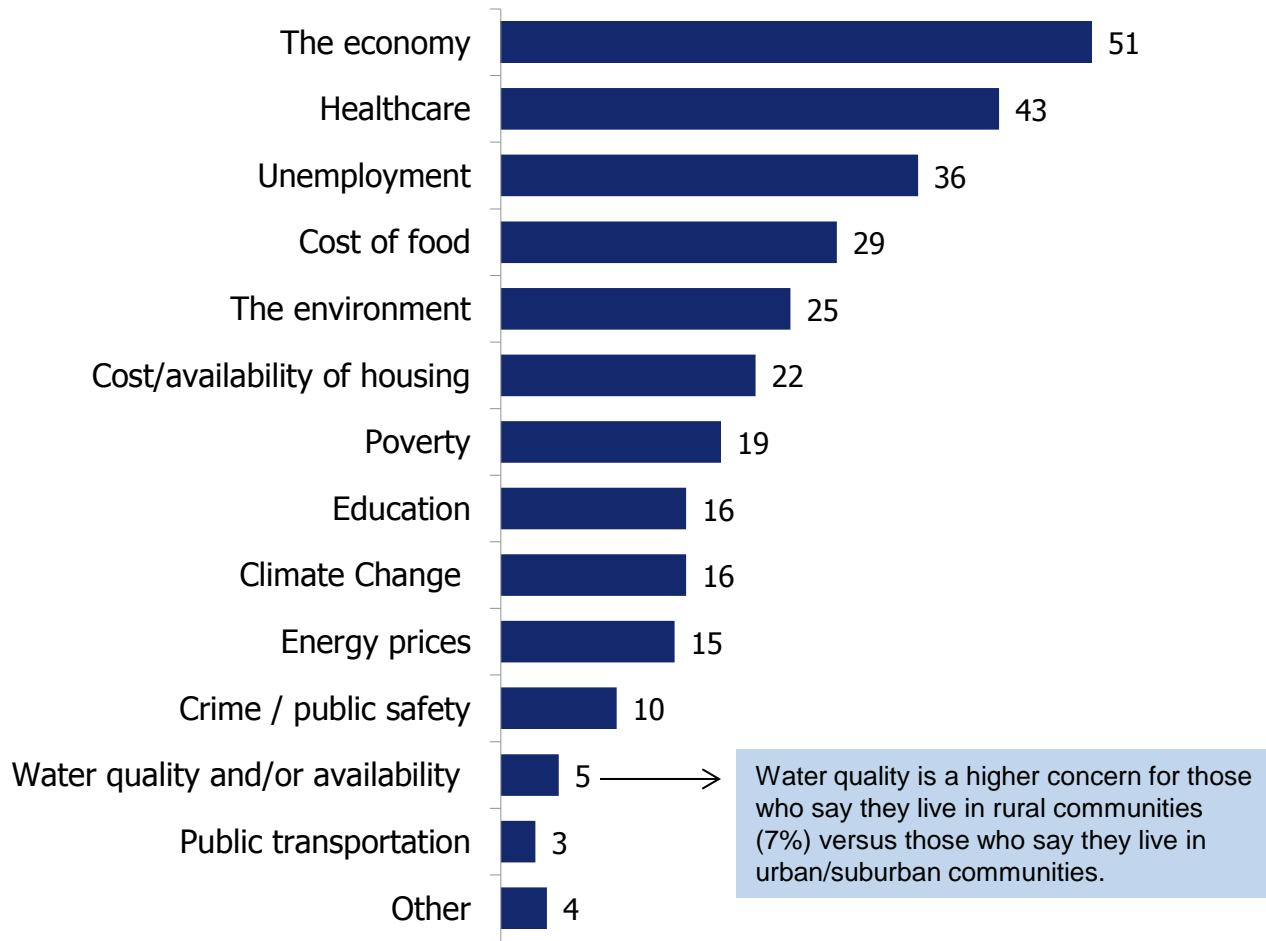


## General Context



# Economy, healthcare and unemployment are top issues facing Canada

## Three Most Important Issues Facing Canada, Total Mentions, 2016





# Most Important Issues Facing Canada, Total Mentions, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
The environment	35	18	23	24	22	29	35	18	28	23	24	29	33	21	21	26	23	25	24	24
Unemployment	28	63	30	36	29	38	28	62	28	39	33	40	41	37	32	35	38	37	35	36
The cost and/or availability of housing	42	16	19	26	12	14	49	19	18	36	16	15	27	22	18	17	27	28	16	11
Crime and public safety	12	12	18	9	8	12	12	11	20	9	9	12	8	11	11	10	10	11	9	8
Education	11	15	17	12	24	20	12	15	15	12	26	26	21	17	11	16	17	16	18	13
The economy	47	68	56	49	48	46	47	69	56	52	47	49	48	50	54	56	46	54	51	42
Healthcare	34	27	51	42	56	41	32	28	47	36	54	40	29	46	53	41	46	39	50	50
Energy prices	9	20	7	21	10	12	8	19	4	14	10	14	12	18	16	18	13	12	17	23
Public transportation	3	2	2	5	2	2	4	3	2	9	3	4	4	3	3	4	3	4	4	1
Water quality and/or availability	5	4	6	6	5	4	2	4	5	5	5	3	6	5	4	6	4	4	4	9
Poverty	19	11	15	18	28	20	18	9	21	17	25	18	21	19	18	19	20	19	20	20
The cost of food	28	26	32	29	30	34	22	26	30	26	24	27	23	32	32	26	32	25	31	40
Climate change	19	14	16	16	15	18	20	12	20	17	19	15	22	12	16	16	16	17	15	14
Other	4	3	5	3	4	5	4	3	6	2	3	6	2	4	5	5	2	4	4	2
DK/NA	1	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1

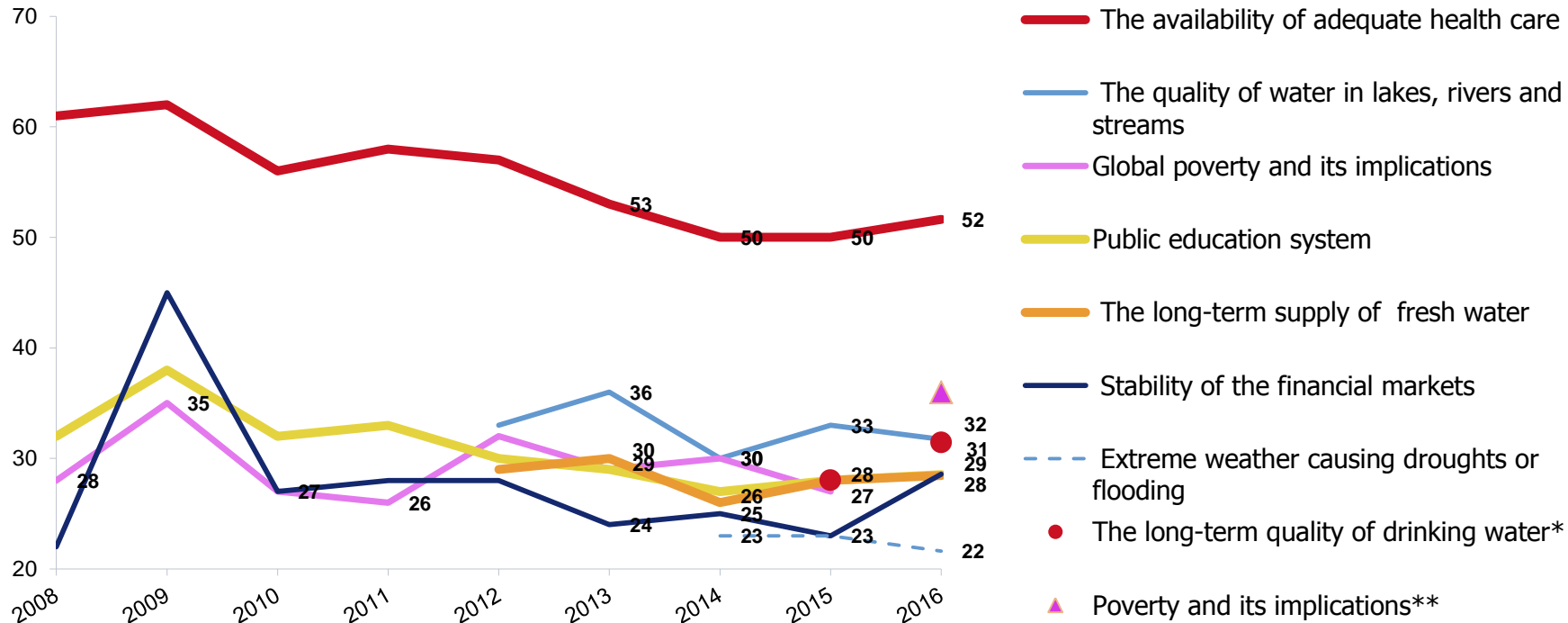
Base: All respondents 2016  $n=2,194$

Q. (modified in 2016) What do you think are the three most important issues facing Canada?



# Healthcare remains top concern, but poverty in Canada is viewed as a higher concern than quality of water in lakes, rivers and streams

## Degree of Concern for Issues Facing Canada, “Very Concerned,” 2008–2016



Concern for many of these issues has remained relatively stable, but concern for the long-term quality of drinking water, and financial stability of markets has slightly increased.

Base: All respondents 2016  $n=2,194$ ; 2015  $n=2,242$ ; 2014  $n=2,074$ ; 2013  $n=2,282$ ; 2012  $n=2,428$ ; 2011  $n=2,066$ ; 2010  $n=2,022$ ; 2009  $n=2,165$ ; 2008  $n=2,309$

\*Modified in 2016 from “the long-term quality of drinking water in communities” to “the long-term quality of drinking water”

\*\*New in 2016, “poverty and its implications”

10 Q. (modified in 2016) Below is a list of issues facing Canada that you might be concerned about. For each, please indicate the degree to which you are concerned or not concerned.



# Degree of Concern for Various National Issues

## “Very Concerned” and “Somewhat Concerned,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18 to 34 years	35 to 55 years	>55 years	Male	Female	Urban (>100 000)	Mid-size towns/cities	Rural (<1000)
Availability of adequate health care	89	84	85	90	92	91	88	83	82	92	92	91	86	90	92	88	91	89	90	91
Public education systems	73	67	73	73	74	74	76	62	74	75	76	78	79	73	67	70	76	73	73	70
Long-term supply of fresh water	72	70	74	75	70	77	72	69	73	76	67	75	77	74	68	67	79	72	73	76
Poverty and its implications	82	85	87	83	87	86	80	84	88	84	88	81	88	84	82	80	89	85	85	84
Stability of the financial markets	77	90	79	80	62	70	81	91	76	84	64	71	82	73	73	71	81	78	74	71
Quality of water in lakes, rivers and streams	81	68	82	83	78	79	76	65	81	84	77	75	80	76	83	77	82	79	80	82
Extreme weather causing droughts or flooding	65	60	64	66	64	60	60	60	67	70	65	62	65	64	63	58	70	63	66	64
Long-term quality of drinking water	76	63	72	77	75	76	74	61	68	80	76	74	75	74	74	71	78	74	74	77

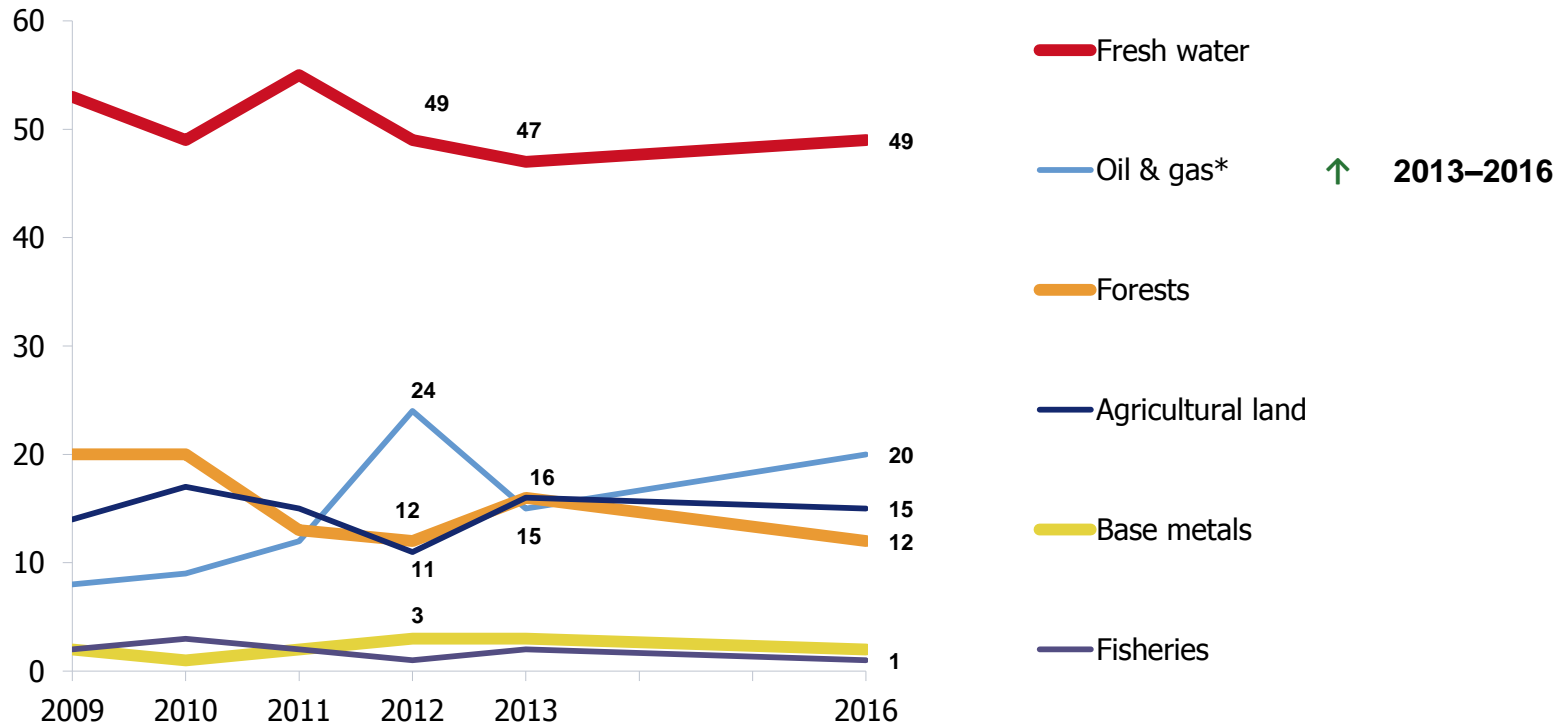
Base: All respondents 2016  $n=2,194$

Q. (modified in 2016) Below is a list of issues facing Canada that you might be concerned about. For each, please indicate the degree to which you are concerned or not concerned.



# Canadians continue to consider fresh water to be Canada's most important natural resource

## Canada's Most Important Natural Resource, 2009–2016



\*Modified from "oil" in 2013 to "oil & gas" in 2016

Base: All respondents 2016  $n=2,194$ , 2013  $n=2,282$ ; 2012  $n=2,428$ ; 2011  $n=2,066$ ; 2010  $n=2,022$ ; 2009  $n=2,165$

Q. Which of the following do you consider to be Canada's most important natural resource?



# Canada's Most Important Natural Resource, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Fresh water	46	29	53	50	59	47	43	28	62	49	56	48	47	50	50	52	46	50	49	48
Oil & gas	18	52	15	18	11	16	22	55	11	21	14	19	22	20	18	19	21	23	17	13
Forests	20	5	9	10	16	14	23	6	10	9	13	14	15	13	9	12	12	12	13	13
Coal	0	0	0	1	0	0	0	0	0	2	1	0	1	1	0	0	1	1	0	1
Agricultural land / farm land	13	12	21	17	10	14	10	9	15	13	12	15	11	13	19	12	17	12	17	21
Base metals (e.g., copper, nickel)	1	0	1	2	2	0	2	0	0	4	3	0	3	2	1	2	1	2	3	1
Fisheries	0	0	1	1	1	8	0	0	1	1	1	4	1	2	1	1	1	1	2	2
DK/NA	1	1	1	1	0	0	1	2	1	0	0	0	1	0	1	1	0	1	0	1

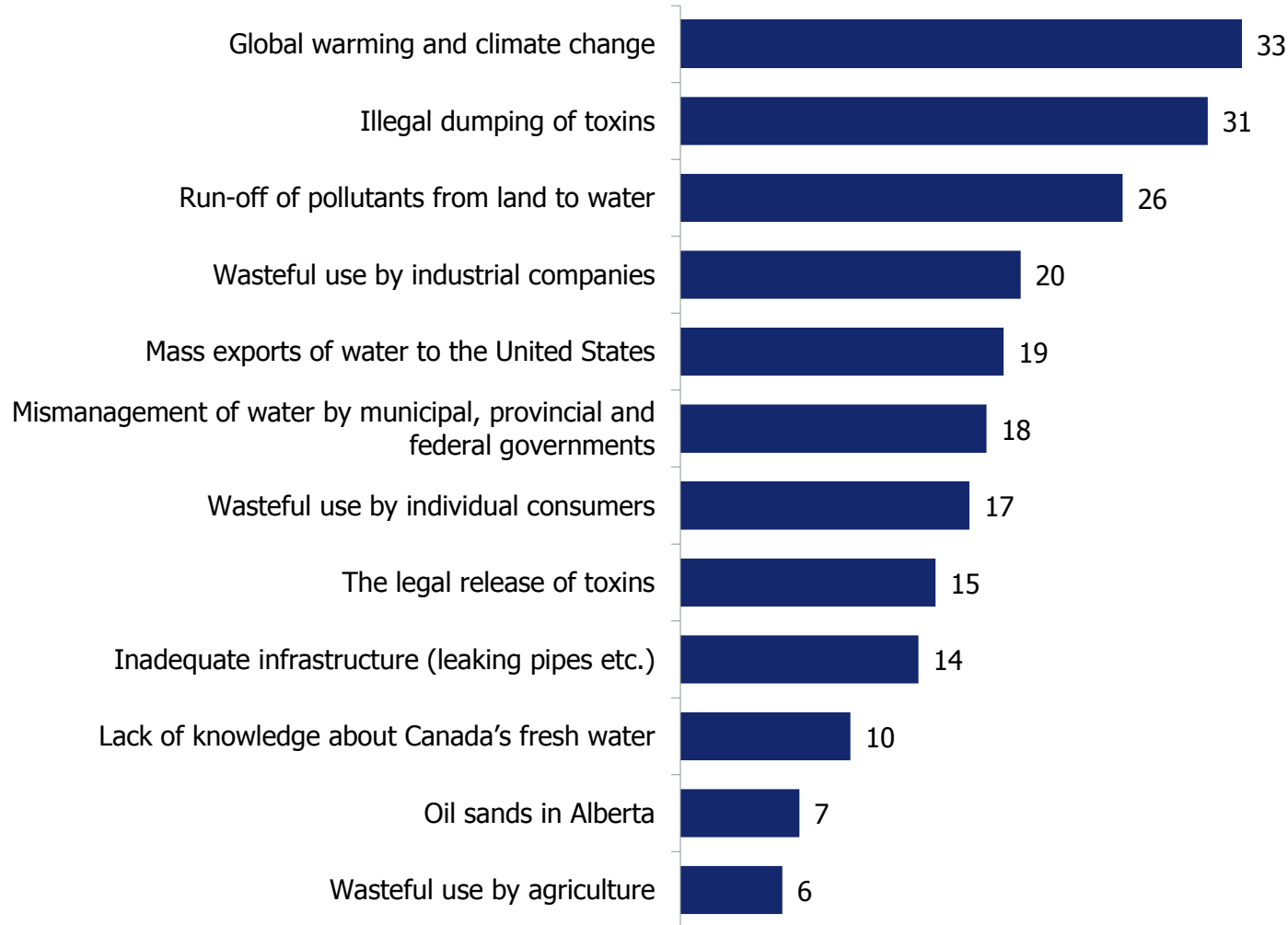
Base: All respondents 2016  $n=2,194$

Q. Which of the following do you consider to be Canada's most important natural resource? *Please select only one.*



# Climate change and illegal dumping of toxins are perceived as the biggest threats to fresh water supplies

## Biggest Threats to Canada's Fresh Water Supply, Top Mentions, 2016



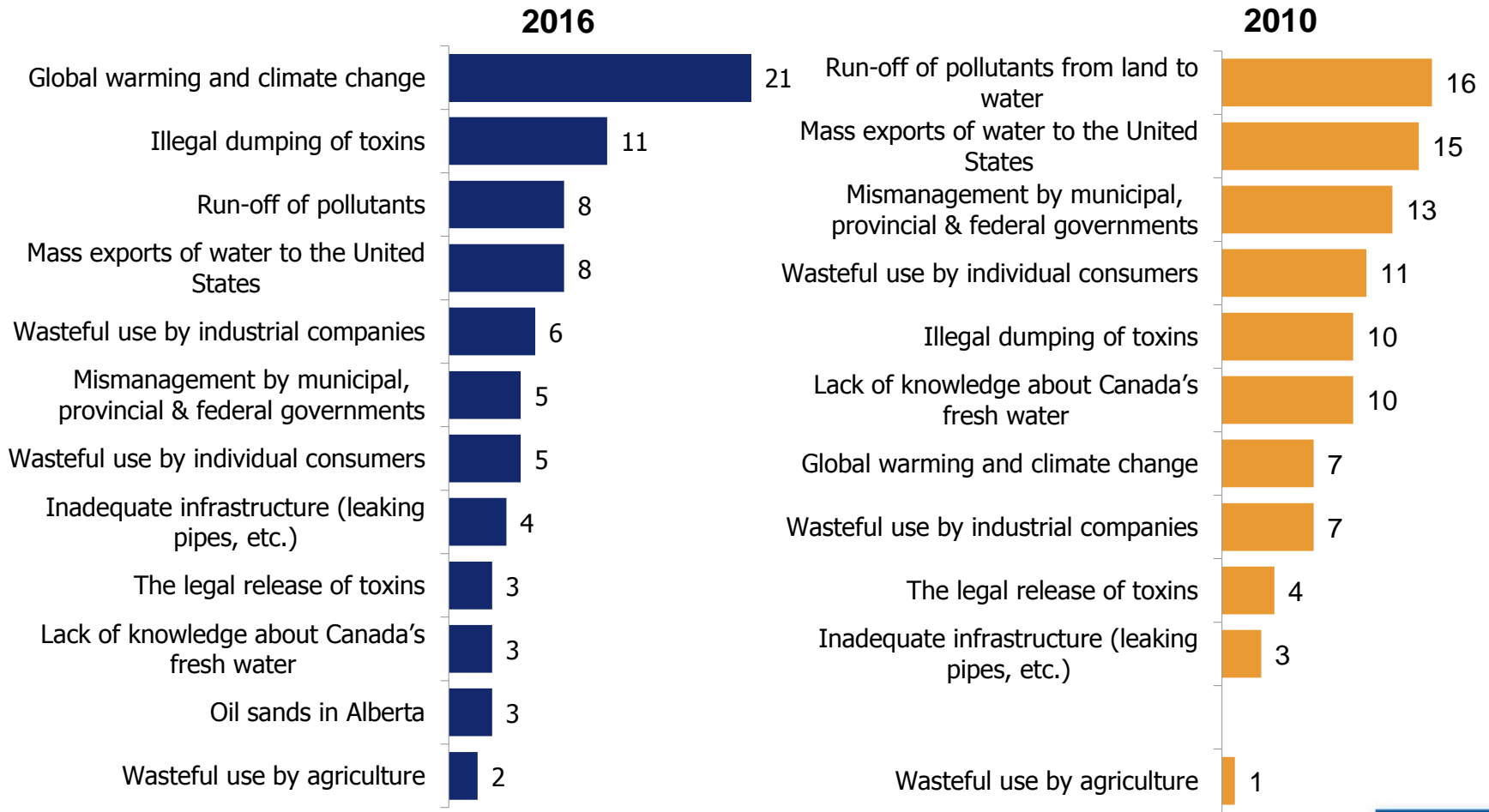
Base, All respondents  $n=2,194$

Q. (new in 2016) What do you think are the biggest threats to Canada's fresh water supply?



# One in five Canadians now say climate change is the top threat to fresh water compared to 2010 when it was considered a lower threat

