



TOP-LINE REPORT (2012)

CRD RESIDENTIAL WATER SURVEY
Capital Regional District (CRD)
Environmental Sustainability –
Environmental Partnerships

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November 2012

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EXECUTIVE SUMMARY

Water efficiency is perceived as important.

The majority of survey respondents felt that indoor and outdoor water efficiency is important. Approximately one-third of respondents felt that their water use had decreased in the past three years. As well, more people are reporting that their households have low-flow toilets, water-efficient dishwashers, and front-loading washing machines.

The CRD is characterized by responsible lawn watering.

2012 was the first year that the majority of respondents said that they did not water their lawn. Among those who do water their lawn, nine out of ten did so either at the frequency permitted by the watering bylaw or even less often. However, respondents were essentially evenly divided with respect to the question of whether they watered their lawn less frequently than they did three years ago.

Outdoor water-efficiency measures are practised in the CRD.

The majority of respondents always practise the three water-efficiency measures related to watering. For the majority of respondents, using native or drought-tolerant plants is still something done only "sometimes." Compared to previous survey years, the proportion of respondents who said that, in the past 12 months, their household had improved with respect to five outdoor water-efficiency measures was higher.

CRD has a role in promoting water efficiency.

The majority of respondents felt it was important or very important for the CRD to encourage people to practise water efficiency. And while the proportions were slightly lower with respect to the CRD being able to implement water-efficiency measures, the majority of respondents were of the opinion that this, too, was important or very important.

Watering bylaw is well promoted and has the support of CRD residents.

Overall, approximately three in four respondents said that, before the survey, they had been aware of the watering bylaw with the majority of respondents considering themselves to have been very aware. As in past surveys, print materials were the major source of information on the bylaw for CRD residents. The vast majority of respondents was supportive of the bylaw and considered the timing allotted by the bylaw to be acceptable.

Proportion of residents aware of CRD water efficiency publications continues to decline.

The proportion of respondents who recalled information about CRD water efficiency has been declining steadily since 2004. In 2012, the majority of respondents could not remember seeing, reading, or hearing about CRD water efficiency in the last year. As well, over the years the major source of information has switched from news stories to advertisements.

The importance of electronic communication is increasing.

Regular mail was still the top choice for how the CRD should get information to people, although the proportion of respondents requesting email communication has been increasing since 2004. However, when respondents were asked where they first turned to when they were looking for information, the CRD website was their top choice (especially among younger respondents) and has been increasing in importance every survey year.

Residents generally satisfied with water quality.

The vast majority of respondents were satisfied or very satisfied with the quality of their water. While the levels of satisfaction were not different from previous survey years, increased satisfaction may be inferred from the fact that, in 2012 a higher proportion of respondents stated that they drank tap water exclusively.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
SECTION 1: RESEARCH METHODOLOGY	1
1.1 Background and Research Objectives.....	1
1.2 Scope of Work	1
1.3 Research Activities	1
1.3.1 Review, Revision and Programming of Survey Instrument	1
1.3.2 Sample Selection	2
1.3.3 Quota Calculation and Programming.....	2
1.3.4 Survey Administration	3
1.4 Demographics and Quota Achievement.....	4
1.4.1 Respondent Characteristics.....	4
1.4.2 Household Characteristics.....	4
1.4.3 Dwelling Characteristics.....	5
1.4.4 Quota Achievement.....	6
1.5 Data Analysis and Reporting	7
1.5.1 Coding of Open-ended Responses	7
1.5.2 Weighting of Data.....	7
1.5.3 Data Analysis.....	8
1.5.4 Reporting.....	8
SECTION 2: WATER EFFICIENCY.....	9
2.1 Perceived Importance of Indoor and Outdoor Water Efficiency	9
2.2 Perception of Changes in Water Use	11
2.3 Source of Water Service to Respondent’s Home.....	12
SECTION 3: WATER USE BEHAVIOURS AND ACTIONS.....	14
3.1 Indoor Water Efficiency	14
3.1.1 Water-Efficient Fixtures	14
3.1.2 Indoor Water-Efficiency Practices	16
3.1.3 Other Indoor Water-Efficiency Practices.....	18
3.2 Outdoor Water Efficiency	19
3.2.1 Lawn and Garden Care.....	19
3.2.2 In-ground Irrigation Systems	21
3.2.3 Outdoor Water-Efficiency Practices.....	24
3.2.4 Changes in Outdoor Water-Efficiency Practices.....	27

SECTION 4: PERCEPTIONS OF WATER-EFFICIENCY OPTIONS	29
4.1 Importance of CRD Promoting Water Efficiency	29
4.2 Awareness of and Support for the CRD Water Conservation Bylaw	30
4.2.1 Awareness of the Bylaw	30
4.2.2 Support for the Bylaw	33
4.2.3 Support for Two-Tiered Rates	34
4.2.4 Other Comments on the Bylaw.....	34
SECTION 5: AWARENESS OF CRD WATER INFORMATION AND PROGRAMS.....	36
5.1 Awareness of CRD Water-Efficiency Initiatives	36
5.1.1 News Stories and Advertisements.....	36
5.1.2 The CRD Website.....	38
5.1.3 CRD Information or Display Booth	38
5.1.4 CRD Workshops and Educational Materials for Schools.....	39
5.2 Respondent Participation in CRD Water-Efficiency Programs	39
SECTION 6: WATER MANAGEMENT ISSUES	40
6.1 Water Management Awareness	40
6.1.1 Awareness of Location of Greater Victoria’s Water Supply.....	40
6.1.2 Awareness of CRD Publications	40
6.2 The Information Channels of CRD Residents.....	41
6.2.1 Dissemination of Information to CRD Residents	41
6.2.2 CRD Residents’ Sources of Information	43
6.2.3 Visits to the CRD Website	44
SECTION 7: WATER QUALITY ISSUES.....	46
7.1 Satisfaction with Quality of Piped Water	46
7.2 Water Consumption.....	47
7.3 Awareness of Other Water Quality Issues.....	49
7.3.1 The CRD’s Water-Disinfecting Process.....	49
7.3.2 The Protection of the Drinking Water Supply	49
7.3.3 The Proposed Sewage Treatment Charge.....	50

Appendix A: Survey Instrument

Appendix B: Statistical Tables by Survey Year

SECTION 1: RESEARCH METHODOLOGY

1.1 Background and Research Objectives

Since the late 1990s, 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. In prior years the surveys were supervised by the CRD Water Services Department; in 2012 the survey was overseen by Environmental Sustainability – Environmental Partnerships, as the CRD values the information gleaned from public opinion research on residential water use and knowledge of drinking water supply. The current survey, launched in the late summer and autumn of 2012, is the sixth in the series. Over the years, the survey questions have changed to reflect the range of water conservation programs offered by the CRD at the time of the survey, as well as drinking water and water quality management issues. The core questions, however, have remained the same and enable tracking of CRD residents' opinions over the years.

1.2 Scope of Work

The general scope of work for this research is outlined below:

- review, revision and programming of the survey instrument,
- sample selection,
- survey administration,
- data analysis, and
- preparation of a report.

Research activities are described in detail in the following section.

1.3 Research Activities

The Consultant completed the following activities for this research project:

1.3.1 Review, Revision and Programming of Survey Instrument

The survey was reviewed by both the CRD and the Consultant. The CRD provided input on the deletion of questions that were no longer relevant and supplied new questions to address emerging issues regarding water use in the CRD. The Consultant provided input on question wording and survey length. This process was guided throughout by the necessity of retaining comparability between the 2012 survey and the previous surveys (particularly that of 2008).

The survey instrument was then programmed into the Consultant’s CATI system (CallWeb). Given that the survey questions were very similar to those in the 2008 *CRD Water Services Water Efficiency Survey*, a field test was not conducted. However, the programmed survey instrument was subjected to standard in-house verification procedures to ensure that it had been programmed correctly and was functioning as expected. The survey underwent some further small revisions during the in-house testing process as wording and skip patterns were refined. The final survey instrument is provided in Appendix A of this report.

1.3.2 Sample Selection

The sample for the *CRD Residential Water Survey* was randomly selected from ASDE Survey Sampler, using the Consultant’s subscription. In line with the quota requirements given in Section 1.3.3, 5,000 names were selected from the municipalities of Greater Victoria, Sooke and designated parts of the Victoria Census Metropolitan Area of households on the municipal drinking water system supplied by the Sooke Lake Reservoir.

1.3.3 Quota Calculation and Programming

The municipal quotas, based upon the 2011 Census, are provided in Table 1-1. These quotas were programmed into the CATI survey instrument and monitored throughout the survey administration process. It should be noted that in order to ensure maximum accuracy, quota achievement was based on the respondent’s answer to question S2 (“In which municipality do you live?”), not on the original municipality attached to the respondent’s phone number as selected from the ASDE lists.

Table 1-1 Quotas for the <i>CRD Residential Water Survey</i>		
Municipality	Actual Population*	Target Completions
Victoria	80,017	120
Esquimalt	16,209	24
Oak Bay	18,015	27
Saanich	109,752	165
Central Saanich	15,936	24
North Saanich	11,089	17
View Royal	9,381	14
Colwood	16,093	24
Langford	29,228	44
Metchosin	4,803	7
Sidney	11,178	17
Sooke	11,435	17
TOTAL	333,136	500

*Source: Statistics Canada, Census 2011 (<http://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?Lang=Eng&TAB=1&GK=CMA&GC=935>). The Juan de Fuca Electoral Area is no longer given separately in the Victoria Census Metropolitan Area, hence it does not appear in the 2012 quotas.

1.3.4 Survey Administration

Surveyor training took place on September 12, 2012, with survey administration beginning that same evening. The goal was to conduct the survey during the time when the Stage 1 Water Conservation Bylaw was in effect. This goal was achieved; the final municipality quota (Esquimalt) was filled on September 30, 2012.

The final call status code distribution is provided in Table 1-2. The refusal rate for this survey is not unusually high, but it is nonetheless likely that the people who agreed to do the survey were those who were more concerned about and interested in water conservation.

Table 1-2 Final Call Status Codes		
Status Code	Count	Percent
Completions	505	10%
Not in Service/fax/business number	359	7%
Respondent Refusal	812	16%
Busy Signal	9	0%
No Answer	150	3%
Answering Machine – call again	1,286	26%
Wanted Call Back	431	9%
Non-Qualifier (no longing living in survey area)	73	1%
Quota filled	12	0%
Language/other communication problem	25	1%
Numbers never called (quotas were filled and/or survey administration was completed)	1,338	27%
TOTAL	5,000	100.0%

As survey administration ceased once all the quotas had been filled, it was not feasible to calculate a response rate for this survey.

1.4 Demographics and Quota Achievement

1.4.1 Respondent Characteristics

Respondent characteristics are given in Table 1-3. It should be noted that for reporting purposes the age categories were collapsed to match those used in 2004 and 2008; the categories on the survey instrument in Appendix A are more detailed.

As was the case for the 2004 and 2008 data provided to the Consultant, the 2012 data were weighted to correct for age distribution of respondents. The proportions in Tables 1-3 through 1-5 reflect weighted data for all three survey years. The weighting process is explained in Section 1.5.2.

As shown in Table 1-3, respondent characteristics for the 2012 survey are in line with those in the previous surveys.

Table 1-3 Respondent Characteristics				
Characteristic	Categories	2004	2008	2012
Gender	Male	48%	49%	42%
	Female	52%	51%	58%
Age Category	18 to 34 years	27%	26%	28%
	35 to 54 years	39%	36%	33%
	55 years and older	34%	38%	39%
Education	Did not complete High School	5%	6%	3%
	High School	24%	27%	20%
	Technical/Apprenticeship	2%	4%	6%
	College	18%	22%	19%
	University	37%	27%	35%
	Post Graduate (Masters, Ph.D., etc.)	11%	12%	14%

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

1.4.2 Household Characteristics

Household characteristics are given in Table 1-4. Household characteristics in 2012 are also similar to those of the previous two surveys.

Table 1-4 Household Characteristics				
Characteristic	Categories	2004	2008	2012
Household Size	one person	20%	20%	19%
	two people	33%	39%	35%
	three people	20%	16%	22%
	four to five people	23%	20%	20%
	six to nine people	4%	4%	4%
Household Income	less than \$30,000 per year	11%	11%	14%
	\$30,000 - \$39,999 per year	9%	8%	7%
	\$40,000 - \$49,999 per year	12%	6%	6%
	\$50,000 - \$59,999 per year	10%	9%	11%
	\$60,000 - \$69,999 per year	10%	9%	7%
	\$70,000 - \$79,999 per year	4%	8%	8%
	\$80,000 - \$89,999 per year	7%	4%	8%
	\$90,000 or more per year	15%	24%	21%
Household Pays for Water Use Directly	Yes	67%	64%	69%
	No	32%	35%	30%

Note: The responses of individuals who preferred not to answer are not included in this table.

1.4.3 Dwelling Characteristics

Dwelling characteristics are given in Table 1-5. The dwelling types in the 2012 survey are consistent with those in the previous survey years.

Table 1-5 Dwelling Characteristics				
Characteristic	Categories	2004	2008	2012
Dwelling Type	Single-detached (single family dwelling)	64%	65%	67%
	Semi-detached (duplex, triplex, etc.)	8%	4%	4%
	Apartment/Condominium (single entrance, individual suites)	19%	22%	21%
	Townhouse/Row housing	5%	7%	7%
	Trailer/Mobile/Manufactured home	2%	1%	2%
Rent or Own Dwelling	Rent	—	24%	22%
	Own	—	73%	77%
	Other	—	3%	1%

Note: The responses of individuals who preferred not to answer are not included in this table.

1.4.4 Quota Achievement

As shown in Table 1-6, total survey completions were 505 rather than 500. This occurred because in a number of cases, multiple surveyors were working simultaneously on the final survey required to complete a quota. As may be seen in the table, the minimum number required was achieved for each quota.

Table 1-6 Quotas for the CRD Residential Water Survey		
Municipality	Target Completions	Actual Completions
Victoria	120	121
Esquimalt	24	24
Oak Bay	27	27
Saanich	165	165
Central Saanich	24	24
North Saanich	17	20
View Royal	14	14
Colwood	24	25
Langford	44	44
Metchosin	7	7
Sidney	17	17
Sooke	17	17
TOTAL	500	505

1.5 Data Analysis and Reporting

1.5.1 Coding of Open-ended Responses

After survey completion, the data was reviewed to ensure accuracy and consistency. All of the open-ended responses were checked for grammar and spelling accuracy. The open-ended questions (B2, B5, C3, C7, E2, F2, and F5) were coded so that they could be tabulated to provide a quick overview of their contents. A number of open-ended “other” responses (B10, B17, B19, B24, D3, D4, E3, and E4) were reviewed and, depending on their incidence, some of them were also tabulated. The remaining “other” responses did not receive further coding, although they, too, were checked to ensure that they were true “other” responses (A3, B15, B16, B18, D5, E1, and G6). During the coding process, the Consultant made every effort to use the codes that had been created in previous years; nevertheless, in a few instances it proved necessary to create additional codes.

1.5.2 Weighting of Data

As was the case in the previous surveys, the data was weighted to correct for the uneven representation of age groups in the final data set. The weighting scheme for the 2012 survey is given in Table 1-7. Since no respondent refused to provide his or her age category, every survey response was able to be weighted appropriately. As in prior surveys, the highest weighting had to be assigned to the age group 18 to 34 years. This group is consistently difficult to reach as they are the most mobile, and least likely to have a land line.

Table 1-7 Data Weighting					
Age Group	Actual Population	Proportion of Actual Population	Survey Data	Proportion of Survey Data	Weight
18 to 34 years*	76,296	27%	32	6%	4.415645
35 to 54 years	95,945	33%	182	36%	0.925472
55 years and over	115,735	40%	291	58%	0.692915

Source: Statistics Canada, Census 2011 (<http://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?Lang=Eng&TAB=1&GK=CMA&GC=935>)

*The Statistics Canada age categories are not identical to those of the survey. Therefore, for the 18 to 34 years category, the number of individuals aged 18 and 19 years was taken to be two-fifths of Statistics Canada’s total for individuals aged 15 to 19 years.

1.5.3 Data Analysis

The data for the 2012 survey was transferred from CallWeb (the CATI program) to SPSS for tabulation and analysis. The data from the 2004 and 2008 surveys was entered into the tables by the Consultant for the purpose of comparison with the 2012 survey. For the most part, this process was straightforward, but given that the survey had changed somewhat in 2012, some manipulation of the older data was required. The questions requiring more complicated handling are tabulated in Appendix A with details of what was undertaken.

As in previous years, the 2012 data was cross-tabulated with various demographic characteristics, namely gender, age (collapsed down to three categories), household income (collapsed down to two categories), and region of the CRD (municipality of residence collapsed down to Core Victoria, Saanich Peninsula, and Western Communities). The cross-tabulations were subjected to a z-test to determine the statistical significance of differences in opinion. Only those that were statistically significant are discussed in the report.

1.5.4 Reporting

Using the weighted data, the Consultant prepared this report. The report includes three appendices:

- the final 2012 survey instrument and information about comparisons to the 2004/2008 data,
- the statistical tables (run with the weighted data) by survey year, and,
- the “other” and open-ended responses.

It should be noted that the various percentages in the tables and charts in this report may not always total 100%. This could be due to any of the following factors: (a) rounding, (b) the fact that “don’t know” responses are not included in a particular table or chart, or (c) multiple response questions.

SECTION 2: PERCEPTIONS OF WATER EFFICIENCY

2.1 Perceived Importance of Indoor and Outdoor Water Efficiency

Survey respondents were asked about how important they felt it was to use water efficiently both indoors and outdoors. Their responses are given in Table 2-1.

Table 2-1 Importance of Indoor and Outdoor Water Efficiency (by survey year)			
	2004	2008	2012
Importance of using water efficiently in the home:			
Important/very important	87%	86%	83%
Neither important nor unimportant	11%	12%	13%
Not important/not at all important	1%	2%	4%
Importance of using water efficiently outdoors:			
Important/very important	85%	84%	77%
Neither important nor unimportant	8%	8%	11%
Not important/not at all important	5%	6%	5%

As shown in the table,

- the vast majority of respondents in all three years agree that it is important to use water efficiently both indoors and outdoors.
- survey respondents in 2012 were less likely to see outdoor water efficiency as important or very important.

