



## CRD Residential Water Survey

*A Quantitative Research Study with residents of Capital Regional District (CRD)*

Contract EPar 2016-013



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# 1. SUMMARY OF FINDINGS

## **A. Perceptions of Water Efficiency**

- A large majority feel it is important to use water efficiently in the home and outdoors.
- 88% of residents say that using water efficiently *indoors* is important, between “very” important (54%) and “somewhat” important (34%).
- 78% of residents agree that using water efficiently *outdoors* is important, between “very” important (49%) and “somewhat” important (29%).
- A majority of residents (58%) feel their water use has stayed about the same over the past few years.
- A majority of residents recognize the CRD is responsible for providing the drinking water to their home (70%).
- About a quarter of residents (24%) feel their local municipality supplies the drinking water.

## **B. Water Use Behaviour/Technologies/Actions**

- The water efficient fixture most likely to be owned/installed in resident homes is a low-flow showerhead. About two-thirds of residents (65%) said they have at least one in their home. Statistically speaking, this number has not shifted over the last 4 surveys (64-67%).
- Front-loading washing machines have jumped up again, to 60% of households in the 2017 survey.
- Existing toilets that use more water continue to be modified. 52% of residents told us they have modified a toilet in their home to use less water when flushing.
- The average number of toilets in homes in the CRD is 2.2.
- Residents were asked how many of the toilets in their home were low-flow or dual flush (6L or less). In total, 40% of homes have no low-flow toilets.
- Similar to previous surveys in 2008 and 2012, less than 1 in 5 homes (19%) have checked their toilets for leaks using food colouring or dye tablets in the past year.
- More than 3 in 5 residents in this research have a lawn (62%) and/or a garden (61%).
- 45% of those with a lawn will water it (at least once a year). This number has decreased significantly over the course of this study, from 55% in 2004.
- Over half (58%) of residents with a lawn say they are watering it less frequently today than they did four years ago.
- Just over one-third of residents in the 2017 survey had an in-ground irrigation system. This number is statistically similar to the 2012 results, but higher than the 2008 and 2004 surveys.

## **C. Perceptions of Water Conservation Options**

- This survey explored two aspects of the CRD’s promotion of water efficiency. First, is the importance of encouraging people to practice water conservation, where 80% of residents feel this is either “very” important (62%) or “somewhat” important (18%). Second, is the importance of being able to implement water conservation programs, where a similar proportion of residents (77%) feel that it is either “very” important (55%) or “somewhat” important (22%).
- 78% of residents say they are aware of the CRD Water Conservation Bylaw.

- The newspaper was the primary source for information (45%) mentioned by residents who heard or read about the watering bylaw. Word of mouth was the next most mentioned source (24%). The CRD website was mentioned by 13% of residents.
- A large majority of residents are supportive of the CRD Water Conservation Bylaw. Overall, 84% say they support the bylaw, between those who “strongly” support (68%) and “somewhat” support (16%).
- Similarly, residents are supportive of the terms of the bylaw – the amount of time allotted for them to water in the course of an average week. 82% of residents find the timing acceptable, between those who find it “very” acceptable (60%) and those who find it “somewhat” acceptable (22%).
- Residents were asked how they feel about the idea of implementing a two-tier rate structure for water in the summer (base + premium for high consumption levels). The results are very similar to the 2012 survey. 50% find this idea either “very” acceptable (32%) or “somewhat” acceptable (18%).

#### **D. Awareness of CRD Water Information and Programs**

- 63% of residents are using one or more of the three social media platforms we asked about (Facebook, Twitter, Instagram) on at least a monthly basis.
- The most popular of the three platforms is Facebook, where over half of residents (54%) are using Facebook at least once a week.
- 18% of residents in this survey are aware that CRD has social media feeds and have seen them. Another 38% know/assume that CRD would have social media feeds but have never seen them, split between those aware of the feeds (17%) and those not aware (21%). 43% of residents are not aware of the social media feeds, and did not think CRD would have them.
- 69% of residents told us they have seen, read or heard something about CRD water efficiency over the past year.

#### **E. Water Management Issues**

- A significant majority (71%) mentioned Sooke Lake Reservoir as the source of drinking water for the Greater Victoria area. 4% mentioned other locations, many of whom seem to refer to Sooke Lake Reservoir although they did not remember the name specifically. A quarter of the residents in the survey (25%) do not know where the water comes from. This is statistically similar to 2012 (21%) but lower than previous surveys (34% in 2008, 31% in 2004).
- 27% of residents recalled seeing or reading something published by the CRD about drinking water.
- The primary source mentioned by residents to receive information continues to be mail. In this instance, “mail” means direct mail, not something included in their water bill, their tax bill, etc.
- The CRD website is definitely the default source of information if a resident needed to look for it. It has been gaining as a go-to resource over the course of these surveys, from 28% in 2004 up to 65% of residents mentioning it in 2017.

## 2. KEY OBSERVATIONS

Here are some key observations after a thorough review of the learning from this research:

- The number of people watering their lawns 2X/week remains relatively high and demonstrates a continuing segmentation of the lawn watering market – those who continue to water a lot and those that don't. This is a case where there is evidence a more sophisticated and targeted communications approach is needed. Different messages need to be provided to different markets – reinforcement and positive messaging to those who are not irrigating, and advice on efficiency and healthy lawn maintenance practices to those who do not.
- The number of people with in-ground irrigation systems is higher than we would have expected and generally trending up, albeit slowly. This builds a case for continuing to provide communications, training and possibly rebates or other incentives around efficient automatic irrigation system practices and technology.
- The two trends discussed above also provide a continued business case for other water-wise gardening programs, including, for example, the native plants workshops and other outreach programs CRD currently delivers. It is worth noting that the number of people mentioning native plants as an outdoor water conservation measure that they have taken dropped in 2017 compared to 2012. This was an open-ended question so it would bear further examination in the future, or possibly a more direct line of questioning.
- A large number of homes (40%) still do not have low flow toilets. Notably, renters and people with low incomes are particularly less likely to have a low flow toilet. There is an opportunity to incentivize these customers through targeted rebate programs with multi-residential property owners, or tested rebate programs based on income. Targeted programs of this kind have been successfully delivered in other North American markets.
- In terms of communications, there is also segmentation of the market taking place. Not surprisingly, use of online media is growing, particularly among young people. The CRD website, notably, is gaining as a go to resource. However, a significant portion of the market continue to rely on traditional sources of information including phoning CRD or their local government, their water bill, or direct mail. This implies that CRD needs to continue to employ a number of channels to reach water users.

### 3. PROJECT BACKGROUND

Since the late 1990's, the Capital Regional District (CRD) has been commissioning regular surveys of the general public to ascertain attitudes and practices surrounding water use and water conservation.

The CRD conducts telephone interviews with residents about every four years on their perception of residents water use and knowledge of drinking water supply.

Metroline Research Group (with help from Econics) was awarded the contract to conduct the survey in 2016/2017.

Metroline worked with the CRD project team to develop the residential water survey. The survey drew on questions created in previous surveys for comparison purposes. 500 telephone surveys were conducted with randomly selected households in the CRD. This included residential landlines and mobile exchanges.

The primary objective of this research was to gauge if there was any change in public opinion related to water use and water conservation compared to the previous surveys.

This report outlines the results for the 2017 Residential Water Survey for CRD. Respondent opinions may take into consideration not only their own experiences, but also their perceptions or what they may have seen, heard, or read about in terms of water conservation and CRD drinking water supply.

### 4. RESEARCH METHODOLOGY

#### Project Initiation and Questionnaire Design

At the project launch meeting, the Metroline/Econics team met in-person and by phone with CRD team members to explore what needed to be included in this survey. The objectives and work plan were reviewed and finalized.

After this meeting and some further information received from internal consultation within the CRD, Metroline prepared an initial draft survey which was reviewed by the CRD team and updated several times.

When the final survey was approved, Metroline conducted a pre-test with 18 residents via telephone to ensure understanding and test the survey length.

Metroline purchased a random sample of directory listed telephone numbers for CRD from a professional sample provider. Metroline then supplemented the sample with randomly generated numbers from within cellular exchanges. In the end, just over 20% of surveys were completed via mobile devices.

#### Survey Population and Data Collection

Between January 28<sup>th</sup> and February 21<sup>st</sup>, 2017, 500 telephone surveys were completed. The average survey took just under 18 minutes.

At the overall level, the results of this survey can be considered accurate to within +/-4.4%, 19 times out of 20 (95% Confidence Interval). It is important to note that within sub-groups, the sample is smaller, and the margin of error will increase accordingly.

Our sampling software randomly generated households to call from within the sample frame (listed numbers and mobile numbers). Calling took place 7 days a week, between the hours of 2pm and 8pm (PST) on weekdays, and between 10am and 2pm (PST) on weekends.

After an initial non-contact, Metroline returned to the number at least 4 more times (at various times of day and day of week) before substitution.

To be included in this study, respondents met the following basic qualifications:

- Male or female head of household
- 18 years and older
- Resident of a municipality or area within the CRD
- Connected to the piped water system receiving drinking water from the Sooke Lake Reservoir

Quotas were placed on the sample to ensure representation of all communities within the CRD, as summarized in in Table 4-1.

*Table 4-1 – Surveys completed by community*

	Target Completions *	Actual Completions
Colwood	24	22
Esquimalt	24	24
Langford	48	48
Metchosin	7	7
Oak Bay	26	30
North Saanich	24	29
Central Saanich	16	18
Saanich	162	153
Sidney	16	16
Sooke	18	18
Victoria	120	123
View Royal	14	13
<b>Totals</b>	<b>500</b>	<b>500</b>

*\* NOTE: Target completions calculated according to population distribution in the 2011 Census. The Juan de Fuca Electoral area is no longer given separately in the Victoria Census Metropolitan Area, hence it does not appear in the 2017 quotas.*



Before working on this project, interviewers received a thorough briefing including conducting practice interviews with supervisory staff. All calling took place in a supervised, monitored call centre, and at minimum 10% of interviews conducted by an interviewer were validated by Metroline's supervisory team.

Table 4.2 details the record of call attempts for the study.

A review of the calls for this 2017 study shows a somewhat higher than average number of final call attempts were required, this is likely as a result of the introduction of the mobile sample. With mobile devices, there is less control over location, respondents can be more likely to refuse if they do not have unlimited minutes or are not in a suitable location, and they can be less likely to answer the call.

Table 4-2 reflects contact attempts to individual households. The actual number of dials for this study was 20,604 as many households were attempted on more than one occasion.

### Data Weighting

As was the case in previous surveys, the data was weighted to correct for the uneven representation of age groups in the final data set, as summarised in Table 4-3.

No resident refused their age group, so all surveys were weighted appropriately. The 18-34 year age group had the highest weighting applied, as in the 2012 survey. This group requires a significantly higher amount of effort to reach over the other age groups. Fewer and fewer members of this age group have a landline, and are less likely to answer their mobile phones.

Table 4-2– Summary of Call Attempts

Final Call Attempts	Calls
Completed Interviews	500
Incomplete (did not finish)	28
Busy/No Answer	4,321
Respondent Unavailable/Callback	889
Refusals	2,920
Not in Service	3,414
Language Barrier	46
Disqualified/Quota Full*	593
Total Dials	12,711

\* Did not meet study requirements (for example lived outside the CRD), or the quotas were already complete

Table 4-3 – Data weighting matrix

Age Group	Actual Population	Proportion of Actual Population	Survey Data	Proportion of Survey Data	Weight Applied
18-34 years	76,296	27%	44	9%	3.06818
35-54 years	95,945	33%	196	39%	0.84183
55+ years	115,735	40%	260	52%	0.76923

## Data Analysis and Project Documentation

After all telephone interviews were completed and verified, the Metroline Project Manager reviewed the results of open-ended questions to develop a code list. Most open-ended responses were prompted as a result of an “other” response to a pre-coded list. Metroline’s internal data processing team worked on preparing data tables and coding the open-ended responses.

Data tables were prepared to a standard set of cross-tabulation banners, and included statistical testing (primarily z-test and u-tests) to understand statistically significant differences between sub-groups.

As with any survey of the general population, not all populations can be reached. The homeless, residents of hospitals, long-term care facilities, and prisons are not represented in the survey sample. A profile of the characteristics of respondents is provided in Section 6 of this report.

A copy of the survey used in this research can be found as Appendix 1.

## **5. NOTES ON READING THIS REPORT**

This report reports the findings of the statistically valid, random telephone survey.

Where statistically significant and relevant, differences between specific sub-groups are mentioned in the analysis (for example, gender, age, household size, etc.).

While sophisticated procedures and professional staff have been used to collect and analyze the information presented in this report, it must be remembered that surveys are *not* predictions. They are designed to measure opinion within identifiable statistical limits of accuracy at specific points in time. This survey is in no way a prediction of opinion or behaviour at any future point in time.

## A PERCEPTIONS OF WATER EFFICIENCY

### A1. Importance of Using Water Efficiently

On a scale of 1 to 5, where '1' is "Not Important At All", and '5' is "Very Important", how important is it to you to use water efficiently in the home/outdoors?

Figure A1-1 – Importance of Using Water Efficiently

A large majority feel it is important to use water efficiently in the home and outdoors.

88% of residents say that using water efficiently *indoors* is important, between "very" important (54%) and "somewhat" important (34%).

78% of residents agree that using water efficiently *outdoors* is important, between "very" important (49%) and "somewhat" important (29%).