## Biggest Threats to Canada's Fresh Water Supply, Rank 1, 2010–2016



Base: All respondents 2016  $n=2,194$ , 2010  $n=2,022$

Q. (modified in 2016) What do you think are the biggest threats to Canada's fresh water supply?



# Biggest Threats to Canada's Water Supply, Total Mentions

## Demographics, 2016

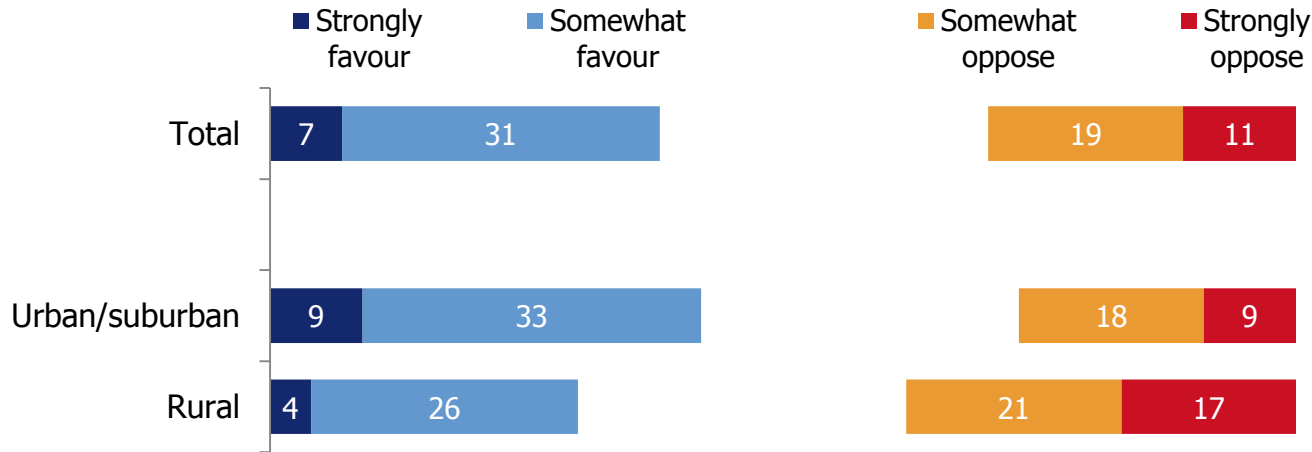
	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Global warming and climate change	42	30	28	32	34	32	44	28	29	34	34	32	40	31	29	32	34	35	33	27
Inadequate infrastructure (leaking pipes etc.)	13	14	13	13	17	16	13	15	11	12	19	15	11	15	16	15	13	15	13	12
Mass exports of water to the United States	29	21	16	20	13	19	27	18	13	15	11	19	16	17	24	19	19	18	22	20
Wasteful use by individual consumers	17	19	17	18	15	13	18	21	15	20	16	18	21	16	14	14	19	18	14	16
Wasteful use by agriculture	6	5	7	6	8	7	5	6	7	7	6	6	8	6	5	8	5	7	7	4
Wasteful use by industrial companies	21	22	17	20	18	24	20	22	16	22	18	30	25	16	20	19	21	21	23	15
Illegal dumping of toxins	28	34	37	34	24	35	27	33	36	33	21	36	32	29	33	28	35	31	28	33
The legal release of toxins	14	16	18	18	9	14	14	18	19	15	8	15	14	15	16	15	15	14	14	18
Run-off of pollutants from land to water	27	24	37	26	24	28	27	23	35	23	19	25	23	27	29	25	28	25	27	30
Mismanagement of water by municipal, provincial and federal governments	19	24	19	19	13	15	15	20	19	15	13	19	16	14	24	19	17	18	18	20
Lack of knowledge about Canada's fresh water	11	10	17	11	5	11	11	10	15	9	6	15	11	10	10	10	10	9	11	12
Oil sands in Alberta	7	10	5	5	10	10	6	11	6	7	10	10	11	6	5	7	8	9	7	4
No rank	16	20	17	20	28	18	19	23	21	23	30	14	20	24	17	22	19	21	22	21

Base: All respondents 2016  $n=2,194$



# Canadian opinion is split on exporting water to regions experiencing shortages, with the urban/suburban population favouring this more than the rural population

## Favourability toward Exporting Water, 2016



People who say they live in urban/suburban communities (42%) are more in favour of exporting water to water-stressed regions, while those in rural communities are more opposed to exporting water (38%).

The white space in this chart represents “Neither favour nor oppose” and “DK/NA.”

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18 to 34 years	35 to 55 years	>55 years	Male	Female	Urban (>100 000)	Mid-size towns/cities	Rural (<1000)
“Strongly favour” + “Somewhat favour”	42	41	42	38	35	40	45	43	41	48	42	47	49	36	32	39	38	43	33	31

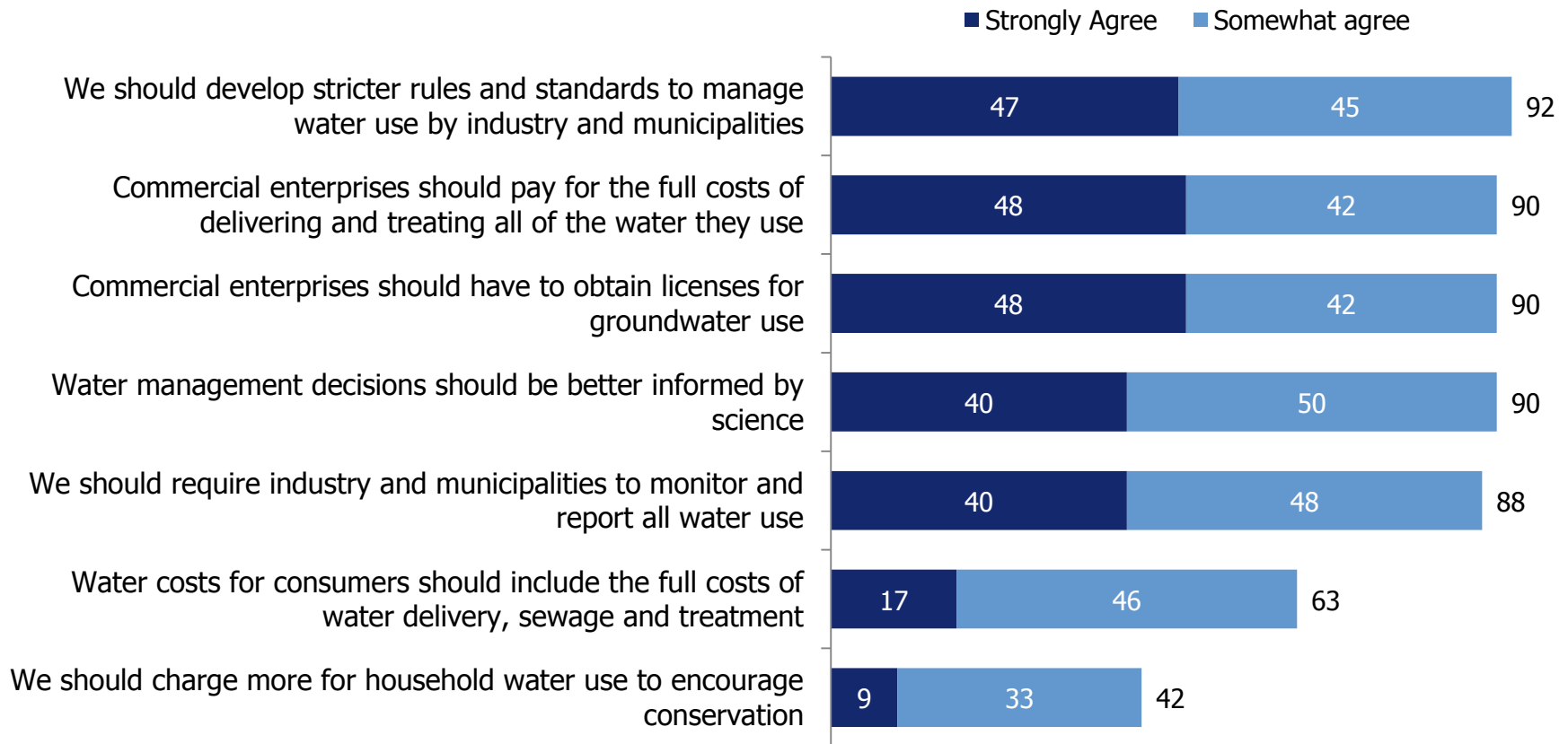
Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Canada relies on some water stressed regions such as California to supply fresh food year round. Would you favour or oppose Canada diverting or exporting water to regions that are experiencing water shortages?



# Nine in ten Canadians think that developing stricter rules and standards to manage fresh water use by industry is the best method of protection

## How Canada could Protect and Manage Fresh Water Better, “Strongly agree” and “Somewhat agree,” 2016



Base: All respondents 2016  $n=2,194$

18 Q. The following are ideas for how Canada could protect and manage fresh water better. Please indicate whether you agree or disagree with each of the following ideas:



# Methods of Protecting and Managing Fresh Water, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
We should require industry and municipalities to monitor and report all water use	91	87	85	88	90	86	91	84	85	87	89	85	85	89	90	88	89	88	87	90
Commercial enterprises should have to obtain licenses for groundwater use	92	85	89	90	90	90	92	84	90	93	86	90	90	88	92	90	90	91	90	86
We should develop stricter rules and standards to manage water use by industry and municipalities	95	88	88	93	91	91	93	87	88	92	93	87	89	91	95	92	92	92	91	93
Water management decisions should be better informed by science	89	85	90	91	88	88	88	86	94	94	88	87	90	89	89	91	88	90	87	88
We should charge more for household water use to encourage conservation	50	42	43	40	43	45	54	44	44	42	45	42	43	44	40	46	39	43	44	39
Commercial enterprises should pay for the full costs of delivering and treating all of the water they use	93	86	90	90	88	92	93	85	89	89	86	89	87	88	93	90	89	89	91	89
Water costs for consumers should include the full costs of water delivery, sewage and treatment	68	67	60	61	63	68	70	70	59	61	59	59	60	66	63	65	61	63	66	62

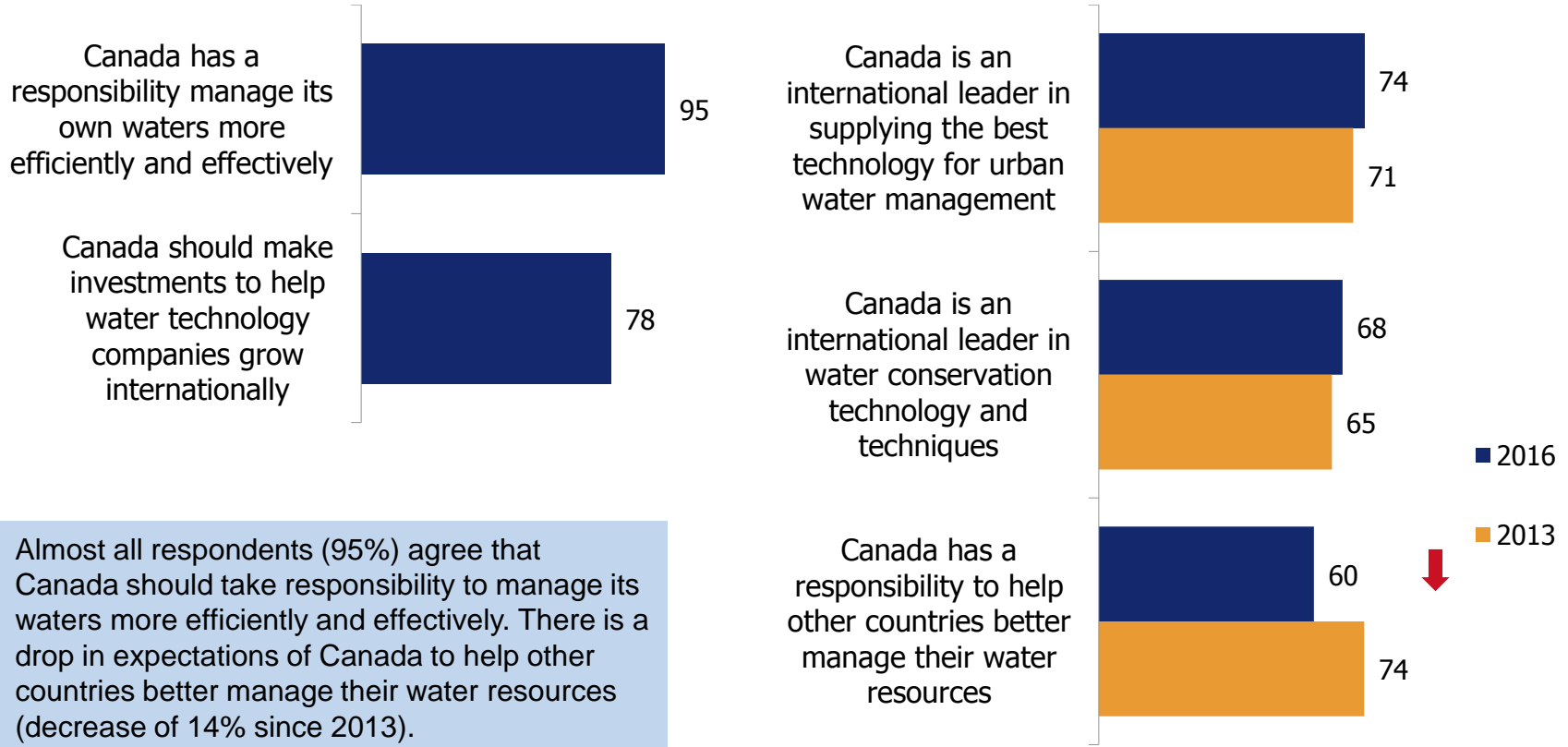
Base: All respondents 2016  $n=2,194$

19 Q. The following are ideas for how Canada could protect and manage fresh water better. Please indicate whether you agree or disagree with each of the following ideas:



# Almost all respondents agree that Canada should take responsibility to manage its waters more efficiently and effectively

## Extent of Agreement with Canada's Roles and Responsibilities toward Water, "Strongly Agree" and "Somewhat Agree," 2013–2016





# Canada's Leadership in Water Management, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Canada has a responsibility to help other countries better manage their water resources	60	50	59	60	61	66	64	46	61	65	63	69	58	60	61	61	58	61	57	58
Canada is an international leader in supplying the best technology for urban water management	71	72	73	74	77	74	72	69	73	77	80	73	73	76	73	72	75	76	70	72
Canada is an international leader in water conservation technology and techniques	62	66	69	68	74	65	63	66	70	72	74	65	68	70	67	66	70	69	68	67
Canada should make investments to help water technology companies grow internationally	79	78	77	80	76	77	80	76	78	86	78	81	80	78	77	78	78	81	75	73
Canada has a responsibility manage its own waters more efficiently and effectively	96	93	93	96	95	94	96	92	94	97	96	94	92	95	97	95	95	96	95	94

Base: All respondents 2016  $n=2,194$



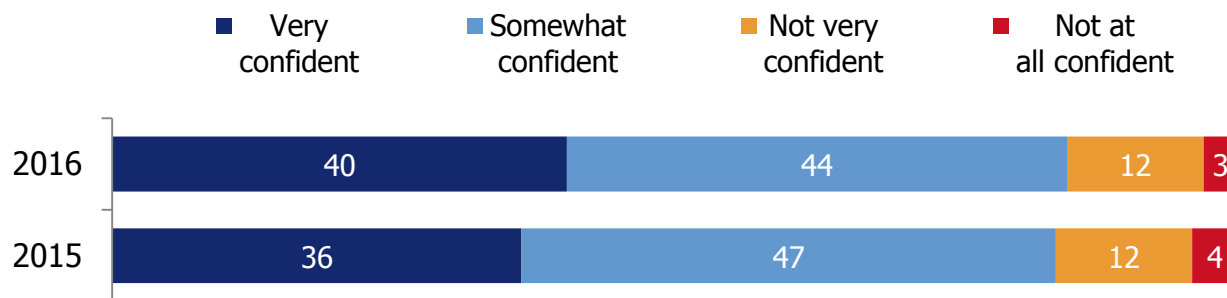


## Water Quality



# Canadians remain confident in the quality of tap water in their homes

## Confidence in Tap Water Quality at Home, 2015–2016



A majority of respondents (84%) are “very” and “somewhat” confident in the quality of the tap water in their homes. There is an increase in participants (four in ten) who say that they are “very confident” in the water quality.

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
“Very confident” + “Somewhat confident”	88	84	79	85	82	82	90	85	78	86	80	84	87	80	86	86	83	84	84	85

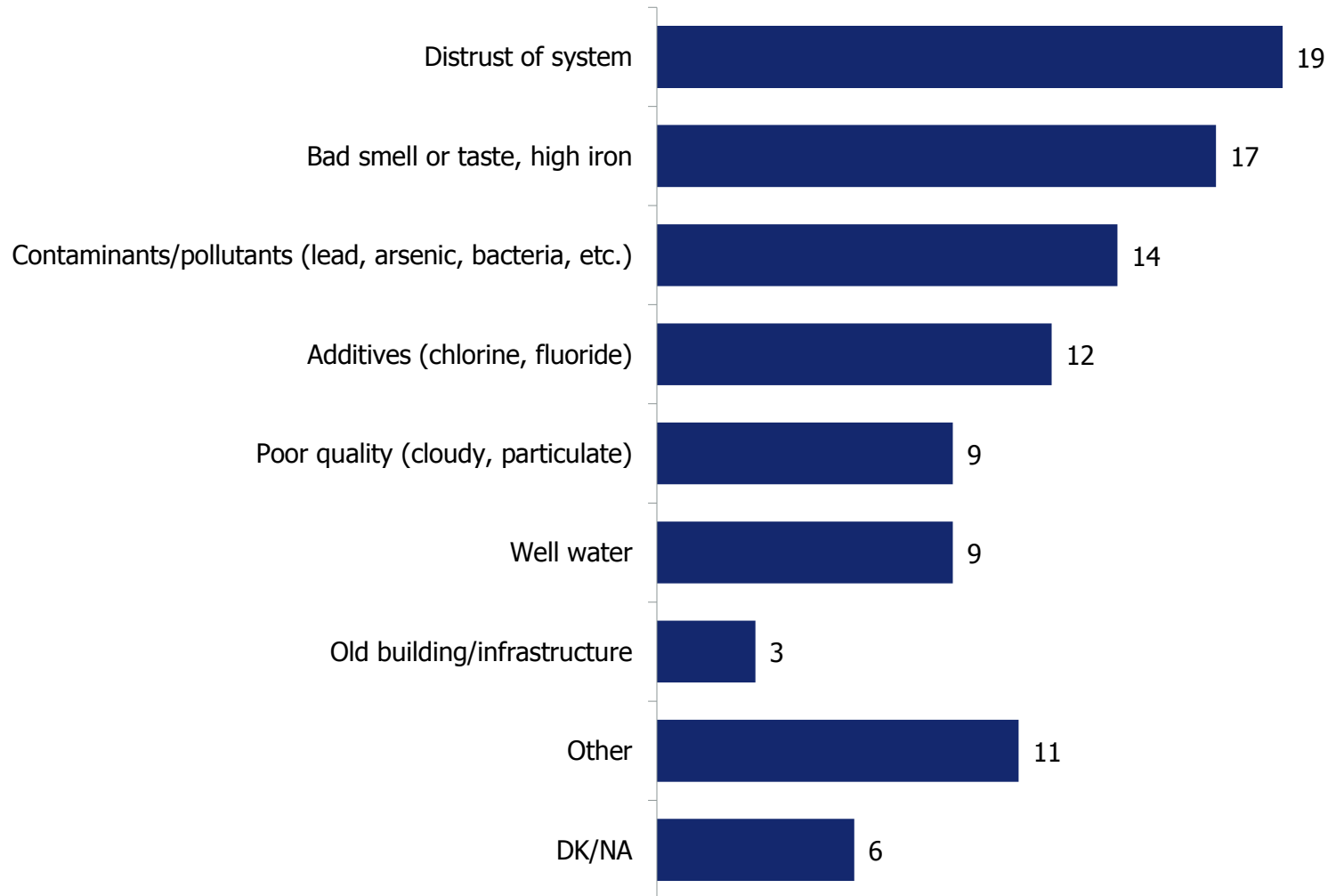
Base: All respondents 2016,  $n=2,194$ , 2015,  $n=2,242$

Q. How confident are you in the quality of tap water in your home?



# Canadians mostly cite a distrust of the system and bad smell or taste as reasons for a lack of confidence in tap water; older buildings and infrastructure are less of an issue

## Reasons for Lack of Confidence in Tap Water Quality at Home, Unprompted, 2016



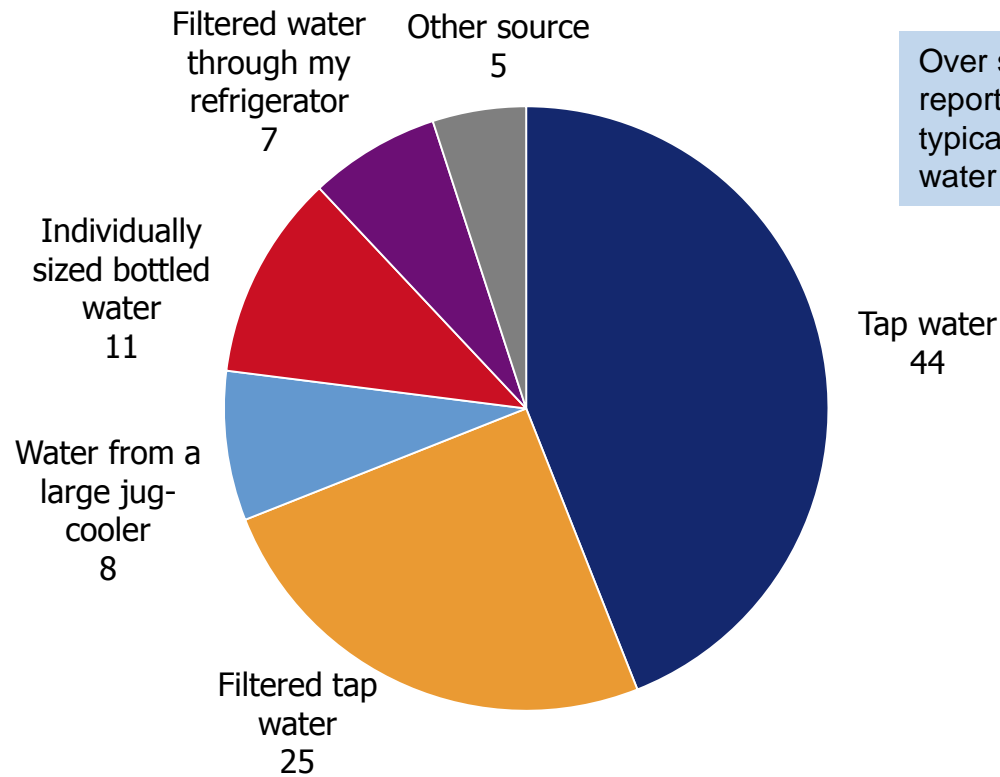
Base: 2016 *n*=344

Q. Why do you say you are “not very” or “not at all” confident about the quality of tap water in your home? - Coded



# Three-quarters of Canadians report that tap water is their most typical source of drinking water

## Typical Source of Drinking Water at Home, 2016



Over seven in ten Canadians report tap water as the typical source of drinking water in their homes

Base: All respondents 2016  $n=2,194$

Q. In your home, what is the source of water you typically drink?



# Typical Source of Drinking Water at Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Tap water (directly from the tap)	52	45	39	35	54	45	54	43	36	38	47	43	45	41	45	47	41	45	46	37
Filtered tap water (from the tap, but through another filtering system)	25	28	33	28	14	29	27	31	33	32	16	35	26	24	24	22	28	28	19	21
Individually-sized bottled water	4	5	7	15	13	10	5	7	7	14	14	10	11	13	10	10	12	10	10	15
Water from a large-jug cooler purchased from a vendor	8	10	14	7	9	8	6	8	13	4	14	8	7	9	8	9	8	7	11	10
Filtered water through my refrigerator	7	9	5	8	5	4	6	9	7	9	6	2	8	8	4	7	7	7	8	5
Some other source (please specify)	4	3	2	7	5	4	1	1	1	3	3	2	2	4	9	6	5	2	6	12

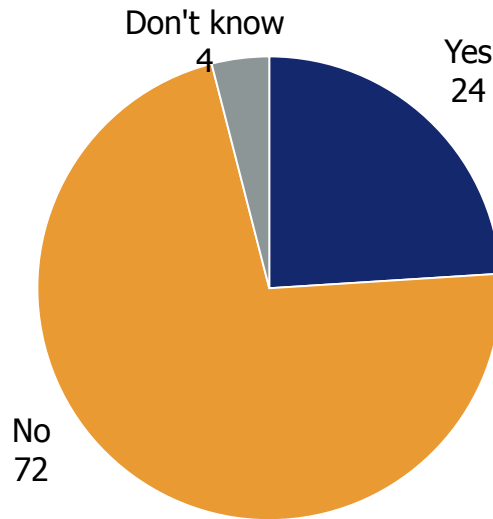
Base: All respondents 2016  $n=2,194$

Q. In your home, what is the source of water you typically drink?



# Almost a quarter of Canadians have experienced living in an area under a boil water advisory

## Experience of Living under a Boil Water Advisory, All Respondents, 2016



The highest rate of living under a boil water advisory is for the Prairies, where four in ten respondents (40%) have experienced this.