With respect to cross-tabulations with various demographic variables, the following trends were seen in 2012 (the data is presented in Table 2-2 as well):

- Female respondents were more likely to indicate that indoor and outdoor water efficiency was “very important” than were males.
- Younger respondents (those aged 18 to 34 years) were less likely to indicate that indoor water efficiency was “very important.” With respect to outdoor water efficiency, there was no significant difference in opinion on the basis of age.
- Some interesting differences in opinion were seen with respect to household income. In general, respondents whose household income was below \$50,000 were less likely to perceive water efficiency as important. They were more likely to indicate

that indoor water efficiency was “not important” and less likely to state that it was “important.” Similarly, they were more likely to find outdoor water efficiency “not important” and “not at all important,” and less likely to find it “important.” A significantly higher proportion of lower-income respondents said that they “do not know” how important outdoor water efficiency is. These findings are not surprising as the survey data confirms that higher-income respondents were (a) more likely to pay for their water use directly, (b) more likely to own their own home, and (c) more likely to have a lawn and/or garden.

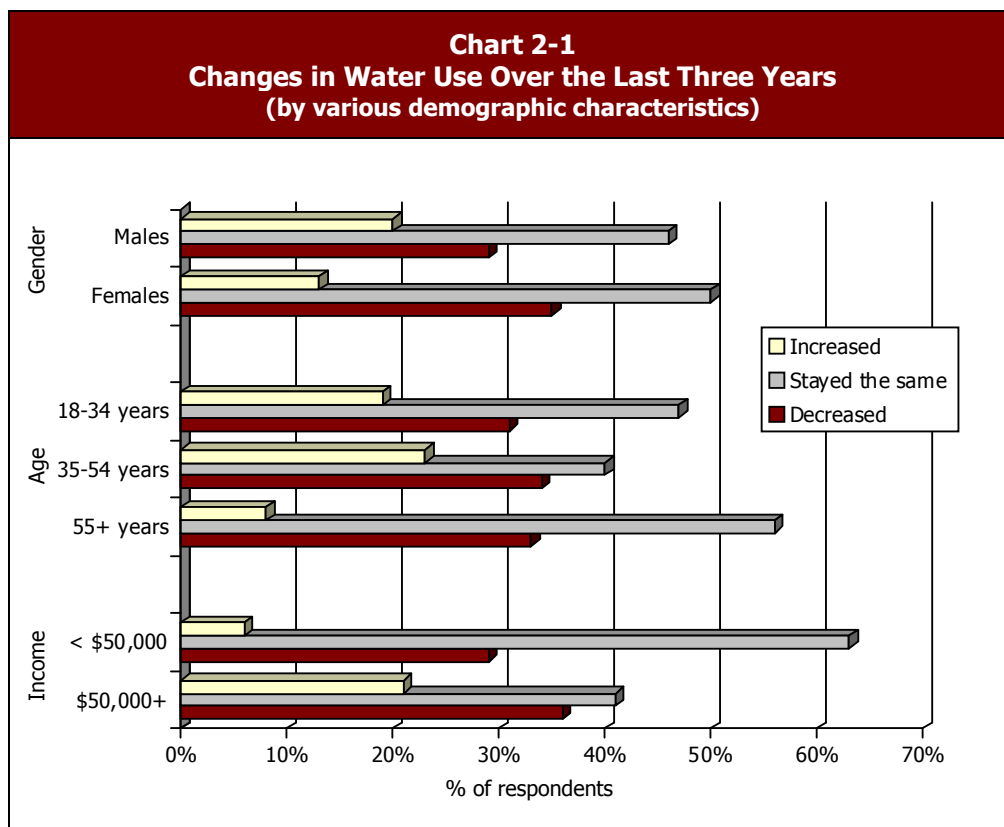
Table 2-2 Importance of Indoor and Outdoor Water Efficiency (by various demographic characteristics)			
GENDER	Males		Females
Importance of using water efficiently in the home:			
Important/very important	80%		85%
Neither important nor unimportant	16%		11%
Not important/not at all important	4%		4%
Importance of using water efficiently outdoors:			
Important/very important	70%		80%
Neither important nor unimportant	17%		7%
Not important/not at all important	4%		4%
AGE	18-34 years	35-54 years	55+ years
Importance of using water efficiently in the home:			
Important/very important	75%	85%	86%
Neither important nor unimportant	19%	12%	10%
Not important/not at all important	6%	3%	4%
Importance of using water efficiently outdoors:			
Important/very important	69%	85%	75%
Neither important nor unimportant	13%	9%	12%
Not important/not at all important	3%	5%	6%
INCOME	below \$50,000		above \$50,000
Importance of using water efficiently in the home:			
Important/very important	79%		83%
Neither important nor unimportant	11%		15%
Not important/not at all important	8%		2%
Importance of using water efficiently outdoors:			
Important/very important	62%		82%
Neither important nor unimportant	13%		12%
Not important/not at all important	10%		2%

Note: This table does not show statistical significance. Only the findings specifically mentioned in the text preceding this table are significantly different.

2.2 Perception of Changes in Water Use

In 2012, survey respondents were asked to comment on how their water consumption had changed in the past three years. This question was new to the survey; therefore, no comparisons to earlier years were possible. It is encouraging that overall, only 16% of respondents indicated that their water use had increased. Approximately one-half (48%) felt that their water use had stayed the same, while about one-third (33%) cited a decrease in their water use.

Findings on the basis of demographic characteristics are depicted in Chart 2-1.



- On the basis of gender, the only significant difference observed is that males were more likely to indicate that the household’s water use had increased over the last three years than were females.
- Older respondents (55 years or more) were more likely to state that their water use had “stayed the same” when compared to the middle age group (35-54 years). Compared to both other age categories, these older respondents were much less likely to state that their water use had “increased” – a finding that is not surprising,

- considering that this age group is the least likely to experience an increase in household size.
- Lower-income respondents were more likely to say that their water use had “stayed the same”, while higher-income respondents were more likely to say that their water use had decreased.

2.3 Source of Water Service to Respondent’s Home

For the most part, respondents in 2012 gave similar answers to those in 2004 and 2008 to the question of who provides the water service or piped water to their home. In order to compare 2012 data with that of previous years, it was necessary to combine the responses “CRD” and “CRD Integrated Water Services (formerly CRD Water),” since “CRD” was not an option on the 2004 and 2008 surveys. Overall, the proportion of respondents stating that they did not know who provided their water has been declining since 2004.

It is interesting to examine the 2012 survey response on the basis of the municipality in which the respondent lives. This comparison has been provided in Table 2-3 below.

- Respondents living in municipalities close to the Sooke Reservoir were more likely to state that their water was provided by the CRD or by CRD Integrated Water Services.
- Respondents living in municipalities farther away from the reservoir were more likely to say that their home municipality provided their water.
- Oak Bay residents were the most unsure about the source of their water, with 33% stating that they did not know.

**Table 2-3
Cited Source of Water Services or Piped Water to Respondent's Home
(by municipality)**

Municipality of Residency*	Who provides the water service to your home?				
	Home Municipality	Another** Municipality	CRD	CRD Integrated Water Services	Don't Know
Metchosin	0%	0%	72%	12%	16%
Sooke	15%	3%	47%	26%	0%
Langford	16%	0%	60%	4%	16%
Colwood	30%	0%	55%	3%	3%
View Royal	45%	0%	47%	0%	8%
Central Saanich	65%	5%	18%	0%	12%
Oak Bay	47%	0%	18%	0%	33%
Saanich	61%	6%	12%	2%	19%
Victoria	71%	0%	12%	2%	15%
Esquimalt	29%	25%	13%	0%	11%
North Saanich	85%	6%	5%	5%	0%
Sidney	93%	0%	7%	0%	0%

*As identified in question S2 by respondent during survey administration.

**This category reflects only other municipalities mentioned specifically, not "other."

There were some differences in response on the basis of demographic characteristics.

- Female respondents were less likely to say that the CRD or CRD Integrated Water was responsible for providing water service to their home. Furthermore, female respondents were more likely not to know who provides their water service.
- The youngest respondents (aged 18 to 34 years) were much more likely not to know who provided their water than were older respondents.
- Lower-income respondents were less likely to say that the CRD or CRD Integrated Water was responsible for providing water service to their home. The CRD was cited by 26% of respondents whose income was \$50,000 or more, but by only 15% of respondents whose income was below \$50,000. Similarly, CRD Integrated Water was cited by 5% of higher-income respondents and only 1% of lower-income respondents. As was the case for the demographic variables above, a significant difference was also seen for income in not knowing who provided the water service: 21% of lower-income respondents did not know, while only 12% of higher-income respondents did not know.

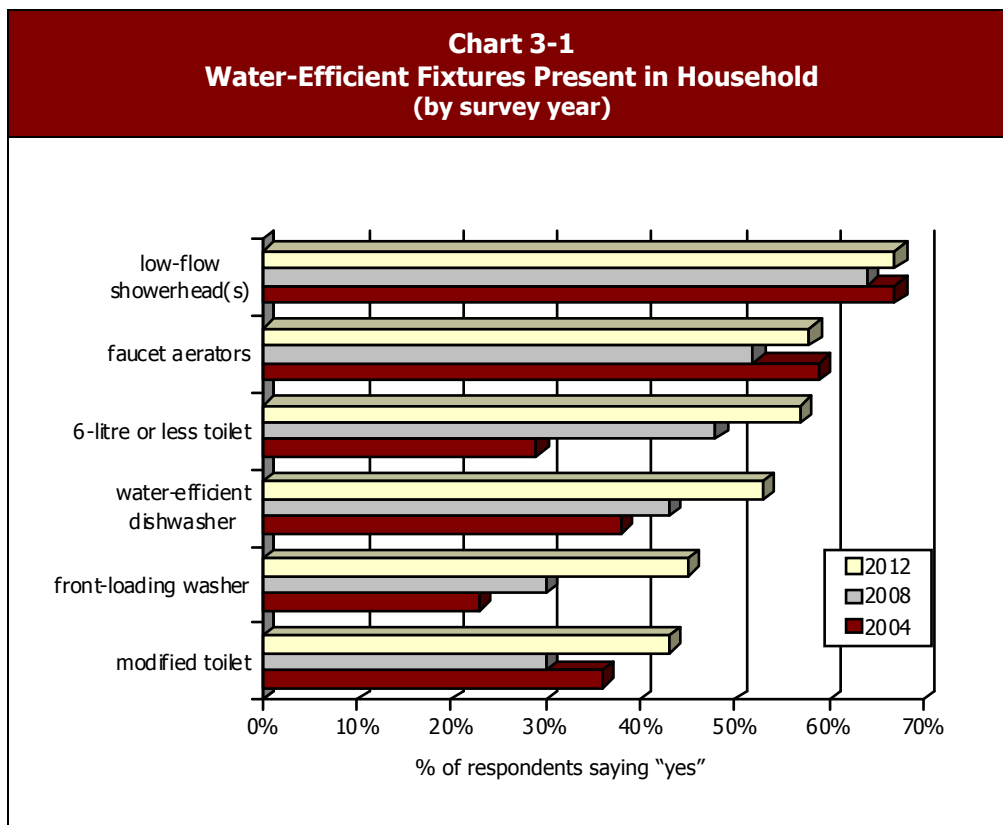
SECTION 3: WATER USE BEHAVIOURS AND ACTIONS

3.1 Indoor Water Efficiency

Respondents were asked several questions designed to ascertain their behaviours and actions with respect to indoor water efficiency.

3.1.1 Water-Efficient Fixtures

As shown in Chart 3-1, over the years there has not been much change in CRD households' having low-flow showerheads and faucet aerators. There is, however, an encouraging upward trend in the proportion of households with low-flow toilets, water-efficient dishwashers and front-loading washing machines, despite the discontinuation of the rebate programs (2009) for some of these fixtures.



This trend is likely attributable to the fact that as household appliances break down, a water-efficient replacement is the only option. Data for these three water-efficient fixtures has been presented once more in Table 3-1.

Table 3-1 Increased Presence of Water-Efficient Fixtures in Household (by survey year)			
	2004	2008	2012
6-litre or less toilet			
Yes	29%	48%	57%
No	57%	42%	34%
Don't know/prefer not to answer	15%	10%	9%
Water-efficient dishwasher			
Yes	38%	43%	53%
No	51%	46%	36%
Don't know/prefer not to answer	11%	11%	11%
Front-loading washer			
Yes	23%	30%	45%
No	77%	70%	54%
Don't know/prefer not to answer	0%	1%	0%

Only 4% of respondents stated that they had other indoor water-efficient fixtures in their home.

There were some small differences in response on the basis of demographic characteristics.

- Males were more likely to say that their household had faucet aerators than were females (68% as compared to 50%).
- Significant differences on the basis of age were seen for the three more costly water-efficient fixtures (i.e., low-flow toilets, front-loading washing machines, and water-efficient dishwashers). Respondents aged 35 and older were more likely to own a water-efficient dishwasher. Respondents in the middle age group were more likely to own a front-loading washing machine than either of the other age groups. This age group was also more likely to have low-flow toilets as compared to the 18- to 34-year-old group.
- Household income was also significant with respect to the presence of water-efficient fixtures. Again, higher-income households were more likely to have the three more costly fixtures, as well as, surprisingly, faucet aerators. No difference on the basis of income was seen for low-flow showerheads or modified toilets.

- The differences seen on the basis of age and household income are linked, as the 35- to 54-year-old age group is more likely to have a household income of \$50,000 or more.
- Respondents in the Western Communities are more likely to have front-loading washing machines than are those living in the Victoria core (64% as compared to 39%).

3.1.2 Indoor Water-Efficiency Practices

The practice of checking toilets for leaks by putting food colouring or dye tablets into the tank is not widespread in the CRD. Survey results for 2012 were almost identical to those of 2008, with 83% of respondents stating they had not checked within the last year. There were no differences in the frequency of this practice on the basis of gender, age, or income. Respondents living in the Western Communities, however, were more likely to check their toilets for leaks than were those living in the Victoria core (32% as compared to 13%). This finding may be attributed to the Integrated Water Services billing process where billing staff contact customers with abnormally high water consumption to alert them to a possible leak and advise them about how to check for and detect leaks. Should a leak be found, customers may submit a leak application to the office.

Survey respondents were asked about the frequency with which they practise various water-efficiency measures. Their responses are given below in Table 3-2. As seen in the table,

- there has been a slight decline in the proportion of respondents indicating “always” in the case of all of the indoor water-efficiency practices.
- the practice of “keeping drinking water in the fridge” appears to be declining in the CRD with more respondents indicating that they “never” do so.
- “flushing the toilet infrequently” has never been the most popular indoor water-efficiency practice; the year-over-year decline in “always” was paired with an increase in both “sometimes” and “never.” Given that a higher number of households report having low-flow toilets (see Section 3.1.1 above), CRD residents perhaps feel that there is less need for this method of indoor water efficiency.

Table 3-2 Indoor Water-Efficiency Practices (by survey year)			
	2004	2008	2012
Turn off faucet while shaving, brushing teeth, etc.			
Always	75%	76%	71%
Sometimes	18%	19%	24%
Never	6%	5%	5%
Consciously take short showers			
Always	52%	51%	49%
Sometimes	37%	36%	39%
Never	10%	11%	12%
Keep drinking water in the fridge			
Always	68%	60%	44%
Sometimes	9%	14%	15%
Never	21%	24%	40%
Flush the toilet infrequently			
Always	36%	35%	27%
Sometimes	39%	41%	43%
Never	24%	24%	29%

Significant differences on the basis of demographics were not numerous.

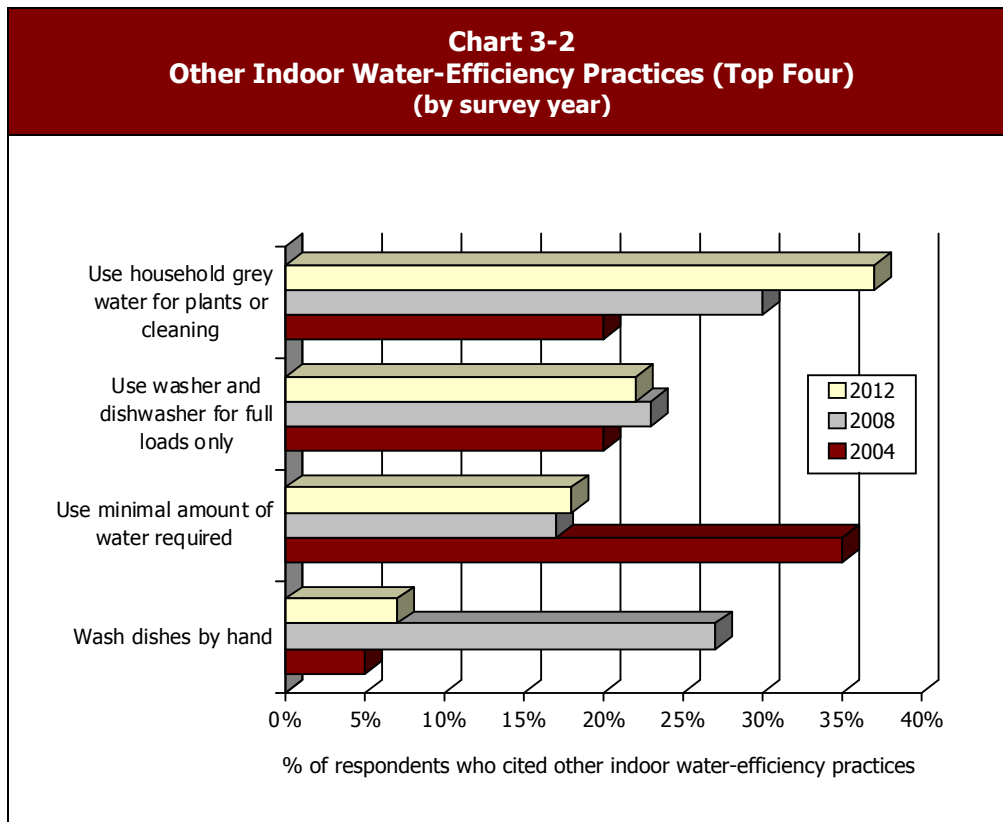
- Males were more likely “never” to flush the toilet infrequently (35% as compared to 25%).
- The youngest group was least likely to say “never” for shorter showers but reported significantly lower instances of “always” and substantially higher instances of “sometimes” as compared to the other age groups.
- The youngest age group also lagged behind the others with respect to infrequent toilet flushing, reporting the lowest “always” incidence” of the three age groups and a higher “never” incidence than the 55-years-and-older age group.
- The youngest age group was, however, more diligent than the oldest group in turning off the faucet.
- Lower-income respondents were more likely to report “sometimes” for turning off the faucet, while higher-income respondents were more likely to say “always.”