	2017	2012*	2008*	2004*
<b>a. Importance of using water efficiently in the home:</b>				
Very important/Important	88%	83%	86%	87%
Neutral	9%	13%	12%	11%
Not very/Not Important	3%	4%	2%	1%
Don't know/No answer	--	--	--	1%
<b>b. Importance of using water efficiently outdoors:</b>				
Very important/Important	78%	77%	84%	85%
Neutral	8%	11%	8%	8%
Not very/Not Important	8%	5%	6%	5%
Don't know/No answer	6%	7%	2%	2%

\* NOTE: Added don't know scores from previous surveys so totals add to 100%

#### Respondent Sub-Segment Findings

##### a. Indoors

- Females (91%) slightly more likely to say it is important than males (85%)
- Home owners (90%) slightly more likely to say it is important than renters (83%)

##### b. Outdoors

- Females (82%) more likely to say it is important than males (71%)
- Home owners (79%) slightly more likely to say it is important than renters (74%)
- Households of 3+ people (83%) and two people (78%) more likely to say it is important than single person households (65%)
- People who pay their water bill directly (87%) much more likely to say it is important than those who do not (62%)

## A2. Perceptions of Changes in Water Use

*Has your water use decreased, increased, or stayed the same in the last four years?*

A majority of residents (58%) feel their water use has stayed about the same over the past few years.

This is a higher score than when the question was asked in 2012. This could be simply a shift in perception of the residents in the 2017 survey, or it could be that water conservation is something they have already more or less adopted as routine.

Figure A2-1 Perceptions of Changes in Water Use

	2017	2012
Increased	15%	16%
Stayed the same	58%	48%
Decreased	23%	33%
Don't know	5%	3%

15% of residents say their use of water has increased over the past four years. Looking further into the results, the group most likely to say this are 35-54 years and in larger households. This likely signifies their family has grown over the past four years, and thus their need for water, more than an attitudinal shift towards water conservation.

### Respondent Sub-Segment Findings

- Those 35-54 years (24%) are more likely to say their water use has increased compared to those 55+ years (10%) or 18-34 years (9%)
- Those who own their home (17%) are more likely to say their water use has increased compared to those who rent (8%)
- Households of 3+ people (21%) are more likely to say their water use has increased compared to households of two people (11%) and single person households (4%)
- Those with incomes over \$50k (17%) are more likely to say their water use has increased compared to those with incomes under \$50k (5%)

## A3. Source of Water Service

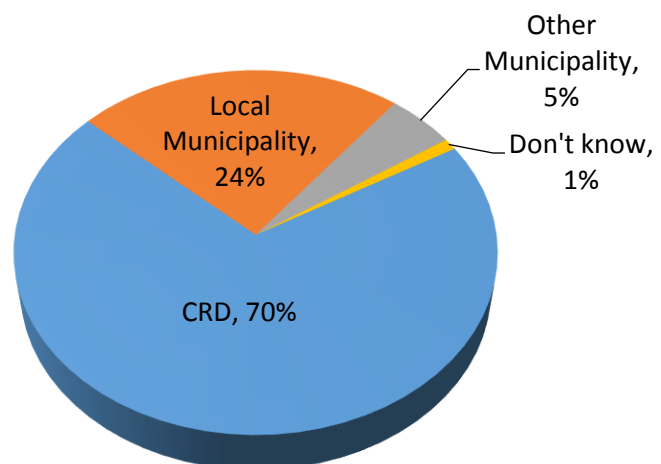
*Who provides the drinking water service or piped water to your home?*

A majority of residents recognize the CRD is responsible for providing the drinking water to their home (70%).

About a quarter of residents (24%) believe their local municipality supplies the drinking water.

5% of residents indicated another municipality. Looking further into that response, virtually all mentioned the City of Victoria, though none lived there (living mostly in Esquimalt and a few in Saanich).

Figure A3-1  
Source of Water Service  
(Full Sample, n=500)



The results for the 2017 survey are significantly different than in previous years. This may be accounted for by a shift in resident perception or other factors that raise awareness such as media stories, capital projects/changes, workshops, etc. In the 2017 survey, interviewers coded a reply as CRD for the following (CRD, CRD Water, the Region, the District).

Figure A3-2 – Source of Water Service by year

	2017	2012	2008	2004
CRD (CRD Water, CRD Integrated Water Services)	70%	24%	25%	25%
Local municipality they live in	24%	58%	56%	54%
Another municipality	5%	3%	1%	1%
Don't know	1%	15%	18%	20%

## B. WATER USE BEHAVIOUR/TECHNOLOGIES/ACTIONS

### B1. Water-Efficient Fixtures

*I am going to read you a list of water-efficient fixtures. Please tell me if your household has...?*

The water efficient fixture most likely to be owned/installed in resident homes is a low-flow showerhead. About two-thirds of residents (65%) said they have at least one in their home. Statistically speaking, this number has not shifted over the last 4 surveys (64-67%).

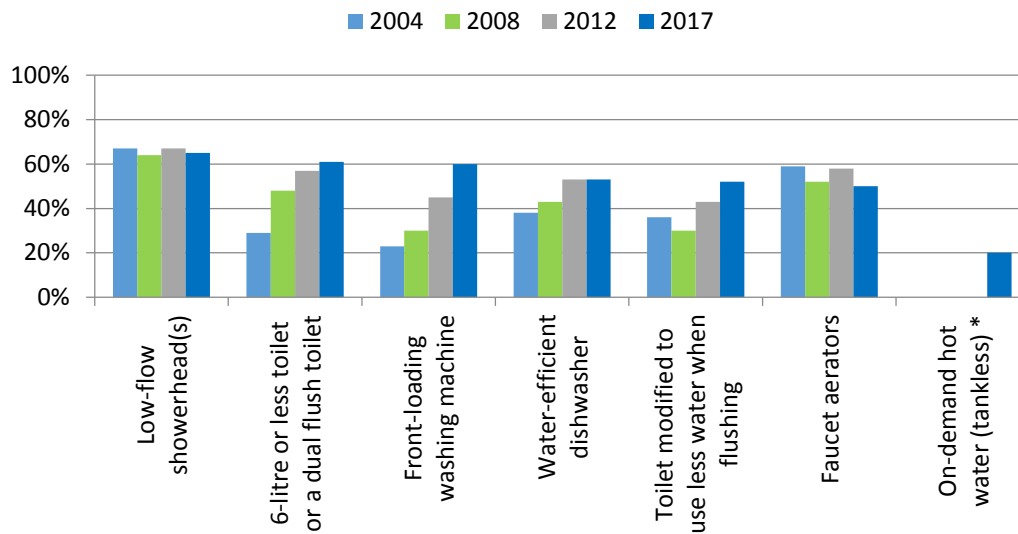
Installations of low-flow toilets (6L or less/dual flush) has increased slightly from the 2012 study, to 61%.

Figure B1-1 – Water Efficient Fixtures Owned/Installed

Rank order by 2017	2017	2012	2008	2004
Low-flow showerhead(s)	65%	67%	64%	67%
6-litre or less toilet or a dual flush toilet	61%	57%	48%	29%
Front-loading washing machine	60%	45%	30%	23%
Water-efficient dishwasher	53%	53%	43%	38%
Toilet modified to use less water when flushing	52%	43%	30%	36%
Faucet aerators	50%	58%	52%	59%
On-demand hot water (tankless) *	20%	--	--	--
None of the above *	3%			

\*New in 2016 survey

**Figure B1-2**  
**Water Efficient Fixtures Owned/Installed**



Front-loading washing machines have jumped up again, to 60% of households in the 2017 survey.

Existing toilets that use more water continue to be modified. 52% of residents told us they have modified a toilet in their home to use less water when flushing.

About half (50%) of residents say they have faucet aerators.

For the first time, residents were asked about on-demand hot water, and 20% of residents said the hot water for their home was generated using a tankless, on-demand system.

## Respondent Sub-Segment Findings

### *Low-flow showerheads*

- Those 35-54 years (71%) and 55+ years (67%) are more likely to have than those 18-34 years (56%)
- Those that own their home (69%) more likely to have than those who rent (57%)
- Those who pay their water bills (69%) more likely to have than those who do not (60%)
- Those with income \$90k or higher (80%) are more likely to have than those with income \$50-\$99k (64%) and those with income under \$50k (66%)

### *Low-flow/dual flush toilets*

- Men (68%) are more likely to know or say they have one than women (55%)
- Those 35-54 years (71%) and 55+ years (69%) are more likely to have than those 18-34 years (38%)
- Those that own their home (71%) more likely to have than those who rent (34%)
- Those who pay their water bills (71%) more likely to have than those who do not (46%)
- Those with university or post-graduate (67%) are more likely than those with college education (56%) and high-school or less (37%)
- Those with income \$90k or higher (71%) and \$50-\$90k (69%) are more likely to have than those with income under \$50k (45%)

*Front-loading washing machine*

- Those 18-34 years (65%) and 35-54 years (63%) are more likely to have than those 55+ years (53%)
- Those that own their home (62%) more likely to have than those who rent (52%)
- Those with homes of 3+ people (67%) more likely than homes of two people (57%) and single person homes (46%)
- Those with university or post-graduate (60%) are more likely than those with college education (42%) and high-school or less (38%)
- Those with income \$90k or higher (67%) are more likely than those \$50-\$90k (57%) and those with income under \$50k (34%)

*Modified Toilet*

- Men (58%) are more likely to know or say they have one than women (47%)
- Those that own their home (54%) more likely to have than those who rent (44%)
- Those who pay their water bills (56%) more likely to have than those who do not (46%)
- Those with income \$50-\$90k(69%) are more likely to have than those with income \$90k or higher (48%) and under \$50k (35%)

*Faucet Aerators*

- Those 35-54 years (59%) are more likely to have than those 18-34 years (41%) and 55+ years (48%)
- Those that own their home (54%) more likely to have than those who rent (37%)
- Those who pay their water bills (55%) more likely to have than those who do not (41%)
- Those with income \$90k or higher (61%) are more likely than those \$50-\$90k (48%) and those with income under \$50k (44%)

*Tankless Hot Water (New for 2017)*

- No differences are statistically significant

**B2a. Other water-efficient fixtures**

*Does your household have any other water-efficient fixtures besides those mentioned?*

Only 3% of residents stated they had other indoor water-efficient fixtures in their home, similar to previous surveys. In 2012, 4% said they had other fixtures. The item mentioned by most of these residents was a water filter on their kitchen tap.

## B2b. Number of Toilets

How many toilets are there in your household?

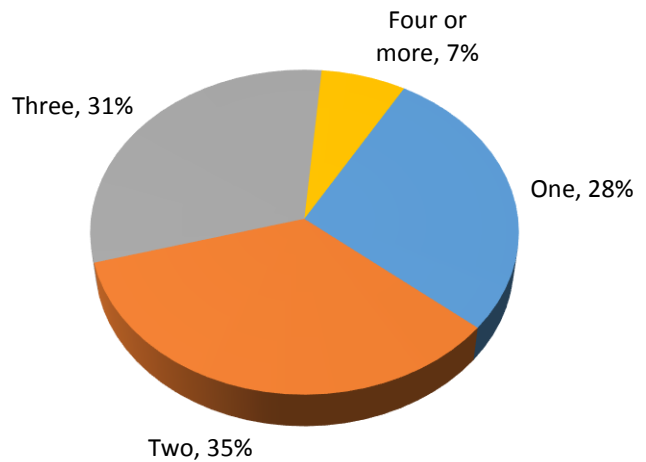
The average number of toilets in homes in the CRD is 2.2:

- 28% of residences have one toilet
- 35% of residences have two toilets
- 31% of residences have three toilets
- 7% of residences have four or more toilets

The number of toilets in the home is impacted by a number of factors:

- Renters (63%) significantly more likely to have one toilet compared to owners (15%)
- Single person households (57%) are more likely to have one toilet compared to two person households (25%) and households of three or more (16%)
- Households of three or more are the most likely to have four or more toilets (12%) compared to two person households (2%) and single person households (<1%)
- Those with incomes under \$50k are most likely to have one toilet (59%), compared to incomes of \$50-\$90k (22%) and \$90k+ (13%)
- Those living in the Saanich Peninsula (62%) were more likely to have 3+ toilets than those in the Western Communities (43%) and the Core (32%)

**Figure B2b-1**  
**Toilets In Home**  
(Base - Full Sample)



## B2c. Low Flow Toilets

Of that number, how many are low-flow (6 litres or less per flush)?

Figure B2c-1 – Number of Toilets vs. Low-Flow

		Low-Flow toilets in the home				
		None	One	Two	Three	Four+
Total toilets in the home	One	60%	40%	--	--	--
	Two	46%	16%	39%	--	--
	Three	20%	8%	20%	53%	--
	Four+	20%	3%	8%	15%	54%

Residents were asked how many of the toilets in their home were low-flow or dual flush (6L or less). Across all households in the study, 2 in 5 homes (40%) have no low-flow toilets.

In Figure B2c-1, we look at the number of low-flow toilets versus the number of toilets in the home. Those with only one toilet were most likely to not have any low-flow toilets—

where 60% of toilets are not low-flow/dual flush, compared to 46% where there are two toilets in the home, and only 20% in homes with 3 or more toilets.