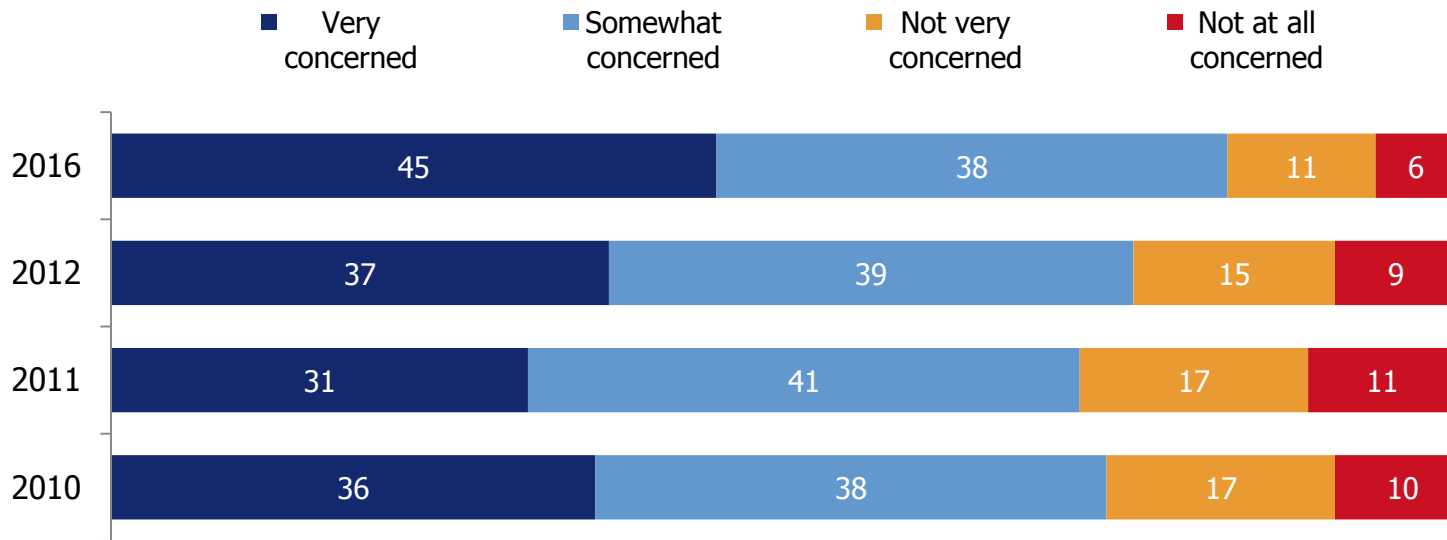
	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Yes	30	23	40	15	33	26	22	23	41	10	35	25	19	28	23	24	24	22	24	29
No	64	74	57	82	61	70	73	74	55	86	58	72	74	69	73	73	71	73	72	68
Don't know	6	3	3	3	5	4	5	4	5	5	7	3	7	3	4	3	5	5	4	3

Base: All respondents 2016  $n=2,194$



# Almost half of all respondents are very concerned about water conditions on First Nations reserves

## Concern about Water Conditions on First Nations Reserves, 2010–2016



Base: All respondents 2016  $n=2,194$ ; 2012  $n=2,428$ ; 2011  $n=2,066$ ; 2010  $n=2022$

Q. (modified in 2016) In Canada, people on more than 100 First Nations reserves must boil their water before it is safe to drink. Some reserves have been under boil water advisories for years. How concerned are you about the water conditions on First Nations reserves?



# Concern about Water Conditions on First Nations Reserves

## “Very Concerned” and “Somewhat Concerned,” Demographics, 2016

REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)

How concerned are you about the water conditions on First Nations reserves?

"Very concerned" + "Somewhat concerned"	84	79	81	85	78	84	82	81	84	87	80	84	84	79	85	78	87	83	81	81
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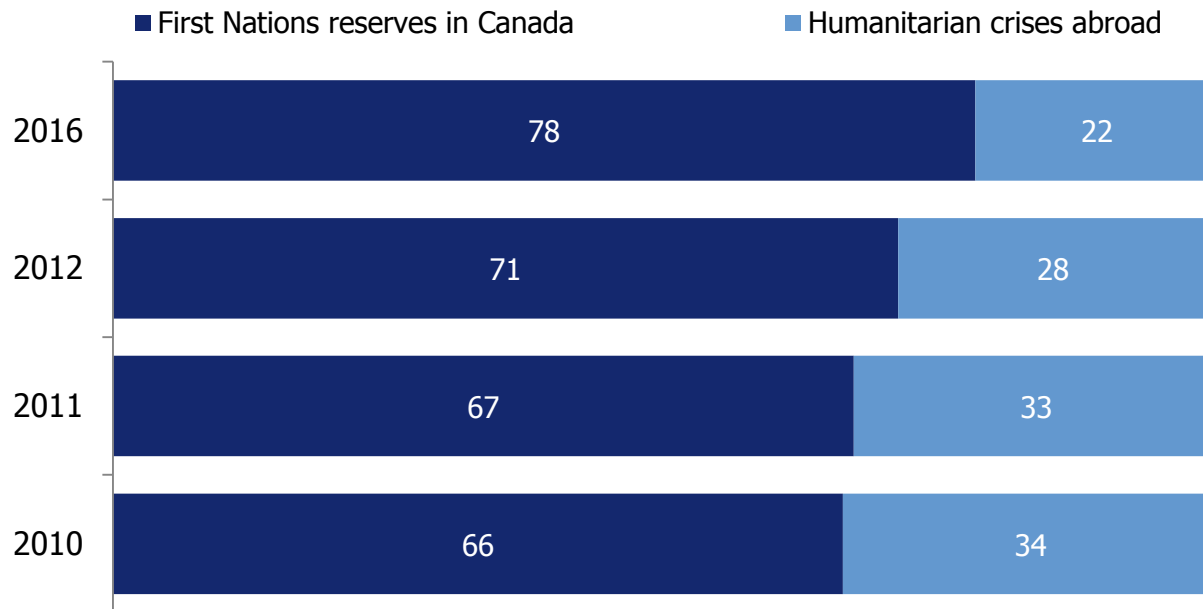
Base: All respondents 2016  $n=2,194$

Q. (modified in 2016) In Canada, people on more than 100 First Nations reserves must boil their water before it is safe to drink. Some reserves have been under boil water advisories for years. How concerned are you about the water conditions on First Nations reserves?



# Almost eight in ten Canadians believe that we should support organizations that address the issue of safe drinking water on First Nations reserves

## Preferred Focus of Support for Safe Drinking Water Programs, 2010–2016



Almost half of respondents are “very concerned” about water conditions on First Nations reserves. There is a continued decline for support for organizations addressing water in the context of humanitarian concerns abroad.

Base: All respondents 2016  $n=2,194$

Q. (modified in 2016) Now, based on this information, would you be more motivated to support an organization that helps to address the issue of safe drinking water on First Nations reserves in Canada or an organization that addresses the issue of safe drinking water during humanitarian crises abroad, such as floods and earthquakes?



# Preferred Focus of Support for Safe Drinking Water Programs, Demographics, 2016

REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)

Would you be more motivated to support an organization that helps to address the issue of safe drinking water on First Nations reserves in Canada or addresses

First Nations reserves in Canada	71	78	73	81	78	75	68	78	73	77	77	74	71	77	85	77	79	76	73	88
Humanitarian crises abroad	29	21	25	19	22	23	32	20	24	23	23	25	29	22	14	22	21	23	26	12

Base: All respondents 2016  $n=2,194$

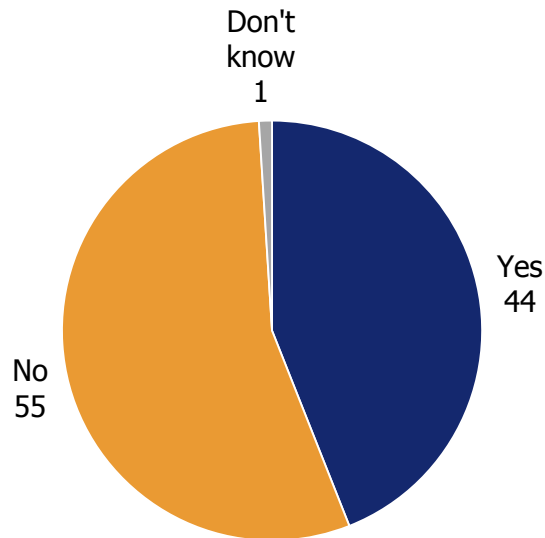
Q. (modified in 2016) Now, based on this information, would you be more motivated to support an organization that helps to address the issue of safe drinking water on First Nations reserves in Canada or an organization that addresses the issue of safe drinking water during humanitarian crises abroad, such as floods and earthquakes?



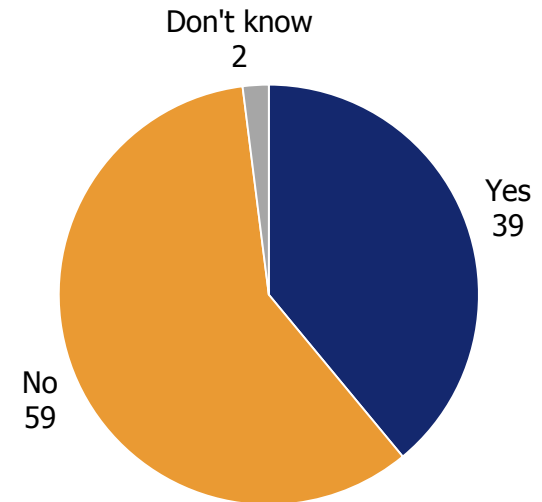
# A majority of Canadians have never heard information about pharmaceuticals or ingredients from personal care products being found in water systems

## Awareness of Pharmaceuticals and Product Ingredients in Water Systems, 2016

**Have you heard information about pharmaceuticals being found in water systems?**



**Have you heard or seen any information or news about ingredients in personal care products being found in water systems?**



Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Have you heard or seen any information or news about pharmaceuticals such as antidepressants, antibiotics, pain killers and birth control being found in water systems in Canada and around the world?

Q. (new in 2016) Have you heard or seen any information or news about ingredients in personal care products such as shampoos, toothpastes, makeup and soaps being found in water systems in Canada and around the world?



# Awareness of Pharmaceuticals and Personal Care Products Being Found In Water Systems,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Have you heard or seen any information or news about pharmaceuticals such as antidepressants, antibiotics, pain killers and birth control being found in water systems in Canada and around the world?	44	43	40	46	44	44	42	40	37	45	46	44	36	43	54	47	42	43	49	43
Have you heard or seen any information or news about ingredients in personal care products such as shampoos, toothpastes, makeup and soaps being found in water systems in Canada and around the world?	43	38	37	40	39	36	41	36	37	40	41	39	40	35	45	40	39	39	42	39

Base: All respondents 2016  $n=2,194$

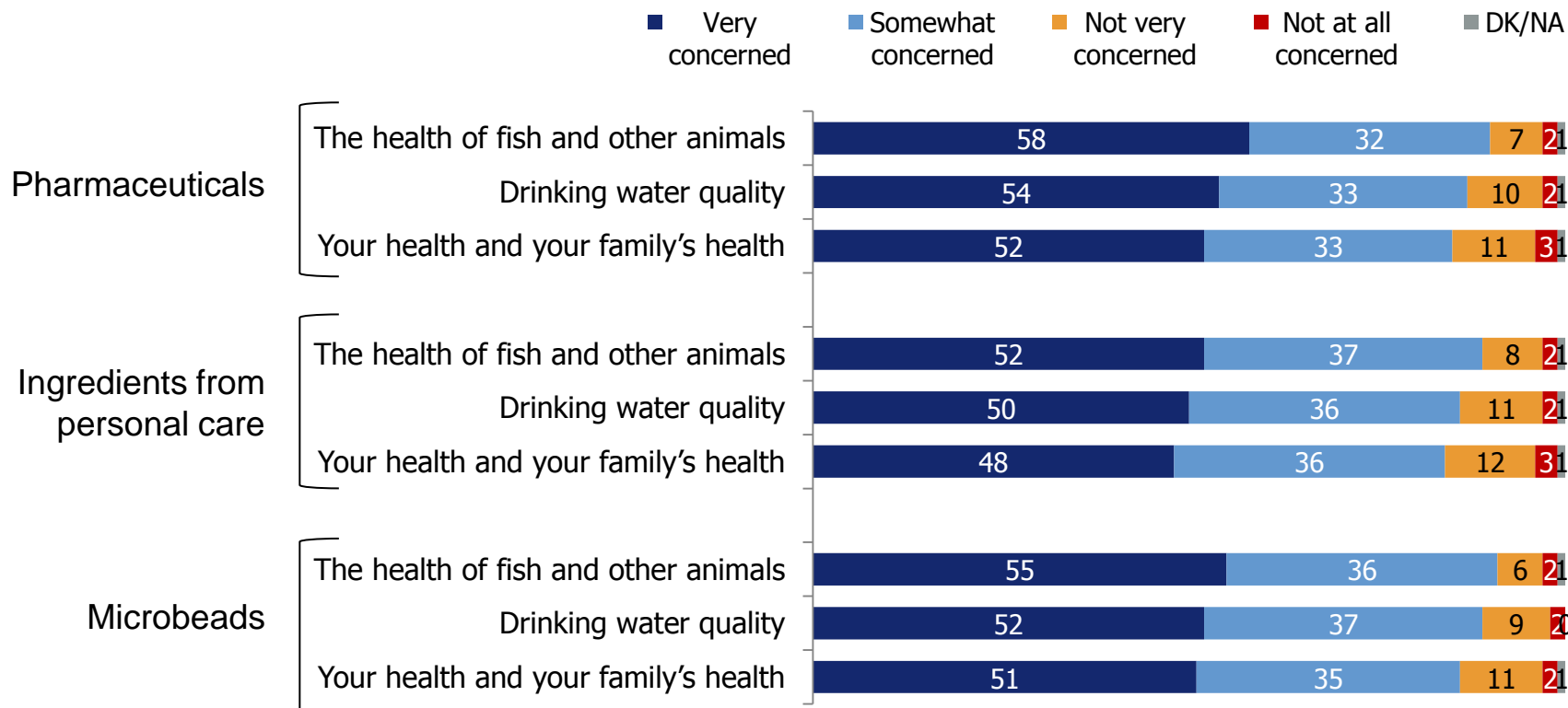
Q. (new in 2016) Have you heard or seen any information or news about **pharmaceuticals** such as antidepressants, antibiotics, pain killers and birth control being found in water systems in Canada and around the world?

Q. (new in 2016) Have you heard or seen any information or news about ingredients in **personal care products** such as shampoos, toothpastes, makeup and soaps being found in water systems in Canada and around the world?



# Health of fish and other animals is the most important concern

## Concern for Pharmaceuticals, Ingredients and Products found in Water Bodies, 2016



Base: All respondents 2016  $n=2,194$

Q. (new in 2016) How concerned, if at all, are you that pharmaceuticals found in water bodies might be adversely affecting [...]?

Q. (new in 2016) How concerned, if at all, are you that ingredients from personal care products found in water bodies might be adversely affecting [...]?

Q. (new in 2016) How concerned, if at all, are you that these products containing microbeads might be adversely affecting [...]?



# Degree of Concern that Pharmaceuticals and Personal Care Products Being Found In Canadian Water System

## “Very Concerned” and “Somewhat Concerned,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
<b>Pharmaceuticals</b>																				
Your health and your family's health	86	81	81	87	86	85	85	83	82	87	87	86	85	87	85	82	89	86	87	83
The health of fish and other animals	92	89	89	93	89	88	90	88	89	91	89	89	89	91	92	87	94	90	93	91
Drinking water quality	85	83	84	91	90	87	82	82	84	89	90	87	86	88	90	85	91	87	92	89
<b>Personal care products</b>																				
Your health and your family's health	82	79	84	85	86	85	81	80	83	88	87	83	83	85	84	81	88	85	85	82
The health of fish and other animals	90	85	89	90	87	88	89	84	89	89	86	86	88	88	89	85	92	89	88	88
Drinking water quality	81	79	82	88	89	86	78	81	83	88	89	84	84	85	88	83	89	85	88	85

Base: All respondents 2016  $n=2,194$

Q. (new in 2016) How concerned, if at all, are you that **pharmaceuticals** found in water bodies might be adversely affecting...

Q. (new in 2016) How concerned, if at all, are you that ingredients from **personal care products** found in water bodies might be adversely affecting...



# Degree of Concern that Microbeads Can Enter the Water System

## “Very Concerned” and “Somewhat Concerned,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
<b>Micro-beads</b>																				
Your health and your family's health	86	83	84	88	83	83	85	82	84	90	85	83	84	86	88	82	89	86	86	84
The health of fish and other animals	90	86	88	93	87	88	89	85	87	92	87	88	89	89	92	87	92	89	90	91
Drinking water quality	86	84	83	89	86	86	83	83	84	88	86	86	86	86	89	85	89	88	86	85

Base: All respondents 2016  $n=2,194$

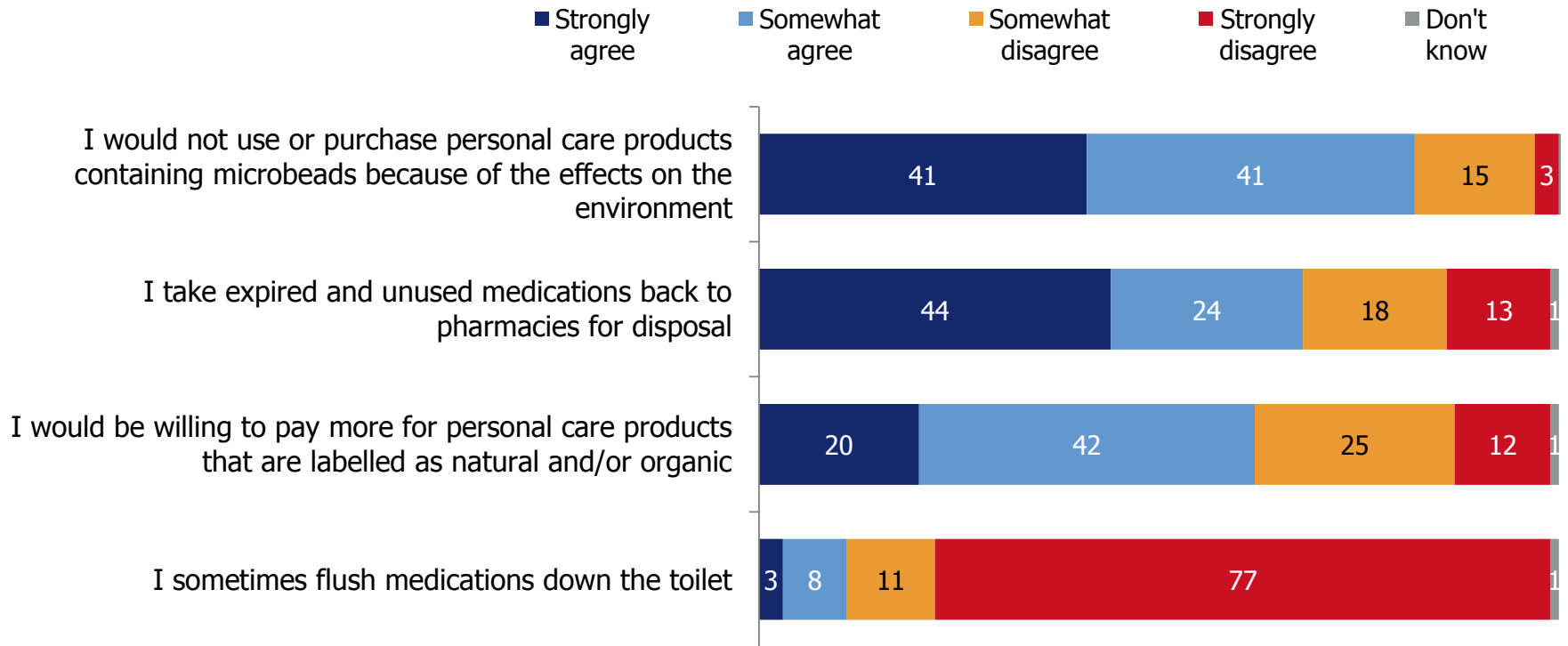
Q. (new in 2016) Some personal care products being sold in stores contain something called “microbeads.” These are tiny plastic beads that can pass through waste water treatment facilities and enter lakes, rivers and streams.

How concerned, if at all, are you that these products containing microbeads might be adversely affecting...