- Respondents living in the core municipalities were less likely to say that they “always” took shorter showers than were those living on the Saanich Peninsula and in the Western Communities (43% “always” as compared to 66% and 58%). This finding is of some concern, as by far the largest proportion of the CRD population resides in the core municipalities (approximately two-thirds of the CRD’s residents live in Victoria, Esquimalt, Oak Bay and Saanich).

3.1.3 Other Indoor Water-Efficiency Practices

Survey respondents were asked if there were any other indoor water-efficiency measures that they practised. The proportions in 2012 were identical to those in 2008, with 30% of households indicating other indoor water-efficiency practices. Female respondents were more likely to cite additional indoor water-efficiency practices than were males (39% as compared to 18%). There were no differences in opinion on the basis of age and income.

The four most frequently cited other indoor water-efficiency practices are given in Chart 3-2.



As shown in the chart,

- the practice of using household grey water for plants or cleaning has been increasing steadily since 2004.

- the practice of running the washing machine or dishwasher only with full loads has remained fairly constant since 2004.
- in 2008, a larger proportion of people cited “washing dishes by hand” as an indoor water-efficiency measure, while in 2004, the proportion using the “minimal amount of water required” was higher.

With respect to the kinds of other indoor water-efficiency measures practised, there were no statistically significant differences on the basis of gender or age. Higher-income respondents were more likely to cite using the dishwasher/washer for fuller loads than were lower-income respondents (28% as compared to 5%). Lower-income respondents were more likely to cite “bathe or shower together” as a method of indoor water-efficiency (11% as compared to 2%).

3.2 Outdoor Water Efficiency

3.2.1 Lawn and Garden Care

As in other survey years, approximately two-thirds of 2012 survey respondents stated that they had a lawn (67%) and/or garden (65%) to look after. On the basis of demographics, the following is seen in the data:

- As would be expected, gender was not significant in whether or not the household had a lawn and/or garden to look after.
- Respondents aged 35 to 54 years were most likely to have a lawn to look after than respondents in either of the other age groups. This age group was also more likely to have a flower or vegetable garden to look after than were younger respondents.
- Higher-income respondents were more likely to have a lawn and/or garden to look after than lower-income respondents.
- Respondents from the Western Communities were more likely to have a lawn and a garden than were respondents living in the core municipalities.

Respondents who had a lawn were asked whether or not they watered it. As shown in Table 3-3 below, 2012 was the first year in which the majority of respondents stated that they did not water their lawn. It is not an overwhelming majority, but it is nevertheless a majority. Males were more likely to say that they watered their lawn (57%) than were females (41%), but otherwise, there was no significant difference in lawn watering on the basis of age or income.

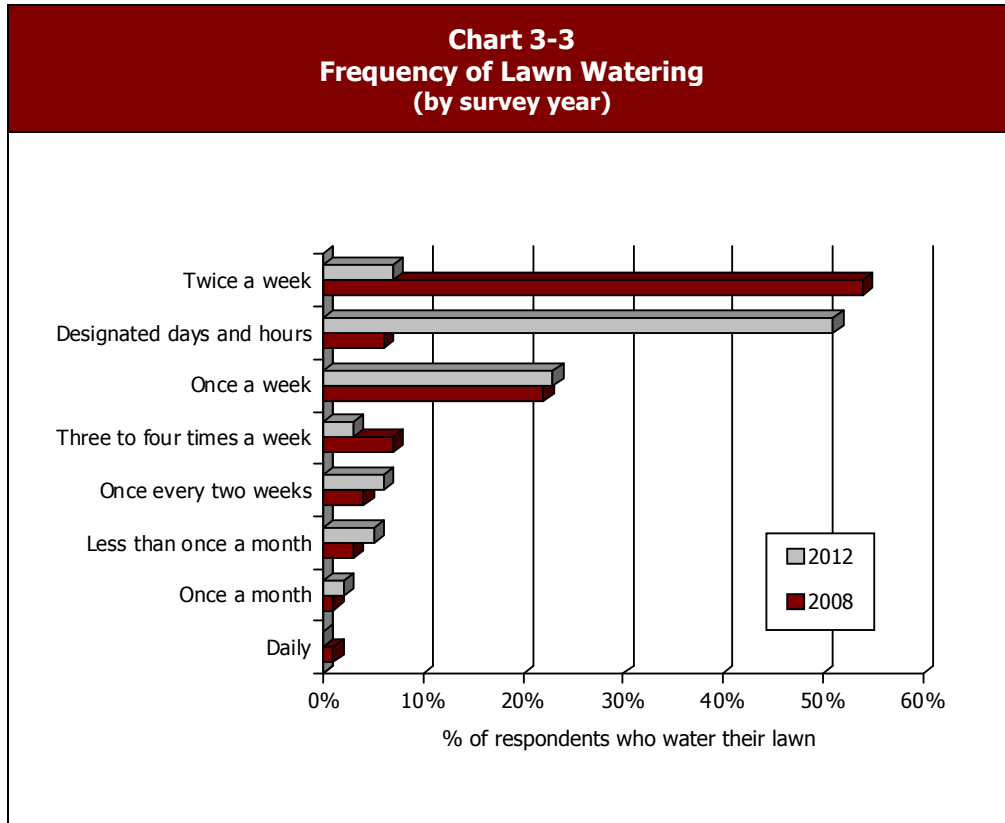
Table 3-3 Lawn Watering (by survey year)			
	2004	2008	2012
Do you water your lawn?			
Yes	55%	54%	48%
No	45%	46%	52%

Respondents were almost evenly divided with respect to the question of whether they watered their lawn less frequently than they did three years ago, with 48% of them saying they did and 46% of them saying they did not (the remaining 6% did not know). This question was asked for the first time in 2012, so no year-over-year comparisons were possible. With respect to demographic variables, the following differences were seen:

- Respondents aged 35 to 54 years were more than twice as likely (62%) to say that they watered their lawn less frequently than were respondents in the youngest age group (30%).
- Respondents in the youngest age group were more likely not to know whether they watered their lawn less than three years ago (20% as compared to 2% and 1% for the higher age groups).
- Among males, there was a higher incidence than among females of not knowing whether they watered their lawn less frequently (11% “don’t know” for males, 2% for females).
- No significant difference was observed on the basis of household income.

Respondents who watered their lawn were asked to state how often they did so. Their responses are presented in Chart 3-3 below. Survey results reveal:

- nine out of ten CRD residents who water their lawn do so either at the frequency permitted by the watering bylaw or even less frequently.
- the only major differences between 2008 and 2012 were seen in the categories “twice a week” (54% in 2008, 7% in 2012) and “designated days and hours” (6% in 2008, 51% in 2012). As was the case in 2012, the Water Conservation Bylaw in 2008 remained at Stage 1 throughout the summer. If the percentages for “twice a week” and “designated days and hours” are summed for the two survey years, then there is actually little difference between them.



Note: This question was not asked of 2004 respondents; hence, data is presented only for 2008 and 2012.

The only noteworthy difference on the basis of demographics is that respondents in the youngest group were more likely to say that they watered their lawn only once a week (40%) than were those in the oldest age group (15%).

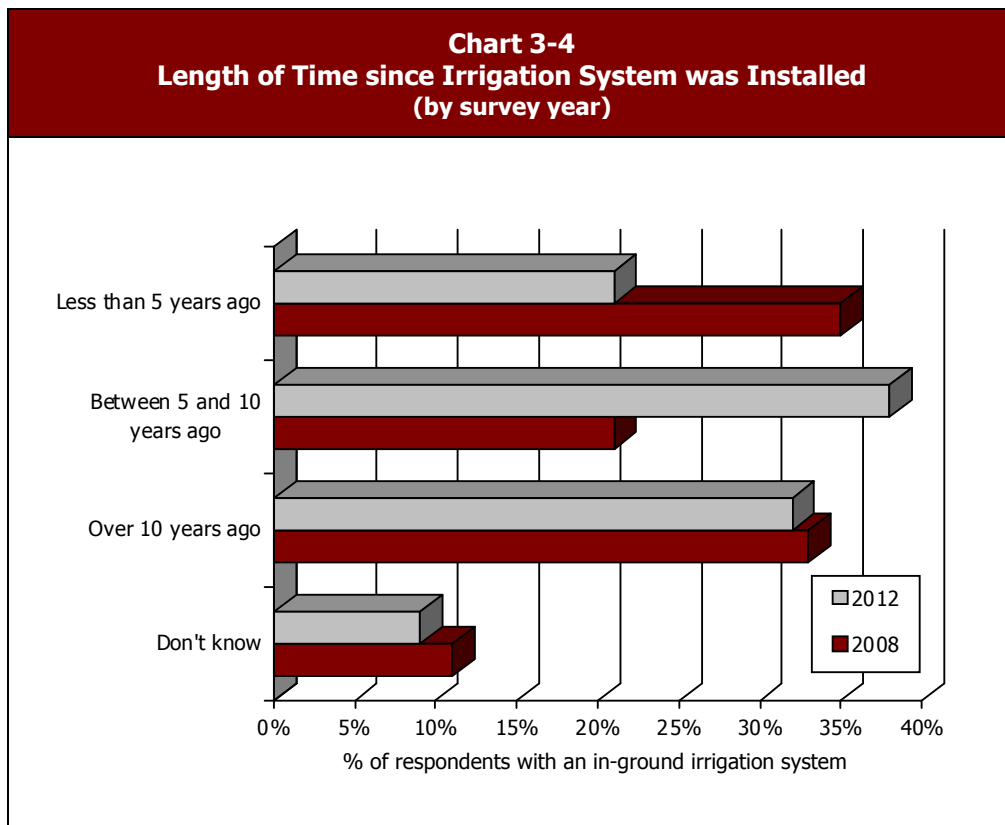
3.2.2 In-ground Irrigation Systems

Approximately one-third of 2012 survey respondents have an in-ground irrigation system. This proportion is in line with the findings from 2004, but slightly higher than the one-quarter of respondents seen in 2008. The following differences on the basis of demographics were observed:

- Oddly, in 2012 males were more likely to say “yes” to having an in-ground irrigation system than were females.
- Not surprisingly, respondents in the higher-income group were more likely to have an in-ground irrigation system (36% as compared to 18%).
- Respondents living in the core municipalities were more likely to have in-ground irrigation systems than those living in the Western Communities (71% as compared to 56%).

The vast majority of people who have an in-ground irrigation system reported that it was working (94%) and that they used it (94%). Respondents aged 55 years or older were more likely to have a working irrigation system (99%) than those aged 35 to 54 years (85%). No significant differences were found on the basis of gender or income.

As shown in Chart 3-4 below, there do not appear to have been many new system installations in the last few years. Since 2008, there has been a reversal in the “less than 5 years ago” and “5 to 10 years ago” proportions, suggesting that systems are not being replaced.



Note: This question was not asked of 2004 respondents; hence, data is presented only for 2008 and 2012.

Only one difference on the basis of demographics is worth mentioning: lower-income respondents were more likely to have older systems (68% installed over 10 years ago) than were higher-income respondents (23% installed over ten years ago).

As may be seen in Table 3-4 below, it seems that an in-ground irrigation system is most often installed by an irrigation professional, but when it comes to maintenance and setting the watering schedule, the responsibility shifts to a household member. It should be noted, however, that nearly one-third of respondents did not know who had installed their system.

Table 3-4 In-ground Irrigation System History and Care			
Responsibility	System Installation	System Maintenance	Setting the Watering Schedule
Irrigation professional	36%	30%	10%
Landscape company	4%	3%	1%
Household member	23%	53%	87%
Neighbour/friend/handyperson	0%	2%	1%
Other	6%	2%	2%
Don't know	31%	1%	0%
It is not maintained	N/A	9%	N/A

Note: The questions about the history and care of a respondent's in-ground irrigation system were only asked in 2012.

Only a few differences in terms of respondent demographics were seen for the history and care of the household's in-ground irrigation system.

- Female respondents were more likely to say that an irrigation professional maintained the household's system (39% as compared to 21%), while male respondents were more likely to say that a household member did so (66% as compared to 41%).
- Respondents in the middle age group (35 to 54 years) were more likely not to know who installed their system (49% as compared to 17% for the youngest group, and 21% for the oldest group). They were also the group least likely to maintain their system, with 20% of them saying "it is not maintained."
- Members of the oldest age group were more likely to hire an irrigation professional to maintain their system (46% as compared to 17% and 20%), while members of the youngest group were more likely to maintain their system themselves (83% as compared to 49% and 41%).
- Surprisingly, lower-income respondents were more likely to have had their system installed by an irrigation professional (68% as compared to 30%).
- Lower-income respondents were also more likely to have an irrigation professional maintain their system (80% as compared to 19%), while higher-income respondents were more likely to maintain their system themselves (63% as compared to 15%).
- Respondents living in the core municipalities were more likely to have their system maintained by an irrigation professional than were those living in the Western Communities (42% as compared to 16%).

In general, the majority of respondents who maintained their irrigation system did so once a year (40%) or twice a year (47%). No differences on the basis of demographic characteristics were seen for frequency of system maintenance, except that 18- to 34-year-olds were more likely to say that their system is maintained "as needed" than were older respondents (17% as compared to 0% and 3%, for the two older groups, respectively).

In terms of how often the irrigation's watering schedule is adjusted during the watering seasons, the single most frequent response in both 2008 and 2012 was that the adjustment depended on weather changes (37% for 2008 and 43% for 2012). "Once a season" was the second most frequently cited adjustment (19% for 2008 and 29% for 2012). There were two differences on the basis of demographic characteristics:

- The youngest group of respondents was more likely to cite "once a season" than was the oldest group (50% as compared to 20%).
- Lower-income respondents were more likely to say that their system was "never adjusted" than were higher-income respondents (16% as compared to 2%).

The vast majority of survey respondents (91%) said they had no plans to install or replace an irrigation system. This proportion is slightly higher than the 86% seen in the 2008 survey. There was no difference in installation or replacement plans on the basis of the demographic variables (gender, age, income).

Since 2004, there has not been much change in the CRD with respect to the proportion of households with a micro-drip irrigation system. In 2012, this number was still nearly 20%. No differences on the basis of age or gender were seen, but having a micro-drip system did vary on the basis of income and region:

- Higher-income households were more likely to have a micro-drip system (23% as compared to 1%).
- Micro-drip irrigation systems were more common in the core municipalities than on the Saanich Peninsula (84% as compared to 67%).

3.2.3 Outdoor Water-Efficiency Practices

Survey respondents were asked about the frequency with which they practise various outdoor water-efficiency measures. Their responses are given below in Table 3-5. As seen in the table,

- The majority of CRD residents in all three survey years always practise the three water-efficiency measures related to watering (e.g., watering the lawn before 10AM or after 7PM, using a spring-loaded nozzle, and watering the garden before 10AM or after 7PM).

- There has been improvement in watering the lawn before 10AM or after 7PM, as the proportion of “always” responses in 2012 has increased (by 11% between 2008 and 2012) while the “sometimes” proportion has decreased.
- There has been a slight improvement in 2012 for the practice of using native or drought-tolerant plants when landscaping.

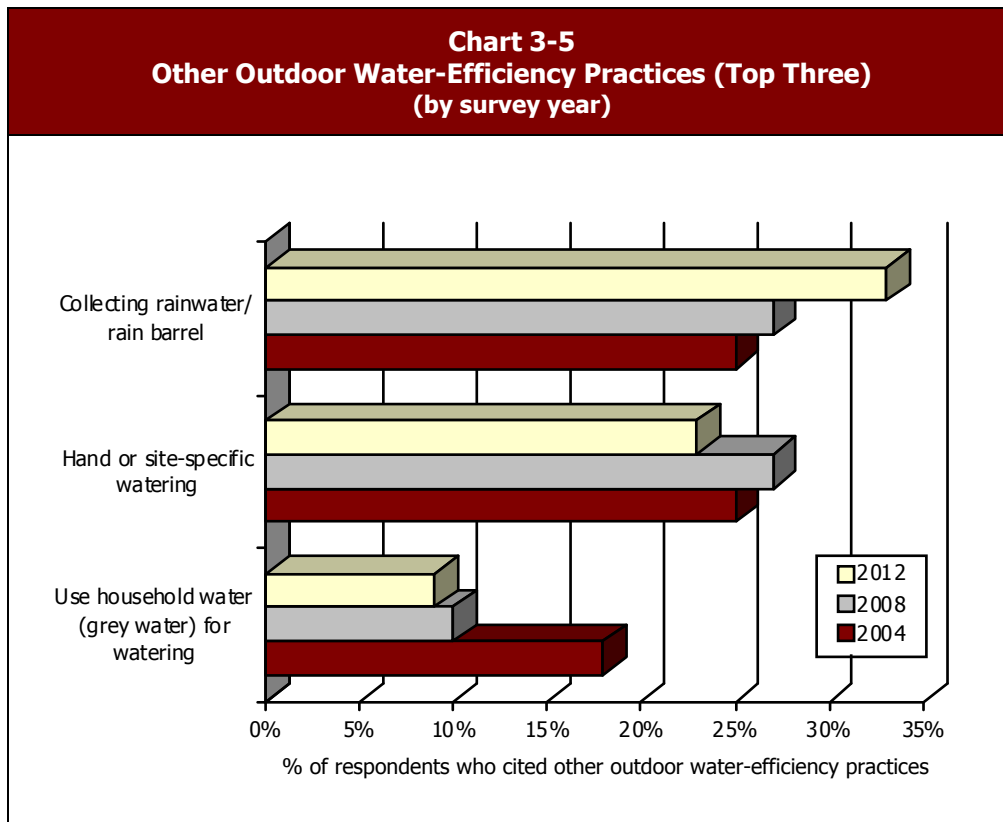
Table 3-5 Outdoor Water-Efficiency Practices (by survey year)			
	2004	2008	2012
Watering lawn before 10AM or after 7PM			
Always	85%	82%	93%
Sometimes	13%	17%	5%
Never	2%	0%	2%
Using a spring-loaded nozzle			
Always	74%	75%	76%
Sometimes	7%	3%	6%
Never	16%	20%	16%
Watering garden before 10AM or after 7PM			
Always	75%	73%	74%
Sometimes	19%	21%	20%
Never	5%	6%	5%
Using native or drought-tolerant plants in landscaping			
Always	20%	22%	26%
Sometimes	46%	44%	51%
Never	24%	20%	18%

There were not many differences in outdoor water-efficiency practices on the basis of demographic characteristics.