Other significant differences:

- Renters (66%) are significantly more likely to have zero low-flow toilets in their home, compared to those who own (30%)

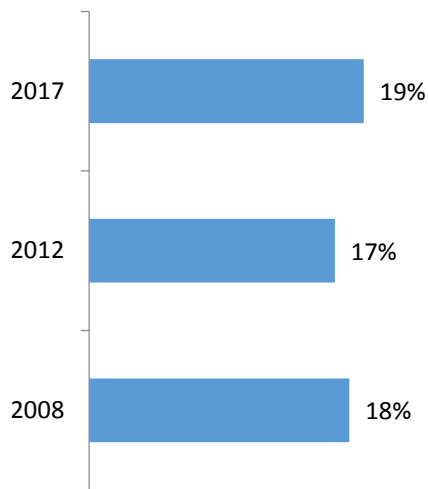


- Tied to that, those who do not pay their own water bill (55%) are much more likely to have zero low-flow toilets compared to those who do pay their own water bill (30%)
- Those with incomes under \$50k are the most likely to have zero low-flow toilets (56%) compared to those with income of \$50-\$90k (30%) and those with incomes \$90k+ (30%)

### B3. Toilet Leaks

*In the past year, have you checked any of your toilets for leaks by putting food colouring or dye tablets in the toilet tanks in your home?*

**Figure B3-1**  
**Checked toilets for leaks?**  
(Base-Full Sample)



Similar to previous surveys in 2008 and 2012, less than 1 in 5 homes (19%) have checked their toilets for leaks using food colouring or dye tablets in the past year.

Statistically speaking, there were no significant differences in likelihood to have tested across the various analysis variables.

### B4. Indoor Water Conservation Behaviours

*How often do you do each of the following, if at all?*

Residents were asked how often they participate in specific indoor water conservation behaviours. Four of the activities have been asked in previous surveys, and two were added in 2017:

- 78% of residents say they “always” turn off the faucet while shaving, brushing teeth, etc., statistically similar to previous years
- 63% of residents say they “always” do fewer loads of laundry (*New in 2017*)
- 55% of residents say they “always” keep drinking water cold in the fridge, a return to range more similar to the 2008 survey, significantly higher than what residents reported in 2012
- 53% of residents say they “always” run their dishwasher less frequently (*New in 2017*)
- 47% of residents say they “always” take shorter showers, similar to previous surveys
- 31% of residents say they “always” flush the toilet infrequently, slightly higher than reported in 2012, but still lower than the 2004 and 2008 surveys

Figure B4-1 – Indoor Water Conservation Behaviours

Rank order by "Always" in 2017 (Base - Full Sample)	2017	2012	2008	2004
<b>Turn off faucet while shaving, brushing teeth, etc.</b>				
Always	78%	71%	76%	75%
Sometimes	16%	24%	19%	18%
Never	6%	5%	5%	6%
<b>Fewer loads of laundry (New for 2017)</b>				
Always	63%	--	--	--
Sometimes	24%	--	--	--
Never	13%	--	--	--
<b>Keep drinking water in the fridge</b>				
Always	55%	44%	60%	68%
Sometimes	10%	15%	14%	9%
Never	35%	40%	24%	21%
<b>Run dishwasher less frequently (New for 2017)</b>				
Always	53%	--	--	--
Sometimes	16%	--	--	--
Never	25%	--	--	--
<b>Consciously take short showers</b>				
Always	47%	49%	51%	52%
Sometimes	35%	39%	36%	37%
Never	18%	12%	11%	10%
<b>Flush the toilet infrequently</b>				
Always	31%	27%	35%	36%
Sometimes	37%	43%	41%	39%
Never	32%	29%	24%	24%

NOTE: Don't know responses excluded. Totals may not always add to 100%

### Respondent Sub-Segment Findings

#### *Turn off faucet while shaving, brushing teeth, etc.*

- Those 18-34 years (85%) were more likely to say "always" (85%) than those 35-54 years (77%) and those 55+ years (73%)

#### *Fewer loads of laundry (New for 2017)*

- No differences are statistically significant

#### *Keep drinking water in the fridge*

- Home owners (59%) are more likely to say "always" than renters (42%)
- Those who pay their own water bill (58%) are more likely to say "always" than those who do not pay their water bill (49%)

*Run dishwasher less frequently (New for 2017)*

- No statistically different differences by sub-segment to report

*Consciously take shorter showers*

- Those who pay their own water bill (53%) are more likely to say “always” than those who do not pay their water bill (38%)

*Flush the toilet infrequently*

- Home owners (34%) are more likely to say “always” than renters (24%)
- Those who pay their own water bill (35%) are more likely to say “always” than those who do not pay their water bill (26%)

**B5. Other Indoor Water Conservation Measures**

Are there any *other methods of indoor water conservation measures that you may practice besides the one(s) you just mentioned?*

10% of residents mentioned they use/have other methods of indoor water conservation measures. This was lower than in previous surveys, partially because for the 2017 survey we asked directly about some other specific indoor measures than in the past in the previous question (doing fewer loads of laundry, running the dishwasher less frequently).

Similar to previous surveys, the item mentioned most often in this area was collecting/reusing household water or greywater to water plants or for cleaning (29%).

Additional mentions were to “use the minimal amount of water required” for a task (18%), to have water efficient appliances (7%), to use the shower instead of the bath (5%), and to use filtered/chilled water for drinking (4%).

**B6. Lawns**

*Do you have a lawn to look after at your primary residence?*

More than 3 in 5 residents in this research have a lawn (62%).

In 2017, the number of survey participants who have a lawn is slightly lower than in previous years.

This is a result of a corresponding slight increase in the number of survey participants who live in multi-residential apartments or condominiums (27% of residents in 2017 vs. 21% in 2012).

**Figure B6-1**  
**Has a Lawn?**  
(Base = Full Sample)



Respondent Sub-Segment Findings

- Those 35-54 years were most likely to have a lawn (73%) compared to those 18-34 years (65%) and those 55 years and older (51%)
- Home owners (73%) were more likely to have a lawn than renters (33%)
- Those in larger households were more likely to have a lawn – 3+ person households (79%) compared to 2 person households (55%) and single person (33%)
- Those who pay their water bills are significantly more likely to have a lawn (86%) than those who do not (24%)
- Those with incomes of \$90k+ are most likely to have a lawn (79%) compared to those \$50-\$90k (73%) and those with incomes under \$50k (40%)
- Those living in the Saanich Peninsula are most likely (81%), followed by those in the Western Communities (75%), compared to those living in the Core municipalities (55%)

**B7. Gardens**

*Do you have trees, flowers, shrubs or vegetable gardens to look after at your primary residence?*

More than 3 in 5 residents in this research have a garden (61%).

In 2017, the number of survey participants who have a garden is slightly lower than in previous years.

This is a result of a corresponding slight increase in the number of survey participants who live in multi-residential apartments or condominiums (27% of residents in 2017 vs. 21% in 2012).

Respondent Sub-Segment Findings

- Those 35-54 years were most likely to have a garden (69%) compared to those 18-34 years (59%) and those 55 years and older (56%)
- Home owners (73%) were more likely to have a garden than renters (28%)
- Those in larger households were more likely to have a garden – 3+ person households (74%) compared to 2 person households (58%) and single person (37%)
- Those who pay their water bills are more likely to have a garden(80%) than those who do not (31%)
- Those with incomes of \$90k+ are most likely to have a garden (78%) compared to those \$50-\$90k (69%) and those with incomes under \$50k (40%)
- Those living in the Western Communities (79%) or Saanich Peninsula (78%) are more likely to have a garden, compared to those living in the Core municipalities (54%)

**Figure B7-1**  
**Has a Garden?**  
(Base = Full Sample)



## B8. Lawn Watering

*Do you water your lawn?*

In the 2017 study, 45% of those with a lawn will water it (at least once a year).

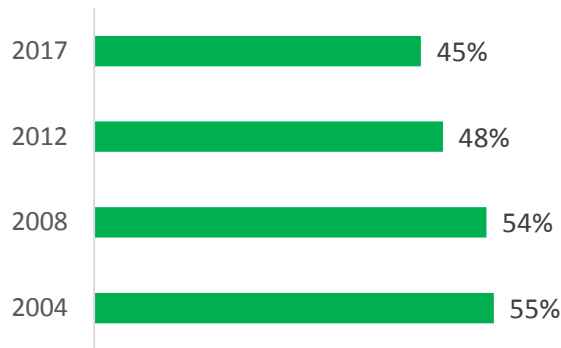
This number has decreased significantly over the course of this survey, from 55% in 2004.

The trend to fewer people watering their lawn is consistent with other municipalities and regions.

Males (49%) are slightly more likely to say they water the lawn than females (41%).

There were no other statistically significant differences to report.

**Figure B8-1**  
**Do you Water your Lawn?**  
(Base - Has a lawn)



## B9. Change in lawn watering frequency over four years

*Do you water your lawn less frequently than you did four years ago?*

Over half (58%) of residents say they are watering less frequently today than they did four years ago. This question was asked in 2012, when 48% of residents said they are watering less frequently.<sup>1</sup> A small but significant portion of residents with a lawn (12%) said they did not know if they are watering less frequently today. Those 35-54 years were most likely to say they are watering less frequently (65%), compared to those 55+ years (54%) and 18-34 years (50%).

## B10. Current lawn watering frequency

*How often do you water your lawn during the summer months?*

*Figure B10-1 – Lawn Watering Frequency (not asked in 2004)*

Base – Yes to watering lawn	2017	2012	2008
More than twice a week/daily	5%	3%	7%
Twice a week/designated days and hours	58%	58%	61%
Once a week	23%	23%	22%
Once every 2 weeks	5%	6%	4%
Once a month	1%	2%	1%
Less than once a month	4%	5%	3%
Don't know	4%	3%	2%

A majority of those who do water their lawns are doing it as designated in the watering by-law.

58% of residents are watering twice a week or as designated, similar to the 2012 and 2008 studies.

There were no statistically significant differences to report.

<sup>1</sup> In the 2012 survey, the question asked “less frequently than 3 years ago”, not four.

### B11. Average length of watering

*For the times you water your lawn, how long do you typically water your lawn?*

A large majority of residents who water their lawn report they water it for 30 minutes or less on average (79%).

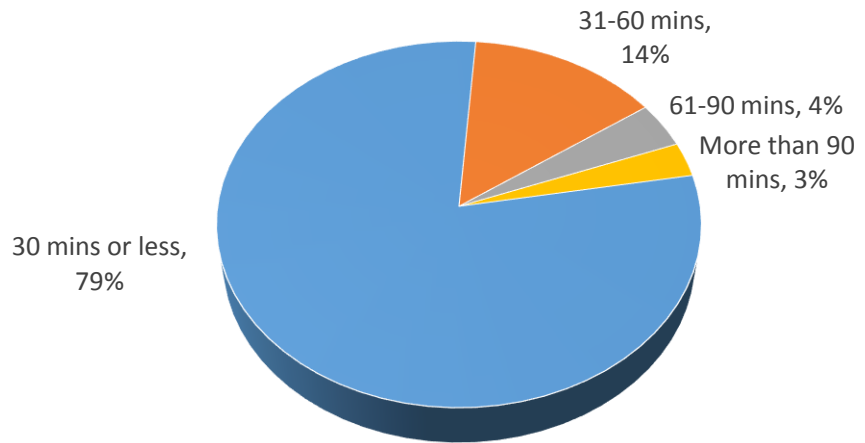
A further 14% will water on average 31-60 minutes.

7% of residents who water their lawn will water for more than an hour per time on average.

When reviewing against lawn watering, all those who water most often are watering for less than 30 minutes, and in the other categories (twice a week, weekly, etc.), about 1 in 5 (20%) residents waters for over 30 minutes.

NOTE: This was a new question for 2017.

**Figure B11-1**  
**Length of Lawn Watering**  
(Base - Yes to watering lawn)



### B12 In-Ground Irrigation Systems

*Do you have an in-ground irrigation system?*

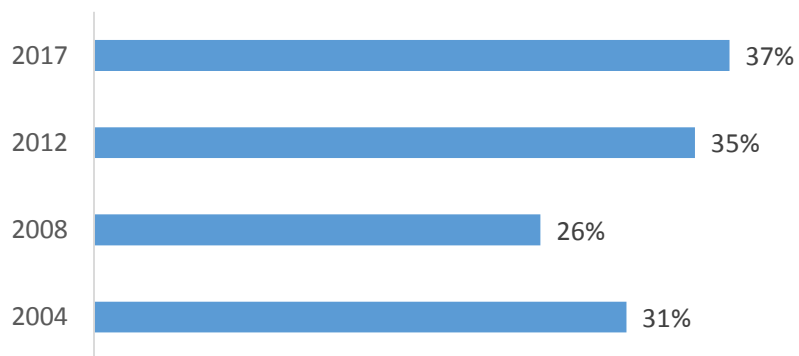
Just over one-third of residents in the 2017 survey that have a lawn, also had an in-ground irrigation system.

This number is statistically similar to the 2012 results, but higher than the 2008 and 2004 surveys.

Residents living in the Core municipalities were least likely to have in-ground irrigation (32%).

Those in the Western Communities (43%) and the Saanich Peninsula (44%) were more likely to have in-ground irrigation.

**Figure B12-1**  
**Have an In-Ground Irrigation System?**  
(Base - Has a lawn and/or a garden)



**Respondent Sub-Segment Findings**

- Those with university education (42%) are most likely have in-ground irrigation, followed by those with college education (32%) and high-school or less (23%)
- Those with incomes \$90k+ are most likely to have (40%), compared to those with income \$50-\$90k (31%) and under \$50k (32%)

**B13. Use of in-ground irrigation system**

*Do you use your in-ground irrigation system?*

About 9 out of 10 residents in the 2017 survey who have an in-ground irrigation system (91%) say they make use of their system, similar to the 94% result from 2012.