# A majority say that they would not use or purchase personal care products containing microbeads; almost 9 in 10 do not flush medications down the toilet

## Behaviours toward Product Use, 2016



Base: All respondents 2016  $n=2,194$



# Behaviours toward Product Use

## “Strongly Agree” and “Somewhat Agree,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
I would be willing to pay more for personal care products that are labelled as natural and/or organic	61	60	57	63	64	59	62	62	59	69	68	61	71	59	58	59	65	65	61	54
I sometimes flush medications down the toilet	12	7	13	10	10	11	16	9	12	16	13	15	14	13	4	12	8	11	9	9
I take expired and unused medications back to pharmacies for disposal	66	68	59	67	75	70	62	65	62	62	72	69	55	70	79	69	69	66	72	73
I would not use or purchase personal care products containing microbeads because of the effects on the environment.	80	77	74	85	82	76	79	77	73	84	84	73	79	80	86	79	84	81	79	84

Base: All respondents 2016  $n=2,194$



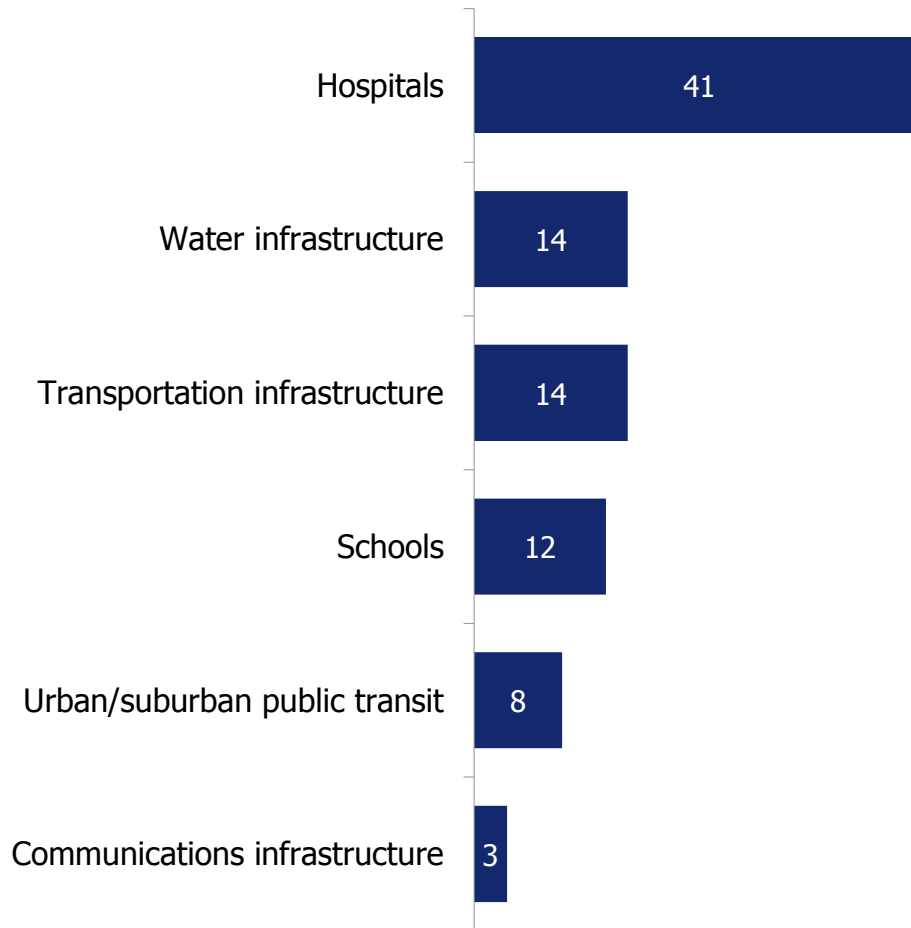


## Infrastructure



# Hospitals are highest priority, followed by water infrastructure

## Highest Priorities for Government Funding, 2016



Hospitals are the highest priority for infrastructure funding. This is similar to past findings.

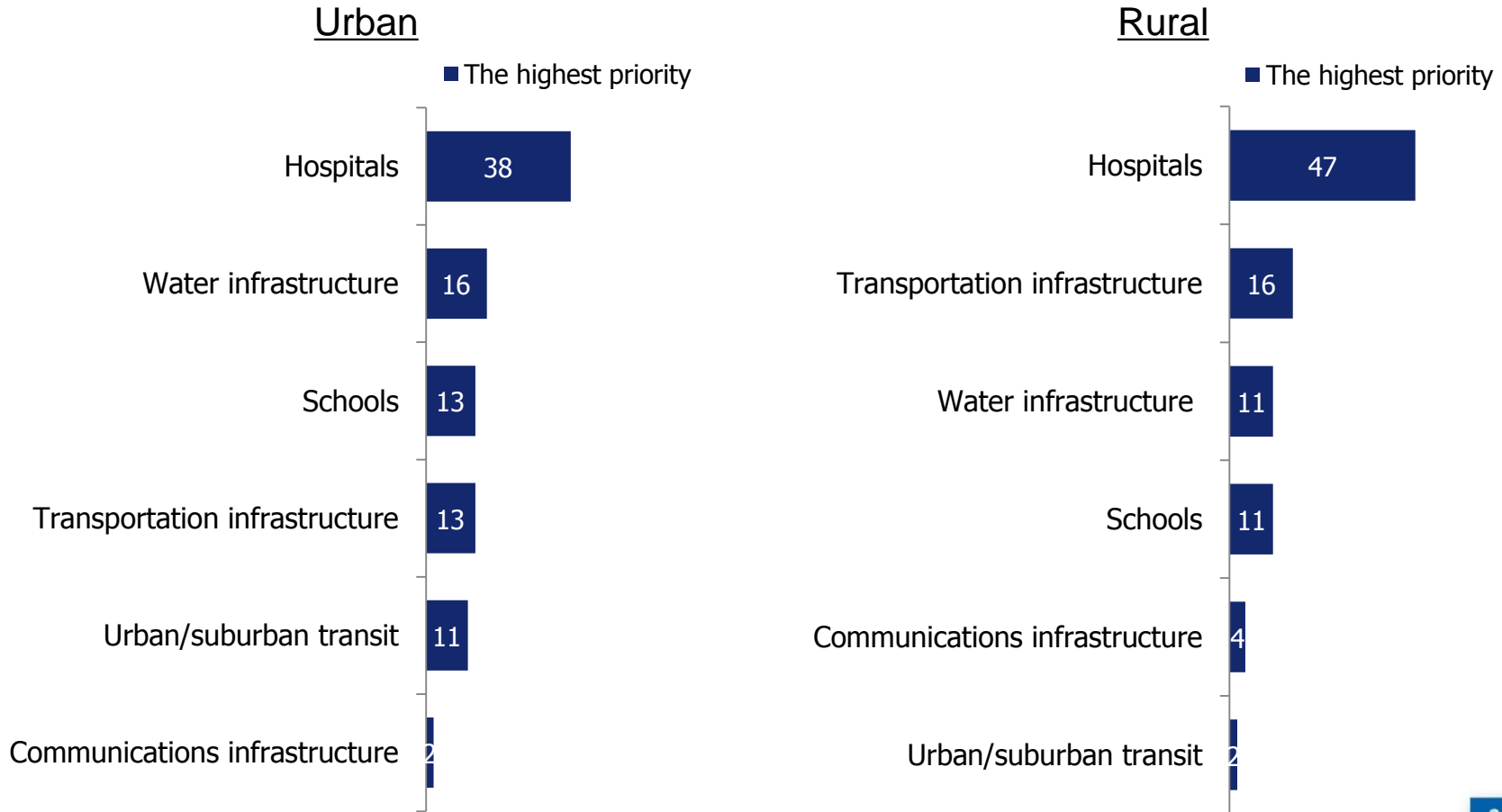
Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Which one, if any, of the following infrastructure areas should be the highest priority for government funding?



# Water infrastructure is a higher priority for government funding for people living in urban areas compared to rural

## Priority Infrastructure Areas for Government Funding, Urban vs Rural Communities, 2016



Base: All respondents 2016, Urban  $n=1,713$ , Rural  $n=481$ )

Q. (new in 2016) Which one, if any, of the following infrastructure areas should be the highest priority for government funding?



# Highest Priority Infrastructure Area for Government Funding, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18 to 34 years	35 to 55 years	>55 years	Male	Female	Urban (>100 000)	Mid-size towns/cities	Rural (<1000)
Water infrastructure such as underground pipes and treatment facilities	20	14	19	15	10	10	16	16	19	19	12	12	13	14	16	15	14	16	13	11
Urban and suburban public transit	9	7	2	11	6	2	12	9	2	19	8	4	12	8	5	9	7	10	8	3
Transportation infrastructure such as roads and bridges	10	14	25	11	18	14	10	12	27	10	18	10	8	14	19	17	11	14	13	16
Schools	13	14	17	9	17	13	13	14	14	11	17	14	22	12	5	12	13	14	11	9
Hospitals	37	37	28	43	43	49	35	33	26	33	40	53	35	42	45	36	46	37	45	48
Communications infrastructure such as telephone and internet	1	1	2	4	3	2	2	2	2	4	2	1	3	3	2	4	2	2	3	5

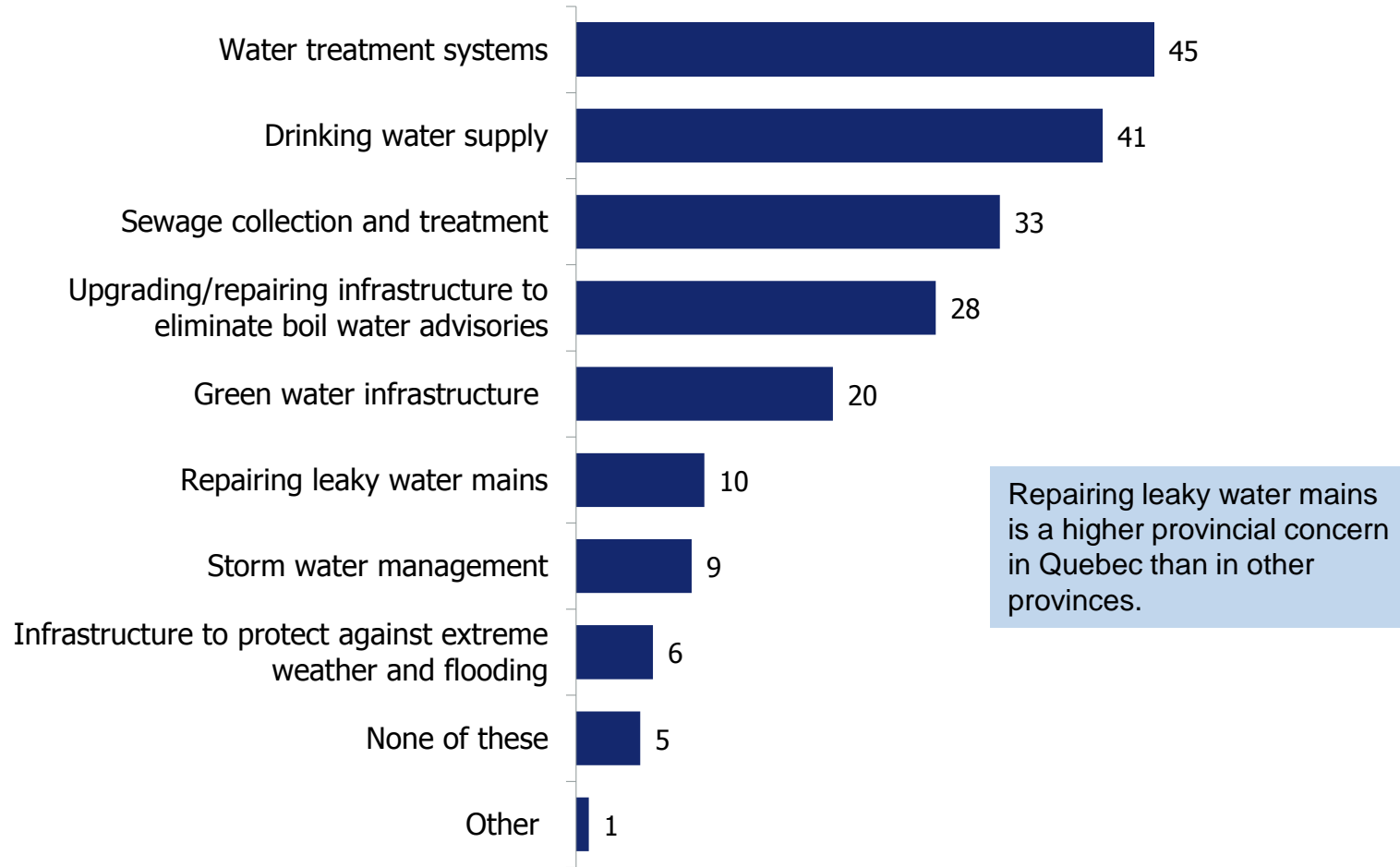
Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Which one, if any, of the following infrastructure areas should be the highest priority for government funding? Please select one.



# Water treatment systems to reduce pollution and facilities that maintain the quality of drinking water rank as the highest priorities for government funding

## Top Three Priorities for Government Funding in Water Infrastructure, Total Mentions, 2016



Base: All respondents 2016  $n=2,194$

Q20 (new in 2016) Of the following water infrastructure areas, please rank the top three that should be the highest priority for government funding.



# Highest Priority Infrastructure Area for Government Funding, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Water treatment systems to reduce pollution in lakes, rivers and streams	47	48	48	44	46	42	45	46	45	41	48	42	47	42	47	46	45	46	46	44
Sewage collection and treatment	34	36	35	33	33	30	33	36	36	32	31	27	31	30	39	36	30	35	30	32
Stormwater management	10	6	3	8	12	5	11	6	3	8	10	7	8	9	8	10	7	9	8	9
Drinking water supply	44	47	47	41	32	45	41	47	43	38	36	43	37	39	46	40	41	42	39	39
Upgrading/repairing infrastructure to eliminate boil water advisories	26	31	35	29	23	30	25	31	36	24	21	28	23	27	34	28	28	28	23	34
Infrastructure to protect against extreme weather and flooding	6	8	4	6	5	6	7	7	5	7	4	6	7	6	4	6	5	7	6	3
Repairing leaky water mains	7	7	6	8	17	6	5	7	5	7	14	7	7	11	9	12	7	9	10	10
Green water infrastructure	24	15	18	22	19	20	20	15	16	20	14	18	25	18	20	20	21	20	20	22
None of these	3	2	8	5	7	4	4	2	8	7	8	2	6	6	3	6	4	5	5	5
Other	1	0	0	1	0	1	1	0	0	0	1	0	0	1	0	0	1	0	1	2

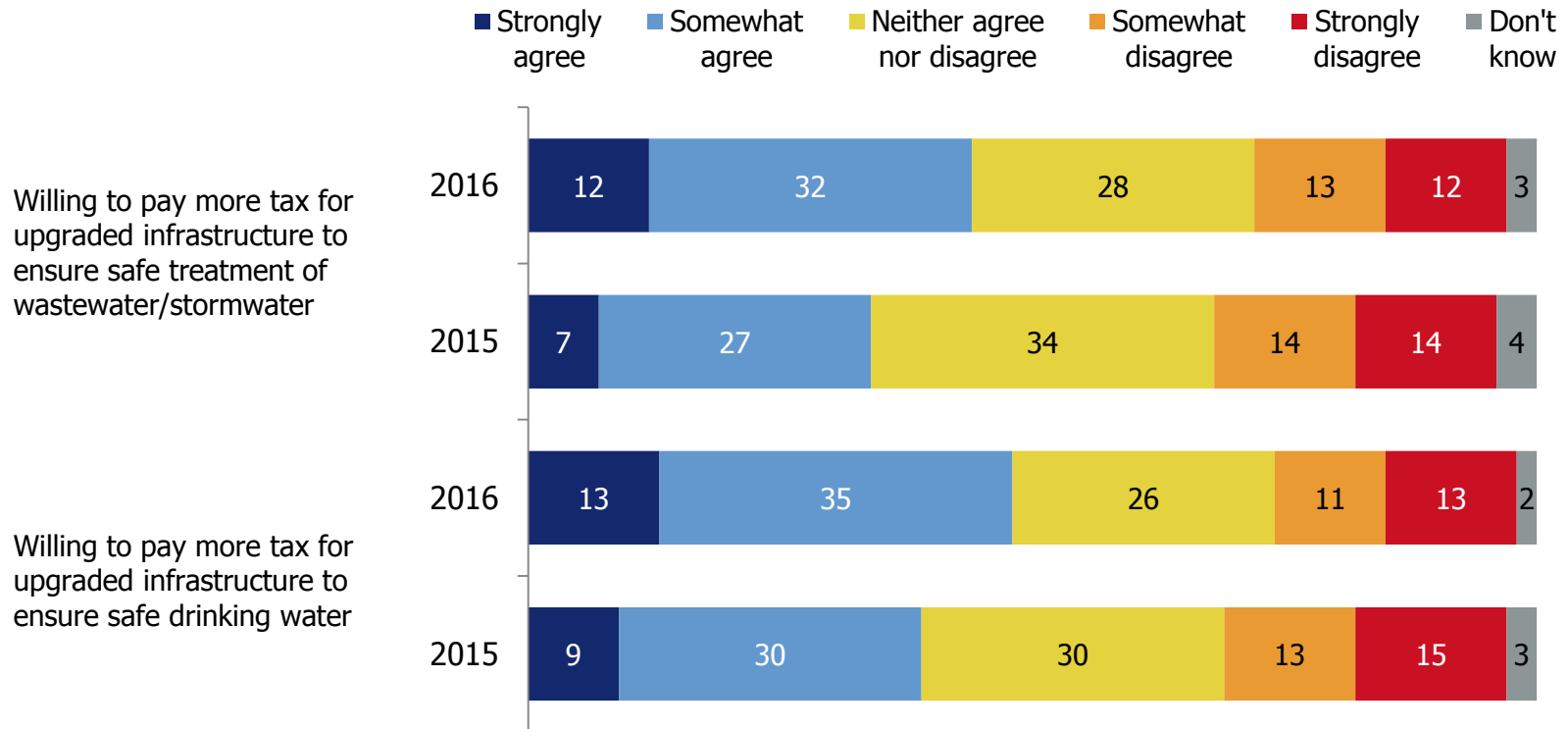
Base: All respondents 2016  $n=2,194$

44 Q20 (new in 2016) Of the following water infrastructure areas, please rank the top three that should be the highest priority for government funding?



# Compared to 2015, Canadians are slightly more willing to pay more tax for the upkeep of public infrastructure to ensure safe drinking water and water treatment

## Attitudes toward Taxes for Upgrades to Water Infrastructure, 2015–2016



Although there is a 10% increase in willingness to pay more tax for infrastructure improvements compared with 2015, slightly less than a third of respondents remain neutral about the issue while a quarter disagree. Younger adults (18-34 years) claim to “agree” more to tax increases compared to older adults. Among all provinces, Quebec has the lowest agreement, with 36% who “agree” to pay more taxes while 31% “disagree.”

Base: All respondents 2016  $n=2,194$ , 2015  $n=2,242$

Q21 To what extent do you agree or disagree with each of the following statements?



# Attitudes toward Replacement/Repair of Aging Public Infrastructure “Strongly agree” and “Somewhat agree,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Willing to pay more tax for upgraded infrastructure to ensure safe drinking water	57	52	53	50	36	45	57	53	56	55	41	48	57	43	45	46	49	51	41	43
Willing to pay more tax for upgraded infrastructure to ensure the safe treatment of wastewater and stormwater	54	49	47	47	34	42	55	52	50	47	37	47	50	41	44	45	44	47	39	43

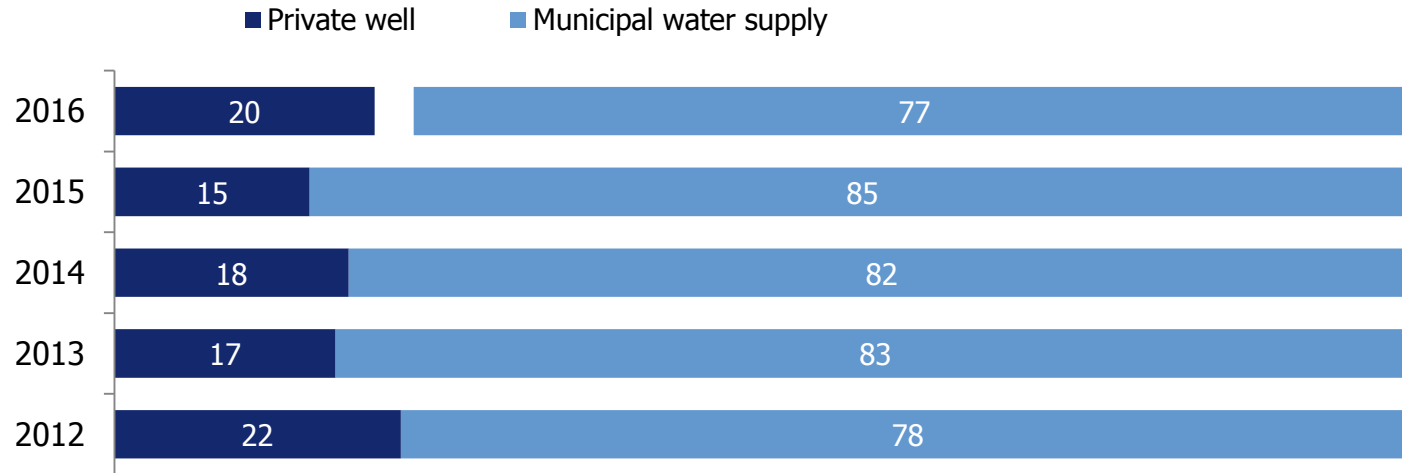
Base: All respondents 2016  $n=2,194$

Q21 Many types of aging public infrastructure in Canada are now in need of repair or replacement. To what extent do you agree or disagree with each of the following statements?

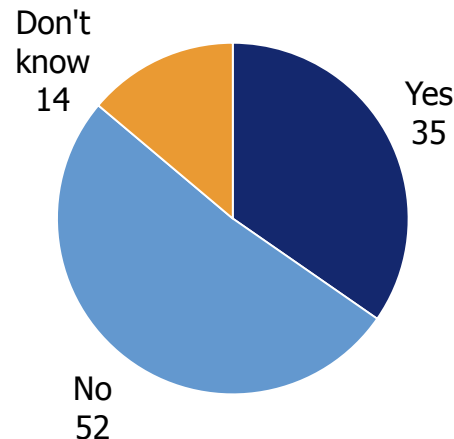


# The majority of Canadian households continue to rely on municipal water supplies, with a slight increase in those who rely on private wells

## Main Source of Household Water, All Respondents, 2012–2016



### Do you have a household water meter?



A majority of rural respondents (57%) have a private well and only 21% have a water meter. However, 92% of urban respondents rely on the municipal water supply, and 40% of them have a water meter.

The white space in this chart represents "Don't know"

Base: All respondents 2016  $n=2,194$ ; 2015:  $n=2,242$

Q22 What is your main source of household water?

Q23 Do you have a household water meter?



# Main Source of Household Water and Awareness of Household Water Meter, Demographics, 2016

## Main source of household water

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Municipal water supply	83	88	85	72	82	56	89	94	89	93	91	75	84	79	69	79	75	92	69	37
Private well	12	9	11	25	16	43	5	3	7	5	5	24	11	18	31	19	21	4	30	60

## Do you have a household water meter?

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Yes	23	58	61	42	13	23	19	63	60	49	17	38	32	38	32	33	36	41	30	20
No	57	24	30	46	77	60	57	16	31	35	71	40	42	51	62	56	48	43	57	75
Don't Know	20	19	9	12	10	17	24	21	9	16	12	22	26	10	6	11	16	17	12	4

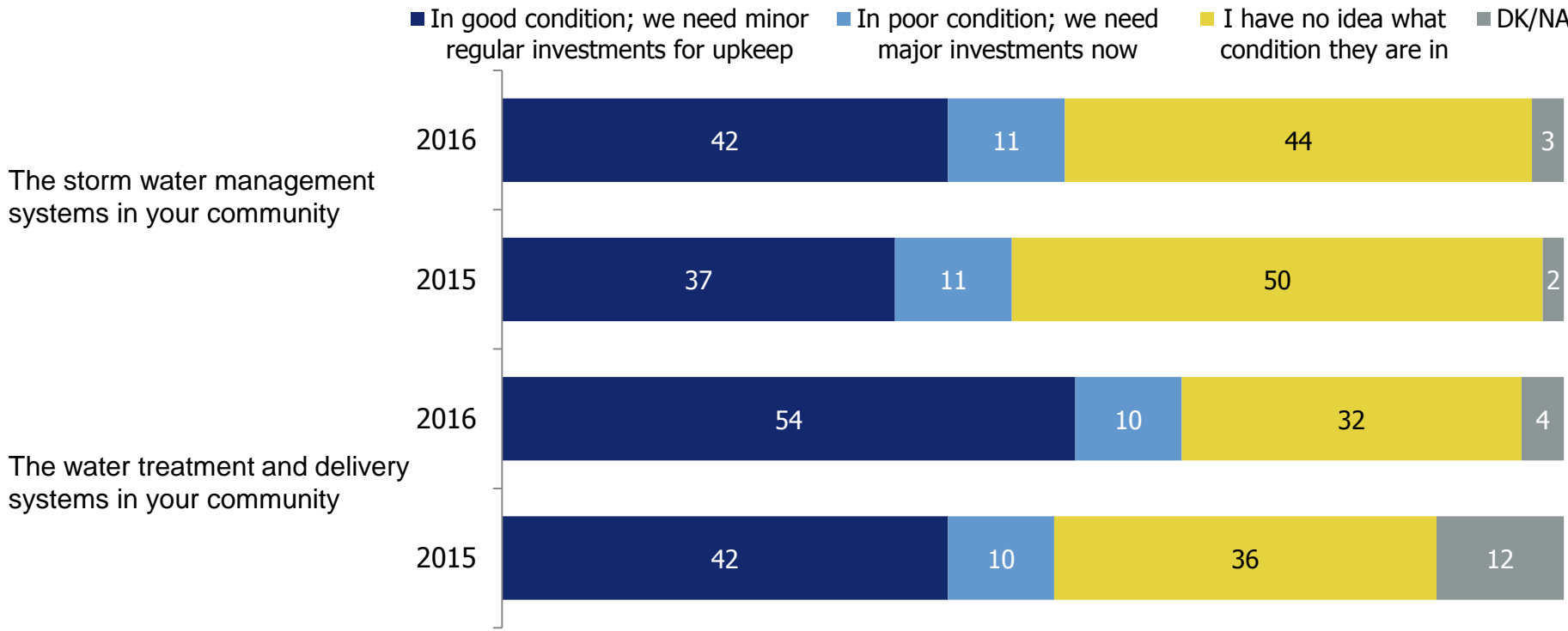
Base: All respondents 2016  $n=2,194$

48 Q22 What is your main source of household water?



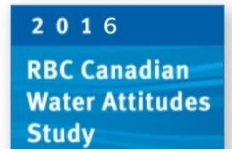
# Slightly more than half of respondents now feel that water treatment and delivery systems are in good condition; Canadians are split on knowledge of condition of storm water systems

## Opinions about State of Water Treatment, Delivery and Storm Water Management Systems, 2015–2016



Few Canadians think that storm water management systems and water treatment and delivery systems require immediate major investment. The number of people who think that the system is in a good condition both for water treatment and storm water management has increased since 2015.