- Members of the youngest age group were more likely to say that they “never” used a spring-loaded nozzle (30% as compared to 12% and 11% for the higher age groups, respectively), while members of the middle age group were more likely to say that they “always” used such a nozzle than were the youngest respondents (82% as compared to 65%).
- Lower-income respondents were more likely to say “never” to using a spring-loaded nozzle (25% as compared to 13%).

- Higher-income respondents were more likely to use native or drought-tolerant plants when landscaping (55% as compared to 41%).

The proportion of respondents stating that there were other methods of outdoor water-efficiency practised by their household has been increasing since 2004, from 28% to 41% to 45%. The specific methods of other outdoor water efficiency are given in Chart 3-5. As shown in the chart, the proportion of respondents stating that they collect rainwater has been increasing steadily since 2004. The proportion of those saying they use household grey water for watering in the garden has never reached the 2004 levels. As reported in Section 3.1.3 above, however, over one-third of respondents cited reusing grey water as an indoor water-efficiency method; they may simply have omitted to mention it again here.



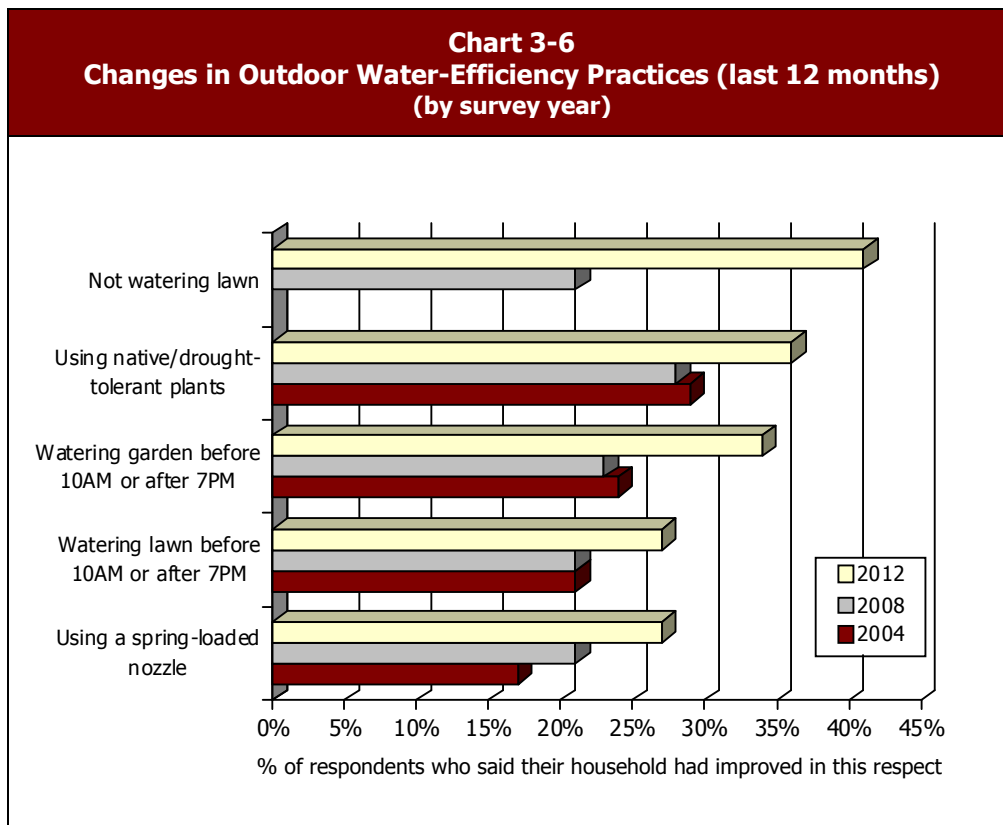
There were a few differences on the basis of respondent demographics:

- Females were more likely to say that their household practises other outdoor water-efficiency measures.
- Members of the oldest age group were more likely to say that their household did not practise other outdoor water-efficiency measures than were members of the youngest age group (62% as compared to 43%).

- The practice of “hand watering or site-specific watering” was much less frequently cited by the youngest age group (9% as compared to 27% and 30%).
- Lower-income respondents were more likely to cite the removal of their lawn as an outdoor water-efficiency measure (13% as compared to 2%).

3.2.4 Changes in Outdoor Water-Efficiency Practices

The final question in this section of the survey asked respondents whether their household had become more water-efficient in the last 12 months with respect to five outdoor water-efficiency practices. As may be seen in Chart 3-6 below, the proportion of respondents saying “yes” has increased for every practice. The most dramatic improvement has been with respect to “not watering the lawn,” suggesting that the CRD’s “going golden” campaign is making a difference.



Note: “No watering of lawn” was not an option on the 2004 survey; hence, data is presented only for 2008 and 2012.

Differences on the basis of demographic characteristics were observed:

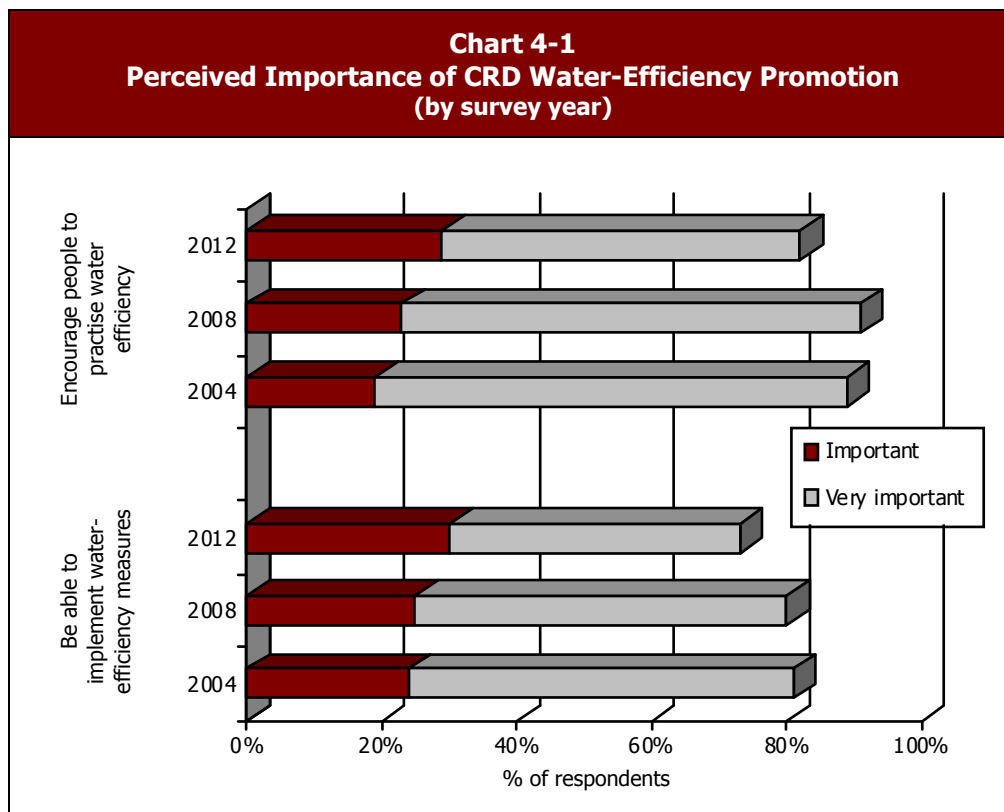
- Female respondents were more likely to cite an improvement in using native or drought-tolerant plants (43% as compared to 25%).

- Members of the youngest group were more likely to cite improvement in watering their garden before 10AM or after 7PM than were members of the oldest group (47% as compared to 26%).
- Members of the two younger age groups were more likely to cite “not watering lawn” as an improvement than were respondents in the oldest age group (56%, 54%, and 26%).
- Lower-income respondents were more likely to cite improvement in watering their lawn before 10AM or after 7PM (51% as compared to 19%).
- Respondents from the Western Communities were more likely to report an improvement in using a spring-loaded nozzle than were those from either of the other regions (42% as compared to 23% for Core Victoria and 15% for the Saanich Peninsula).

SECTION 4: PERCEPTIONS OF WATER-EFFICIENCY OPTIONS

4.1 Importance of CRD Promoting Water Efficiency

The survey explored two aspects of the CRD’s promotion of water efficiency. The findings are depicted in Chart 4-1 below. As in previous survey years, the majority of respondents in 2012 still felt it was important or very important for the CRD to encourage people to practise water efficiency, although the proportion had decreased slightly in 2012 (82%) from 2008 (91%) and 2004 (89%). The only significant difference seen on the basis of demographic characteristics was that respondents belonging to the two older age groups were more likely to say that encouraging people to practise water efficiency was “very important”, while members of the youngest age group were more likely to say it was merely “important.”



The importance ratings for the CRD’s ability to implement water-efficiency measures were slightly lower than those seen for encouraging people to practise water efficiency, with the 2012 proportions dropping below 80%. Some demographic differences were:

- Members of the youngest age group were more likely to be “neutral” in their response than were members of the older two groups.

- Higher-income respondents were more likely to say that it was “not important” for the CRD to be able to implement water-efficiency measures.
- Lower-income respondents were more likely to be “neutral” in their response.

4.2 Awareness of and Support for the CRD Water Conservation Bylaw

4.2.1 Awareness of the Bylaw

Survey respondents were read the Stage 1 Water Conservation Bylaw and then asked to rate their awareness of the bylaw prior to the survey. Overall, approximately three in four respondents said that before the survey, they had been aware of the watering bylaw in effect from May 1st to September 30th of this year. In fact, as was the case in 2004 and 2008, the majority (57%) considered themselves to have been “very aware.” Some differences on the basis of demographics were observed (see also Table 4-1):

- Males were more likely to say they had been “not aware” than were females.
- Members of the youngest age group were much less likely to state they had been “very aware” than were their older counterparts, and more than twice as likely to say that they had been “not at all aware/not aware” prior to the survey.
- Lower-income respondents were more likely to have been “not at all aware” and less likely to have been “very aware” of the watering bylaw than those with a higher income.
- Respondents from the Western Communities were more likely to say that they had been “very aware” than those living in the core municipalities.
- Not surprisingly, respondents who did not pay for their water use directly were more likely to have been “not at all aware/not aware” and less likely to have been “very aware” of the watering bylaw.

Table 4-1 Awareness of Water Conservation Bylaw Prior to Survey (by various demographic characteristics)			
GENDER	Males	Females	
Aware/very aware	71%	74%	
Neutral	7%	10%	
Not aware/not at all aware	23%	17%	
AGE	18-34 years	35-54 years	55+ years
Aware/very aware	54%	77%	81%
Neutral	13%	8%	7%
Not aware/not at all aware	35%	14%	12%
INCOME	below \$50,000		above \$50,000
Aware/very aware	66%		74%
Neutral	10%		9%
Not aware/not at all aware	25%		16%
REGION	Core Victoria	Saanich Peninsula	Western Communities
Aware/very aware	69%	79%	80%
Neutral	11%	3%	5%
Not aware/not at all aware	20%	16%	15%

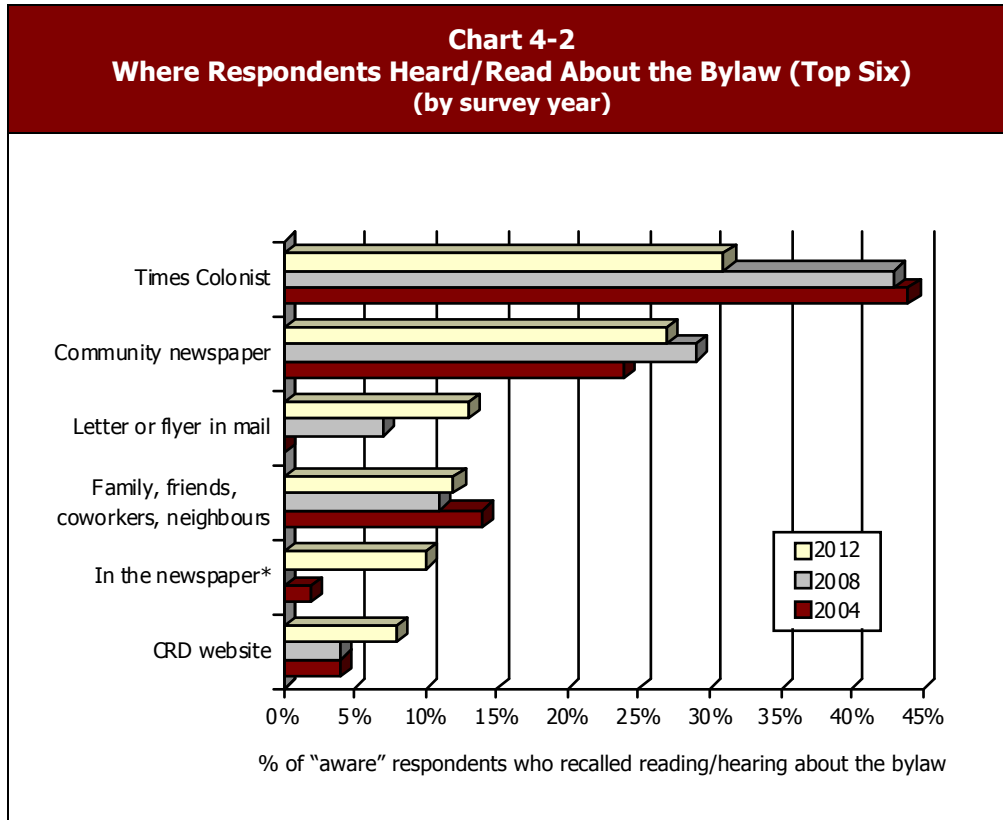
Note: This table does not show statistical significance. Only the findings specifically mentioned in the text preceding this table are significantly different.

Respondents who said that they had been “aware” or “very aware” of the watering bylaw prior to the survey were asked to say where they had heard or read about it. As in prior surveys, the proportion remembering the source was approximately 85%. Higher-income respondents were more likely to recall where they had heard or read about the bylaw (87%) than were lower-income respondents (77%). There was no difference in recall on the basis of age or gender.

The top six sources where respondents recalled hearing or reading about the bylaw are shown in Chart 4-2 below.

- Overall, print materials remained the predominant source for information about the watering bylaw.
- There has been little year-over-year change in the proportion of respondents citing community newspapers. The proportion for the *Times Colonist* has decreased in 2012. However, if all three of the ‘newspaper’ options are combined, not much change is evident between 2004 to 2012.
- The non-print source of “family, friends, coworkers, neighbours” has also remained constant since 2004.

- The importance of letters or flyers in the mail as a source of information has been increasing steadily, as has that of the CRD website.



* In both 2004 and 2012, there were respondents who could not recall whether they had read about the bylaw in the *Times Colonist* or in a community newspaper, but they did remember that it was in a newspaper of some sort.

Some differences on the basis of respondent demographics were noted:

- Females were more likely to have heard about the bylaw from family, friends, coworkers and neighbours (16% as compared to 6%), and males were more likely to have heard about it on the radio (10% as compared to 4%).
- Members of the oldest age group cited the *Times Colonist* (39%) more often than those in the middle age group (21%).
- As would be expected, respondents in the youngest age group were much more likely to recall getting their information about the bylaw from the CRD website (14%) than were respondents in the oldest group (4%).
- Lower-income respondents were more likely to say that they had heard about the watering bylaw from family, friends, coworkers, or neighbours than were higher-income respondents (18% as compared to 8%).

4.2.2 Support for the Bylaw

Two survey questions gauged support for the watering bylaw among CRD residents. Results are presented in Table 4-2 below. As shown in the table, support for the bylaw has essentially remained constant since 2004. Similarly, the vast majority of respondents in all three survey years found the timing allotted by the watering bylaw acceptable, with most of them indicating that it was “very acceptable.”

Table 4-2 Support for the Watering Bylaw and the Timing Allotted by the Bylaw (by survey year)			
	2004	2008	2012
Support the watering bylaw			
Support/strongly support	83%	87%	85%
Neither support nor oppose	11%	9%	10%
Oppose/strongly oppose	6%	3%	5%
Timing allotted by the watering bylaw			
Acceptable/very acceptable	79%	85%	84%
Neither acceptable nor not acceptable	10%	7%	8%
Not acceptable/not at all acceptable	6%	5%	6%

The following demographic differences were found:

- Females were more likely (68%) to strongly support the bylaw than were males (56%). Females were also more likely to find the timing allotted acceptable (14%) or very acceptable (72%) than were males (25% acceptable, 54% very acceptable).
- Respondents in the oldest age group were more likely to strongly support the bylaw than were members of the youngest group (68% as compared to 53%).
- Higher-income households were more likely to find the timing allotted by the bylaw very acceptable (71%) than were lower-income households (60%).
- Respondents in the core municipalities were more likely to “strongly support” the bylaw than those living in the Western Communities (66% as compared to 53%).

4.2.3 Support for Two-Tiered Rates

Support for two-tiered rates for summer water use (one rate for normal usage and a higher rate for consumption levels above the normal usage rates) declined in 2012: 50% of respondents found the idea of a two-tiered rate system acceptable (20%) or very acceptable (30%). The proportion of respondents who found two-tiered rates unacceptable has been increasing slightly but steadily since 2004.

- Respondents in the two older age groups were more likely to find the notion of two-tiered rates “not at all acceptable” than were those in the youngest group (22% and 23% as compared to 6%).
- Respondents with higher incomes were more likely to say two-tiered rates were not at all acceptable (20%) than were lower-income respondents (5%). This finding is not surprising, as higher-income respondents were more likely to pay for their water use personally and would therefore be directly affected by two-tiered rates. As noted earlier in Section 3.2.2, higher income respondents were also more likely to have in-ground irrigation systems, and this fact, too, could influence their opinions about two-tiered rates.
- Respondents in the Western Communities were more likely to find two-tiered rates “not at all acceptable” than those living in the core municipalities (28% as compared to 16%).