**B14. Features of in-ground irrigation system**

*Does your system have a...?*

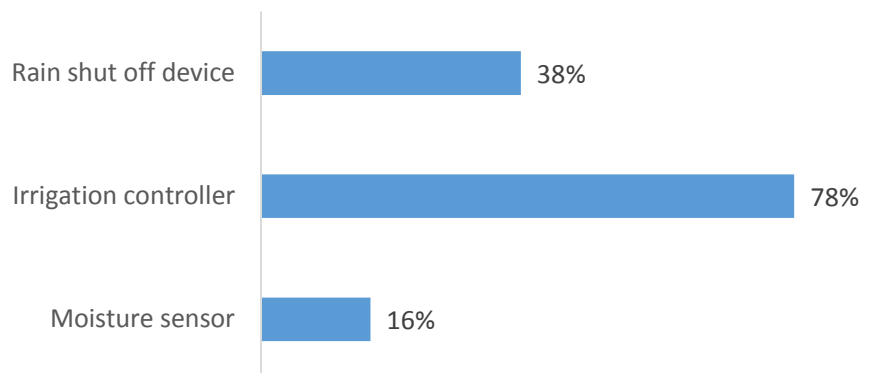
For the 2017 survey, a question was added to get more information about the features of in-ground irrigation systems in use.

A majority (78%) have a system with an irrigation controller (a further 11% did not know).

38% have a rain shut off device (a further 6% did not know).

16% have a moisture sensor in their system (a further 9% did not know).

Figure B14-1  
Irrigation System Features (new in 2017)  
(Base - Have and use an in-ground irrigation system)



**B15. Checking the system**

*How often is your system checked for leaks and performance?*

Just under half of the residents in this survey with an in-ground irrigation system (47%) check it for leaks and performance on a yearly basis. 34% check it (or have it checked) twice a year. 11% did not know how often it is checked. The balance were a mix of those who do not check it/have never checked it (5%), or those who check more often than twice a year (3%).

## B16. Watering Schedule

*Who sets the watering schedule?*

Those with an irrigation controller were asked who sets the watering schedule, and how often they adjust it during the watering season (May to September). Two-thirds of this group (66%) set the watering schedule themselves, a further 30% have it set by an irrigation professional or landscaper, and a few people (<2%) have it set by their neighbour/friend/handyperson. About half of this group of residents (51%) will adjust their system's watering schedule according to weather changes, 14% will adjust on a monthly basis, 24% will adjust once a season. The balance (11%) did not know how often their system's watering schedule was adjusted.

## B17. Adjusting the Watering Schedule

*How often is the system's watering schedule adjusted during the watering season (May to September)?*

Within the group who have an irrigation controller, about half (51%) say they adjust their system as the weather changes. 35% are adjusting their watering schedule once a month or less often, and the balance are not sure how often it changes.

## B18. Changes in Weather

*Do you adjust your irrigation system schedule to account for changes in weather?*

If residents are adjusting once a month or less, we asked them specifically if they adjust the watering schedule to account for changes in weather. Interestingly, three-quarters of this group agreed they do adjust based on weather changes. However, many of these people in the previous question indicated they may only adjust their watering schedule once or twice a year.

## B19. Replacing in-ground irrigation

*Do you have any plans to replace your current in-ground irrigation system?*

8% of residents who currently have an in-ground irrigation system have plans to replace their current system.

## B20. Installing in-ground irrigation

*Do you have any plans to install an in-ground irrigation system?*

11% of those with lawns and/or gardens that do not currently have in-ground irrigation have plans to install one in the future.



**B21. Micro-Drip Irrigation Systems**

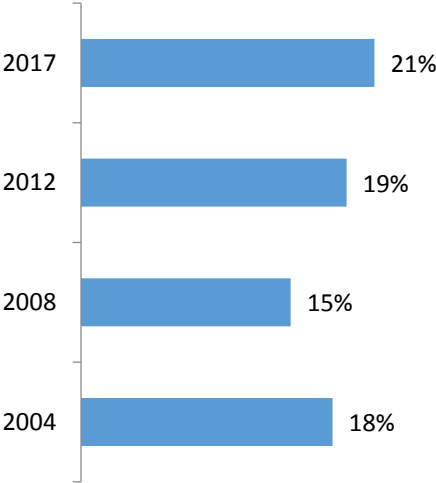
*Does your household have a micro-drip irrigation system?*

The trend related to micro-drop irrigation systems remains steady at just under 20%.

In 2017, 21% of residents with a garden reported having a micro-drip irrigation system installed.

Statistically, this is similar to the 2012 and 2004 surveys that found 19% and 18% respectively, but is slightly higher than the 2008 survey where 15% of residents had one.

**Figure B21-1**  
**Have Micro-Drip Irrigation?**  
(Base = Have a garden)



## B22. Outdoor Water Conservation Measures – Lawns

How often does your household practice the following, if at all?

Figure B22-1 – Outdoor Water Conservation Behaviours

Rank order by "Always" in 2017 (Base - Full Sample)	2017	2012	2008	2004
<b>Water your lawn before 10am or after 7pm (Base: Have a lawn and water it)</b>				
Always	82%	93%	82%	85%
Sometimes	9%	5%	17%	13%
Never	5%	2%	--	2%
<b>Water your garden before 10am or after 7pm (Base: Have a garden)</b>				
Always	71%	74%	73%	75%
Sometimes	20%	20%	21%	19%
Never	7%	5%	6%	5%
<b>Use a hand held hose with a shut off nozzle on your hose (Base: Have a lawn and water it and/or have a garden)</b>				
Always	57%	76%	75%	74%
Sometimes	26%	6%	3%	7%
Never	15%	16%	20%	16%
<b>Use native or drought-tolerant plants when doing landscaping (Base: Have a lawn and/or garden)</b>				
Always	34%	26%	22%	20%
Sometimes	35%	51%	44%	46%
Never	26%	18%	20%	24%
<b>Do not water the lawn at all (Base: Have a lawn)</b>				
Always	48%	--	--	--
Sometimes	21%	--	--	--
Never	29%	--	--	--

NOTE: Don't know responses excluded. Totals may not always add to 100%

### Respondent Sub-Segment Findings

#### *Water lawn before 10am or after 7pm*

- Those with university education (90%) are most likely to say always, compared to those with college education (83%) or high school or less (52%)
- Those with incomes of \$90k are most likely to say always (95%), compared to those with income \$50-\$90k (90%) or under \$50k (68%)

#### *Water garden before 10am or after 7pm*

- Those 35-54 years are most likely to say always (79%) compared to those 55+ years (68%) and those 18-34 years (65%)
- Those with university education (76%) are most likely to say always, compared to those with college education (74%) or high school or less (53%)
- Those with incomes of \$90k are most likely to say always (87%), compared to those with income \$50-\$90k (71%) or under \$50k (76%)

*Use a hand held hose with a shut off nozzle*

- Those 35-54 years and 55+ years are more likely to say always (63%) compared to those 18-34 years (40%)
- Those with university education (62%) are most likely to say always, compared to those with college education (57%) or high school or less (45%)
- Those with incomes of \$90k are most likely to say always (70%), compared to those with income \$50-\$90k (60%) or under \$50k (55%)

*Use native or drought-tolerant plants*

- Those with university education (38%) are most likely to say always, compared to those with college education (32%) or high school or less (16%)
- Those with incomes of \$90k are most likely to say always (42%), compared to those with income \$50-\$90k (35%) or under \$50k (29%)

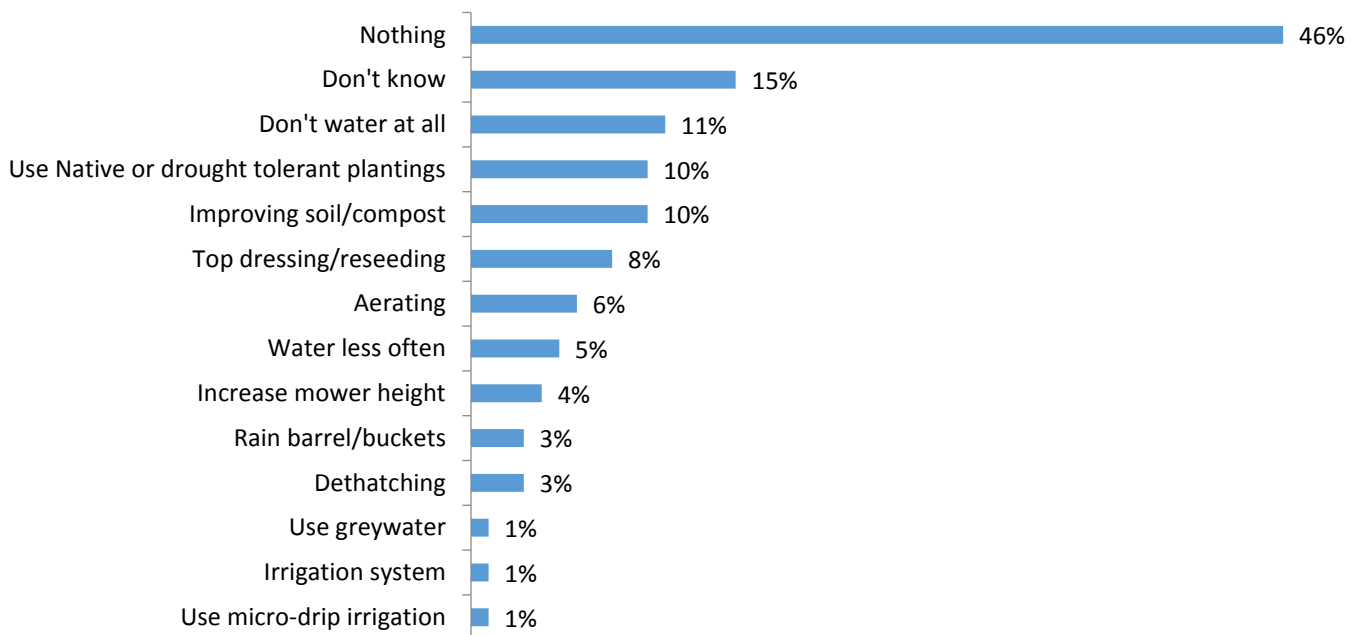
*Do not water the lawn at all*

- Men (55%) are more likely to say they do not water at all compared to women (43%)

**B23. Outdoor Water Conservation Activities – Lawns**

*What steps have you taken to increase the water conservation of your lawn? (Unaided)<sup>2</sup>*

**Figure B23-1 - Outdoor Water Conservation Measures - Lawn (Unaided)**  
(Base - Has a lawn)



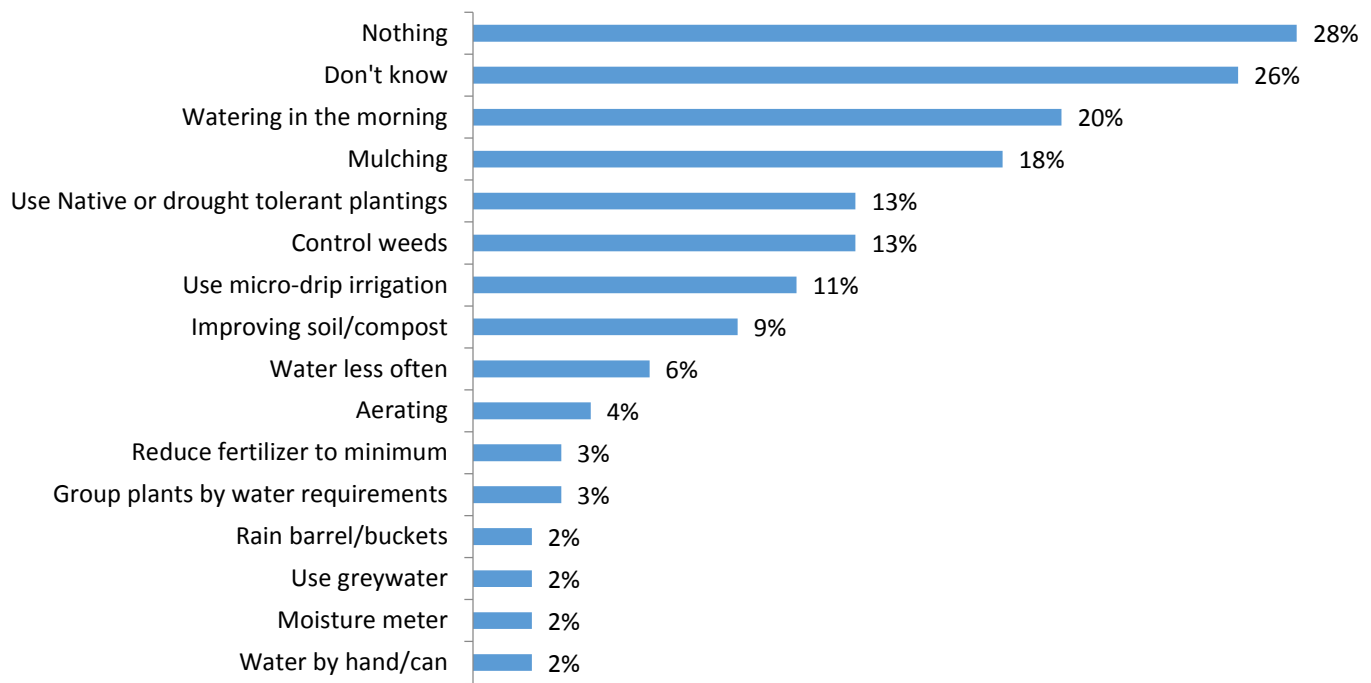
<sup>2</sup> For the 2017 survey, this question was adapted to be asked of all respondents with a lawn. In previous surveys the question was asked only if residents said “yes” to the question “Are there other methods of outdoor water efficiency that you may practice”. The results for 2017 are not comparable to previous years as a result.

This question was asked unaided – we recorded the answers residents provided. Over half (61%) either said “nothing” (46%) or “don’t know” (15%). Among the others, 11% said they don’t water their lawn at all to conserve water, 10% said they have converted to native or drought-tolerant plantings, or have improved their soil/compost (10%).