Base: respondents who use municipal water supply 2016 n=1787





# Opinions about State of Water Treatment, Delivery and Storm Water Management Systems, Demographics, 2016

REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)

## The water treatment and delivery systems in your community

In good condition—we need minor regular investments for upkeep	56	63	53	54	50	47	57	63	51	55	43	51	56	50	58	61	48	54	55	56
In poor condition—we need major investments now	7	5	16	10	14	11	6	5	15	10	20	10	5	13	13	11	10	11	12	7
I have no idea what condition they are in	34	29	28	32	33	36	34	30	33	33	32	35	36	33	26	24	40	34	29	28

## The storm water management systems in your community

In good condition—we need minor regular investments for upkeep	46	52	34	43	35	40	48	51	31	43	31	44	44	39	42	47	36	40	45	47
In poor condition—we need major investments now	9	7	21	11	13	12	9	8	21	12	19	13	6	13	15	15	8	13	9	5
I have no idea what condition they are in	42	40	42	43	50	44	39	40	43	41	48	40	48	45	39	34	54	44	43	48

Base: All respondents 2016  $n=1,787$

50 Q25 Please indicate which one of the following is closest to your own opinion about:



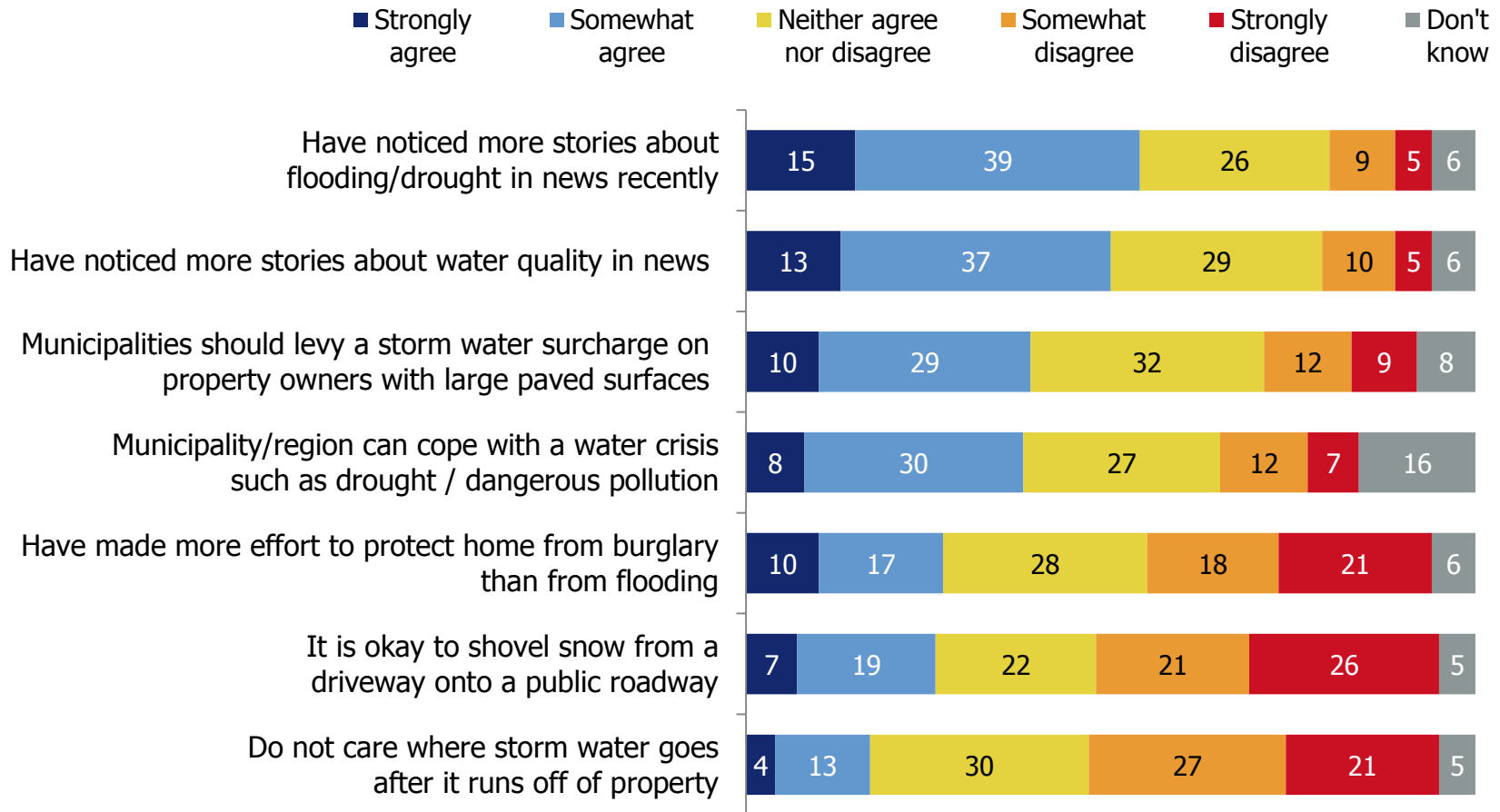


## Extreme Weather



# Just over half of Canadians have noticed more stories recently about flooding/drought in the news and less than two in ten do not care where water goes when it runs off property

## Attitudes About Local Water Issues, 2016



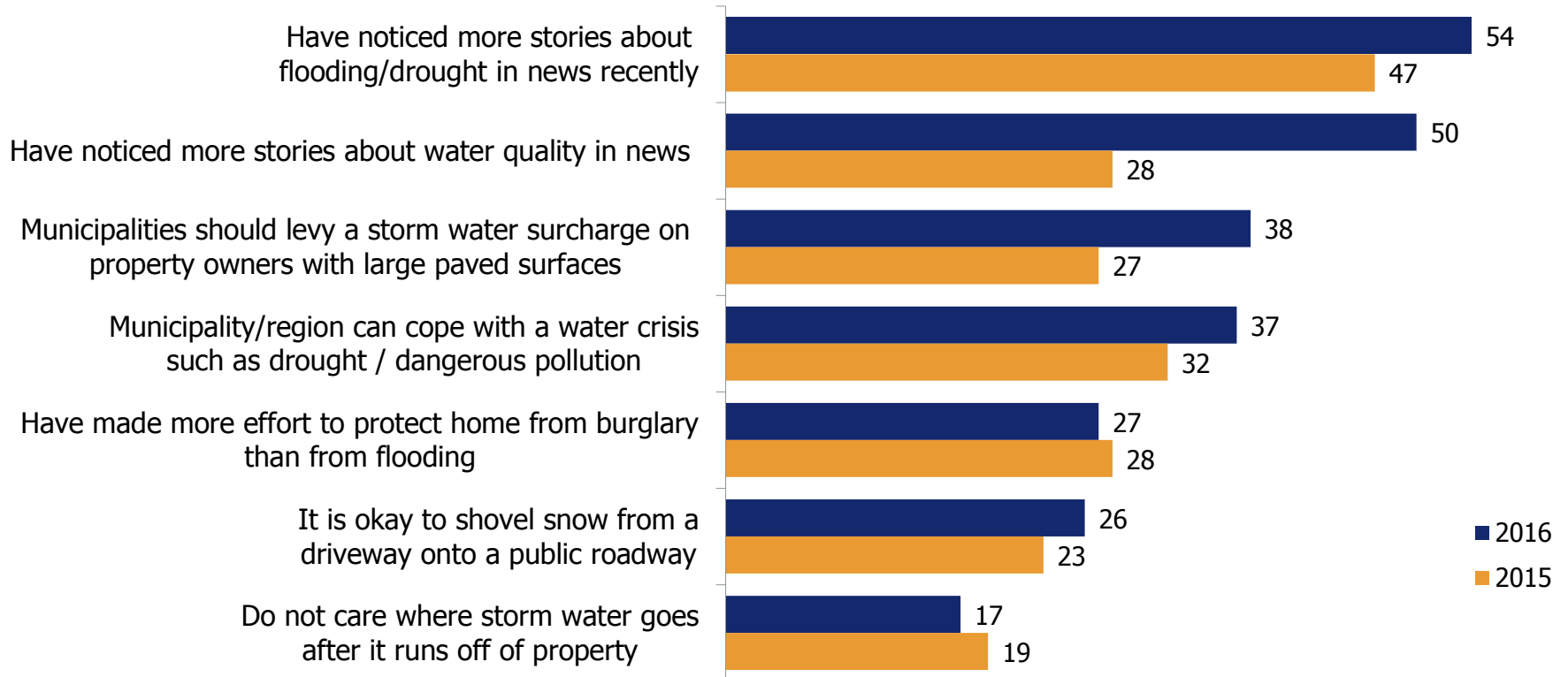
Base: All respondents 2016  $n=2,194$

Q. Please indicate how much you agree or disagree with each of the following statements.



# Just over half of Canadians have recently noticed more stories in the news about flooding and drought; significant increase in respondents who have noticed more water quality stories in the news

## Attitudes About Local Water Issues, “Strongly Agree” and “Somewhat Agree,” 2015–2016



Base All respondents 2016  $n=2,194$ , 2015  $n=2,242$

Q. Please indicate how much you agree or disagree with each of the following statements.



# Attitudes About Local Water Issues

## “Strongly Agree” and “Agree,” Demographics, 2016

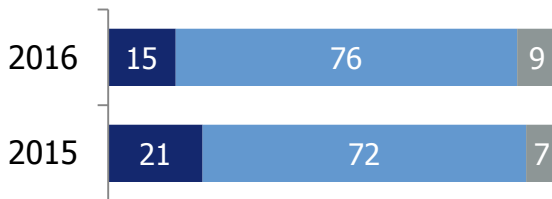
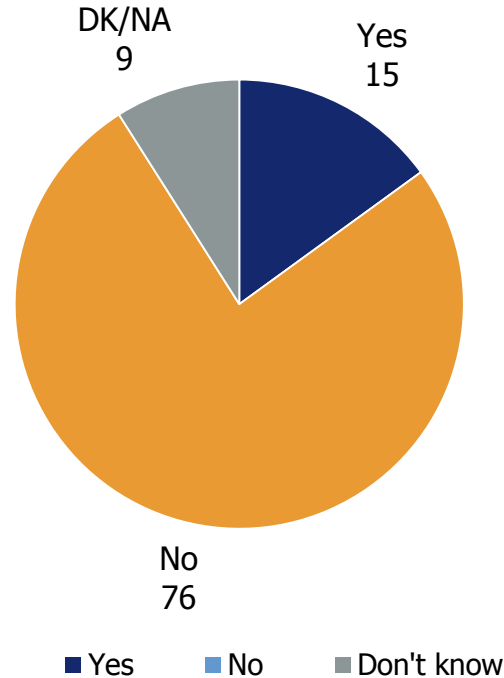
	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Don't care where storm water goes after it runs off of my property	17	15	15	16	21	17	22	17	17	18	23	19	21	19	11	20	15	18	17	13
Have noticed more stories about water quality in the news	56	45	51	53	45	50	50	42	50	46	51	50	46	47	57	49	52	49	50	56
Have noticed more stories about flooding and/or drought in the news recently	63	53	54	56	46	53	59	50	51	51	50	46	49	51	61	52	56	53	56	56
The municipality or region I live in can cope with a water crisis such as drought or dangerous pollution	41	39	35	36	36	32	42	45	43	40	42	35	36	36	37	42	31	40	32	29
Municipalities should levy a storm water surcharge for large paved surfaces	40	33	31	40	37	41	43	35	28	46	43	46	39	37	38	39	37	41	36	33
Have made more effort to protect my home from burglary than to protect it from flooding	36	32	30	23	27	22	39	32	33	31	34	25	33	28	19	29	25	31	24	16
I think it is okay to shovel snow from a driveway onto a public roadway	28	36	30	24	24	14	32	40	32	26	28	19	28	26	22	31	21	28	25	19

Base: All respondents 2016  $n=2,194$

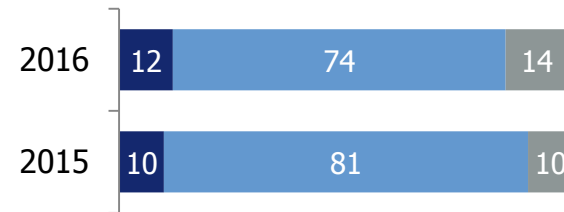
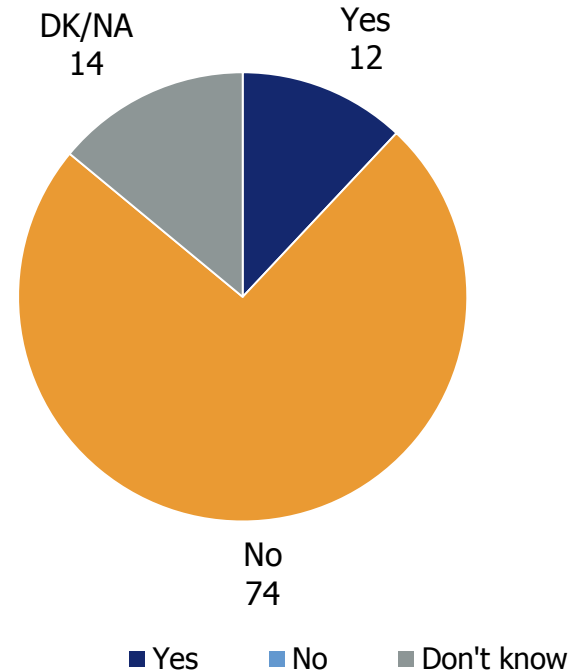


# Three-quarters of Canadians do not feel that they live in an area that is vulnerable to flooding and drought

Live in an area that you think is vulnerable to flooding?



Live in an area that you think is vulnerable to drought?



Base: All respondents 2016  $n=2,194$ , 2015  $n=2,242$

Q. Do you currently live in an area that you think is vulnerable to flooding?

Q. Do you currently live in an area that you think is vulnerable to drought?



# Perceived Vulnerability to Flooding and Drought, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Live in an area that you think is vulnerable to flooding	17	22	24	14	10	19	16	26	25	10	9	25	23	15	9	14	17	15	15	16
Live in an area that you think is vulnerable to drought	27	31	20	8	3	7	19	25	9	5	3	8	12	11	14	10	14	11	11	19

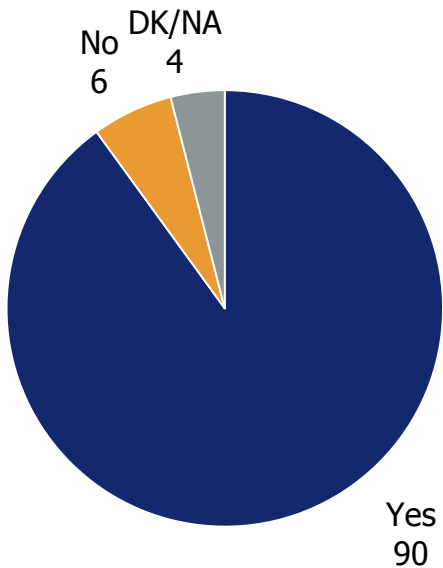
Base: All respondents 2016  $n=2,194$

Q. Do you live in an area that you think is vulnerable to ...



# Nine in ten Canadians strongly agree that sellers living in a high-risk flood area should be legally required to fully disclose the risk when selling the property

Attitudes toward Disclosure of Flood Risk to Home/Property, 2016



Nine in ten Canadians strongly agree that sellers living in a high-risk flood areas should be legally required to fully disclose the risk when selling their property. However, three quarters of Canadians do not feel that they live in an area that is vulnerable to flooding.

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Yes	91	90	88	89	91	91	90	92	88	83	87	92	87	88	94	88	92	89	89	95
No	5	4	7	6	6	6	7	3	9	9	9	4	6	7	4	7	4	6	7	4

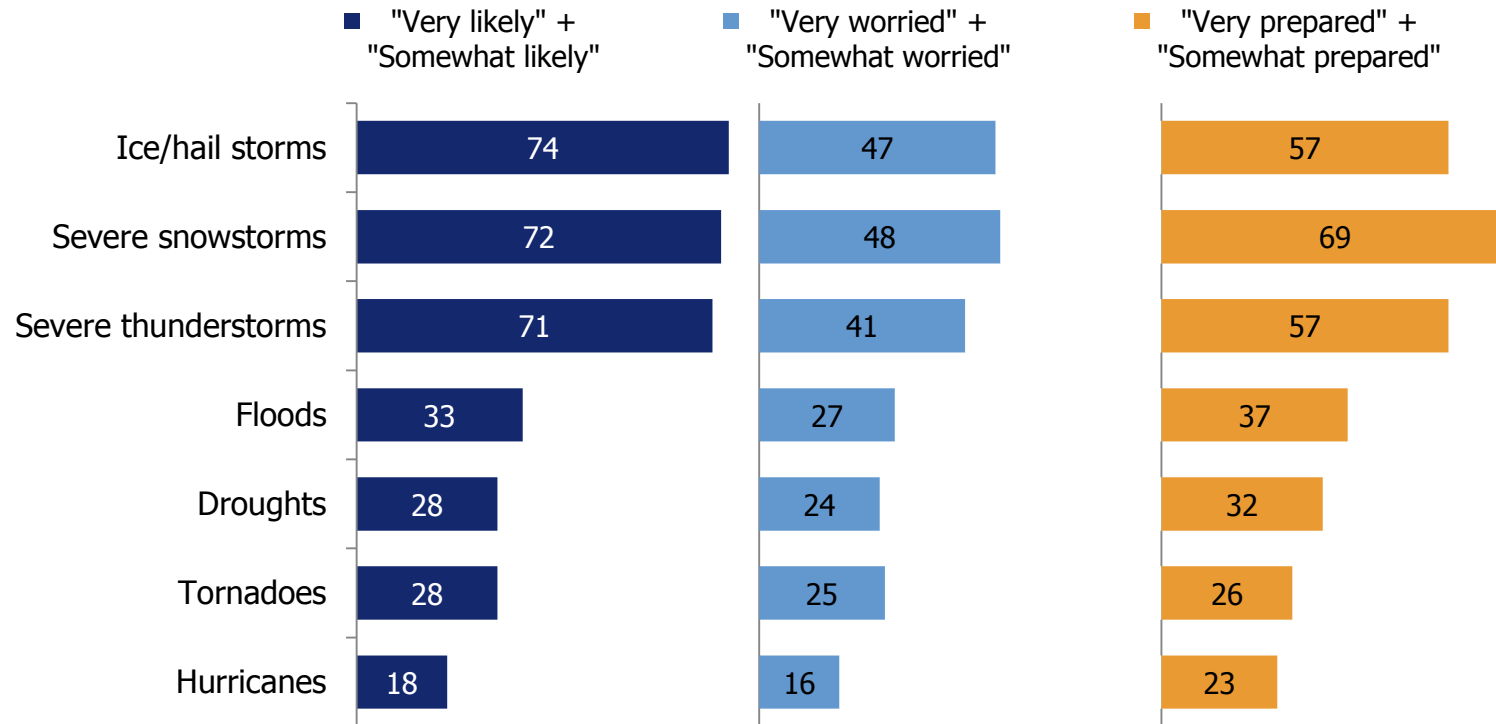
Base: All respondents 2016 n=2,194

57 Q. (new in 2016) If a home is known to be at high risk from flooding, should sellers be legally required to fully disclose the risk to buyers when selling the property?



# Snow and ice storms are top extreme weather worries—Canadians less prepared for ice storms

## Likelihood/Worry/Preparedness for Adverse Weather Events, “Very” and “Somewhat” Likely/Worried/Prepared, 2016



Canadians feel more prepared to deal with severe snowstorms than other types of extreme weather events. Only 3 in 10 Canadians are worried about flooding.

Base: All respondents 2016  $n=2,194$

Q. Please answer the following questions about how likely the following types of events could adversely affect you or your family, how worried you may be about them, and how prepared you are to cope with them.