4.2.4 Other Comments on the Bylaw

As in the previous survey years, approximately four in ten respondents offered suggestions or comments regarding the bylaw. Respondents in the youngest age group were less likely to provide comments or suggestions than were older respondents.

Respondents’ comments/suggestions were coded. For the most part, the 2012 open-ended responses fit into the codes used in earlier years, but it was necessary to develop some new codes for this year’s prevalent topics. The top five comments/suggestions are provided in Table 4-3 below.

- The perceived need to educate the public has remained the most frequent topic for comment since 2004.
- The need for more enforcement of watering restrictions has also been a consistent comment over the years.
- A new issue that arose in 2012 was a complaint about how household water conservation is not reflected in a lower water bill. Respondents were unhappy and felt they were being penalized rather than rewarded for conserving water.

Table 4-3 Comments on or Suggestions about the Watering Bylaw (Top Five) (by survey year)			
	2004	2008	2012
Educate public and raise awareness of water issues	16%	13%	18%
Need more enforcement of watering restrictions	12%	11%	11%
Unhappy to be paying more for using less			11%
Government and business should have same restrictions	7%	13%	7%
Watering times and days should be more flexible	12%	11%	7%

Some differences in the comments and/or suggestions on the basis of demographics were observed:

- Males were more likely to say that government and business should have the same restrictions as residential households.
- Respondents in the oldest age group were less likely to suggest educating the public and raising awareness of water issues than were their younger counterparts (8% as compared to 25% and 26%).
- Early morning watering being impractical was more of a concern for members of the youngest age group (13%) than for the two older groups (1% and 1%).
- Respondents in the middle age group were more likely to comment about not being in favour of a two-tiered system than were those respondents in the oldest group.
- Higher-income respondents were more likely to provide a response pertaining to educating the public and raising awareness of water issues than were lower-income respondents (27% as compared to 11%).
- Lower-income respondents were more likely to make a comment about early morning watering times being impractical (9% as compared to 1%).
- Respondents living in the Western Communities were more likely to comment on payment issues than were respondents living in the core municipalities. These issues included being unhappy about paying more for using less water (23% as compared to 8%), stating that a two-tiered system must consider household size or water needs (14% as compared to 3%), and voicing opposition to a two-tiered system (10% as compared to 2%).

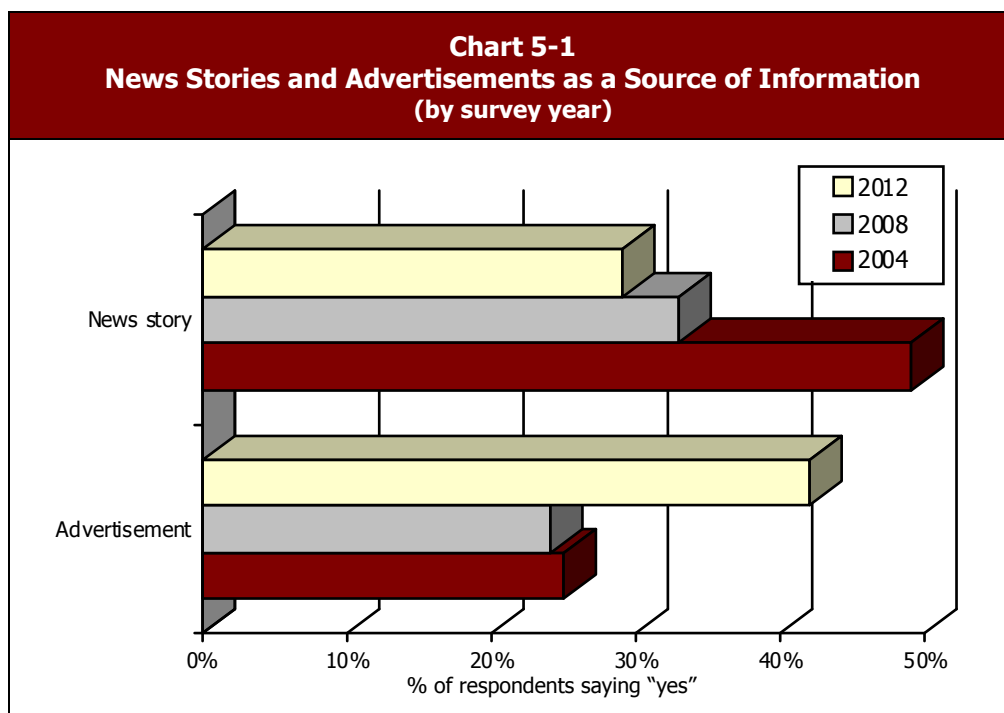
SECTION 5: AWARENESS OF CRD WATER INFORMATION AND PROGRAMS

5.1 Awareness of CRD Water-Efficiency Initiatives

In general, the proportion of respondents who had seen, read, or heard anything about CRD water efficiency within the last year has gone down. This finding is not surprising, since advertising has been reduced. In 2004, 65% of respondents reported seeing, reading or hearing about CRD water efficiency; in 2008 this proportion had decreased to 53%, and in 2012 it fell again to 42%. 2012 was therefore the first year where the majority of respondents answered “no” or “don’t know.” No differences on the basis of gender, age, or income were observed. It should be noted that the CRD’s efforts in promoting water efficiency have decreased and this decrease likely accounts for the decline in public awareness.

5.1.1 News Stories and Advertisements

As shown in Chart 5-1, since 2004 there has been a reversal in the dominant source for information about CRD water efficiency. News stories were more frequently cited in 2004, while advertisements were more frequently cited in 2012. The only noteworthy demographic difference is that females were more likely to cite advertising than were males (47% as compared to 34%).



The top three specific sources given by respondents for news and advertising pieces about the CRD or water efficiency are presented in Table 5-1. Consistent with the findings presented in Chart 4-2 in the preceding section, print media remains by far the most frequent source for both news stories and advertising about CRD water efficiency. For news stories, CHEK TV has been decreasing in importance as a source of information since 2004. In 2008, advertisements on public transit were cited by 14% of respondents; the proportion was much lower in 2012. All other sources for news stories and advertisements were cited by fewer than one in ten respondents.

Table 5-1 Specific Sources for News or Advertising (Top Three) (by survey year)			
	2004	2008	2012
News stories about CRD water efficiency			
<i>Times Colonist</i>	56%	54%	42%
Community newspapers	23%	24%	26%
TV – Channel 6 (CHEK)	22%	16%	9%
Advertising about CRD water efficiency			
Community newspapers	26%	18%	33%
<i>Times Colonist</i>	51%	31%	31%
On public transportation	0%	14%	2%

There was no significant difference on the basis of gender, but some differences were seen with respect to the other demographic variables:

- For **news stories**, members of the oldest group were more likely to cite the *Times Colonist* than were those in the middle age group (57% as compared to 22%), while the latter were more likely to cite community papers than respondents in the oldest age group (37% as compared to 17%). The youngest age group was not significantly different from either of the older ones.
- For **advertisements**, members of the oldest group were more likely to cite the *Times Colonist* than were those of either of the other age groups (46% as compared to 21% and 26%).
- For **news stories**, higher-income respondents were more likely to cite community newspapers (32% as compared to 10%).
- For **news stories**, respondents in the Western Communities were more likely to cite community newspapers than respondents living in the core municipalities (45% as compared to 22%).

5.1.2 The CRD Website

Only 20% of survey respondents indicated that they had obtained their information about water efficiency from the CRD website, while just over one-third of respondents were unaware of the CRD website. No year-over-year comparison is possible, as there were no comparable questions on the 2004 and 2008 surveys.

Some demographic differences were seen for this information source:

- As might be expected, respondents in the oldest age group were less likely to cite the website as an information source (11% as compared to 25% and 26%). Members of the oldest age group were also less likely to be aware of the website than were members of the youngest age group.
- Respondents with a higher household income were more likely to have used the website as an information source. Lower-income respondents were more likely to be unaware of this source.
- Respondents from the Western Communities were more likely to have gotten their information from the CRD website than were respondents residing in the other two regions of the CRD (31% as compared to 18% for Core Victoria, and 6% for the Saanich Peninsula).

5.1.3 CRD Information or Display Booth

As described in Table 1-8 in Section 1.5.3, there were significant differences in the design of the 2012 survey instrument; as a result, only limited year-over-year comparison is possible for this information source.

- In 2012, 30% of respondents indicated that they had accessed information about CRD water efficiency from a display or information booth at a trade show or other community outreach event. A similar proportion (31%) stated that a display booth had not been their source, while 38% said they were unaware of this information source.
- The proportion of respondents who were unaware of this information source was much higher in 2004 and 2008 (82% for both years).
- Females were more likely to identify a display booth as an information source than were males (37% as compared to 21%).
- A higher proportion of respondents in the youngest age group answered “no” (i.e., they had not used a display booth as an information source), but they were certainly more aware of this source than were respondents in the older two age groups.

- Similar differences were seen between the Western Communities and the Saanich Peninsula: A higher proportion of respondents from the Western Communities had not used this source, but they were significantly more aware of it than were Saanich Peninsula respondents.

5.1.4 CRD Workshops and Educational Materials for Schools

As noted in the preceding section, for these two information sources only limited year-over-year comparison is possible owing to significant differences in the design of the 2012 survey instrument. Survey results show:

- Neither CRD workshops nor educational materials and/or learning resources about CRD water efficiency provided to schools were frequently cited as sources of information by 2012 participants (5% and 13%, respectively).
- These two information sources were also characterized by the highest proportions of “was not aware of this source” in 2012. The awareness findings in 2012 were similar to those seen in 2008 (there were no questions about these two information sources on the 2004 survey).

The only noteworthy differences on the basis of respondent demographics were seen with respect to educational materials and/or learning resources provided to schools:

- Respondents in the middle age group were more likely to have used educational materials, etc. than those in the oldest group; members of the oldest age group were more likely to be unaware of this source.
- Higher-income respondents were more likely to have used educational materials, etc. than were lower-income respondents.

5.2 Respondent Participation in CRD Water-Efficiency Programs

Respondent participation in CRD water-efficiency programs has declined since 2008 (the question was not asked in 2004). In 2008, 14% of respondents indicated that they had participated, as opposed to only 5% in 2012. There were no differences in participation on the basis of gender, age, or income. It should be noted that all of the residential rebate incentives offered by the CRD have been discontinued (2009), resulting in fewer programs in which CRD residents can take part.

Respondents who had participated were asked to describe the program they had attended. There were seven different responses. No single workshop stood out, but two of them had a connection: one was held at the Ministry of Health, and the other at the Vancouver Island Health Authority.

SECTION 6: WATER MANAGEMENT ISSUES

6.1 Water Management Awareness

6.1.1 Awareness of Location of Greater Victoria's Water Supply

As in previous survey years, the majority of 2012 respondents correctly identified Sooke as the place where the water supply for Greater Victoria was located. The proportion in 2012 (59%) was almost identical to that of 2008 (58%); neither of these was as high as the 72% seen in 2004.

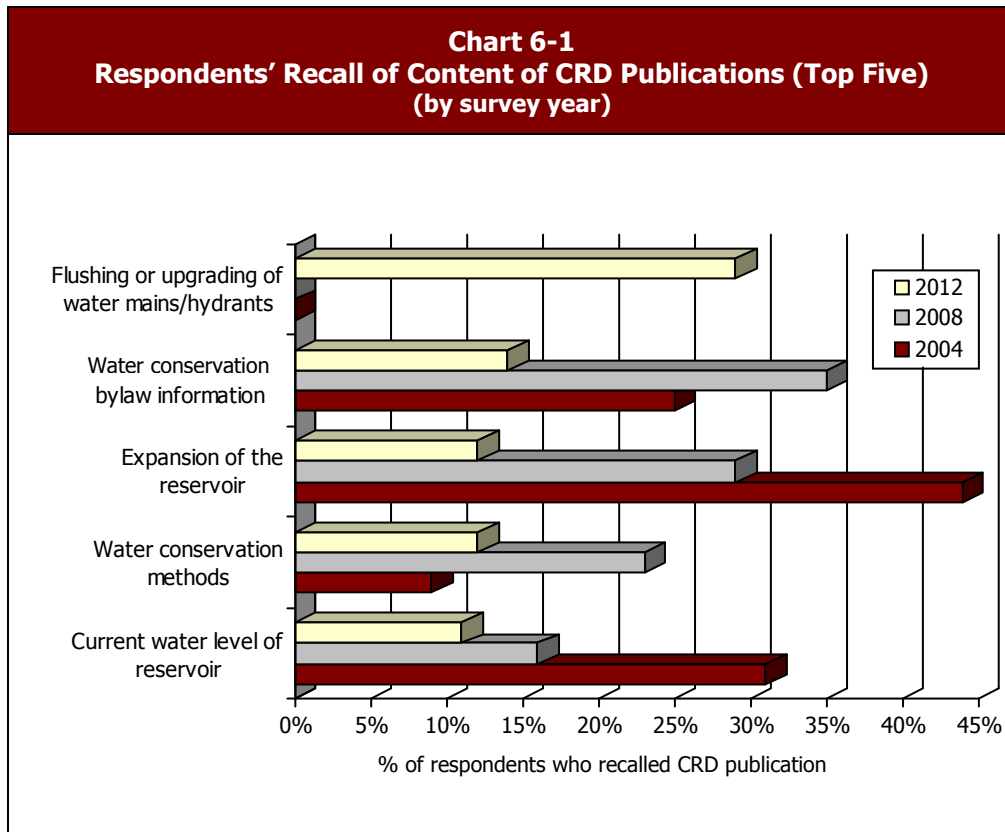
Some differences on the basis of respondent demographics were seen:

- Males were more likely to identify Sooke/the Sooke reservoir correctly than were females (66% as compared to 54%).
- Members of the youngest age group were less likely to give the correct answer than were their older counterparts (only 41% as compared to 63% and 68%).
- Higher income respondents were more likely to cite Sooke/the Sooke reservoir (67% as compared to 38%).
- Respondents residing on the Saanich Peninsula were more likely to know about the location of the water supply than were those living in the core municipalities (75% as compared to 54%). The proportion for the Western communities (67%) was not significantly different from either of the others.

6.1.2 Awareness of CRD Publications

As in previous survey years, approximately one in three respondents recalled seeing or reading anything published by the CRD about water. Members of the youngest age group were more likely not to have seen or read any CRD publications.

As shown in Chart 6-1 below, the top five topics recalled about the CRD publication seen by respondents varied widely by survey year. Popular topics in 2004 were cited less frequently in 2008 and 2012, while the most frequently mentioned topic of 2012 (flushing or upgrading of water mains and hydrants) might not have come up at all in 2004 or 2008: if respondents in those years cited this topic, it would have been included in the "other" category.



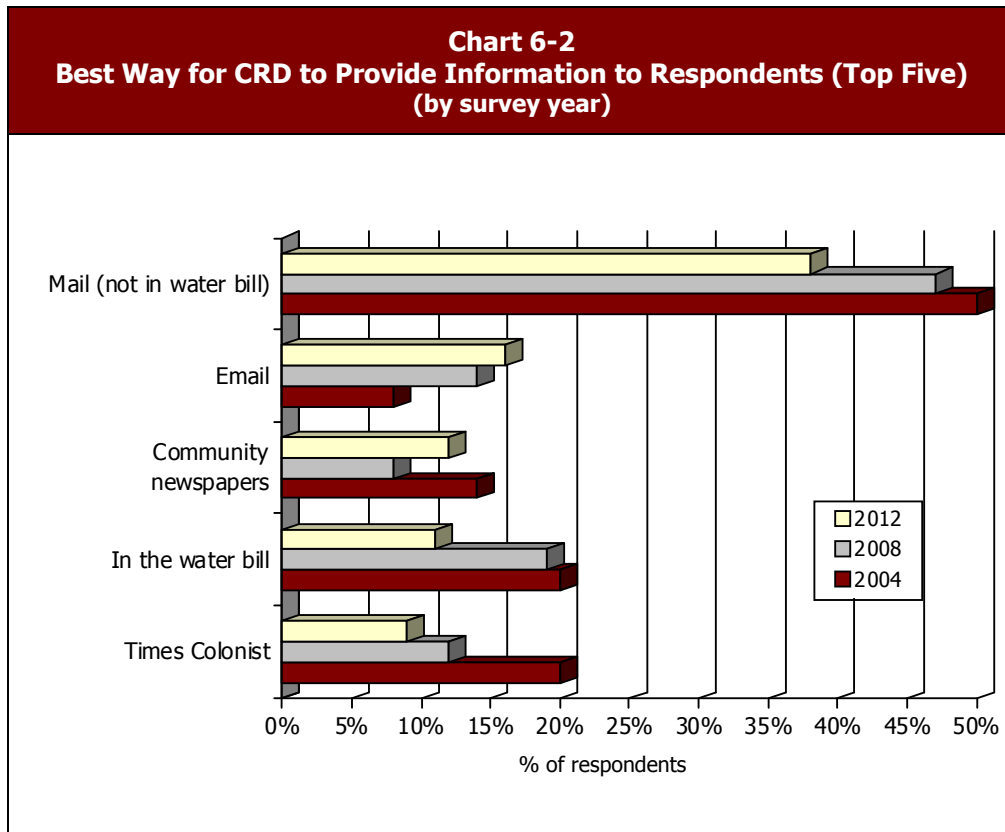
Only one difference on the basis of demographic characteristics was seen. Respondents living in the Western Communities were more likely to state that they recalled seeing/reading information about water rate increases than were respondents in the core municipalities (8% as compared to 1%). As mentioned in Section 4.2.4, respondents from the Western Communities were more likely to comment on being unhappy about paying more for less in terms of water use.

6.2 The Information Channels of CRD Residents

6.2.1 Dissemination of Information to CRD Residents

Respondents were asked to cite the most effective way by which the CRD could get information to them. The top five responses are given in Chart 6-2 below.

- Direct mail remained the most frequently cited method in 2012. Nevertheless, the decrease in the proportion of respondents citing this method was matched by an increase in the proportion citing email.
- The importance of the *Times Colonist* as an information source decreased.