**B24a. Outdoor Water Conservation Activities – Gardens<sup>3</sup>**

*What steps have you taken to increase the water conservation of your garden (flowers, shrubs, trees, vegetables)?*

**Figure B24-1 - Outdoor Water Conservation Measures - Garden (Unaided)**  
(Base - Has a garden)



Similar to the lawn answers, just over half of residents (54%) did not provide any feedback, or do not try to conserve water use on their garden.

Among those who do, the primary reply was to water in the morning (20%), and to use mulch (18%). 13% have converted/are using native or drought-tolerant plantings, and 13% control weeds. 11% say they are using micro-drip irrigation in the garden.

<sup>3</sup> For the 2017 survey, this question was adapted to be asked of all respondents with a garden. In previous surveys the question was asked only if residents said “yes” to the question “Are there other methods of outdoor water efficiency that you may practice”. The results for 2017 are not comparable to previous years as a result.

## B24b. Converting to Vegetable Gardens

*Would you or are you considering converting some or all of your lawn/flower beds to vegetable gardens?*

New for the 2017 survey, residents who have a lawn and/or garden were asked if they would consider converting some or all of their lawn/flower beds to vegetable gardens.

Overall, just under one-third of these residents (31%) said they would consider converting to vegetable gardens.

### Respondent Sub-Segment Findings

- Those 35-54 years were more likely to say they would consider (37%) than those 18-34 years (32%) and 55+ years (22%)
- Those who pay the water bill are more likely to consider (35%) than those who do not (13%)
- Those with incomes of \$50-\$99k are more likely to consider (43%) than those with incomes of \$90k+ (38%) and under \$50k (18%)

## B24c. Converting to Vegetable Gardens – Why/why not?

*Why would you, or are you, considering converting some or all of your lawn/flower beds to vegetable gardens?*

This group of residents was asked why they would/would not consider converting part of their lawn or flower beds. Their answers were:

*Figure B24-2 - Why Consider/Not Consider Converting Lawns/Flower Beds to Vegetable Gardens?*

<i>(Base – Have a lawn and/or garden)</i>	Overall	Would consider	Would not consider
Already have vegetable gardens	25%	26%	24%
Don't want to	15%	1%	22%
Want to grow own food/benefit from efforts	12%	37%	--
Too much work	10%	1%	14%
No space	10%	1%	13%
Time commitment	8%	3%	11%
Better use of available space	5%	15%	--
Poor growing conditions	4%	1%	6%
Age/mobility issue	4%	--	5%
Save money	3%	8%	1%
Brings rodents/animals	3%	--	4%
Enjoy gardening	1%	4%	--

**B25. Other methods of outdoor water conservation**

*Are there other methods of outdoor water conservation that you may practice besides the ones you just mentioned?*

19% of residents said they practice other methods of outdoor water conservation over and above what had already been asked about.

**B25a. Other methods of outdoor water conservation (2)**

*What other methods of outdoor water conservation do you practice?*

The primary replies were:

- 56% say they are using rain barrels
- 10% say they are reusing household grey water
- 5% say they are hand watering plants
- 3% talked about using mulch in their garden beds
- 3% are watering their plants less than they used to

**C. PERCEPTIONS OF WATER CONSERVATION OPTIONS**

The next set of questions explores your opinions about what the CRD should be doing to promote water conservation.

**C1. CRD Role in Encouraging/Implementing Water Conservation**

*On a scale of 1 to 5, where ‘1’ is “Not Important At All”, and ‘5’ is “Very Important”, how important is it to you personally for the CRD to...?*

Once again, the survey explored two aspects of the CRD’s promotion of water efficiency.

First, is the importance of encouraging people to practice water conservation, where 80% of residents feel this is either “very” important (62%) or “somewhat” important (18%). This score is statistically similar to the 2012 survey, but lower than the 2008 and 2004 surveys.

Second, is the importance of being able to implement water conservation programs, where a similar proportion of residents (77%) feel that it is either “very” important (55%) or “somewhat” important (22%). This score is slightly higher than 2012.

*Figure C1-1 – Importance of CRD Promoting Water Efficiency*

	2017	2012	2008	2004
<b>a. Importance of encouraging people to practice water conservation</b>				
Important (4,5)	80%	82%	91%	89%
Neutral (3)	14%	13%	6%	7%
Not Important (1,2)	5%	4%	2%	3%
Don’t know/No answer	1%	1%	1%	1%
<b>b. Importance of being able to implement water conservation programs</b>				
Important (4,5)	77%	73%	80%	81%
Neutral (3)	15%	17%	12%	14%
Not Important (1,2)	7%	7%	3%	3%
Don’t know/No answer	1%	3%	5%	2%

Respondents Sub-Segment Findings

a. Importance of encouraging people to practice water conservation

- Women (85%) are more likely to say it is important than men (75%)

b. Being able to implement water conservation programs

- Women (82%) are more likely to say it is important than men (70%)
- Those with incomes under \$50k (85%) are more likely to say it is important than those with incomes of \$50-\$99k (77%) and incomes over \$90k (70%)

**C2. CRD Water Conservation Bylaw – Awareness**

*The CRD Water Conservation bylaw limits lawn watering from May 1<sup>st</sup> to September 30<sup>th</sup>. Before this survey, how aware would you say you were of the CRD Water Conservation bylaw which limits lawn watering?*

Residents were read a description (below) of the CRD Water Conservation Bylaw, and then asked how aware they are of the bylaw. 78% of residents in the 2017 survey say they are “very” (70%) or “somewhat” (8%) aware of the bylaw. This is higher than the 2008 and 2012 survey results, but statistically similar to the 2004 survey.

**CRD Water Conservation Bylaw**

*The CRD Water Conservation bylaw limits lawn watering from May 1st to September 30th. Stage 1 of the Bylaw allows watering of lawns between the hours of 4am and 10am, and 7pm to 10pm on the following days:*

- *Even numbered addresses on Wednesday and Saturday*
- *Odd numbered addresses on Thursday and Sunday*

*Flowers, trees, vegetable gardens, and shrubs may be watered using a sprinkler on any day during the scheduled times, or at any time of any day with the use of a hand-held container, a hand-held hose with a shut-off nozzle, or micro-irrigation system.*

**Figure C2-1**  
**Very/Somewhat Aware of the CRD Water Conservation Bylaw**  
 (Base - Full Sample)



Respondent Sub-Segment Findings

- Those 55+ years (87%) are more likely to be aware than those 35-54 years (80%) or 18-34 years (62%)
- Home owners (82%) are more likely to be aware than renters (67%)
- Those who pay their water bill (86%) are more likely to be aware than those who do not (65%)

- Those with incomes over \$90k (82%) and \$50-\$99k (81%) are more likely to be aware than those with income under \$50k (69%)
- Those living in the Saanich Peninsula (91%) are more likely to be aware than those living in the Core municipalities or Western Communities (both 76%)

**C3a. Recall source of awareness for CRD Water Conservation Bylaw**

*Do you recall where you heard or read about the watering bylaw that is in effect in the CRD?*

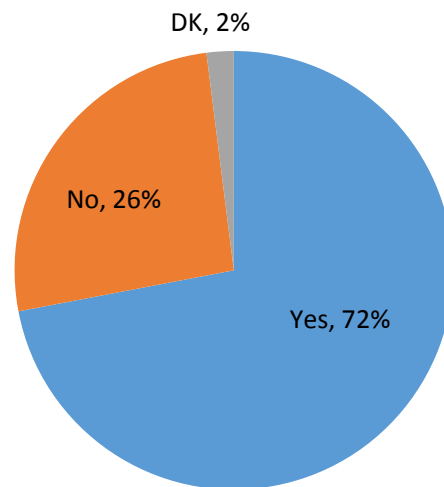
Just less than three-quarters (72%) of those aware of the bylaw recall sources of awareness.

This is lower than in previous surveys where 83-85% of residents recalled a source of awareness. Partially this could be that the watering bylaw is now a more mature program that has been in place for a long time.

Those 55+ years (78%) and 35-54 years (73%) are more likely to recall sources of awareness than those 18-34 years (62%).

Home owners (75%) are more likely to recall than renters (62%).

**Recall source of awareness?**  
(Base - Those aware of the watering bylaw)

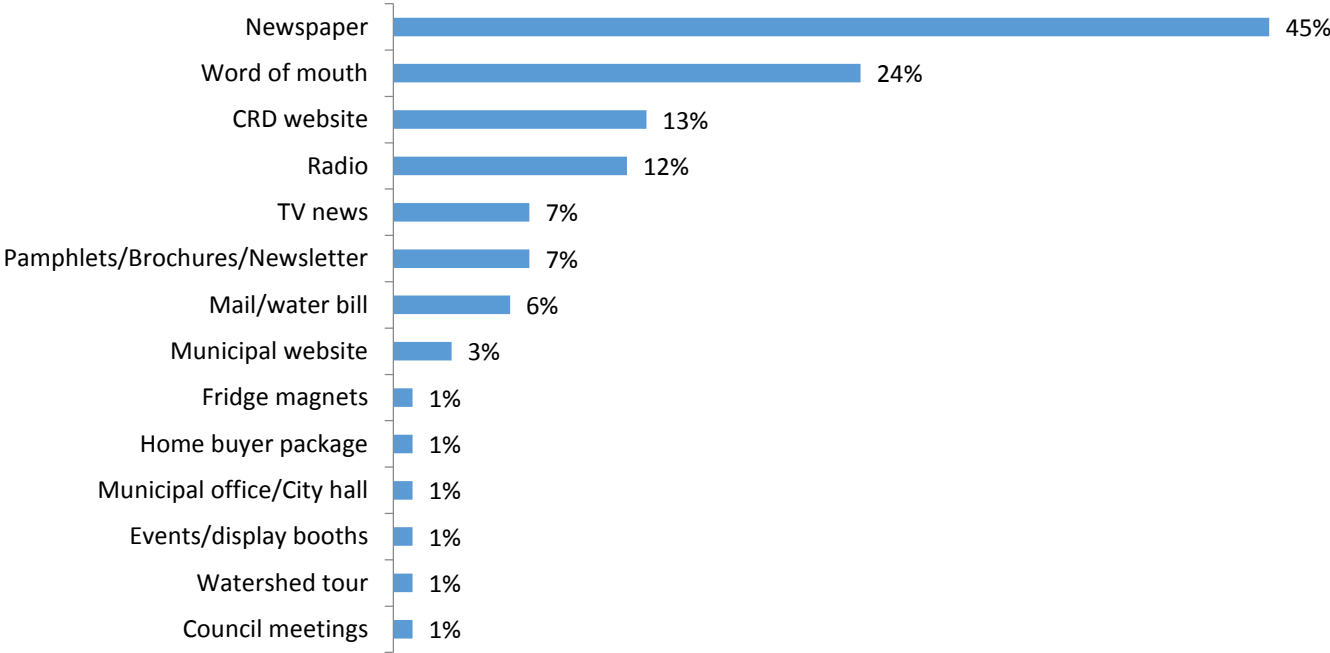




C3b. CRD Water Conservation Bylaw – Source of Awareness

Where did you hear or read about the watering bylaw that is in effect in the CRD?

Figure C3-1  
CRD Water Conservation Bylaw - Source of Awareness  
(Base - Aware of bylaw and recall source)



The newspaper was the primary source for information (45%) mentioned by residents who heard or read about the Watering bylaw. Word of mouth was the next most mentioned source (24%). The CRD website was mentioned by 13% of residents.

**C4. CRD Water Conservation Bylaw – Level of Support**

On a scale of 1 to 5, where ‘1’ is “Strongly Oppose”, and ‘5’ is “Strongly Support”, to what extent do you support the watering bylaw?

A large majority of residents support the CRD Water Conservation Bylaw.

Overall, 84% say they support the bylaw, between those who “strongly” support (68%) and “somewhat” support (16%).

Only 6% are opposed. A further 8% are neutral about it.

Support was universal across all sub-segments. There were no statistically significant differences.

**Figure C4-1**  
**Support for CRD Water Conservation Bylaw**  
(Base - Full Sample)

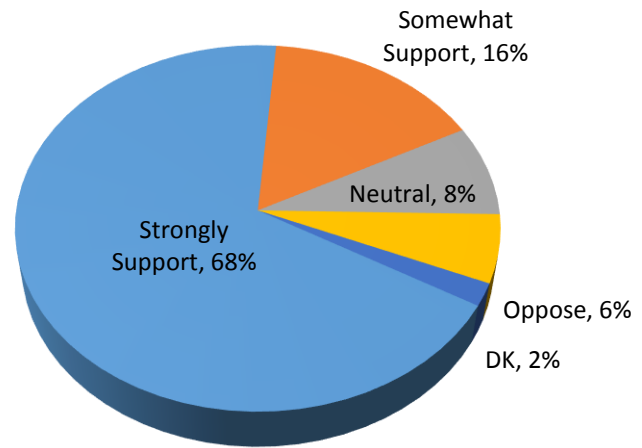


Figure C4-2 – Support for CRD Water Conservation Bylaw

Rank order by 2017	2017	2012	2008	2004
Strongly Support (5)	68%	63%	66%	65%
Somewhat Support (4)	16%	22%	21%	18%
Neutral (3)	8%	10%	9%	11%
Oppose (1,2)	6%	5%	3%	6%
Don't know	2%	--	1%	--

Support for the bylaw has remained strong throughout the last 12 years of this survey – from 83% overall in 2004, to 84% overall in 2017.

**C5. CRD Water Conservation Bylaw – Acceptability of Watering Hours**

On a scale of 1 to 5, where ‘1’ is “Not Acceptable At All”, and ‘5’ is “Very Acceptable”, in addition to two lawn-watering days each week, how acceptable to you is the timing allotted by the watering bylaw?