# Likelihood/Worry/Preparedness for Adverse Weather Events

## “Very” and “Somewhat” Likely/Worried/Prepared, Demographics, 2016 (1 of 2)

REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)

### How likely?

Severe snowstorms	30	85	89	85	57	88	23	84	92	82	62	91	76	70	71	66	78	70	73	81
Floods	32	40	55	32	25	36	33	50	66	34	29	42	46	32	22	29	37	36	32	24
Tornadoes	7	40	39	34	26	12	11	36	32	27	23	10	27	28	29	26	31	24	29	41
Severe thunderstorms	56	80	84	84	49	64	54	79	83	82	53	66	73	70	69	65	77	68	71	78
Hurricanes	13	9	8	16	20	58	16	9	8	20	17	71	22	16	17	19	17	16	23	18
Droughts	42	51	40	22	23	18	37	43	29	22	21	20	28	29	28	24	32	27	27	35
Ice/hail storms	39	84	83	87	58	79	37	84	85	83	64	79	77	73	72	68	79	71	74	80

### How worried?

Severe snowstorms	25	52	54	54	41	55	21	51	48	55	46	58	51	46	46	41	54	45	49	53
Floods	29	30	36	28	20	29	32	35	37	35	26	28	36	29	18	24	30	30	25	21
Tornadoes	10	36	33	30	22	16	13	33	29	28	20	11	25	26	25	23	28	24	27	29
Severe thunderstorms	35	42	42	46	37	36	35	43	44	48	35	34	40	42	42	37	45	39	46	44
Hurricanes	12	10	8	15	18	41	15	10	7	23	18	48	18	17	14	15	17	17	18	12
Droughts	36	38	26	20	20	15	34	32	19	26	20	13	25	25	22	21	27	25	21	25
Ice/hail storms	22	53	47	53	46	48	18	55	47	56	52	45	45	49	47	42	52	46	51	46

Base: All respondents 2016  $n=2,194$



# Likelihood/Worry/Preparedness for Adverse Weather Events

## “Very” and “Somewhat” Likely/Worried/Prepared, Demographics, 2016 (2 of 2)

REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)

### How prepared?

Severe snowstorms	41	73	78	76	63	78	29	70	79	67	59	73	64	66	76	67	70	63	71	84
Ice/hail storms	38	57	57	64	50	68	30	55	56	58	53	66	54	57	60	56	58	52	62	67
Droughts	35	34	39	34	26	29	27	32	35	33	28	23	25	33	38	36	28	28	33	43
Hurricanes	18	16	16	25	17	52	15	15	17	24	19	58	18	23	26	25	21	20	22	32
Severe thunderstorms	39	62	63	66	46	63	30	60	64	62	50	59	53	58	61	55	60	52	62	70
Tornadoes	16	33	36	32	19	18	13	29	38	26	20	16	22	26	30	27	26	23	24	39
Floods	32	41	53	40	28	42	26	44	58	38	31	39	35	37	40	40	35	36	37	41

Base: All respondents 2016  $n=2,194$

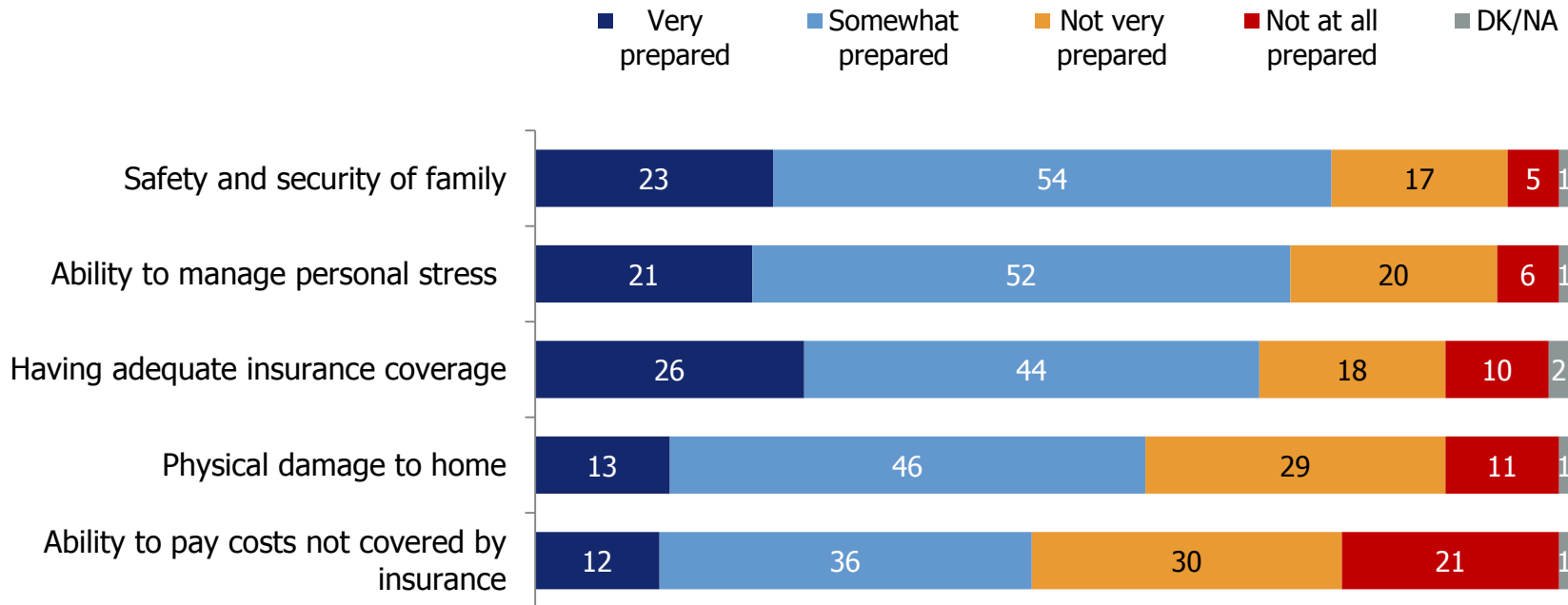
60

Q. Please answer the following questions about how likely the following types of events could adversely affect you or your family, how worried you may be about them, and how prepared you are to cope with them.



# Canadians feel more prepared to deal with the safety/emotional impacts of flooding than with the financial aspects

## Preparedness for Potential Impacts of Flooding, 2016



Around five in ten respondents feel “very” and “somewhat” prepared to pay costs not covered by insurance if impacted by flooding.



# Preparedness for Potential Impacts of Flooding

## “Very Prepared” and “Somewhat Prepared,” Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Physical damage to your home	52	60	62	57	60	57	49	58	61	54	61	63	55	59	59	62	54	54	61	65
Having adequate insurance coverage	66	70	76	72	70	69	63	68	73	68	68	74	65	69	78	73	68	67	74	78
Ability to pay any costs not covered by insurance	48	46	51	50	44	49	48	47	50	50	48	54	44	47	52	52	44	46	50	52
Safety and security of your family	74	79	80	79	72	78	72	78	82	75	68	76	74	76	79	80	74	74	77	84
Ability to manage personal stress	73	74	79	71	72	76	71	72	79	71	72	78	69	72	76	79	67	71	75	74

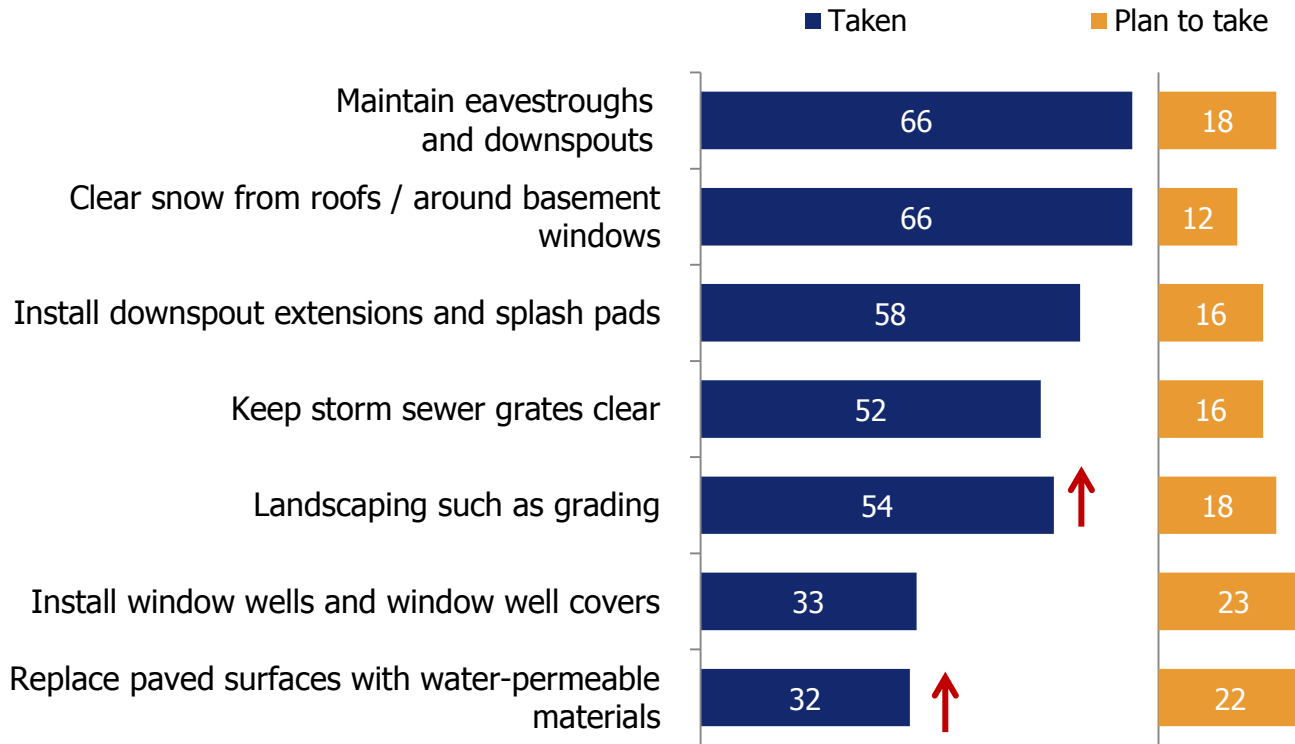
Base: All respondents 2016  $n=2,194$

62 Q. How prepared do you feel you are to deal with each of the following potential impacts of flooding?



## Maintaining eavestroughs/downspouts and clearing snow remain most common measures taken outside home to prevent water damage.

### Measures Have Taken / Plan to Take in Coming Year to Prevent Water Damage Outside of Home, 2016



In general, more Canadians claimed to have taken action to prevent water damage outside of their homes compared to 2015, especially for landscaping such as grading (increase of 18%) and replacing paved surfaces with water-permeable materials (increase of 16%).

Base: All respondents living in houses 2016  $n=1,510$

Q. Which of the following preventative measures have you taken and / or plan to take to help prevent water damage OUTSIDE of your home?



# Preventative Measures Taken to Prevent Water Damage Outside of Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Maintain eavestroughs and downspouts	61	67	82	68	59	65	49	67	83	59	51	70	50	67	78	65	67	61	69	74
Install downspout extensions and splash pads	42	60	73	61	56	54	31	63	73	48	49	51	43	58	71	59	57	55	60	63
Add landscaping features such as graded or sloping surfaces to help drain water more efficiently	45	55	64	56	50	54	29	54	59	47	45	55	38	52	69	53	55	47	57	64
Install window wells and window well covers	24	44	44	32	30	30	19	43	44	33	31	29	30	31	38	34	31	33	36	29
Replace paved surfaces with water-permeable materials such as interlocking stone to reduce runoff	30	35	30	35	28	23	18	34	28	36	30	26	30	29	37	34	30	31	37	29
Keep storm sewer grates clear	53	58	57	52	49	45	49	57	60	55	47	54	43	55	55	53	51	55	53	44
Clear snow from around basement windows or from roofs	41	72	78	67	69	67	27	69	78	66	64	66	57	66	73	65	67	64	67	70

Base: All respondents 2016  $n=1,510$

Q. Which of the following preventative measures have you taken and / or plan to take to help prevent water damage OUTSIDE of your home? *Please select all that apply.*



# Measures Plan to Take in Coming Year to Prevent Water Damage Outside of Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Maintain eavestroughs and downspouts	16	18	20	17	20	18	19	15	18	24	25	16	23	19	12	18	17	21	14	14
Install downspout extensions and splash pads	17	19	10	16	16	17	16	16	9	28	25	24	21	17	12	15	18	20	16	9
Add landscaping features such as graded or sloping surfaces to help drain water more efficiently	17	21	15	16	21	18	20	23	20	26	30	21	23	20	11	18	18	23	13	10
Install window wells and window well covers	22	22	23	25	24	18	23	20	24	34	28	20	26	25	19	22	25	26	21	19
Replace paved surfaces with water-permeable materials such as interlocking stone to reduce runoff	18	25	22	20	26	23	20	26	21	29	34	24	22	26	18	22	22	25	19	19
Keep storm sewer grates clear	17	15	11	15	19	15	21	18	14	23	30	16	24	16	9	15	17	19	15	12
Clear snow from around basement windows or from roofs	18	10	16	9	13	10	21	9	12	14	17	13	15	13	7	11	12	14	10	8

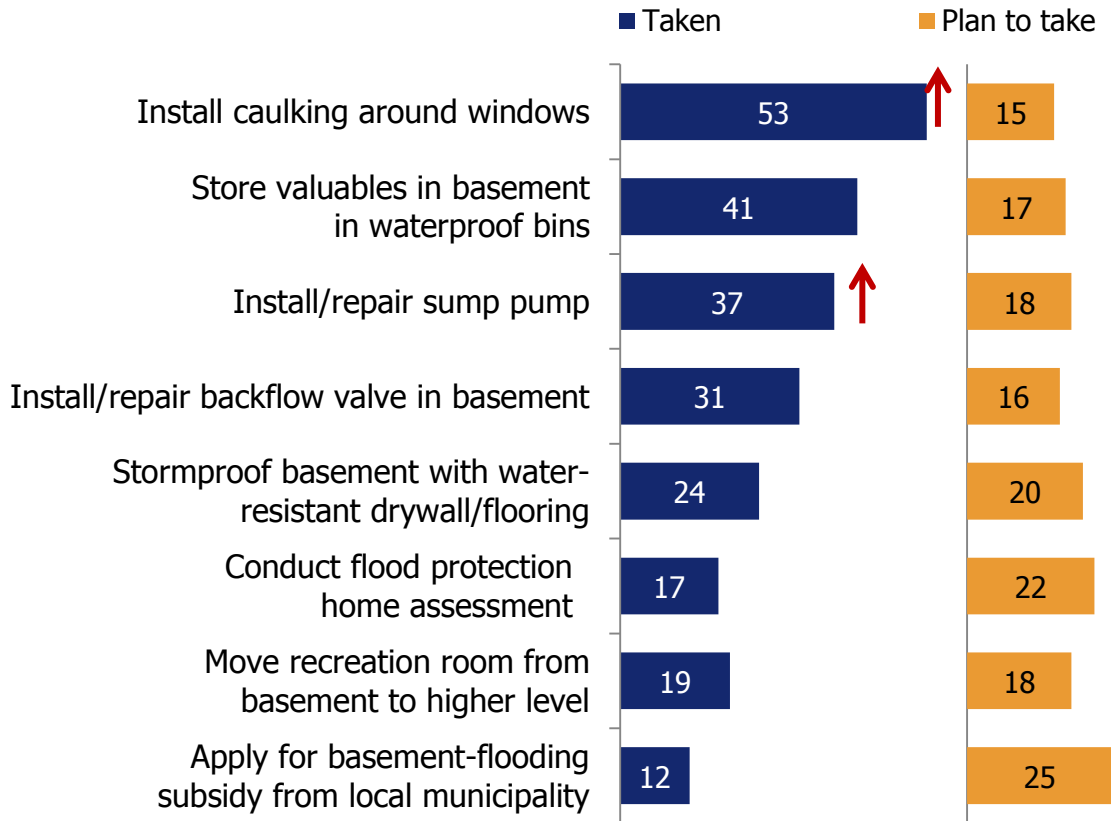
Base: All respondents 2016  $n=1,510$

Q. Which of the following preventative measures have you taken and / or plan to take to help prevent water damage OUTSIDE of your home? *Please select all that apply.*



# The most common measures taken to prevent water damage are installing window caulking and storing valuables in waterproof bins in basements

## Measures Have Taken / Plan to Take in Coming Year to Prevent Water Damage Inside of Home, 2016



In general, more Canadians reported that they have installed caulking (increase of 15% compared to 2015) and installed/repairs sump pumps (increase of 12% compared to 2015).

Base: All respondents living in houses 2016, n=1,510

Q. Which of the following preventative measures have you taken and / or plan to take to help prevent water damage INSIDE of your home?



# Preventative Measures Taken to Prevent Water Damage Inside of Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Store valuables in basement in plastic or waterproof bins	31	40	49	43	40	45	24	42	47	44	41	50	33	42	47	40	42	40	42	43
Install or repair a backflow valve in my basement	23	31	48	27	38	29	22	29	54	26	37	30	27	34	29	32	30	30	34	28
Install caulking around windows	41	48	56	57	53	52	35	49	57	49	61	54	44	52	62	54	52	52	50	57
Install or repair a sump pump	22	26	51	44	33	33	21	22	57	26	32	26	30	38	42	38	36	28	38	56
Stormproof my basement with water-resistant drywall and special sub-flooring	20	20	26	23	31	26	21	21	25	23	35	28	22	25	26	27	22	23	29	22
Move my recreation room from the basement to a higher level	14	21	16	19	21	21	10	22	17	21	20	19	20	18	20	20	18	18	22	19
Apply for a basement-flooding subsidy from my local municipality	15	10	12	11	15	14	16	12	13	15	16	13	15	13	9	16	9	13	13	10
Conduct a flood protection home assessment with a drainage specialist	14	16	16	15	22	17	11	14	16	17	20	17	17	17	17	19	14	16	20	15
DK/NA	41	33	17	21	24	26	44	35	13	25	19	24	34	25	18	23	27	27	26	19

Base: All respondents 2016  $n=1,510$



# Measures Plan to Take in Coming Year to Prevent Water Damage Inside of Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Store valuables in basement in plastic or waterproof bins	13	19	16	18	16	13	16	20	18	24	17	14	21	19	11	18	15	18	19	11
Install or repair a backflow valve in my basement	15	20	16	16	16	13	15	22	17	21	23	14	17	17	13	17	15	19	14	12
Install caulking around windows	15	18	14	15	14	13	16	18	16	24	13	13	20	15	11	15	14	16	18	9
Install or repair a sump pump	18	24	13	17	20	13	17	22	12	27	30	19	21	19	15	18	18	22	19	9
Stormproof my basement with water-resistant drywall and special sub-flooring	16	25	25	21	19	15	17	23	24	27	25	17	21	24	16	20	20	22	18	19
Move my recreation room from the basement to a higher level	15	20	24	18	20	12	18	19	22	23	31	14	19	20	15	18	18	22	15	14
Apply for a basement-flooding subsidy from my local municipality	16	32	24	26	26	18	16	30	24	33	33	22	25	26	23	25	24	27	26	20
Conduct a flood protection home assessment with a drainage specialist	19	28	20	23	22	20	18	29	20	27	30	23	23	25	19	22	23	24	23	18
DK/NA	66	56	59	58	57	66	64	57	61	47	48	60	56	58	64	57	62	56	60	64

Base: All respondents 2016  $n=1,510$

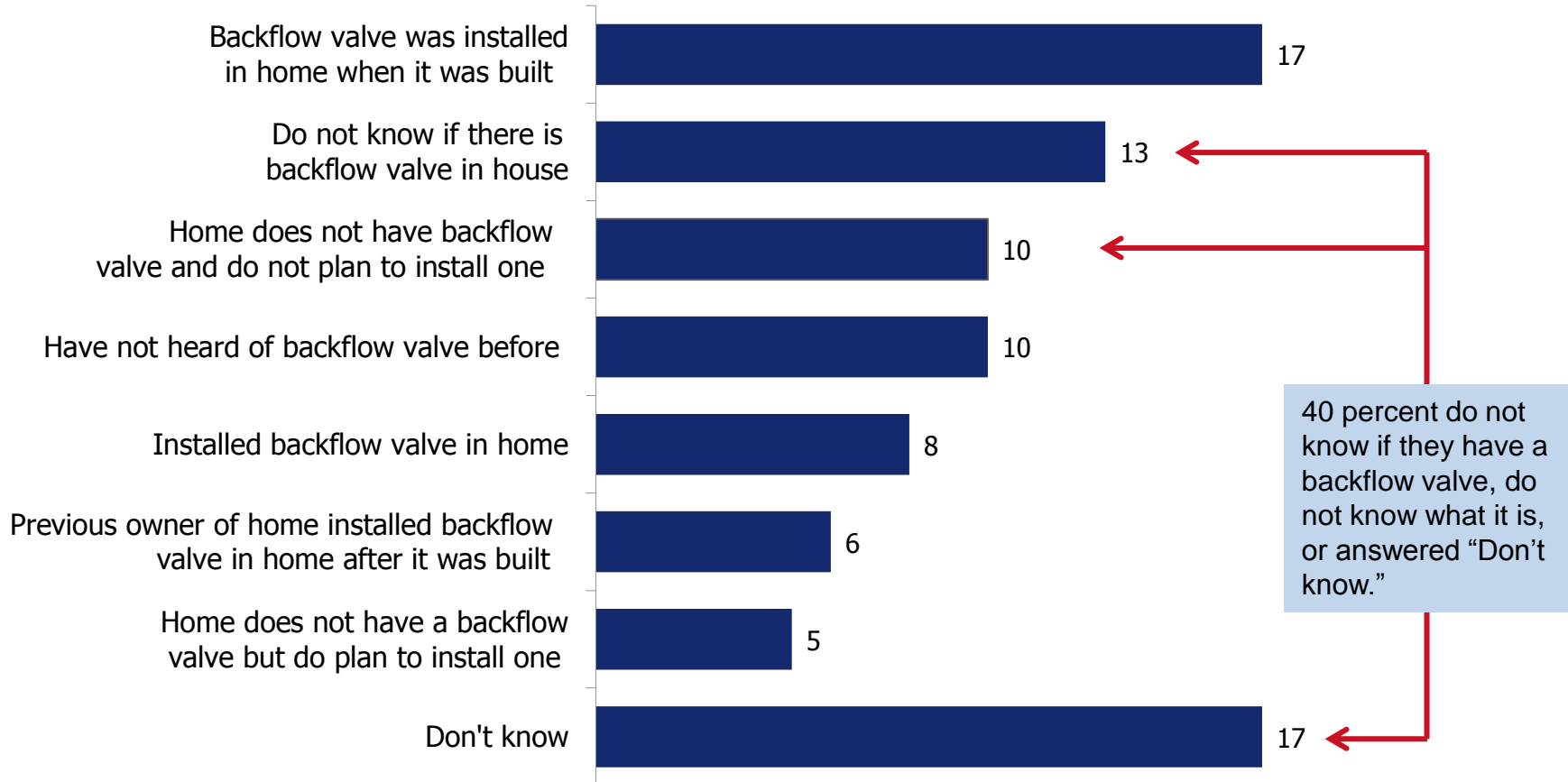
68

Q. Which of the following preventative measures have you taken and / or plan to take to help prevent water damage INSIDE of your home? *Please select all that apply.*



# Only a third of Canadians have / plan to install a backflow valve; two in five respondents living in houses do not know if their homes have a backflow valve

## Status of Backflow Valve in Home, 2016



Base: All respondents living in houses 2016, n=1,510

Q. Backflow valves help to prevent sewer drains from backing up and overflowing, and this eliminates sewer backflow as a potential source of basement flooding. From the list below, please select the statement that best applies to you.



# Status of Backflow Valve in Home, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
A backflow valve was installed in my home when it was built	16	23	23	11	25	17	13	22	24	10	24	21	13	20	16	18	16	17	21	12
The previous owner of my home installed a backflow valve in my home after it was built	3	3	9	4	10	7	4	4	6	7	10	8	7	5	5	5	6	6	6	3
I installed a backflow valve in my home	2	5	16	7	11	6	3	5	19	9	14	5	7	8	8	9	7	9	8	6
My home doesn't have a backflow valve and I don't plan to install one	9	11	7	10	11	14	7	10	6	8	9	17	7	9	15	15	6	8	12	13
My home doesn't have a backflow valve, but I do plan to install one	3	4	8	6	4	4	4	4	8	9	5	1	4	6	4	7	3	6	4	4
I do not know if there is a backflow valve in my house	12	13	11	15	11	13	12	13	12	17	12	9	12	15	12	12	15	15	11	12
I have never heard of a backflow valve before today	15	9	5	13	4	6	21	10	2	12	4	5	18	6	7	7	12	11	8	8

Base: All respondents 2016  $n=1,510$

Q. Backflow valves help to prevent sewer drains from backing up and overflowing, and this eliminates sewer backflow as a potential source of basement flooding. From the list below, please select the statement that best applies to you.