Some differences on the basis of respondent demographics were seen:

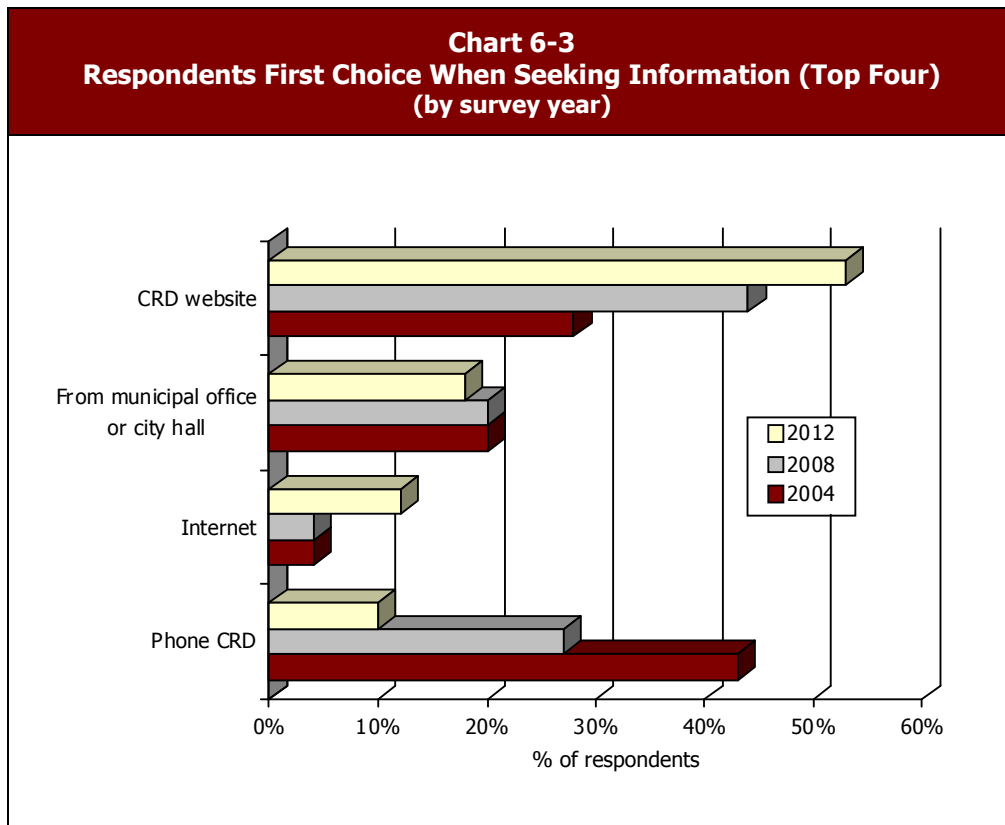
- Males were more likely to mention a notice at a public place (includes bus ads) than were females (5% as compared to 1%).
- Respondents in the oldest age group were more likely to cite the *Times Colonist* than were members in the younger age groups (17% as compared to 3% and 5%).
- Not surprisingly, members of the youngest age group were more likely to say that social media was the best way to convey information to them (10% as compared to 3% and 0%).
- Respondents aged 35 to 54 years were more likely to cite email than those aged 55 years or more (24% as compared to 12%). Members of this middle age group were also more likely to say “in the water bill” than were those aged 18 to 34 years (16% as compared to 6%).
- Higher income respondents were more likely to cite inserts in their water bill as an effective communication channel (14% as compared to 5%).
- Lower income respondents were more likely to cite notices at a public place and the CRD website (both 4% as compared to 1%).

- Respondents living in the Western Communities were more likely to cite email as the most effective way to communicate with them than were respondents in the core municipalities (28% as compared to 13%).

6.2.2 CRD Residents’ Sources of Information

Survey respondents were also asked to indicate where they would first turn to get information about water services if they needed it. Their top four information sources are given in Chart 6-3 below.

- The importance of the CRD website has been increasing steadily over the years. The proportion of respondents saying simply “the Internet” also increased in 2012.
- The proportion of respondents citing their municipal office or city hall as their first source of information has not changed much since 2004.
- Phoning CRD Integrated Water or the CRD main office is being cited much less frequently since 2004. As shown in the chart, the decline in the phone option is paired with an increase in the website option.



Several differences in first choice for information source were seen:

- Females were more likely to cite their municipal office or city hall than were males (20% as compared to 14%).
- Males were more likely to indicate the Internet was their first choice as an information source (15% as compared to 9%).
- Respondent primary information choices by age are summarized in Table 6-1. There was nothing surprising about the findings. Younger respondents were more likely to turn to the CRD website or the Internet, while older respondents were more likely to turn to their municipal office or city hall.

Table 6-1 Respondents First Choice When Seeking Information (by age category)			
	18 to 34 years	35 to 54 years	55 years and older
Visit the CRD website	75%	55%	36%
From municipal office or city hall	3%	16%	29%
Internet	19%	13%*	6%

*This proportion is not significantly different from either of the other two age categories.

- Respondents living in the Western Communities were more likely to phone the CRD when they needed information than were respondents in the core municipalities (18% as compared to 8%). Western Community residents were also more likely to visit the CRD website than respondents living on the Saanich Peninsula (60% as compared to 39%).

6.2.3 Visits to the CRD Website

The majority of respondents have never visited the CRD website. Nevertheless, between 2008 and 2012, the proportion of CRD residents who have visited the website has increased from 24% to 34% (this question was not asked in 2004).

Visits to the CRD website varied somewhat on the basis of respondent demographics:

- Members of the oldest group of respondents were more likely to say that they had never visited the CRD website than were their younger counterparts (75% “no” as compared to 59% and 53%).
- Lower income respondents were more likely never to have visited the CRD website (75% as compared to 56%).
- The CRD website was most often used by respondents in the Western Communities (50% as compared to 32% for Core Victoria, and 19% for the Saanich Peninsula).

This finding is in line with what was seen in Section 6.2.2 above, where the majority of Western Community residents stated that the CRD website was where they would first turn in order to get information about water services. It also matches what was reported in Section 5.1.2, namely that Western Community residents are more likely to have obtained their information about water efficiency from the CRD website.

SECTION 7: WATER QUALITY ISSUES

7.1 Satisfaction with Quality of Piped Water

Respondents were asked about their satisfaction with the quality of water piped to their home. As shown in Table 7-1 below, compared with 2008, there was virtually no change in the level of satisfaction with water quality: 88% of respondents in 2012 were satisfied (25%) or very satisfied (63%) with the quality of their water. Respondents in the higher income group were more likely to be satisfied with water quality than were lower income respondents. On the basis of gender, age, and region, there were no significant differences.

Table 7-1 Quality of Piped Water to Home (by survey year)			
	2004	2008	2012
Satisfaction with quality of piped water to home			
Satisfied/very satisfied	83%	88%	88%
Neither satisfied nor dissatisfied	12%	7%	9%
Dissatisfied/very dissatisfied	3%	3%	2%
Interested in receiving information on quality of tap water			
Yes	59%	57%	63%
No	41%	43%	37%

Table 7-1 also shows that interest in receiving information on the quality of tap water has increased slightly since 2008, with 63% of 2012 respondents expressing interest in receiving more information.

- Respondents in the oldest age group were less likely to be interested than their younger counterparts.
- Lower income respondents were more likely to be interested in receiving information than were higher income respondents (72% as compared to 60%).
- Respondents living in the core municipalities were more likely to be interested than those living on the Saanich Peninsula.

Only 2% of 2012 respondents were dissatisfied or very dissatisfied with their water. Their reasons for being dissatisfied are provided in Table 7-2.

- In 2012, the most frequently-cited reasons for dissatisfaction were the colour of the water and that respondents felt their water had too many chemicals in it.
- The major reason in 2004 (“don’t like the taste, chlorine taste”) was given by fewer than two in ten respondents in 2008 and 2012.

No differences were seen on the basis of gender, age, household income, or region.

Table 7-2 Reasons for Dissatisfaction with the Quality of Piped Water (by survey year)			
	2004	2008	2012
The water is yellow or dirty	8%	7%	42%
The water has too many chemicals	24%	9%	37%
Don't like the taste, chlorine taste	66%	19%	16%
Don't like the smell	7%	13%	11%

7.2 Water Consumption

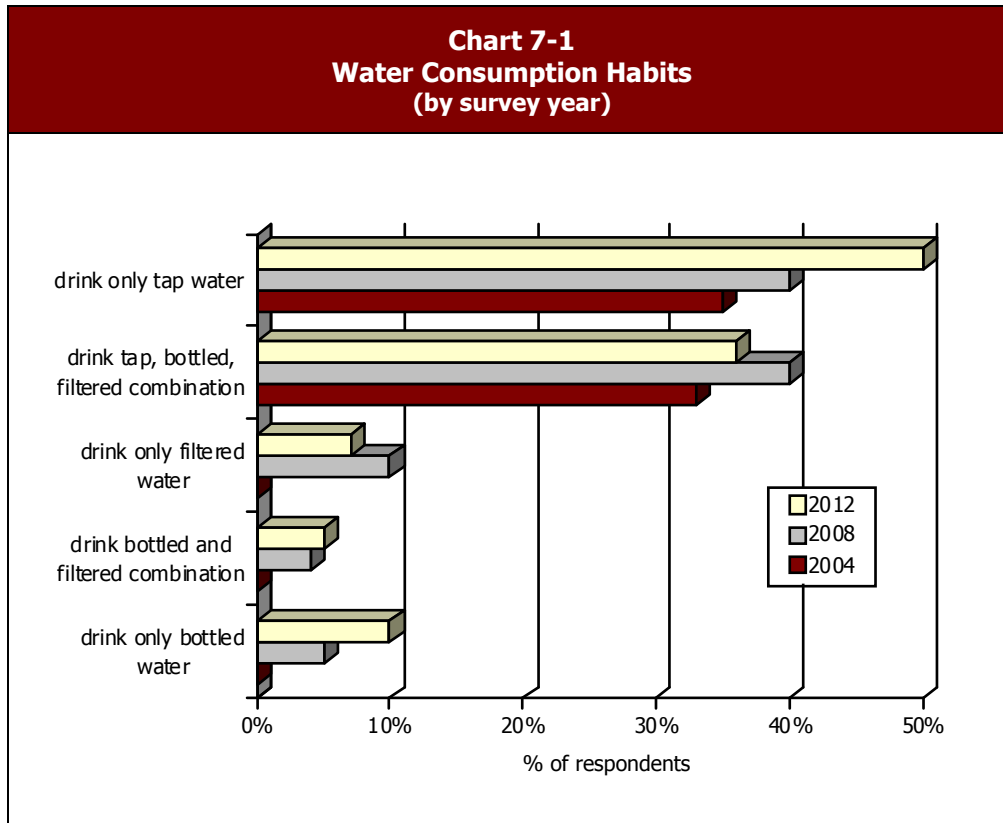
As in past years, survey respondents were asked about their water consumption habits. The responses by survey year are depicted in Chart 7-1 below.

- The proportion of respondents who reported drinking a combination of tap water and bottled or filtered water has remained relatively constant over the past eight years.
- Of note is the rise in consumption of tap water by residents: whereas in 2004 and 2008, only 35% and 40% of respondents, respectively, were drinking tap water, in 2012, the proportion had risen to 50%.
- The proportion of individuals who drank strictly filtered or strictly bottled water has declined since 2008 (the first survey year in which this response option was available to respondents).
- There was little change in the proportion of respondents who drank a combination of bottled and filtered water.

Only respondent age and region had a bearing on water consumption habits.

- Respondents between the ages of 35 and 54 years were less likely to drink only tap water than were respondents in the oldest age group.
- Respondents in the oldest age group were less likely to drink a combination of tap water and bottled or filtered water than were members of the other two age groups.

- Respondents on the Saanich Peninsula were more likely both to drink only bottled water and to drink a combination of bottled and filtered water than were those living in the core municipalities.



Respondents who said they drank bottled or filtered water were asked why they felt it necessary to do so. Their responses were coded and are presented in Table 7-3 below.

- Since 2004, the convenience factor in drinking bottled or filtered water has become increasingly important.
- There has been a decline in respondents saying that the taste or smell of tap water was making them drink bottled or filtered water instead.
- The perceived purity of bottled or filtered water has become slightly more of a motivation as well. The proportion of respondents saying that bottled or filtered water “is cleaner and purer than tap water” is higher in 2012 than in both 2004 and 2008. But the purity factor is also indirectly suggested by the “don’t want to drink chlorine and other chemicals” reason.

Table 7-3 Reasons for Drinking Bottled or Filtered Water (Top Five) (by survey year)			
	2004	2008	2012
It is more convenient	12%	26%	31%
Don't like the taste or smell of tap water	35%	22%	21%
It is cleaner and purer than tap water	7%	2%	15%
Don't want to drink chlorine and other chemicals	8%	16%	13%
Like it cold from the fridge	14%	14%	12%

There were no significant differences in the reasons for drinking bottled or filtered water on the basis of age, but some differences were seen for the other demographic variables:

- The proportions are small, but nevertheless males were more likely to say that they “just got into the habit of not using tap water” than were females (8% as compared to 2%).
- Lower-income respondents were more likely to eschew tap water because they did not want to drink chlorine or other chemicals, or for health reasons.
- Respondents in the Western Communities were more likely to say that they drank bottled or filtered water because it was “cold from the fridge” than were those living in the core municipalities (22% as compared to 7%).

7.3 Awareness of Other Water Quality Issues

Three further questions about various other issues were included in the 2012 survey, some of which were asked for the first time.

7.3.1 The CRD’s Water-Disinfecting Process

The majority of respondents said they did not know how the CRD disinfects water to ensure that it was safe to drink (64% in 2012, 60% in 2008). This question was not asked in 2004. Males were more likely to know how water is disinfected than were females. There were no significant differences in knowledge on the basis of age, income, or region.

7.3.2 The Protection of the Drinking Water Supply

Overall, the majority of respondents (72%) were aware that the CRD has closed the Greater Victoria Water Supply Area to the public to protect the source of our drinking water. On the basis of demographic characteristics, the following differences were seen:

- Males were more likely to be aware than females (81% as compared 65%).
- Members of the youngest age group were less likely to be aware than members of the two groups of older respondents (50% as compared to 77% and 82%).
- People who paid for their water use personally were more likely to be aware that the water supply is protected than those who did not pay.
- Respondents with higher incomes were more likely to be aware than those with incomes under \$50,000.

7.3.3 The Proposed Sewage Treatment Charge

In 2012, respondents who resided in the municipalities of Colwood, Esquimalt, Metchosin, or View Royal were asked about whether or not they were aware that some municipalities were considering applying a sewage treatment charge based on a household's water consumption. Less than one-half (47%) were aware of this possible charge. No significant difference in awareness was seen on the basis of age, gender or household income.



APPENDIX A: SURVEY INSTRUMENT



CRD
RESIDENTIAL
WATER SURVEY



INTRODUCTION

Hello, my name is _____. I am calling on behalf of the Capital Regional District from R.A. Malatest & Associates Ltd. We are conducting a survey about household water efficiency and other water issues. The information we collect is kept strictly confidential and will be used only for statistical purposes. May I ask you a few questions?

[OUR USUAL RESPONSE CODES HERE]

QUALIFYING QUESTIONS

Thank you. This survey may take up to 20 minutes to complete, depending on your responses. Please note that this call may be recorded for quality control purposes.

S1. Are you 18 years of age or older?

1. Yes [CONTINUE]
2. No [ASK FOR OTHER HOUSEHOLD MEMBER OR ARRANGE CALLBACK]

S2. To ensure that all areas of the Greater Victoria drinking water supply are appropriately represented, could you tell me in which municipality you live?
[QUOTA CHECK]

- | | |
|--|---------------------------|
| 1. Central Saanich [QUOTA 24] | 7. Oak Bay [QUOTA 27] |
| 2. Colwood [QUOTA 24] | 8. Saanich [QUOTA 165] |
| 3. Esquimalt [QUOTA 24] | 9. Sidney [QUOTA 17] |
| 4. Langford [QUOTA 44] | 10. Sooke [QUOTA 17] |
| 5. Metchosin [QUOTA 7] | 11. Victoria [QUOTA 120] |
| 6. North Saanich [QUOTA 17] | 12. View Royal [QUOTA 14] |
| 77. Highlands [THANK AND TERMINATE] | |
| 88. Don't know [THANK AND TERMINATE] | |
| 99. Prefer not to answer [THANK AND TERMINATE] | |

- S3. Is your household drinking water provided through a well or commercially provided service such as a tanker truck or bulk delivery, not including bottled water?
1. Yes [THANK AND TERMINATE – NON-QUALIFIER]
 2. No
 88. Not sure [THANK AND TERMINATE]

SECTION A: VIEWS REGARDING WATER USE AND PERCEPTIONS OF WATER EFFICIENCY

The first few questions are about your water use.

- A1. On a scale of 1 to 5, where 1 is not at all important and 5 is very important, how important is it to you . . .

	Very important					Not at all important	Don't know	Prefer not to answer
a) 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"/>	<input type="radio"/>
b) 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"/>	<input type="radio"/>

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

- | | |
|--------------------|--------------------------|
| 1. decreased | 88. Don't know |
| 2. increased | 99. Prefer not to answer |
| 3. stayed the same | |

- A3. Who provides the water service or piped water to your home?
[DO NOT READ CHOICES]

- | | |
|---|-----------------------------------|
| 1. CRD | 8. Sidney |
| 2. CRD Integrated Water Services | 9. View Royal |
| [NOTE: Respondents might say "CRD Water"] | 10. Colwood |
| 3. City of Victoria | 11. Langford |
| 4. Esquimalt | 12. Metchosin |
| 5. Saanich | 13. Sooke |
| 6. Central Saanich | 14. Oak Bay |
| 7. North Saanich | 15. Other (please specify): _____ |
| 88. Don't know | |

SECTION B: WATER USE BEHAVIOUR/ACTIONS

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

B1. I am going to read you a list of water-efficient fixtures. Please tell me if your household has . . . : [RANDOM ROTATION OF OPTIONS]

	Yes	No	Don't know	Prefer not to answer
a) Low-flow showerhead(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) 6-litre or less toilet or a dual flush toilet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Toilet modified to use less water when flushing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Faucet aerators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Front-loading washing machine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Water-efficient dishwasher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B2. Does your household have any other water-efficient fixtures besides those mentioned?