Similarly, residents are supportive of the terms of the bylaw – the amount of time allotted for them to water in the course of an average week.

82% of residents find the time acceptable, between those who find it “very” acceptable (60%) and those who find it “somewhat” acceptable (22%).

There were no statistically significant differences among sub-groups regarding how acceptable residents find the allotted timing.

**Figure C5-1**  
**Acceptable Time for Watering?**  
(Base - Full Sample)

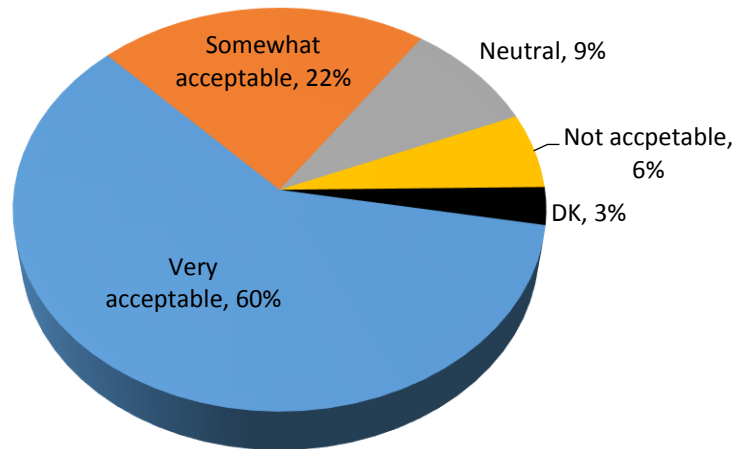


Figure C5-2 – Acceptable Time for Watering

Rank order by 2017	2017	2012	2008	2004
Very acceptable (5)	60%	65%	66%	60%
Somewhat acceptable (4)	22%	19%	19%	19%
Neutral (3)	9%	8%	7%	11%
Not acceptable (1,2)	6%	6%	5%	6%
Don't know	3%	2%	3%	4%

Scores for how acceptable residents find the time allotted has remained stable throughout the 12 years of this survey – from 79% overall in 2004 to 82% overall in 2017.

### C6. Two-Tiered Summer Rates

Using the same scale (1-5), how acceptable would you find two-tiered rates for summer water use (one rate for normal usage and a higher-rate for consumption levels above the normal usage rates)?

Residents were asked how they feel about the idea of implementing a two-tier rate structure for water in the summer (base + premium for high consumption levels).

Figure C6-2 – Two-Tiered Watering Rates

Rank order by 2017	2017	2012	2008	2004
Very acceptable (5)	32%	30%	39%	35%
Somewhat acceptable (4)	18%	20%	21%	20%
Neutral (3)	21%	18%	15%	22%
Not acceptable (1,2)	24%	25%	20%	17%
Don't know	5%	7%	5%	6%

The results are very similar to the 2012 survey. 50% find this idea either “very” acceptable (32%) or “somewhat” acceptable (18%).

There were no statistically significant differences in opinion in the sub-groups for 2017. Interestingly, even looking at the groups who pay their own water bill (48% acceptable) or not (52% acceptable), the results are not significantly different.

### C7. Total cost of Utility Services

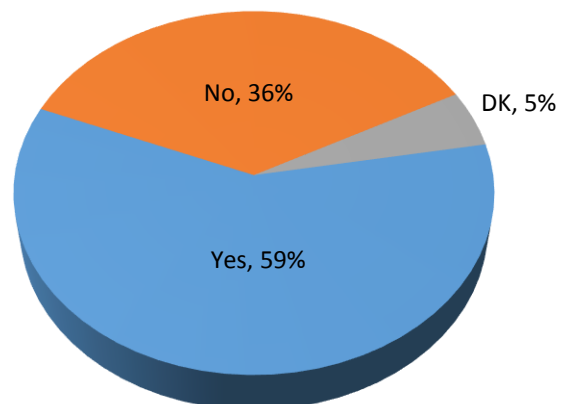
Do you consider your total cost of utility services (water and sewer) when considering your household’s water use behaviour?

About 3 in 5 residents in this survey (59%) say they do consider the total cost of utility services when considering their household’s water use behaviour.

#### Respondent Sub-Segment Findings

- Those 35-54 years are most likely to say they consider (71%) compared to those 18-34 years (53%) and 55+ years (53%)
- Home owners are more likely to say they consider (64%) compared to renters (44%)
- Households of 3+ people are most likely to consider (66%), compared to two person households (59%) and single person households (41%)
- Those who pay for the water bill (70%) more likely than those who do not (41%)
- Those in the Saanich Peninsula (77%) more likely than the Western Communities (71%) and the Core Municipalities (52%)

Figure C7-1  
Consider Total Cost of Utility Services?  
(Base- Full Sample)



## D. AWARENESS OF CRD WATER INFORMATION AND PROGRAMS

### D1. Social Media Usage

*How often, if at all, do you use the following social media platforms for personal reasons?*

63% of residents are using one or more of these three social media platforms on at least a monthly basis.

The most popular of the three platforms is Facebook, where over half of residents (54%) are using Facebook at least once a week.

<i>Figure D1-1</i>	Facebook	Twitter	Instagram
Daily/several times a week	45%	16%	20%
Once or twice a week	9%	5%	5%
1-3 times a month	6%	4%	3%
Less often/Rarely/Never	40%	73%	71%
Don't know	<1%	2%	1%

This is more than double the other platforms, where 21% use Twitter on a weekly basis, and 25% use Instagram.

Details for weekly social media users:

- Women (64%) are more likely to use social media weekly than males (46%)
- Those 18-34 years are most likely to use social media weekly (79%) compared to those 35-54 years (57%) or those 55+ years (40%)
- Those who rent (70%) are more likely to use weekly than owners (51%)
- Those with households of three or more people are more likely (67%) than households of one or two people (46%)
- Those with post-secondary education (59%) are slightly more likely than those with high school or less (56%)
- Those with incomes over \$90k are more likely (64%) than those with incomes under \$90k (57%)

## D2. Awareness of CRD Social Media Accounts

Are you aware that CRD has social media accounts on Facebook and Twitter?

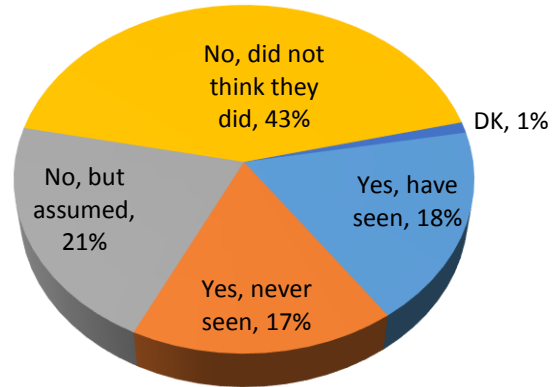
18% of residents in this survey are aware that CRD has social media feeds and have seen them.

Another 38% know/assume that CRD would have social media feeds but have never seen them, split between those aware of the feeds (17%) and those not aware (21%).

43% of residents are not aware of the social media feeds, and did not think CRD would have them.

There is a correlation between awareness and weekly social media usage. 45% of those who use social media (in this case Facebook, Twitter, or Instagram) at least once a week are aware (whether they have seen or not) that CRD has social feeds, compared to 21% of those who do not use social media on a weekly basis.

**Figure D2-1**  
**Aware of CRD Social Media?**  
(Base - Full Sample)



*Figure D2-2 – Social media usage frequency*

Base – Full Sample Use social media defined as users of Facebook, Twitter or Instagram	Total	Use social media weekly	Do not use social media weekly
Yes, have seen before	18%	25%	8%
Yes, but have never seen	17%	20%	13%
No, but assumed they would	21%	19%	24%
No, did not think they did	43%	36%	53%
Don't know	1%	--	2%

### D3. Awareness of CRD Water Conservation Programs/Communications

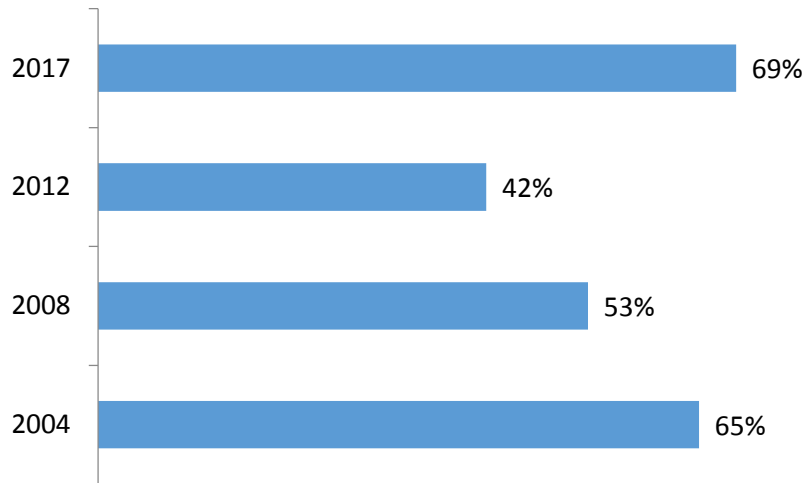
*Have you seen, read, or heard anything about CRD water conservation in the last year?  
(including some specific references)*

In the 2017 survey, 69% of residents told us they have seen, read or heard something about CRD water efficiency over the past year.

This is significantly higher than the last survey in 2012, but statistically similar to the 2004 survey.

Those who are university educated (73%) are more likely to say they have seen or read something, compared to those with college education (67%) or high school or less (59%).

**Figure D3-1**  
**CRD Water Conservation**  
(Base - Full Sample)



Over the past 5 years, several factors may have contributed to this increase in awareness of CRD Water Conservation Programs/Communications:

- In 2016, the Water Conservation Bylaw was amended and there was media attention surrounding the revisions
- In 2015/2016, the Province placed CRD into Drought Levels
- Two new workshops were added to CRD programs – the “Fix A Leak” workshop and the “Edible Garden” workshop, both of which have become very popular and garnered some attention

### D4. Sources of Awareness

*I’m going to read a list of places where you might have seen, read, or heard about CRD water conservation.*

Whether or not residents were aware of reading, seeing, or hearing specific messages about CRD water conservation, they were read a list of areas where the CRD has been active to check awareness and recall.

Media stories about CRD water conservation are mentioned most often as a source they had used to see or hear about CRD information. This is significantly higher than in 2012 (more than double). Some possible explanations:

- the question wording was changed to reflect a more modern “media” story than “news” story
- the more commonly understood term water “conservation” was used consistently in this study instead of water “efficiency” in previous surveys

Figure D4-1 – Sources of Awareness

Rank order by 2017 (Base – Full Sample)	2017	2012	2008	2004
A media story about CRD water conservation *	64%	29%	33%	49%
Friends/neighbours/word of mouth	58%	--	--	--
An advertisement about CRD water conservation	55%	42%	24%	25%
Information or display booth at a tradeshow or community event	30%	30%	--	--
Something on the CRD website about water conservation	30%	20%	--	--
Educational materials and/or learning resources about CRD water conservation provided to schools	21%	13%	--	--
A post or message on the CRD Facebook or Twitter feed(s)	13%	--	--	--
Watershed Tours	13%	--	--	--
A CRD workshop about water conservation	8%	5%	--	--
CRD info line	5%	--	--	--
None of the above	11%	--	--	--

\* In 2017, this was re-worded to say a “media” story, instead of simply a “news” story

#### Respondent Sub-Segment Findings

(NOTE: Only those categories with statistically significant findings are listed here)

##### *Friends/neighbours/word of mouth*

- Those 18-34 years were more likely to mention (70%) than those 35-54 years (57%) and those 55+ years (50%)

##### *Something on the CRD website about water conservation*

- Women (35%) more likely than men (25%)
- Those 35-54 years (39%) and 18-34 years (35%) are more likely than those 55+ years (20%)

##### *Educational materials and/or learning resources about CRD water conservation provided to schools*

- Women (26%) more likely than men (14%)
- Those 18-34 years (27%) and 35-54 years (23%) more likely than those 55+ years (15%)

##### *A post or message on the CRD Facebook or Twitter feed(s)*

- Those 18-34 years (27%) more likely than those 35-54 years (10%) or 55+ years (7%)

##### *A CRD workshop about water conservation*

- Women (11%) more likely than men (4%)



## D5. Sources of Awareness – Specific Media

Where did you see or hear the advertisement about CRD water conservation?

Although the numbers have dropped off over time, the Times Colonist remains the primary location for residents to see or hear information/advertising about CRD water conservation.

In 2017, 45% of residents mentioned seeing an advertisement in the Times Colonist, up slightly from the 42% in 2012, but lower than the 2008 (54%) and 2004 (56%) studies.

Community newspapers were mentioned second most often, consistently in the same range of 22-26% throughout the years of this survey.

Social media was listed in its own group for the first time, in that 6% of residents mentioned seeing an advertisement on Facebook or Twitter.

### Respondent Sub-Segment Findings

#### *Times Colonist*

- Men (51%) were more likely to mention than women (41%)
- Those 55+ years (60%) were more likely to mention than those 35-54 years (43%) and those 18-34 years (29%)
- Home owners (53%) were more likely to mention than renters (24%)

Figure D5-1 – Where did you see or hear the advertisement?