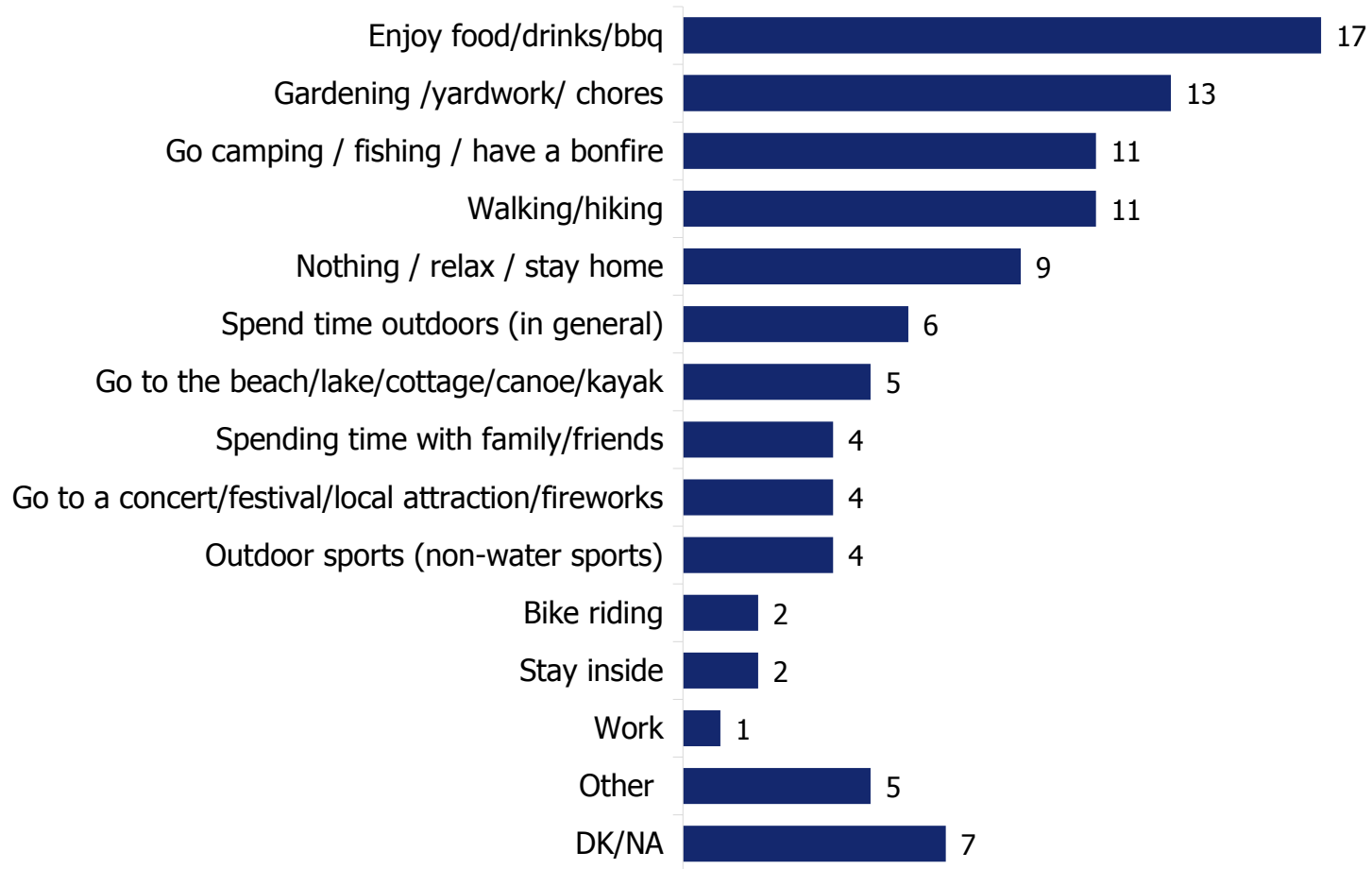


## Fun Facts



# Activities that Canadians like to do outdoors during the May Long Weekend

## Favourite Outdoor Activities, Unprompted, Total Mentions, 2016



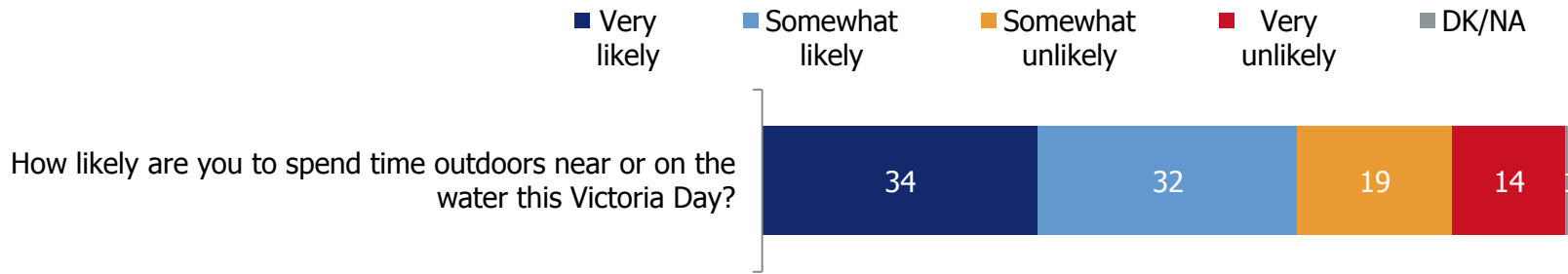
Base: 2016  $n=2,108$

Q. (new in 2016) Now we would like to ask you a few other questions. Thinking about Victoria Day long weekend in May, what is your favourite thing to do outdoors during the May long weekend?



# Two thirds of Canadians are “very likely” or “somewhat likely” to spend time outdoors near or on the water on Victoria Day

## Likelihood to Spend Time Outdoors Near or On the Water, 2016



	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
"Very likely" + "Somewhat likely"	73	64	64	71	55	75	75	67	58	71	59	81	74	67	59	66	67	66	68	67

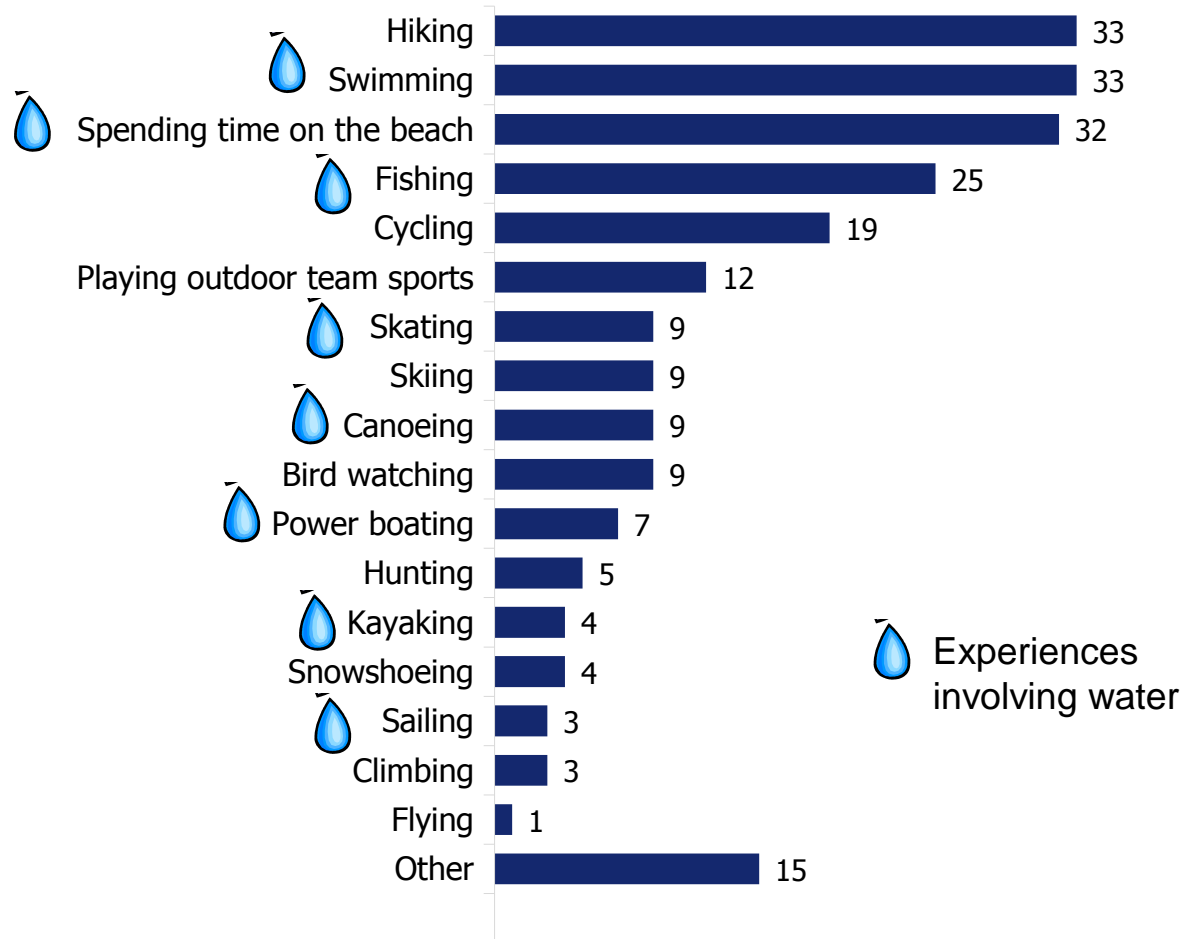
Base: All respondents 2016  $n=2,194$

Q. (new in 2016) The Victoria Day long weekend in May marks the unofficial beginning of summer for many Canadians. Assuming that the weather is nice, how likely are you to spend time outdoors near or on the water this Victoria Day?



# Swimming is the most-mentioned activity that Canadians like to do which involves water

## Fondest Experiences in the Canadian Outdoors, Total Mentions, 2016



Base: All respondents 2016  $n=2,194$

74 Q. Thinking about your fondest experiences in the Canadian outdoors, which, if any, of the following did they involve? Please select up to three.



# Fondest Experiences of the Canadian Outdoors

## Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Skating	5	11	6	11	9	11	7	12	6	12	11	11	9	9	9	9	10	10	9	9
Swimming	33	26	34	38	24	38	30	27	37	35	28	41	37	31	30	25	40	32	30	36
Sailing	2	3	0	2	4	4	3	2	0	3	4	4	3	3	3	3	3	4	1	2
Power boating	8	6	11	9	3	5	7	4	8	8	3	3	6	7	7	8	6	5	8	11
Canoeing	8	7	8	13	5	10	9	8	7	10	5	12	8	9	11	10	9	9	7	14
Kayaking	7	4	3	4	4	6	8	3	4	3	2	8	6	4	3	4	5	4	5	3
Bird watching	10	6	7	9	12	8	7	4	5	8	8	4	5	8	14	7	11	7	10	16
Fishing	24	22	35	25	25	26	18	21	30	15	19	22	19	24	32	30	20	20	28	38
Hunting	4	4	5	5	6	7	2	4	4	2	5	8	3	4	8	8	2	3	7	9
Spending time on the beach	41	21	36	33	27	42	41	21	40	36	27	40	37	31	28	24	39	33	33	25
Skiing	10	13	4	9	11	5	11	15	2	12	11	6	11	10	7	10	8	11	10	4
Flying	2	1	0	1	0	1	2	1	0	2	0	3	2	0	1	1	1	1	0	0
Hiking	39	43	24	27	39	29	41	45	23	24	35	30	36	33	29	29	36	34	35	27
Climbing	3	4	2	2	2	3	5	5	2	4	2	3	4	3	1	3	2	3	2	1
Snowshoeing	3	2	2	2	8	3	3	2	2	2	6	1	3	4	4	4	4	3	5	5
Cycling	13	19	19	18	28	11	12	20	20	25	31	11	19	20	18	22	16	22	17	12
Playing outdoor team sports	11	13	17	12	9	13	11	11	18	15	10	20	17	9	9	15	8	14	12	5
Other	16	17	14	17	11	14	15	16	11	12	9	14	10	14	21	14	16	13	14	24
DK/NA	2	3	3	1	2	1	3	2	4	2	4	0	2	2	2	2	1	3	1	1

Base: All respondents 2016  $n=2,194$

75 Q. Thinking about your fondest experiences in the Canadian outdoors, which, if any, of the following did they involve?



# Water-related activities are among Canadians fondest memories of the outdoors across all regions

## Fondest Experiences of the Canadian Outdoors, Total Mentions, by Region, 2016

Top ranking  
outdoor experience

Second ranking  
outdoor experience

	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic
Hiking	42	40	26	31	50	34
Swimming	33	30	35	40	20	38
Spending time on the beach	32	29	40	35	28	47
Fishing	24	32	40	27	26	30
Cycling	19	17	11	17	25	12
Playing outdoor team sports	21	15	16	14	10	12
Skating	6	15	12	15	16	16
Skiing	15	17	12	10	14	9
Canoeing	7	7	9	16	7	12
Bird watching	9	7	10	10	12	7
Power boating	9	10	15	10	2	10
Hunting	7	5	11	5	6	10
Snowshoeing	5	4	3	2	12	3
Kayaking	7	2	1	4	7	6
Sailing	5	2	1	5	2	5
Climbing	5	4	1	3	2	1
Flying	2	1	1	2	1	1
None	1	1	1	0	2	0
Other	1	6	3	3	2	3
Don't know	0	2	2	1	1	1

Base: All respondents 2016  $n=2194$

Q. Thinking about your fondest experiences in the Canadian outdoors, which, if any, of the following did they involve?

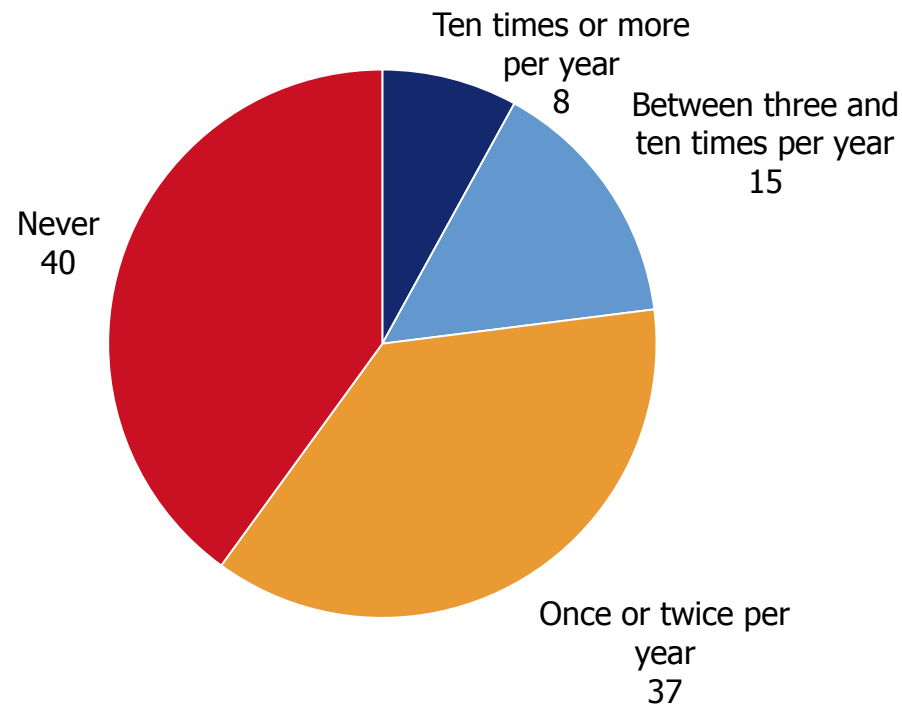
2016

RBC Canadian  
Water Attitudes  
Study



## Nearly two-thirds of Canadians swim in lakes or rivers at least once per year

### Frequency of Swimming in Canadian Lakes or Rivers, 2016



Base: All respondents 2016  $n=2,194$

77 Q. How frequently in a year, if at all, do you swim or bathe in lakes or rivers in Canada?



# Frequency of Swimming in Canadian Lakes or Rivers

## Demographics, 2016

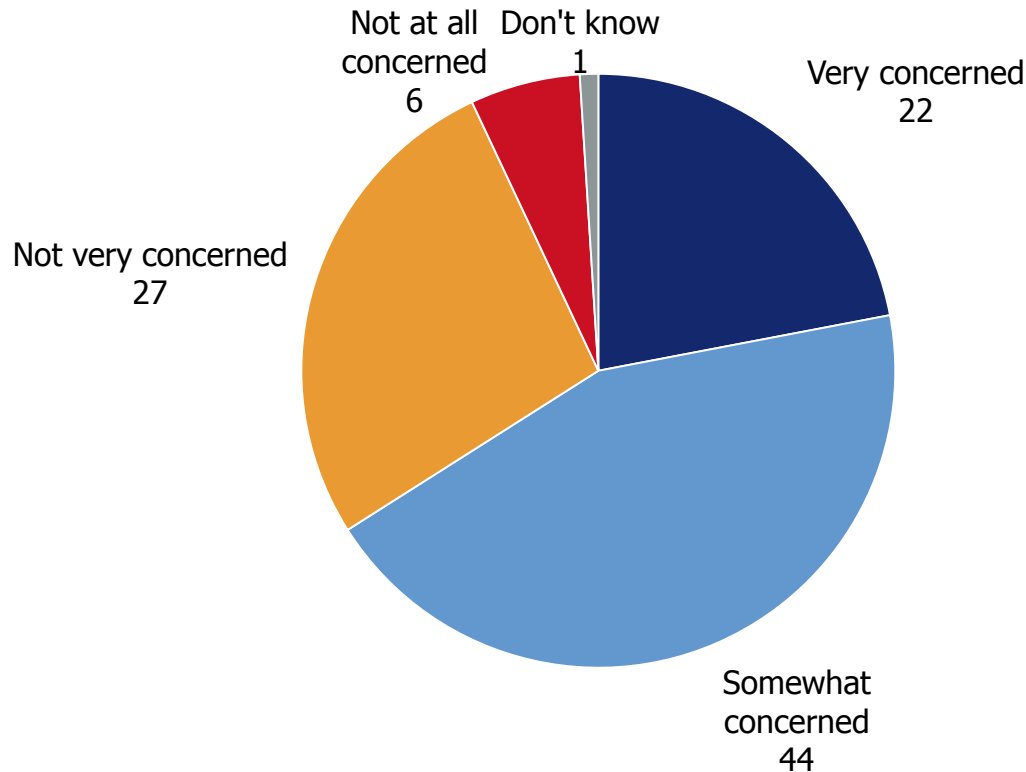
	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Never	44	52	41	36	42	33	46	51	42	39	45	23	31	40	50	39	42	42	35	41
Once or twice per year	32	35	35	39	36	40	30	33	33	40	34	43	41	34	36	39	34	35	42	35
Between three and nine times per year	14	10	15	16	14	16	14	13	13	13	13	18	18	16	10	13	16	15	15	15
Ten times or more	10	4	9	9	8	11	10	3	12	8	8	17	10	10	5	9	8	8	8	9

Base: All respondents 2016  $n=2,194$



# Two-thirds of Canadians express concern about the quality of the water in rivers and lakes used for swimming

## Concern about Water Quality in Rivers and Lakes Used for Swimming, 2016



Base: All respondents who swim/bathe in lakes or rivers at least once per year 2016  $n=1,254$

79 Q. How concerned are you about the quality of water in the lakes or rivers in which you swim?



# Concern about Water Quality in Rivers and Lakes Used for Swimming

## Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
"Very concerned" + "Somewhat concerned"	62	65	70	64	71	65	59	62	76	67	72	64	63	70	64	67	65	67	70	59

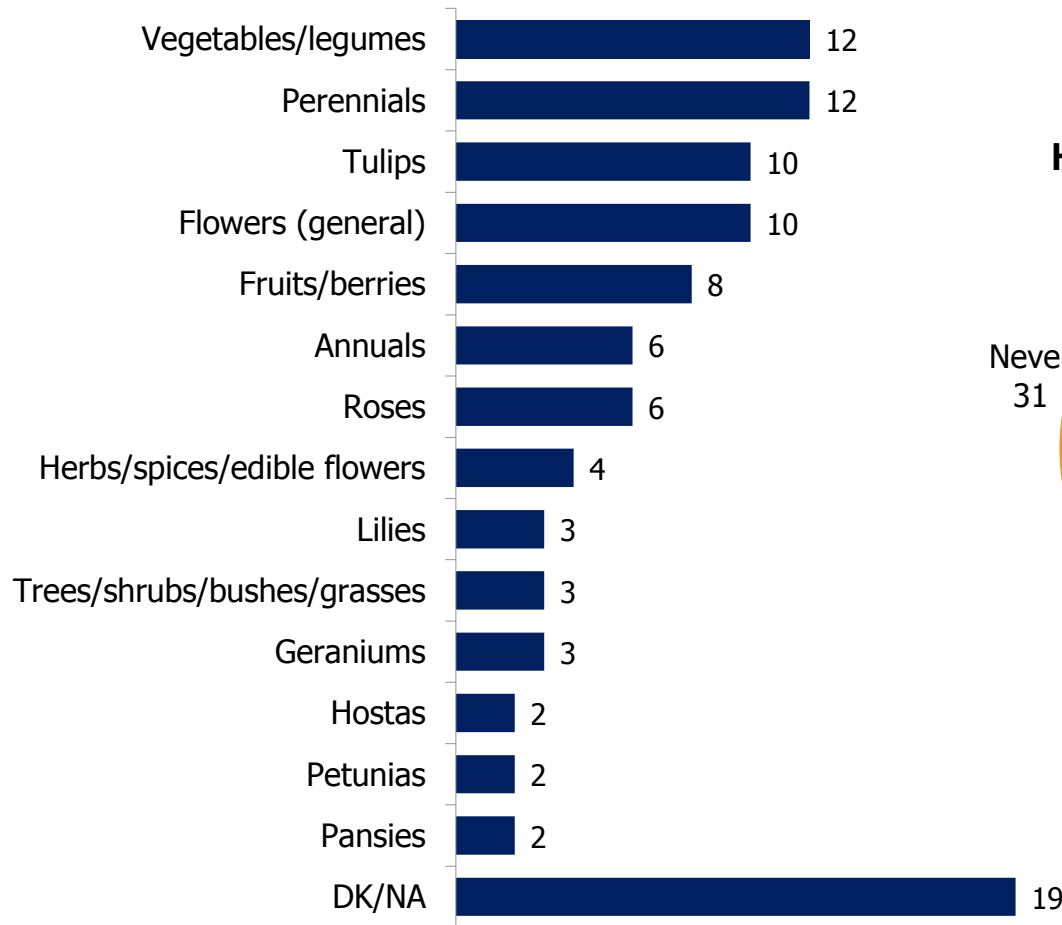
Base: All respondents 2016  $n=1,254$

Q. How concerned are you about the quality of water in the lakes or rivers in which you swim?

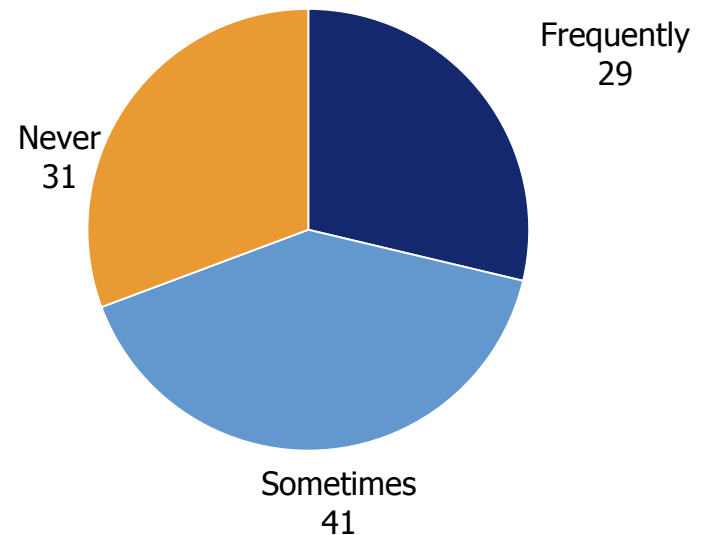


# More than two-thirds of Canadians like to garden often, with vegetables and perennials being the most-favourite things they like to plant in the spring time

## Favourite Type of Plant or Flower to Plant in Spring, Total Mentions, 2016



## How often do you garden?



Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Some people like to garden in the Spring time. Which of the following best describes how often you garden?