1. Yes (please tell me what they are: _____)
 2. No
88. Don't know
99. Prefer not to answer

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?

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B4. On a scale of 1 to 3, where 1 is never, 2 is sometimes, and 3 is always, how often do you personally practice the following? [RANDOM ROTATION OF OPTIONS]

	Always	Some-times	Never	Don't know	Prefer not to answer
a) Consciously take short showers (5 minutes or less)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) 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"/>
c) Turn off the faucet while shaving, brushing teeth, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) 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"/>

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

1. Yes (please tell me what they are: _____)
2. No
88. Don't know
99. Prefer not to answer

B6. Do you have a lawn to look after? [SURVEYORS: THIS MEANS A LAWN ATTACHED TO THIS DWELLING'S WATER BILL, NOT LOCATED SOMEWHERE ELSE]

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B7. Do you have a flower or vegetable garden to look after? [SURVEYORS: THIS MEANS A GARDEN ATTACHED TO THIS DWELLING'S WATER BILL, NOT LOCATED SOMEWHERE ELSE]

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B8. [IF B6=1] Do you water your lawn?

1. Yes
2. No [GO TO B21]
88. Don't know [GO TO B21]
99. Prefer not to answer [GO TO B21]

B9. [IF B8=1] Do you water your lawn less frequently than you did three years ago?

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B10. [IF B8=1] How often do you water your lawn during the summer months (May to September)?

1. Daily
 2. Twice a week [PROGRAM A MESSAGE TO APPEAR. Ask: "Do you mean you water **any** two times a week?"]
 3. Once a week
 4. Once every 2 weeks
 5. Once a month
 6. Less than once a month
 7. Designated days and hours
 8. Other (please specify: _____)
88. Don't know
99. Prefer not to answer

B11. [IF B6=1 or B7=1] Do you have an in-ground irrigation system?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

B12. [IF B11=1] Is it working?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

B13. [IF B12=1] Do you use it?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

B14. [IF B11=1] When was your irrigation system installed?

- | | |
|-------------------------------|--------------------------|
| 1. Less than 5 years ago | 88. Don't know |
| 2. Between 5 and 10 years ago | 99. Prefer not to answer |
| 3. Over 10 years ago | |

B15. [IF B11=1] Who installed your system?

1. Irrigation professional
 2. Landscape company
 3. Household member (includes respondent)
 4. Neighbour/ friend/ handyperson
 5. Other (please specify: _____)
-
88. Don't know
 99. Prefer not to answer

B16. [IF B11=1] Who maintains your system?

1. It is not maintained (not working, don't use it, etc.)
 2. Irrigation professional
 3. Landscape company
 4. Household member (includes respondent)
 5. Neighbour/ friend/ handyperson
 6. Other (please specify: _____)
-
88. Don't know
 99. Prefer not to answer

B17. [IF B11=1 and B16>1] How often is your system maintained?

1. Once a year
 2. Twice a year
 3. Other (please specify: _____)
-
88. Don't know
 99. Prefer not to answer

B18. [IF B11=1 and B13=1] Who sets the watering schedule?

1. Irrigation professional
 2. Landscape company
 3. Household member (includes respondent)
 4. Neighbour/ friend/ handyperson
 5. Other (please specify: _____)
-
88. Don't know
 99. Prefer not to answer

B19. [IF B11=1 and B13=1] How often is the system's watering schedule adjusted during the watering season (May to September)?

1. Once a season
 2. Monthly
 3. As the weather changes
 4. Other (please specify: _____)
88. Don't know
99. Prefer not to answer

B20. [IF B11=1] Do you have any plans to replace your irrigation system?
[IF B11>1] Do you have any plans to install an irrigation system?

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B21. [IF B6=1 or B7=1] Does your household have a micro-drip irrigation system?

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B22. On a scale of 1 to 3, where 1 is never, 2 is sometimes, and 3 is always, how often does your household practice the following? [RANDOM ROTATION OF OPTIONS]

	Always	Some-times	Never	Don't know	Prefer not to answer
a) [IF B8=1] Water your lawn before 10 AM or after 7 PM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) [IF B7=1] Water your garden before 10 AM or after 7 PM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) [IF B8=1 or B7=1] Use a spring-loaded nozzle on your hose so it shuts off automatically when not in use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) [IF B7=1] Use native or drought-tolerant plants when doing landscaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B23. [IF B6=1 or B7=1] Are there other methods of outdoor water efficiency that you may practice besides the ones just mentioned?

1. Yes
2. No
88. Don't know
99. Prefer not to answer

B24. [IF B23=1] What are these other methods of outdoor water efficiency?
[CHOOSE ALL THAT APPLY]

1. Collecting rainwater/ rain barrel
 2. No watering of lawn
 3. Removed lawn
 4. Other (please specify: _____)
88. Don't know
99. Prefer not to answer

B25. Has your household become more water efficient within the last 12 months with respect to . . . [RANDOM ROTATION OF OPTIONS]

	Yes	No	Don't know	Prefer not to answer
a) [IF B22a=2,3] Watering your lawn before 10 AM or after 7 PM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) [IF B22b=2,3] Watering your garden before 10 AM or after 7 PM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) [IF B22c=2,3] Using a spring-loaded nozzle on your hose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) [IF B22d=2,3] Use native or drought-tolerant plants when landscaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) [IF B8=2] Not watering your lawn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION C: PERCEPTIONS OF WATER-EFFICIENCY OPTIONS

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

C1. On a scale of 1 to 5, with 1 being not at all important and 5 being very important, how important is it to you personally for the CRD to . . .

	Very important				Not at all important	Don't know	Prefer not to answer
a) . . .encourage people to practice water efficiency?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) . . . be able to implement water efficiency measures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Yes	No	Was not aware of this source	Prefer not to answer
d) An information or display booth about CRD water efficiency at a tradeshow or other community outreach event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) A CRD workshop about water efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Educational materials and/or learning resources about CRD water efficiency provided to schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D3. [IF D2a=1] Where did you see or hear the news story about CRD water efficiency?
[DO NOT READ CHOICES.]

1. Radio – CFX (1070)
2. Radio – The Ocean (98.5)
3. Radio – The Q (100.3)
4. TV – Channel 4 (Shaw)
5. TV – Channel 6 (CHEK)
6. TV – Channel 8 (GlobalBC)
7. TV – Channel 9 (CTV)
8. Newspaper – *Times Colonist*
9. Newspaper – community (*Saanich News, Gazette, Esquimalt News, Victoria News, etc.*)
10. In the water bill
11. Other (please specify: _____)

88. Don't know
99. Prefer not to answer

D4. [IF D2b=1] Where did you see or hear the advertisement about CRD water efficiency? [DO NOT READ CHOICES.]

1. Radio – CFX (1070)
2. Radio – The Ocean (98.5)
3. Radio – The Q (100.3)
4. TV – Channel 4 (Shaw)
5. TV – Channel 6 (CHEK)
6. TV – Channel 8 (GlobalBC)
7. TV – Channel 9 (CTV)
8. Newspaper – *Times Colonist*
9. Newspaper – community (*Saanich News, Gazette, Esquimalt News, Victoria News, etc.*)
10. In the water bill
11. Other (please specify: _____)

88. Don't know
99. Prefer not to answer

- D5. [IF D2d, D2e, or D2f=1] In the last year, have you personally participated in any workshops or educational programs for water efficiency run by the CRD?
1. Yes (Which one(s)? _____)
 2. No
88. Don't know
99. Prefer not to answer

SECTION E: WATER MANAGEMENT ISSUES

- E1. Could you tell me where the water supply for Greater Victoria is located? (If asked, clarify that we are looking for where the water is stored or where the CRD has its water source reservoir.)
1. Sooke Reservoir/Sooke
 2. No, I don't know
 3. Other area (please specify: _____)
88. Don't know
99. Prefer not to answer
- E2. Do you recall seeing or reading anything published by the CRD about water?
[SURVEYORS: Just in case respondents say "but, I've already answered this," 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 replaced, any other infrastructure information, an announcement about watershed tours, etc.]
1. Yes (What do you recall about this publication? _____)
 2. No
88. Don't know
99. Prefer not to answer
- E3. If CRD Integrated Water wanted to get information to you, what would be the best way to do it? [DO NOT READ CHOICES.]
1. CRD website
 2. Newspaper – *Times Colonist*
 3. Newspaper – community (*Saanich News, Gazette, Esquimalt News, Victoria News, etc.*)
 4. In the water bill
 5. Other (please specify: _____)
88. Don't know
99. Prefer not to answer

E4. If you needed information about water services, where would you first turn to get information? [DO NOT READ CHOICES.]

1. Phone CRD Integrated Water or CRD main office
2. Visit CRD website
3. From my municipal office or city hall
4. Other (please specify: _____)

88. Don't know
99. Prefer not to answer

E5. [IF D2C=1, THEN AUTOFILL WITH 1 AND DO NOT ASK THIS QUESTION.] Have you ever visited the CRD water website?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't remember |
| 2. No | 99. Prefer not to answer |

SECTION F: WATER QUALITY ISSUES

This last section deals with water quality issues.

F1. On a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied, how satisfied are you with the quality of piped water to your home?

Very satisfied					Very dissatisfied	Don't know	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"/>	<input type="radio"/>

F2. [IF F1<3] What makes you dissatisfied with the quality of water piped to your home?

F3. Do you know how the CRD disinfects water to ensure that it is safe to drink? [IF THEY ASK HOW IT IS DISINFECTED, refer them to Stewart Irwin at the CRD for information. His phone number is 250-479-9603]?

- | | |
|--------|--------------------------|
| 1. Yes | 99. Prefer not to answer |
| 2. No | |

F4. Which of the following best describes your consumption of water? Would it be . . .
[READ ONLY THE FIRST THREE CHOICES]

1. Drink only tap water
2. Drink a combination of tap water and bottled or filtered water
3. Drink a combination of bottled and filtered water

4. Drink only bottled water
5. Drink only filtered water

88. Don't know
99. Prefer not to answer

F5. [IF F4=2,3,4,5] Why do you consider it necessary to drink bottled or filtered water rather than tap water?

F6. Would you be interested in receiving information on the quality of your tap water?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

F7. Are you aware that the Greater Victoria Water Supply Area is closed to public access to protect the source of our drinking water supply?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

F8. [IF S2=2 (Colwood), 3 (Esquimalt), 5 (Metchosin), 12 (View Royal)] Are you aware that some municipalities are considering applying a sewage treatment charge that is based on a household's water consumption?

- | | |
|--------|--------------------------|
| 1. Yes | 88. Don't know |
| 2. No | 99. Prefer not to answer |

DEMOGRAPHICS

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

G1. [DO NOT ASK – RECORD FROM VOICE] Gender

1. Male
2. Female

G2. Into which of the following age categories do you fall?

- | | |
|-------------------|--------------------------|
| 1. 18 to 24 years | 5. 55 to 64 years |
| 2. 25 to 34 years | 6. 65 years and older |
| 3. 35 to 44 years | |
| 4. 45 to 54 years | 99. Prefer not to answer |

G3. How many people, including yourself, currently live in your household?

- | | |
|-----------------|--------------------------|
| 1. one | 5. six to nine |
| 2. two | 6. ten or more |
| 3. three | |
| 4. four to five | 99. Prefer not to answer |

G4. Last year (2011) before taxes, what was the total annual income of your household? Would it be...?

- | | |
|------------------------|--------------------------|
| 1. Less than \$30,000 | 7. \$80,000 - \$89,999 |
| 2. \$30,000 - \$39,999 | 8. \$90,000 or more |
| 3. \$40,000 - \$49,999 | |
| 4. \$50,000 - \$59,999 | 99. Prefer not to answer |
| 5. \$60,000 - \$69,999 | |
| 6. \$70,000 - \$79,999 | |

G5. What is the highest level of formal education that you have completed?

[DO NOT READ CHOICES]

1. Did not complete high school
2. High School
3. Technical/Apprenticeship
4. College
5. University
6. Post Graduate (Masters, Ph.D., etc.)
99. Prefer not to answer

- G6. In what type of dwelling do you live?
1. Single-detached (single family dwelling)
 2. Semi-detached (duplex, triplex, etc.)
 3. Apartment / Condominium (single entrance, individual suites) [PROGRAM A
CHECK THAT IF G6=3, B6>1]
 4. Townhouse/ row housing
 5. Trailer/ mobile/ manufactured home
 6. Other (please specify: _____)
99. Prefer not to answer
- G7. Do you (or your household) personally pay for your water use directly (receive water bills by mail, etc.)?
1. Yes
 2. No
99. Prefer not to answer
- G8. Which of the following best describes your current accommodation? Do you . . . ?
1. Rent
 2. Own your home
 3. [DO NOT READ] Other (e.g., live with parents)
99. Prefer not to answer

That completes the survey! We very much appreciate your taking the time to participate.

The CRD would also like us to thank you on their behalf for being willing to share your opinions and thereby helping them to provide better service to you!

**Table A-1
Data Manipulations Required to Compare 2012 Survey with 2004/2008 Surveys**

2012 survey	2008 survey	What was undertaken
B2	Q4	<ul style="list-style-type: none"> artificially created a "yes" response from the sum of open-ended responses in the 2004/2008 data
B5	Q6	<ul style="list-style-type: none"> combined the 2012 "no/don't know" responses to match 2004/2008 artificially created a "yes" response for the 2004/2008 data recalculated the "yes" item percentages using 20 as the total for 2004, and 30 for 2008; numbers will, therefore, not match the 2008 report
B13	Q8B2 & Q8B3	<ul style="list-style-type: none"> took data from 2008 questions for "do not use" assumed 89% for "yes" (2008)
B18 & B19	Q8B2 & Q8B3	<ul style="list-style-type: none"> recalculated the "yes" item percentages using 89 as the total for 2008 data; numbers will, therefore, not match the 2008 report
B23	Q10	<ul style="list-style-type: none"> combined the 2012 "no/don't know" responses to match 2004/2008 artificially created a "yes" response from the 2004/2008 data
B24	Q10	<ul style="list-style-type: none"> recalculated the "yes" item percentages using 28 as the total for 2004, and 41 for 2008; numbers will, therefore, not match the 2008 report
C3	Q13B	<ul style="list-style-type: none"> combined the 2012 "no/don't know" responses to compare with "no/do not recall" (2004/2008) artificially created a "yes" response for the 2004/2008 data recalculated the "yes" item percentages using 85 as the total for 2004, and 83 for 2008; numbers will, therefore, not match the 2008 report
C7	Q17	<ul style="list-style-type: none"> combined the 2012 "no/don't know" responses to match 2004/2008 artificially created a "yes" response for the 2004/2008 data recalculated the "yes" item percentages using 43 as the total for 2004, and 38 for 2008; numbers will, therefore, not match the 2008 report
D1	Q18A	<ul style="list-style-type: none"> combined the 2012 "no/don't know" responses to match 2004/2008
D2a & D2b	Q18B	<ul style="list-style-type: none"> artificially created a "yes" response by combining "news" and "both", and combining "advertisement" and "both"; the resulting percentage was then multiplied by the weighted total number of respondents; the resulting number of that operation was then divided by the whole survey total for 2004 and 2008
D2d	Q18D	<ul style="list-style-type: none"> "no" was entered as "was not aware of source"
D2e&f	Q18D1	<ul style="list-style-type: none"> as the 2008 question was measuring awareness only, "no" was entered as "was not aware of source" for both 2012 questions
D5	Q18D2	<ul style="list-style-type: none"> recalculated the "yes" and "no" percentages using 35 as the total for 2008; numbers will not match the 2008 report
E2	Q20A	<ul style="list-style-type: none"> combined the 2012 no/don't know responses to match 2004/2008 artificially created a "yes" response for the 2004/2008 data recalculated the "yes" item percentages using 32 as the total for 2004, and 31 for 2008; numbers will not match the 2008 report



**APPENDIX B:
STATISTICAL TABLES BY SURVEY YEAR**

Statistical Tables by Survey Year

A1. How important is it to you . . .

		Survey Year		
		2004	2008	2012
a) to use water efficiently in the home (when washing clothes, taking showers, etc.)?	Not at all important	0%	1%	1%
	Not important	1%	1%	3%
	Neutral	11%	12%	13%
	Important	30%	34%	39%
	Very important	57%	52%	44%
	Don't know	1%	0%	0%
	Total	100%	100%	100%
b) to use water efficiently outdoors (when watering lawn, garden, etc.)?	Not at all important	3%	3%	2%
	Not important	2%	3%	3%
	Neutral	8%	8%	11%
	Important	24%	31%	30%
	Very important	61%	53%	47%
	Don't know	2%	2%	7%
	Prefer not to answer			1%
Total	100%	100%	100%	

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

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Decreased			33%
Increased			16%
Stayed the same			48%
Don't know			3%
Total	0%	0%	100%

A3. Who provides the water service or piped water to your home?^a

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
CRD			21%
CRD Integrated Water Services.(CRD Water 2004, 2008)	25%	25%	3%
City of Victoria	19%	19%	22%
Esquimalt	1%	1%	1%
Saanich	19%	20%	21%
Central Saanich	2%	2%	2%
North Saanich	2%	2%	3%
Sidney	2%	4%	2%
View Royal	1%	0%	1%
Colwood	1%	1%	1%
Langford	1%	2%	1%
Metchosin		0%	
Sooke	2%	1%	1%
Oak Bay	3%	4%	2%
Other	1%	1%	3%
Don't know	20%	18%	15%
Total	100%	100%	100%

a. Refused responses included in "don't know" for 2004 and 2008

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

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) low-flow showerhead(s).	Yes	67%	64%	67%
	No	26%	30%	29%
	Don't know	6%	7%	4%
	Total	100%	100%	100%
b) 6-litre or less toilet or a dual flush toilet.	Yes	29%	48%	57%
	No	57%	42%	34%
	Don't know	15%	10%	9%
	Total	100%	100%	100%
c) toilet modified to use less water when flushing.	Yes	36%	30%	43%
	No	55%	67%	55%
	Don't know	8%	3%	2%
	Total	100%	100%	100%
d) faucet aerators.	Yes	59%	52%	58%
	No	37%	44%	35%
	Don't know	5%	5%	8%
	Total	100%	100%	100%
e) front-loading washing machine.	Yes	23%	30%	45%
	No	77%	70%	54%
	Don't know		1%	0%
	Total	100%	100%	100%
f) water-efficient dishwasher.	Yes	38%	43%	53%
	No	51%	46%	36%
	Don't know	11%	11%	11%
	Total	100%	100%	100%

B2. Does your household have any other water-efficient fixtures besides those mentioned?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	3%	3%	4%
No	96%	94%	94%
Don't know	1%	3%	2%
Total	100%	100%	100%

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?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		18%	17%
No		82%	83%
Don't know		0%	0%
Total	0%	100%	100%

B4. How often do you personally practise the following?