Rank order by 2017 (Base – Full Sample)	2017	2012	2008	2004
Newspaper – Times Colonist	45%	42%	54%	56%
Newspaper – Community (Saanich News, Gazette, Esquimalt News, Victoria News, etc.)	22%	26%	24%	23%
Radio – CFX (AM 1070)	13%	4%	4%	6%
TV – Channel 6 (CHEK)	10%	9%	16%	22%
TV – Channel 4 (Shaw)	7%	--	--	--
In the water bill	7%	1%	1%	1%
Social Media (Facebook/Twitter)	6%	--	--	--
On the bus	5%	--	--	--
Radio – The Q (100.3FM)	5%	2%	1%	1%
TV – Channel 9 (CTV)	4%	3%	--	--
Brochures/magnets/signs	3%	--	--	--
TV – Channel 8 (Global BC)	3%	1%	--	--
Demonstrations/Events	2%	--	--	--
CRD Website	2%	--	2%	4%
Radio – The Ocean (98.5 FM)	2%	--	2%	1%
Shopping Centres	1%	--	--	--
Other	3%	14%	6%	2%

## D6. Participation in Workshops/Educational Programs

*In the last year, have you personally participated in any workshops or education programs for water conservation run by the CRD? Which ones?*

Eight residents in the survey said they participated in workshops or programs by the CRD about water conservation (less than 2% of the sample).

When asked which program, three residents could not remember which workshop/program they attended. The others in no particular order, were:

- *“Something about septic fields, and another one I don’t remember...”*
- *“A workshop about gardening...”*
- *“Swan Lake Nature Conservatory Workshop...”*
- *“City hall workshop about aeration...”*
- *“A new faucet system that would save water...”*

## E. WATER MANAGEMENT ISSUES

### E1. Awareness of Location of Greater Victoria's Water Supply

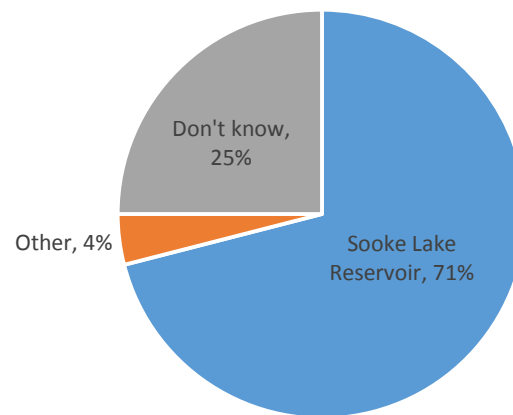
*Could you tell me where the drinking water supply for Greater Victoria comes from?*

A significant majority (71%) mentioned Sooke Lake Reservoir as the source of drinking water for the Greater Victoria area.

4% mentioned other locations, many of whom seem to refer to Sooke Lake Reservoir although they did not remember the name specifically. As an example *"I can't remember the name, but a big reservoir and another one that is held in reserve..."*

A quarter of the residents in the survey (25%) do not know where the water comes from. This is statistically similar to 2012 (21%) but lower than previous surveys (34% in 2008, 31% in 2004).

**Figure E1-1**  
**Awareness of Drinking Water Source**  
(Base - Full Sample)



#### Respondent Sub-Segment Findings

- Those 35-54 years (83%) and 55+ years (80%) are more likely to be aware than those 18-34 years (44%)
- Those who own their home (79%) are more likely than those who rent (50%)
- Those who pay their water bill (80%) are more likely than those who do not (56%)

## E2. Awareness of CRD Publications

*Do you recall seeing or reading anything published by the CRD about drinking water?*

27% of residents recalled seeing or reading something published by the CRD about drinking water.

### E2a. What do you recall?

*What do you recall seeing or reading?*

This is down slightly from previous surveys, where on average about 32% remembered seeing or reading something.

When asked what they remembered seeing or reading, the response mentioned most often (by 18% of residents) related to information about water quality, followed by current water levels (13%) and information about flushing or upgrading water mains and hydrants (13%).

Figure E2-1 – What did you see or read?

(Rank order by 2017)	2017	2012	2008	2004
Water quality	18%	6%	--	--
Current water level of the reservoir	13%	11%	16%	31%
Flushing or upgrading water mains and hydrants	13%	29%	--	--
Expansion/upgrade of reservoir	12%	12%	29%	44%
Watering restrictions, bylaw info	16%	14%	35%	25%
Water conservation methods	14%	12%	23%	9%
Watershed/Reservoir Tours	3%	6%	3%	3%

## E3. Dissemination of Information to CRD residents

*If CRD wanted to get information to you, what would be the best way to do it?*

The primary source mentioned by residents to receive information continues to be mail.

In this instance, “mail” means direct mail, not something included in their water bill or their tax bill, etc.

The Times Colonist and an insert in the water bill were mentioned next most often, at 17%.

Getting information electronically, either by email (14%) or via the CRD website (10%), or via social media such as Facebook (7%) was mentioned.

Indeed, when we combine all aspects of electronic communication in the 2017

survey (email, website, social media) electronic communication is mentioned most often (31%), mail stays at 30%, and combining all newspapers the result was 22%.

Figure E3-1 – Best way for CRD to get information to residents about water

(Rank order by 2017)	2017	2012	2008	2004
Mail	30%	38%	47%	50%
Newspaper – Times Colonist	17%	9%	12%	20%
In the Water Bill	17%	11%	19%	20%
E-mail	14%	16%	14%	8%
CRD website	10%	2%	5%	5%
Newspaper – Community papers	7%	12%	8%	14%
Social Media (Facebook)	7%	4%	--	--
Radio *	5%	1%	1%	3%
Local TV *	4%	5%	4%	7%
Phone	3%	3%	2%	2%
Tax Bill	<1%	--	--	--
Other	3%	4%	4%	3%
Don't know	5%	4%	4%	1%

\* NOTE: All instances of TV and Radio combined for previous surveys

## Respondent Sub-Segment Findings

### *Electronic communications (email, website, social media)*

- Those 18-34 years (38%) more likely to mention than those 35-54 years (30%) or 55+ years (28%)
- Those with post-secondary education, either university or college (34%) more likely to mention than those with high school or less (21%)

### *Mail*

- Those 55+ years (36%) and 35-54 years (33%) are more likely to mention than those 18-34 years (18%)

### *Newspapers*

- Those 55+ years (31%) more likely to mention than those 35-54 years (16%) or 18-34 years (15%)
- Those who own their home (24%) more likely to mention than renters (14%)
- Those with university education (26%) more likely to mention than those with college education (16%) or high school or less (16%)

## E3a. Community Newspaper

### *Which community paper?*

Community newspapers were mentioned by 7% of residents. The publications mentioned were as follows:

- Saanich News - 45%
- Victoria News – 21%
- Peninsula News – 12%
- Oak Bay News – 7%
- Metchosin News – 3%
- Other – 10%
- Don't know – 3%

## E4. CRD Residents' Sources of Information

*If you needed information about water services, where would you first turn to get information?*

The CRD website is definitely the default source of information if a resident needed to look for it.

This has been gaining as a go-to resource over the course of these surveys, from 28% in 2004 up to 65% of residents mentioning it in 2017.

In 2017, calling the CRD by phone was mentioned second, but is significantly lower at 16% (down from 43% in 2004).

Contacting a municipal office or city hall was mentioned third most often, at 15%.

Figure E4-1 – Where Would You First Turn for Information if You Needed it?

(Rank order by 2017)	2017	2012	2008	2004
Visit CRD website	65%	53%	44%	28%
Phone CRD	16%	10%	27%	43%
From my Municipal Office/City Hall	15%	18%	20%	20%
Landlord/Building Management	14%	--	--	--
Ask friends/family	5%	--	--	--
Municipal website	3%	1%	--	--
Google/Internet	2%	12%	4%	4%
Newspaper/Radio	1%	--	--	--
Visit CRD office	1%	--	--	--
Library	<1%	--	--	--
Other	2%	1%	--	--
Don't know	11%	2%	9%	8%

### Respondent Sub-Segment Findings

#### *Visit CRD website*

- Those 18-34 years (82%) are more likely to mention than those 35-54 years (73%) and 55+ years (45%)
- Those in households of 3+ people (78%) more likely than households of two people (53%) or single person households (49%)
- Those who pay the water bill (70%) more likely than those who do not (58%)
- Those with university education (71%) more likely than those with college (62%) or high school or less (49%)
- Those with incomes over \$50k (69%) more likely than those with income under \$50k (51%)

#### *Phone CRD*

- Those 55+ years (25%) more likely than those 35-54 years (12%) or 18-34 years (6%)
- Those with high school or less education (26%) more likely than those with post-secondary (14%)

## F. Respondent Characteristics

As with previous studies, the data was weighted to correct for age distribution of respondents. The proportions in the table below reflect weighted data for all four surveys.

Figure F-1 – Respondent Characteristics

Characteristic	Categories	2017	2012	2008	2004
Gender	Male	45%	42%	49%	48%
	Female	55%	58%	51%	52%
Age Group	18-34 years	27%	28%	26%	27%
	35-54 years	33%	33%	36%	39%
	55+ years	40%	39%	38%	34%
Education	High school or less	17%	23%	33%	29%
	College/Technical	27%	25%	26%	20%
	University/Post-Graduate	53%	49%	39%	48%
Household Size	One person	26%	19%	20%	20%
	Two people	32%	35%	39%	33%
	Three or more people	42%	46%	40%	47%
Household Income	Under \$50k	26%	27%	25%	32%
	\$50k - \$90k	29%	34%	30%	31%
	Over \$90k	22%	21%	24%	15%
Household pays for water directly	Yes	63%	69%	64%	67%
	No	37%	30%	35%	32%
Own or Rent	Own	77%	77%	73%	--
	Rent	22%	22%	24%	--
	Other	1%	3%	1%	--
Type of Dwelling	Single-detached (single family dwelling)	62%	67%	65%	64%
	Semi-detached (duplex, triplex, etc.)	4%	4%	4%	8%
	Apartment/Condominium (single entrance, individual suites)	24%	21%	22%	19%
	Townhouse/Row housing	7%	7%	7%	5%
	Trailer/mobile/manufactured home	2%	2%	1%	2%

NOTE: The responses of individuals who preferred not to answer a demographic question are not included in this table

## Appendix 1 – Survey Questionnaire



## CRD Residential Water Survey

Hello my name is....., I am calling from Metroline Research Group on behalf of the Capital Regional District. We are conducting a survey about household water conservation and other water issues. The information we collect is kept strictly confidential and will be used only for statistical purposes.

The survey may take up to 20 minutes to complete, depending on your responses. Can you spare the time now or is there a better time to call you back?

### *RECORD CALLBACK INFORMATION AS NEEDED*

- S1 Are you 18 years of age or older?
- Yes
- No (Ask for other household member or arrange callback)
- S2 INDICATE GENDER (Do not ask)
- Male
- Female
- Other/unknown
- S3 Into which of the following age categories do you fall?
- 18-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65+ years
- DO NOT READ: Prefer not to answer

S4 To ensure that all areas of the Greater Victoria drinking water supply are appropriately represented, could you tell me which local municipality you live in, such as Oak Bay, Saanich (pron. Sannich) , Victoria, Langford, Esquimalt (pron. S-Kwy-Mall-t), etc. (INTERVIEWER: Verify with postal code on list. If it does not match, use respondent answer and notify supervisor after interview is complete.)

- |   |  |
|---|--|
| <input type="radio"/> Colwood (V9C)                             | <input type="radio"/> Sidney (V8L)             |
| <input type="radio"/> Esquimalt/Vic West (V9A)                  | <input type="radio"/> Sooke (V9Z)              |
| <input type="radio"/> Langford (V9B)                            | <input type="radio"/> Victoria (V8T, V8V, V8W) |
| <input type="radio"/> Metchosin (V9C)                           | <input type="radio"/> View Royal (V9B)         |
| <input type="radio"/> Oak Bay (V8R, V8S)                        | <input type="radio"/> Other                    |
| <input type="radio"/> Saanich - Central (V8M, V8Z)              | <input type="radio"/> Don't know               |
| <input type="radio"/> Saanich - North (V8L)                     | <input type="radio"/> Prefer not to answer     |
| <input type="radio"/> Saanich - Other (V8N, V8P, V8X, V8Y, V9E) |  |

S5 Is your household drinking water provided through the municipal/CRD drinking water system? (INTERVIEWER IF YOU NEED TO CLARIFY: That is, not through a well or commercially provided service such as a tanker truck or bulk delivery, not including bottled water)

- Yes
- No
- Not sure

SECTION A - VIEWS REGARDING WATER USE AND PERCEPTIONS OF WATER CONSERVATION

The first few questions are about your water use.

A1 On a scale of 1 to 5, where '1' is "Not Important At All", and '5' is "Very Important", how important is it to you...

	1 Not	2	3	4	5 - Very	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
to use water efficiently in the home (washing clothes, taking showers, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to use water efficiently outdoors (watering lawn, garden, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A2 Has your water use decreased, increased, or stayed the same in the last four years?

- Decreased
- Increased
- Stayed the same
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

A3 Who provides the drinking water service or piped water to your home? (DO NOT READ LIST.)

- |   |                                       |
|---|---------------------------------------|
| <input type="radio"/> CRD (Capital Regional District) | <input type="radio"/> Saanich - Other |
| <input type="radio"/> Colwood                         | <input type="radio"/> Sidney          |
| <input type="radio"/> Esquimalt                       | <input type="radio"/> Sooke           |
| <input type="radio"/> Langford                        | <input type="radio"/> Victoria        |
| <input type="radio"/> Metchosin                       | <input type="radio"/> View Royal      |
| <input type="radio"/> Oak Bay                         | <input type="radio"/> Other           |
| <input type="radio"/> Saanich - Central               | <input type="radio"/> Don't know      |
| <input type="radio"/> Saanich - North                 |                                       |

SECTION B - WATER USE BEHAVIOUR/TECHNOLOGIES/ACTIONS

The next set of questions is about specific water use technologies, practices and behaviours.