2016  $n=1,503$

Q. (new in 2016) What is your favourite type of plant or flower to plant in the spring?



# Frequency of Spring Time Gardening, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Frequently	24	30	29	29	30	32	19	28	24	21	24	27	15	30	40	28	30	25	32	39
Sometimes	40	34	34	46	37	39	41	32	36	49	42	40	49	40	34	38	43	39	42	44
Never	36	36	37	26	33	30	40	40	40	30	34	33	36	30	27	34	27	37	26	17

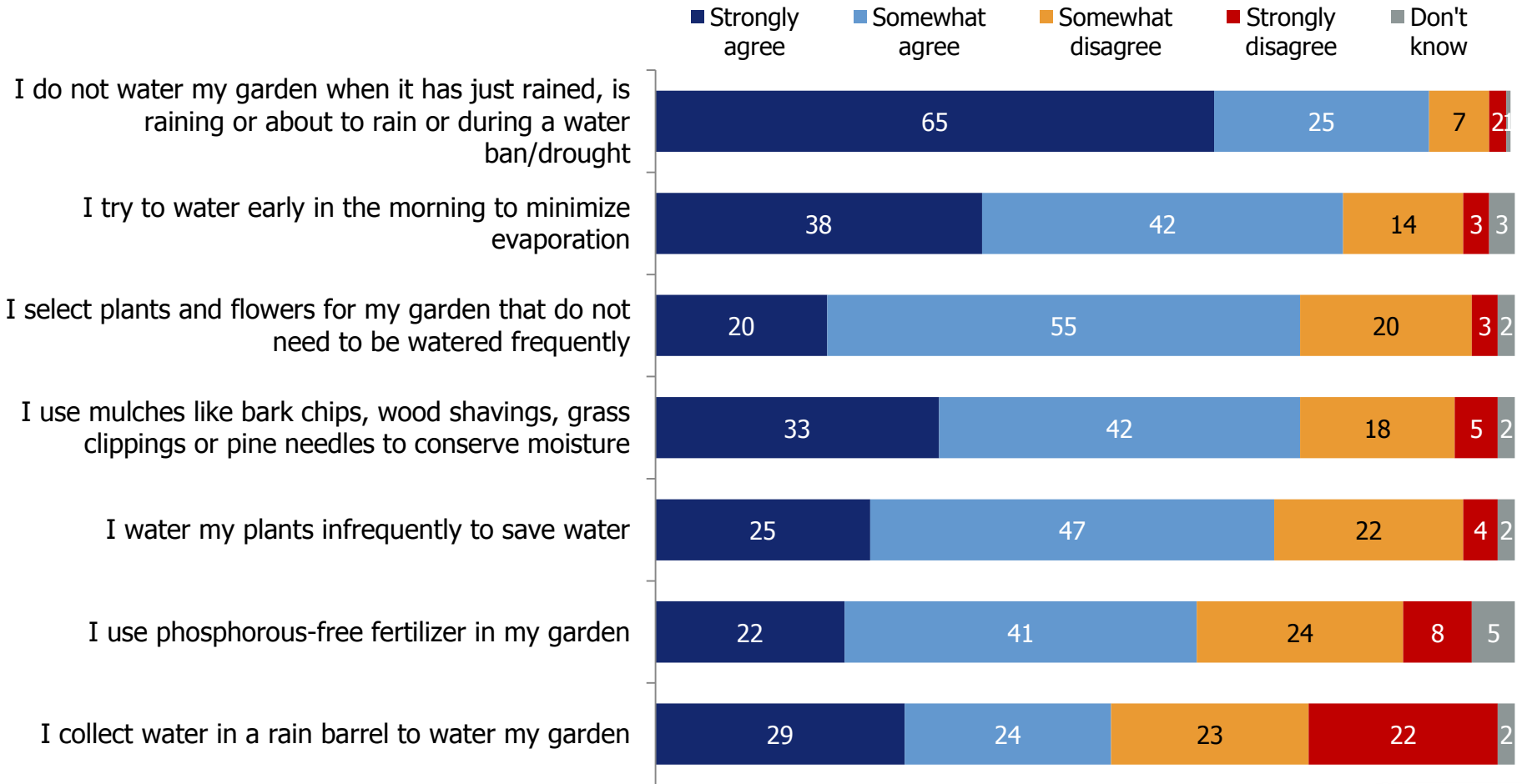
Base: All respondents 2016  $n=2,194$

82 Q. (new in 2016) Some people like to garden in the Spring time. Which of the following best describes how often you garden?



# Canadians garden responsibly when it comes to water use with almost all respondents stating that they do not water their garden during a water ban or drought

## Gardening Practices, Respondents who Garden Frequently/Sometimes, 2016



Base: 2016 n=1,503

Q. (new in 2016) To what extent do you agree or disagree with the following statements about your garden:



# Agreement with Gardening Statements

## “Strongly Agree” and “Somewhat Agree,” Demographics, 2016

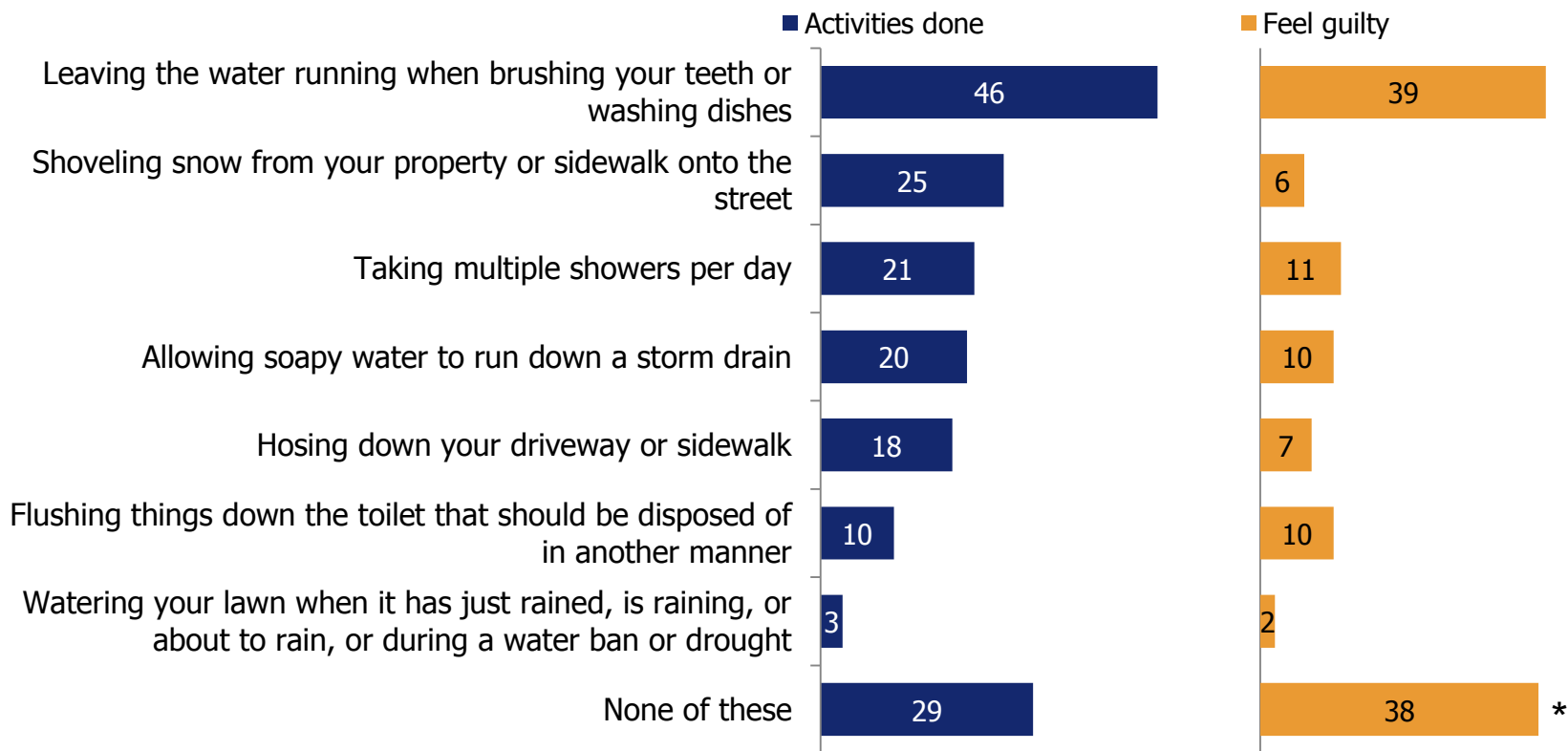
	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
I select plants and flowers for my garden that do not need to be watered frequently	72	77	74	76	76	73	75	78	76	75	77	72	68	80	76	72	78	73	76	80
I use mulches like bark chips, wood shavings, grass clippings or pine needles to conserve moisture	63	73	57	77	77	77	58	75	57	73	80	79	69	77	74	77	72	72	75	78
I try to water early in the morning to minimize evaporation	85	82	80	81	75	77	82	86	83	81	78	74	71	83	83	79	81	81	75	83
I water my plants infrequently to save water	75	68	64	69	77	70	76	68	62	68	76	72	68	73	72	67	75	71	69	75
I use phosphorous-free fertilizer in my garden	58	62	60	62	70	64	54	62	60	61	70	65	60	68	61	63	64	63	63	64
I don't water my garden when it has just rained, is raining or about to rain or during a water ban or drought	90	90	92	89	91	95	88	89	89	86	91	95	86	89	95	86	94	88	92	95
I collect water in a rain barrel to water my garden	48	60	57	51	54	58	47	54	51	48	51	54	54	54	50	53	53	48	51	65

Base: All respondents 2016  $n=1,503$



# Canadians feel most guilty about leaving the water running when brushing their teeth or washing dishes

## Activities Done and Guilt About Wasting Water, Total Mentions, 2016



\*None of these makes me feel guilty

Base: All respondents 2016; activities done  $n=2,194$ , feel guilty  $n=1,537$  (feel guilty only)

Q. (new in 2016) Which of the following activities, if any, have you done in the past?

85 Q. (new in 2016) Which of the following activities, if any, do you feel guilty about doing?



# Activities done by Canadians (water-wasting), Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Hosing down your driveway or sidewalk	21	24	18	20	13	16	20	25	18	22	13	16	17	17	22	21	16	20	19	14
Allowing soapy water to run down a storm drain	25	14	15	19	22	19	28	13	16	20	19	25	23	20	17	20	19	23	17	14
Watering your lawn when it has just rained / is raining / about to rain / during a water ban/drought	2	3	0	3	3	5	3	3	0	4	5	5	4	3	1	3	3	3	3	3
Leaving the water running when brushing your teeth or washing dishes	40	48	40	48	47	46	40	50	39	47	47	45	50	48	40	41	51	46	45	45
Taking multiple showers per day	21	21	17	21	21	21	28	24	17	24	20	25	35	21	7	22	20	24	17	16
Flushing things down the toilet that should be disposed of in another manner	13	8	11	11	5	11	15	9	7	12	7	16	14	10	6	9	10	11	6	10
Shoveling snow from your property or sidewalk onto the street	20	40	31	23	25	13	20	45	31	26	28	18	27	26	20	26	23	28	20	18
None of these	28	26	32	28	32	35	24	21	31	23	30	29	18	28	41	31	28	26	32	38

Base: All respondents 2016  $n=2,194$

Q. (new in 2016) Which of the following activities, if any, have you done in the past?



# Feelings of guilt about activities done by Canadians (water-wasting), Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Hosing down your driveway or sidewalk	9	8	5	6	8	10	10	8	5	7	6	12	7	5	11	9	6	7	9	6
Allowing soapy water to run down a storm drain	12	10	9	10	9	12	12	7	9	11	6	17	11	9	12	11	10	11	10	9
Watering your lawn when it has just rained / is raining / about to rain / during a water ban/drought	3	3	0	1	3	2	3	3	0	1	6	2	2	3	1	2	2	2	1	1
Leaving the water running when brushing your teeth or washing dishes	31	40	32	38	45	42	29	40	33	38	43	43	40	43	31	29	48	39	39	38
Taking multiple showers per day	14	10	7	10	11	10	18	10	10	8	14	14	19	9	2	10	11	11	10	9
Flushing things down the toilet that should be disposed of in another manner	14	7	10	12	5	14	14	7	6	11	7	18	12	10	8	9	11	11	6	12
Shoveling snow from your property or sidewalk onto the street	4	10	10	4	9	5	4	11	9	4	9	6	6	7	4	6	6	7	5	5
None of these	38	39	47	40	33	36	36	40	45	40	32	30	32	36	51	46	31	36	40	46

Base: Respondents who have done these activities in the past, 2016  $n=1,537$

Q. (new in 2016) Which of the following activities, if any, do you feel guilty about doing? Please select all that apply.



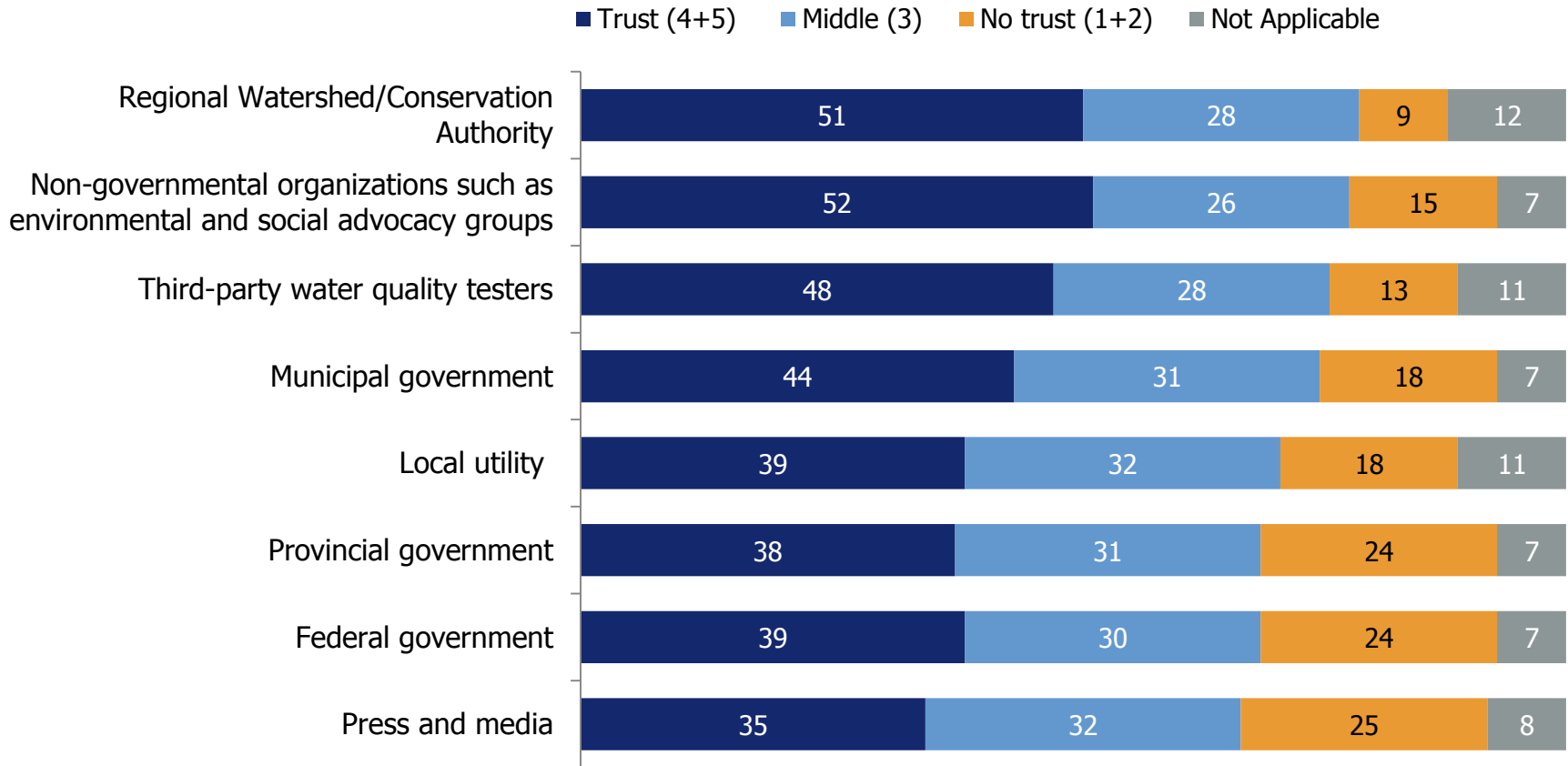


## Communicating on Water



# Non-governmental organizations and conservation authorities are the most trusted to provide information about water quality and safety in Canada; government and media are among the least trusted

## Trust in Information Provided about Water Quality and Safety in Canada, 2016



Base: All respondents 2016  $n=2,194$

Q. (new in 2016) How much do you trust each of the following to provide you with information about water quality and safety in Canada?



# Level of Trust in Information Sources about Water Quality in Canada

## Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Press and media	36	25	27	34	42	34	39	24	30	37	42	38	28	39	35	36	33	36	35	31
Non-governmental organizations such as environmental and social advocacy groups	50	40	45	53	56	56	51	35	45	58	55	57	52	51	52	51	52	51	57	46
Federal government	42	34	32	36	43	38	44	30	32	42	44	40	40	40	35	40	36	41	39	30
Provincial government	40	39	40	34	40	43	42	35	38	37	40	48	40	36	38	41	34	38	44	31
Municipal government	44	43	37	41	49	47	42	39	36	45	43	50	44	43	45	47	41	43	51	39
Third-party water quality testers	47	43	45	42	61	49	44	40	44	43	53	49	45	50	48	51	44	46	56	44
Local utility	43	38	35	35	48	41	45	37	34	39	44	42	38	39	42	41	38	40	45	33
Regional Watershed/Conservation Authority	54	42	49	52	54	48	52	40	48	50	49	51	45	51	56	52	50	49	55	52

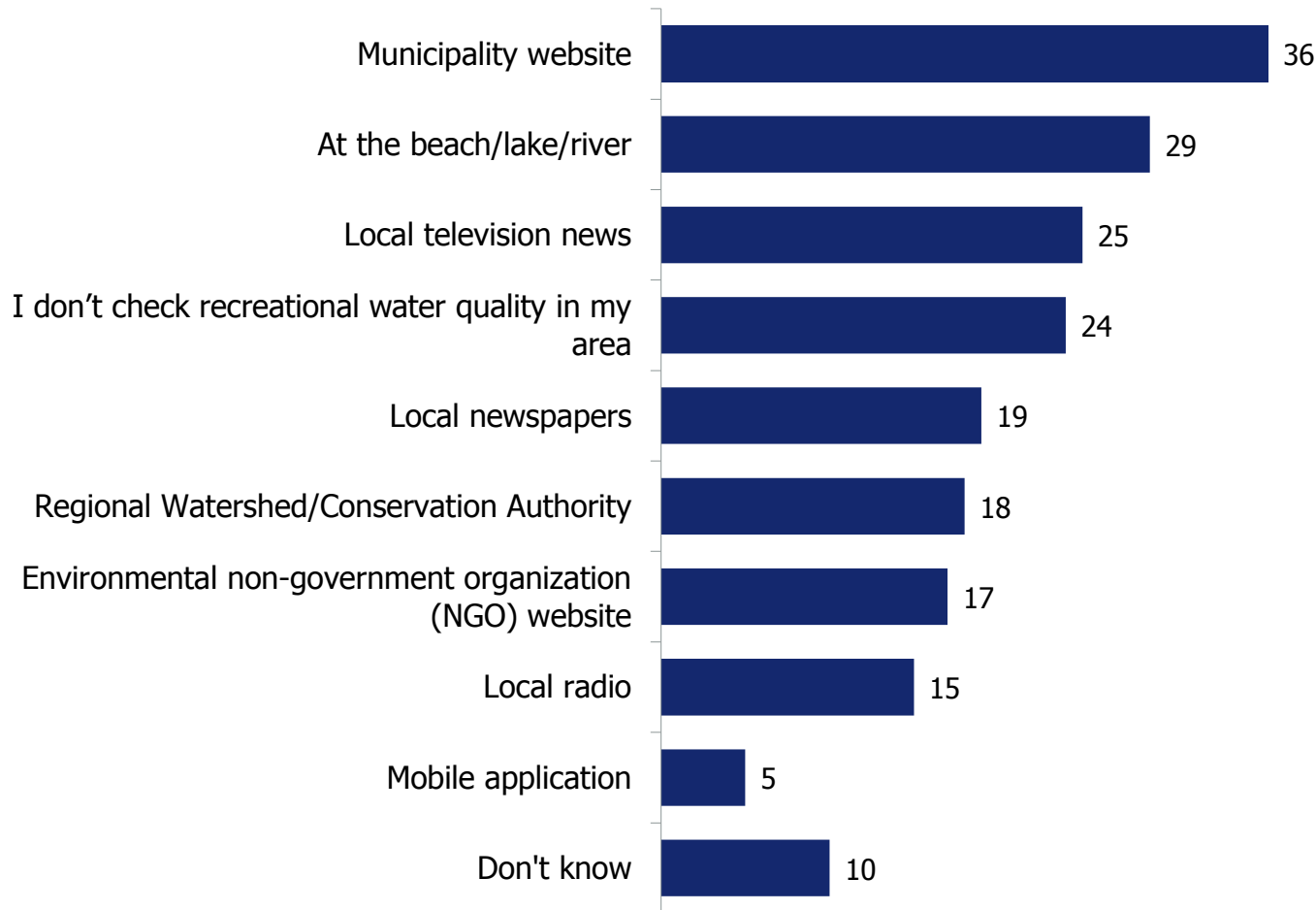
Base: All respondents 2016  $n=2,194$

90 Q. (new in 2016) How much do you trust each of the following to provide you with information about water quality and safety in Canada?



# Municipality websites and information near the water are most-mentioned places where Canadians look to find information on the quality of water in beaches, lakes and rivers

## Sources of Information about Water Quality, Total Mentions, 2016





# Where to Find Information About Water Quality, Demographics, 2016

	REGION						CITY						AGE			GENDER		COMMUNITY SIZE		
	British Columbia	Alberta	Prairies	Ontario	Quebec	Atlantic	Vancouver	Calgary	Winnipeg	Toronto	Montreal	Halifax	18-34 years	35-55 years	>55 years	Male	Female	Urban (>100,000)	Mid-size towns/cities	Rural (<1,000)
Municipality website	37	37	29	37	37	35	36	40	30	35	36	43	41	36	32	34	39	38	36	33
Local television news	25	19	23	27	24	23	23	18	29	28	28	29	23	27	23	26	24	26	21	24
Local newspapers	21	16	19	19	20	17	18	16	22	16	21	22	21	16	20	18	20	19	19	20
Local radio	14	12	14	17	14	17	13	12	17	16	15	19	13	15	18	17	14	14	18	16
At the beach/lake/river (e.g., signal flags)	25	25	22	34	27	27	27	25	21	30	26	27	32	27	29	26	32	30	29	28
Regional Watershed/Conservation Authority	22	16	20	22	11	13	20	18	18	15	10	15	18	16	21	17	19	17	17	22
Environmental non-government organization (NGO) website	21	22	18	15	13	17	22	24	17	17	14	17	19	17	13	15	18	18	14	13
Mobile application	5	9	5	5	4	6	6	11	5	4	6	8	9	5	3	5	6	6	5	4
I don't check recreational water quality in my area	26	29	27	22	22	26	26	30	24	19	17	20	21	21	30	24	24	23	21	28
Don't know	11	10	9	8	12	10	11	7	11	11	14	6	8	12	9	10	10	10	11	8

Base: All respondents 2016  $n=2,194$



# Methodology

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- Sample of 2,194 Canadian adults from GMI's consumer panel participated in an online survey between March 24<sup>th</sup> 2016 – April 11<sup>th</sup>, 2016.
- Weighting was employed to balance demographics, to ensure that the sample's composition reflects the adult population according to Canadian census data, and to provide results intended to approximate the sample universe. Results were weighted by gender, age, region, and community size. The sample includes a minimum of 200 respondents in each of Calgary, Montreal, Vancouver, and Winnipeg, and a minimum of 300 in Toronto. 178 interviews were completed in Halifax.
- Respondents for this survey were selected from among those who have volunteered to participate in GMI's online surveys and polls. The data have been weighted to reflect the demographic composition of the Canadian population. Because the sample is based on those who initially self-selected for participation rather than a probability sample, sampling error cannot be calculated. All sample surveys and polls may be subject to multiple sources of error, including, but not limited to, sampling error, coverage error, and measurement error. The margin of error for a strict probability sample for a sample of this size ( $n=2,194$ ) would be plus or minus 2.2 percent 19 times out of 20.

## Note to readers

- All figures in the charts and tables in this report are expressed in percentages, unless otherwise indicated. Total percentages may not add to 100 because of rounding.
- "DK/NA" means that the respondent did not know the answer or that no answer was provided (Don't know / No answer).
- Question wording is provided at the bottom of each page.
- Where data are available, we provide tracking information from previous years using trend charts and tables. Differences of +/- 5 percentage points between years are considered to be significant differences.



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The survey questions and results reported herein are provided on a confidential basis to RBC. RBC is free to use the findings in whatever manner it chooses, including releasing them to the public or media.

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**Project: 2860, GlobeScan®**

May 2016