B1 I am going to read you a list of water-efficient fixtures. Please tell me if your household has...?

	Yes	No	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
Low-flow showerhead(s) [9.5 l/m or less]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6-litre or less low-flow toilet or a dual flush toilet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Toilet modified to use less water when flushing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faucet aerators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Front-loading washing machine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water-efficient dishwasher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On demand hot water system (tankless or recirculating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B2a Does your household have any other water-efficient fixtures besides those mentioned?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

What other water-efficient fixtures do you have?

B2b How many toilets are there in your household?

B2c Of that number, how many are low-flow (6 litres or less per flush)? (NOTE: Must be less or equal to the number of toilets in the home)

B3 In the past year, have you checked any of your toilets for leaks by putting food colouring or dye tablets in the toilet tanks in your home?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B4 How often do you do each of the following, if at all?

	Always	Sometimes	Never	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
Consciously take short showers of 5 minutes or less	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flush the toilet infrequently (e.g., don't flush after every use)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turn off the faucet while shaving, brushing teeth, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep drinking water in the fridge so you don't have to run the water until it gets cold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fewer loads of laundry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Run dishwasher less frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B5 Are there any other methods of indoor water conservation measures that you may practice besides the ones you just mentioned?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

What other methods of indoor water conservation do you practice?

B6 Do you have a lawn to look after at your primary residence? *(INTERVIEWER: THIS MEANS A LAWN ATTACHED TO THE HOUSE THEY LIVE IN, NOT LOCATED SOMEWHERE ELSE)*

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B7 Do you have trees, flowers, shrubs or vegetable gardens to look after at your primary residence? *(INTERVIEWER: THIS MEANS A GARDEN ATTACHED TO THE HOUSE THEY LIVE IN, NOT LOCATED SOMEWHERE ELSE)*

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B8 Do you water your lawn? *(INTERVIEWER: Even if once per year, that still qualifies as a 'yes')*

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B9 Do you water your lawn less frequently than you did four years ago?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B10 How often do you water your lawn during the summer months (May to September)?

- Daily
- Twice a week
- Once a week
- Once every 2 weeks
- Once a month
- Less than once a month
- On designated days and hours
- Don't know
- Prefer not to answer
- Other (click here then specify below)

B11 For the times you do water your lawn, how long do you typically water your lawn for?

- 30 minutes or less
- 31-60 minutes
- 1 hour to 1 1/2 hours
- 1 1/2 hours to 2 hours
- More than two hours

B12 Do you have an in-ground irrigation system?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B13 Do you use your in-ground irrigation system?

- Yes
- No

B14 Does your system have a...?

	Yes	No	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
Rain shut off device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irrigation controller	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moisture sensor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B15 How often is your system checked for leaks and performance?

- Once a year
- Twice a year
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer
- DO NOT READ: Other (click here then specify)

B16 Who sets the watering schedule?

- Irrigation professional
- Landscape company
- Household member (including respondent)
- Neighbour/friend/handyperson
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer
- DO NOT READ: Other (click here then specify)

B17 How often is the system's watering scheduled adjusted during the watering season (May to September)?

- Once a season
- Monthly
- As the weather changes
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer
- DO NOT READ: Other (click here then specify)

B18 Do you adjust your irrigation system schedule to account for changes in weather?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B19 Do you have any plans to replace your current irrigation system?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B20 Do you have any plans to install an irrigation system?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B21 Does your household have a micro-drip irrigation system?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B22 How often does your household practice the following, if at all?

	Always	Sometimes	Never	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
Water your lawn before 10am or after 7pm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water your garden before 10am or after 7pm (trees, shrubs, flowers and vegetables)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a hand held hose with a shut off nozzle on your hose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use native or drought-tolerant plants when doing landscaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do not water the lawn at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B23 What steps have you taken to increase the water conservation of your lawn? DO NOT READ LIST. ACCEPT ALL RESPONSES.

- Aerating
- Increasing mower height
- Converted to Native or drought tolerant plantings
- Improving soil/compost
- Dethatching
- Top dressing, reseeding
- Other (click here then specify below)
- Nothing
- Don't know
- Prefer not to answer



B24a What steps have you taken to increase the water conservation of your garden (flowers, shrubs, trees, vegetables)? DO NOT READ LIST. ACCEPT ALL RESPONSES.

- Aerating
- Converted to Native or drought tolerant plantings
- Mulching
- Improving soil/compost
- Watering in the morning
- Use a moisture meter
- Use micro/drip irrigation
- Reduce fertilizer use to minimum
- Group plants by water requirements
- Control weeds
- Other (click here then specify below)
- Nothing
- Don't know
- Prefer not to answer

B24b Would you or are you considering converting some or all of your lawn/flower beds to vegetable gardens?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B24 Why would you consider/not consider converting?

B25 Are there other methods of outdoor water conservation that you may practice besides the ones just mentioned?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

B25a What other methods of outdoor water conservation do you practice?

SECTION C - PERCEPTIONS OF WATER CONSERVATION OPTIONS

The next set of questions explores your opinions about what the CRD should be doing to promote water conservation.

C1 On a scale of 1 to 5, where '1' is "Not Important At All", and '5' is "Very Important", how important is it to you personally for the CRD to...

	1 - Not	2	3	4	5 - Very	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
...encourage people to practice water conservation?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...be able to implement water conservation programs?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C2 The CRD Water Conservation bylaw limits lawn watering from May 1st to September 30th. Stage 1 of the Bylaw allows watering of lawns between the hours of 4am and 10am, and 7pm to 10pm on the following days:

Even numbered addresses on Wednesday and Saturday  
Odd numbered addresses on Thursday and Sunday

Flowers, trees, vegetable gardens, and shrubs may be watered using a sprinkler on any day during the scheduled times, or at any time of any day with the use of a hand-held container, a hand-held hose with a shut-off nozzle, or micro-irrigation system.

Before this survey, how aware would you say you were of the watering bylaw in effect from May 1st to September 30th of this year? Use a 5-point scale, where '1' means you are "Not aware at all", and '5' means you are "Very aware".

1 - Not	2	3	4	5 - Very	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C3a Do you recall where you heard or read about the watering bylaw that is in effect in the CRD?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

C3b Where did you hear or read about the watering bylaw that is in effect in the CRD? DO NOT READ LIST. ACCEPT ALL RESPONSES.

- Newspaper
- Radio
- Website - CRD
- Website - Local municipality
- Website - Other
- Events/Display booths
- Through school
- Word of mouth (Friends/family/neighbours)
- Other (click here then specify below)
- Don't know/prefer not to answer

C4 On a scale of 1 to 5, where '1' is "Strongly Oppose", and '5' is "Strongly Support", to what extent do you support the watering bylaw?

- |                       |                       |                       |                       |                       |                               |   |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------|---|
| 1 - Oppose            | 2                     | 3                     | 4                     | 5 - Support           | DO NOT<br>READ: Don't<br>know | DO NOT<br>READ: Prefer<br>not to answer |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>         | <input type="radio"/>                   |

C5 On a scale of 1 to 5, where '1' is "Not Acceptable At All", and '5' is "Very Acceptable", in addition to two lawn-watering days each week, how acceptable to you is the timing allotted by the watering bylaw (i.e. 4am to 10am, and then again from 7pm to 10pm on the two lawn watering days, for a total of 18 hours per week?)

- |                       |                       |                       |                       |                       |                               |   |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------|---|
| 1 - Not               | 2                     | 3                     | 4                     | 5 - Very              | DO NOT<br>READ: Don't<br>know | DO NOT<br>READ: Prefer<br>not to answer |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>         | <input type="radio"/>                   |

C6 Using the same scale, how acceptable would you find two-tiered rates for summer water use (one rate for normal usage) and a higher-rate for consumption levels above the normal usage rates)?

1 - Not	2	3	4	5 -Very	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C7 Do you consider your total cost of utility services (water and sewer) when considering your household's water use behaviour?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

SECTION D - AWARENESS OF CRD WATER INFORMATION AND PROGRAMS

*The next set of questions deals with your awareness of information and programs developed by the CRD about water.*

D1 How often, if at all, do you use the following social media platforms for personal reasons?

	Daily /several times a week	Once or twice a week	1-3 times a month	Less often / Rarely /Never	DO NOT READ: Don't know	DO NOT READ: Prefer not to answer
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instagram	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D2 Are you aware that CRD has social media accounts on Facebook and Twitter

- Yes, have seen them before
- Yes, but have never seen them
- No, but assumed they would have
- No, did not think they did
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

D3 Have you seen, read, or heard anything about CRD water conservation in the last year?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

D4 I am going to read a list of places where you might have seen, read, or heard about CRD water conservation.

Your answer options are "yes", "no", or "was not aware of this source". (NOTE: Will be asked even if they said no in the previous question, as some specifics might jar their memory)

	Yes	No	Was not aware of this source	DO NOT READ: Don't know/Prefer not to answer
A media story about CRD water conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An advertisement about CRD water conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Something on the CRD website about water conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An information or display booth about CRD water conservation at a tradeshow or other community outreach event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A CRD workshop about water conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational materials and/or learning resources about CRD water conservation provided to schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A post or message on the CRD Facebook or Twitter feed(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends/neighbours/word of mouth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CRD info line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watershed Tours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D5 Where did you see or hear the advertisement about CRD water conservation? DO NOT READ LIST. CLARIFY AS NEEDED. ACCEPT ALL RESPONSES.

- Radio - CFAX (AM 1070)
- Radio - The Ocean (98.5 FM)
- Radio - The Q (100.3 FM)
- TV - Channel 4 (Shaw)
- TV - Channel 6 (CHEK)
- TV - Channel 8 (Global BC)
- TV - Channel 9 (CTV)
- Newspaper - Times Colonist
- Newspaper - Community Paper (Saanich News, Gazette, Esquimalt News, Victoria News, etc.)
- In the water bill
- Social Media (Facebook/Twitter)
- Other (click here then specify below)
- Don't know
- Prefer not to answer

D6 In the last year, have you personally participated in any workshops or educational programs for water conservation run by the CRD?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

D6 Which workshops or programs for conservation did you participate in?

## SECTION E - WATER MANAGEMENT ISSUES

E1 Could you tell me where the drinking water supply for Greater Victoria comes from? DO NOT READ LIST.

*(IF NEEDED: clarify that we are looking for where the water is stored or where the CRD has its water source reservoir)*

- Sooke Lake/Reservoir
- Other (click here then specify below)
- No, I don't know
- Prefer not to answer

E2 Do you recall seeing or reading anything published by the CRD about drinking water?  
*(INTERVIEWER: If respondent tells you they already answered this question, please note that these sorts of publications could be anything from a job posting, to a notice that the fire hydrants are being flushed out, a notice that a big water pipe is being replace, any other infrastructure information, an announcement about watershed tours, etc.)*

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

What do you recall seeing or reading?

E3 If CRD wanted to get information to you, what would be the best way to do it? DO NOT READ LIST. CLARIFY AS NEEDED. ACCEPT ALL RESPONSES.

- CRD website
- Newspaper - Times Colonist
- Newspaper - Community
- In the water bill
- Other (click here then specify)
- Don't know
- Prefer not to answer

Which community paper?

Other answer

E4 If you needed information about water services, where would you first turn to get information?  
DO NOT READ LIST. ACCEPT ALL RESPONSES

- Phone CRD
- Visit CRD website
- From my municipal office or city hall
- Other (click here then specify)
- Don't know
- Prefer not to answer

DEMOGRAPHICS

*To finish the survey we would like to ask you some quick demographic questions.*

F1 How many people, including yourself, currently live in your household?

F2 What was the total annual income for your household in 2016? Would it be...?

- Less than \$30k
- \$30-\$40k
- \$40-\$50k
- \$50-\$60k
- \$60-\$70k
- \$70-\$80k
- \$80-\$90k
- \$90-\$125k
- Over \$125k
- DO NOT READ: Prefer not to answer

F3 What is the highest level of formal education that you have completed? DO NOT READ LIST.

- Did not complete high school
- High School
- Technical/Apprenticeship
- College
- University
- Post Graduate (Masters, Ph. D., etc.)
- Prefer not to answer



F4 In what type of dwelling do you live?

- Single-detached (single family dwelling)
- Semi-detached (duplex, triplex, etc.)
- Apartment/Condominium (single entrance, individual suites)
- Townhouse/row housing
- Trailer/mobile/manufactured home
- Other (click here then specify)
- DO NOT READ: Prefer not to answer

F5 Do you (or your household) personally pay for your water use directly (receive water bills by mail, etc.)?

- Yes
- No
- DO NOT READ: Don't know
- DO NOT READ: Prefer not to answer

F6 Which of the following best describes your current accommodation? Do you...?

- Rent
- Own your home
- Live with family
- Other (click here then specify)
- DO NOT READ: Prefer not to answer

F7 CONFIRM POSTAL CODE FSA FROM LIST AND INDICATE BELOW

- |                           |                                       |
|---------------------------|---------------------------------------|
| <input type="radio"/> V8L | <input type="radio"/> V8X             |
| <input type="radio"/> V8M | <input type="radio"/> V8Y             |
| <input type="radio"/> V8N | <input type="radio"/> V8Z             |
| <input type="radio"/> V8P | <input type="radio"/> V9A             |
| <input type="radio"/> V8R | <input type="radio"/> V9B             |
| <input type="radio"/> V8S | <input type="radio"/> V9C             |
| <input type="radio"/> V8T | <input type="radio"/> V9E             |
| <input type="radio"/> V8V | <input type="radio"/> V9Z             |
| <input type="radio"/> V8W | <input type="radio"/> Other (specify) |

Enter other postal code FSA