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) consciously take short showers (5 minutes or less)	Never	10%	11%	12%
	Sometimes	37%	36%	39%
	Always	52%	51%	49%
	Don't know	1%	1%	1%
	Prefer not to answer			0%
	Total	100%	100%	100%
b) flush the toilet infrequently	Never	24%	24%	29%
	Sometimes	39%	41%	43%
	Always	36%	35%	27%
	Don't know	1%		0%
	Prefer not to answer			0%
	Total	100%	100%	100%
c) turn off the faucet while shaving, brushing teeth, etc.	Never	6%	5%	5%
	Sometimes	18%	19%	24%
	Always	75%	76%	71%
	Don't know	1%	0%	0%
	Total	100%	100%	100%
	d) keep drinking water in the fridge so you don't have to run the water until it gets cold	Never	21%	24%
Sometimes		9%	14%	15%
Always		68%	60%	44%
Don't know		2%	2%	0%
Prefer not to answer				1%
Total		100%	100%	100%

B5. Are there any other methods of indoor water efficiency measures that you may practise besides the ones just mentioned?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	20%	30%	30%
No / don't know	80%	70%	70%
Total	100%	100%	100%

B5. If yes, what are these other methods of indoor water efficiency?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Use household or grey water for plants or cleaning	20%	30%	37%
Wash dishes by hand	5%	27%	7%
Use washer and dishwasher for full loads only	20%	23%	22%
Use minimal amount of water required	35%	17%	18%
Use chilled or filtered water for drinking	5%	7%	2%
Bathe or shower together	5%	3%	5%
Take showers instead of baths			2%
Collect cold water while waiting for it to warm			5%
Avoid running tap to get cold water			5%
Other	15%	13%	14%
Total	105%	120%	117%

Totals may exceed 100% since multiple responses were permitted.

B6. Do you have a lawn to look after?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	68%	66%	67%
No	31%	34%	33%
Don't know	0%		
Total	0%	0%	100%

B7. Do you have a flower or vegetable garden to look after?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	65%	68%	65%
No	35%	32%	35%
Total	100%	100%	100%

B8. Do you water your lawn?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	55%	54%	48%
No	45%	46%	52%
Don't know	0%		0%
Total	100%	100%	100%

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

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes			48%
No			46%
Don't know			6%
Total	0%	0%	100%

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

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Daily		1%	
Twice a week		54%	7%
Once a week		22%	23%
Once every 2 weeks		4%	6%
Once a month		1%	2%
Less than once a month		3%	5%
Designated days and hours		6%	51%
Three to four times a week		7%	3%
Other			2%
Don't know		2%	0%
Prefer not to answer			0%
Total	0%	0%	100%

B11. Do you have an in-ground irrigation system?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	31%	26%	35%
No	69%	74%	65%
Don't know		0%	0%
Total	100%	100%	100%

B12. Is it working?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes			94%
No			5%
Don't know			1%
Total	0%	0%	100%

B13. Do you use it?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		89%	94%
No		11%	5%
Don't know		0%	1%
Total	0%	100%	100%

B14. When was your irrigation system installed?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Less than 5 years ago		35%	21%
Between 5 and 10 years ago		21%	38%
Over 10 years ago		33%	32%
Don't know		11%	9%
Total	0%	100%	100%

B15. Who installed your system?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Irrigation professional			36%
Landscape company			4%
Household member (includes respondent)			23%
Other			6%
Don't know			31%
Total	0%	0%	100%

B16. Who maintains your system?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
It is not maintained (not working, don't use it, etc.)			9%
Irrigation professional			30%
Landscape company			3%
Household member (includes respondent)			53%
Neighbour/friend/handyperson			2%
Other			2%
Don't know			1%
Total	0%	0%	100%

B17. How often is your system maintained?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Once a year			40%
Twice a year			47%
Other			1%
More than twice a year			3%
Less than once a year			1%
As needed			5%
Don't know			2%
Prefer not to answer			1%
Total	0%	0%	100%

B18. Who sets the watering schedule?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Irrigation professional		10%	10%
Landscape company		3%	1%
Household member (includes respondent)		76%	87%
Neighbour/friend/handyperson		3%	1%
Other		2%	2%
Don't know		5%	
Total	0%	100%	100%

B19. How often is the system's watering schedule adjusted during the watering season (May to September)?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Once a season		19%	29%
Monthly		5%	
As the weather changes		37%	43%
Other		12%	13%
Never - not adjusted			6%
Manual system (no auto on)			3%
Don't know		27%	7%
Total	0%	100%	100%

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

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		11%	7%
No		86%	91%
Don't know		3%	1%
Total	0%	100%	100%

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

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	18%	15%	19%
No	78%	81%	80%
Don't know	4%	4%	1%
Total	100%	100%	100%

B22. How often does your household practise the following?

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) watering your lawn before 10 AM or after 7 PM	Never	2%	0%	2%
	Sometimes	13%	17%	5%
	Always	85%	82%	93%
	Don't know		1%	
	Total	100%	100%	100%
b) watering your garden before 10 AM or after 7 PM	Never	5%	6%	5%
	Sometimes	19%	21%	20%
	Always	75%	73%	74%
	Don't know	1%	1%	1%
	Total	100%	100%	100%
c) using a spring-loaded nozzle on your hose so it shuts off automatically when not in use	Never	16%	20%	16%
	Sometimes	7%	3%	6%
	Always	74%	75%	76%
	Don't know	4%	2%	1%
	Prefer not to answer			0%
	Total	100%	100%	100%
d) using native or drought-tolerant plants when doing landscaping	Never	24%	20%	18%
	Sometimes	46%	44%	51%
	Always	20%	22%	26%
	Don't know	10%	14%	5%
	Prefer not to answer			0%
	Total	100%	100%	100%

B23. Are there other methods of outdoor water efficiency that you may practise besides the ones just mentioned?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	28%	41%	45%
No / don't know	72%	59%	55%
Total	100%	100%	100%

B24. What are these other methods of outdoor water efficiency?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Collecting rainwater/rain barrel	25%	27%	33%
No watering of lawn		20%	20%
Removed lawn		5%	5%
Other	29%	15%	27%
Hand- or site-specific watering	25%	27%	23%
Use household water (grey water) for watering	18%	10%	9%
Minimal washing of car/ move car to lawn when washing	4%	10%	2%
Mulching of garden	7%	7%	4%
Automatic/ timed sprinkling system	7%	2%	7%
Total	115%	123%	130%

Totals may exceed 100% since multiple responses were permitted.

B25. Has your household become more water efficient within the last 12 months with respect to .

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) watering your lawn before 10 AM or after 7 PM?	Yes	21%	21%	27%
	No	76%	76%	70%
	Don't know	3%	3%	3%
	Prefer not to answer			0%
	Total	100%	100%	100%
b) watering your garden before 10 AM or after 7 PM?	Yes	24%	23%	34%
	No	73%	74%	63%
	Don't know	3%	2%	3%
	Prefer not to answer			0%
	Total	100%	100%	100%
c) using a spring-loaded nozzle on your hose?	Yes	17%	21%	27%
	No	83%	78%	71%
	Don't know	0%	1%	2%
	Prefer not to answer			0%
	Total	100%	100%	100%
d) using native or drought-tolerant plants when landscaping?	Yes	29%	28%	36%
	No	62%	59%	62%
	Don't know	9%	13%	2%
	Total	100%	100%	100%
	e) not watering your lawn?	Yes		21%
No			76%	58%
Don't know			2%	
Total			100%	100%

C1. How important is it to you personally for the CRD to . . .

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) encourage people to practice water efficiency?	Not at all important	2%	1%	2%
	Not important	1%	1%	2%
	Neutral	7%	6%	13%
	Important	19%	23%	29%
	Very important	70%	68%	53%
	Don't Know	1%	1%	1%
	Prefer not to answer			0%
	Total	100%	100%	100%
b) be able to implement water efficiency measures?	Not at all important	2%	2%	3%
	Not important	1%	1%	4%
	Neutral	14%	12%	17%
	Important	24%	25%	30%
	Very important	57%	55%	43%
	Don't Know	2%	5%	2%
	Prefer not to answer			2%
	Total	100%	100%	100%

C2. 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?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Not at all aware	10%	11%	11%
Not aware	5%	4%	7%
Neutral	8%	11%	9%
Aware	14%	14%	15%
Very aware	62%	59%	57%
Don't know	1%	1%	0%
Prefer not to answer			0%
Total	100%	100%	100%

C3. Do you recall where you heard or read about the watering bylaw that is in effect in the CRD?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	85%	83%	85%
No / don't know / do not recall	15%	17%	15%
Total	100%	100%	100%

C3. If yes, do you recall where you heard or read about the watering bylaw that is in effect in the CRD?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Times Colonist	44%	43%	31%
Community newspaper	24%	29%	27%
In the newspaper	2%		10%
Letter or flyer in mail		7%	13%
In the water bill	4%	6%	1%
Fridge magnet		6%	5%
Family, friends, coworkers, neighbours	14%	11%	12%
TV Channel 6 CHEK	11%	4%	1%
On TV	2%	0%	4%
On radio	2%	1%	6%
Radio CFAX 1070	5%	4%	2%
Radio OCEAN 98.5	2%	1%	1%
Radio The Q! 100.3	1%	1%	1%
Radio CBC	1%	1%	1%
CRD website	4%	4%	8%
Municipal website			3%
Internet online			2%
Social media: Facebook, Twitter			0%
CRD booths or displays			2%
TV Channel 12 CTV Two VI	2%	1%	1%
Strata council or property mgmt partner			1%
Other	7%	4%	6%
Total	125%	123%	138%

Totals may exceed 100% since multiple responses were permitted.

C4. To what extent do you support the watering bylaw?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Strongly oppose	5%	1%	2%
Oppose	1%	2%	3%
Neutral	11%	9%	10%
Support	18%	21%	22%
Strongly support	65%	66%	63%
Don't know	1%	1%	1%
Total	100%	100%	100%

C5. How acceptable to you is the timing allotted by the watering bylaw?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Not at all acceptable	4%	3%	3%
Not acceptable	2%	2%	3%
Neutral	10%	7%	8%
Acceptable	19%	19%	19%
Very acceptable	60%	66%	65%
Don't know	4%	3%	1%
Prefer not to answer			1%
Total	100%	100%	100%

C6. How acceptable would you find two-tiered rates for summer water use?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Not at all acceptable	13%	14%	18%
Not acceptable	4%	6%	7%
Neutral	22%	15%	18%
Acceptable	20%	21%	20%
Very acceptable	35%	39%	30%
Don't know	6%	5%	6%
Prefer not to answer			1%
Total	100%	100%	100%

C7. Do you have any suggestions or comments that you would like to make regarding the watering bylaw?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	43%	38%	39%
No / don't know	57%	62%	61%
Total	100%	100%	100%

C7. If yes, what are they?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Government and business should have same restrictions	7%	13%	7%
Educate public and raise awareness of water issues	16%	13%	18%
Watering times and days should be more flexible	12%	11%	7%
Need more enforcement of watering restrictions	12%	11%	11%
Use economic incentives such as water meters	5%	8%	1%
I like the water bylaw restrictions	5%	8%	6%
Prefer no watering of lawns	5%	8%	7%
Water usage should be up to the individual, no watering restrictions	5%	5%	6%
Grey water recycling should be encouraged	2%	3%	2%
Offer more incentives to install water-efficient appliances	7%	3%	4%
Raise the dam or increase reservoir or fill reservoir to capacity	2%	0%	1%
Have uniform regulations throughout the CRD	0%	0%	1%
Prefer a no population growth strategy	2%	0%	
Early morning water time impractical	2%	0%	3%
Should be restrictions on washing vehicles	5%	0%	
Unhappy to be paying more for using less			11%
Two-tiered system must consider household size or watering needs			6%
Not in favour of two-tiered system			4%
Support a two-tiered system			2%
Relax restrictions when reservoir or rainfall levels high			2%
Other	14%	16%	20%
Total	101%	100%	119%

Totals may exceed 100% since multiple responses were permitted.

D1. Have you seen, read, or heard anything about CRD water efficiency in the last year?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	65%	53%	42%
No / don't know	35%	47%	58%
Total	100%	100%	100%

D2. I am going to read a list of places where you might have seen, read, or heard about CRD water efficiency. For each one please tell me if it was the source of your information.

		Survey Year		
		2004	2008	2012
		Column N %	Column N %	Column N %
a) a news story about CRD water efficiency?	Yes	49%	33%	29%
	No			34%
	Was not aware of this source			36%
	Prefer not to answer			1%
	Total			100%
b) an advertisement about CRD water efficiency?	Yes	25%	24%	42%
	No			30%
	Was not aware of this source			27%
	Prefer not to answer			1%
	Total			100%
c) something on the CRD website about water efficiency?	Yes			20%
	No			43%
	Was not aware of this source			36%
	Prefer not to answer			1%
	Total			100%
d) an information or display booth about CRD water efficiency at a tradeshow or other community outreach event?	Yes			30%
	No			31%
	Was not aware of this source	82%	82%	38%
	Prefer not to answer			1%
	Total			100%
e) a CRD workshop about water efficiency?	Yes			5%
	No			28%
	Was not aware of this source		65%	65%
	Prefer not to answer			1%
	Total			100%
f) educational materials and/or learning resources about CRD water efficiency provided to schools?	Yes			13%
	No			28%
	Was not aware of this source		65%	58%
	Prefer not to answer			1%
	Total			100%

D3. Where did you see or hear the news story about CRD water efficiency?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Radio - CFX (1070)	6%	4%	4%
Radio - The Ocean (98.5)	1%	2%	0%
Radio - The Q! (100.3)	1%	1%	2%
Radio - CBC	2%	2%	1%
TV - Channel 4 (Shaw)			0%
TV - Channel 6 (CHEK)	22%	16%	9%
TV - Channel 8 (GlobalBC)			1%
TV - Channel 9 (CTV)			3%
TV Channel 12 (CTV Two VI)	4%	7%	2%
Newspaper - Times Colonist	56%	54%	42%
Newspaper - community (Saanich News, Gazette, Esquimalt News, Victoria News, etc.)	23%	24%	26%
In the water bill	1%	1%	1%
CRD Website	4%	2%	
Other	2%	6%	14%
Don't know	5%	7%	7%
Total	127%	126%	112%

Totals may exceed 100% since multiple responses were permitted.

D4. Where did you see or hear the advertisement about CRD water efficiency?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Radio - CFX (1070)	5%	6%	3%
Radio - The Ocean (98.5)		1%	2%
Radio - The Q! (100.3)	1%	2%	2%
Radio - CBC	1%		
TV - Channel 4 (Shaw)			1%
TV - Channel 6 (CHEK)	2%	5%	5%
TV - Channel 9 (CTV)			0%
TV Channel 12 (CTV Two VI)	4%	1%	1%
Newspaper - Times Colonist	51%	31%	31%
Newspaper - community (Saanich News, Gazette, Esquimalt News, Victoria News, etc.)	26%	18%	33%
In the water bill	1%	2%	2%
CRD Website	1%	5%	0%
Public Transportation		14%	2%
Other	13%	17%	24%
Don't know	15%	12%	8%
Total	120%	114%	114%

Totals may exceed 100% since multiple responses were permitted.

D5. In the last year, have you personally participated in any workshops or educational programs for water efficiency run by the CRD?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		14%	5%
No		86%	95%
Total	0%	100%	100%

E1. Could you tell me where the water supply for Greater Victoria is located?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Sooke Reservoir/Sooke	72%	58%	59%
No, I don't know	21%	34%	31%
Other area	6%	8%	10%
Prefer not to answer			0%
Total	100%	100%	100%

E2. Do you recall seeing or reading anything published by the CRD about water?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	32%	31%	32%
No / don't know	68%	69%	68%
Total	100%	100%	100%

E2. If yes, what do you recall about this publication?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Watering restrictions, bylaw info	25%	35%	14%
Expansion of the reservoir	44%	29%	12%
Water conservation methods	9%	23%	12%
Current water level of the reservoir	31%	16%	11%
Water efficiency incentive or rebate programs	9%	3%	2%
Tour of the reservoir	3%	3%	6%
Ultraviolet system	3%		
Flushing or upgrading of water mains and hydrants			29%
Water rate increases			3%
Watershed and reservoir protection and improvement measures			4%
Water quality			6%
Reservoir watershed issues - unspecified			4%
Other	6%	13%	14%
Total	130%	122%	117%

Totals may exceed 100% since multiple responses were permitted.

E3. If CRD Integrated Water wanted to get information to you, what would be the best way to do it?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
CRD website	5%	5%	2%
Newspaper - Times Colonist	20%	12%	9%
Newspaper - community (Saanich News, Gazette, Esquimalt News, Victoria News, etc.)	14%	8%	12%
In the water bill	20%	19%	11%
Mail (not in water bill)	50%	47%	38%
Email	8%	14%	16%
Radio	3%	2%	4%
TV	5%	2%	6%
Telephone	2%	2%	3%
TV Channel 6 (CHEK)	2%		1%
TV Channel 12 (CTV Two VI)	1%	1%	0%
Radio - CBC	1%	1%	0%
Radio - CFX 1070	2%	0%	1%
Online			2%
Social Media			4%
Notice at a public place (includes bus ads)			3%
Don't know	1%	4%	4%
Other	3%	4%	4%
Total	137%	121%	120%

Totals may exceed 100% since multiple responses were permitted.

E4. If you needed information about water services, where would you first turn to get information?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Phone CRD Integrated Water or CRD main office	43%	27%	10%
Visit the CRD water website	28%	44%	53%
From my municipal office or city hall	20%	20%	18%
Other	5%	3%	4%
Municipal website			1%
Internet	4%	4%	12%
Phone book (yellow/blue pages)			1%
Don't know	8%	9%	2%
Total	108%	107%	101%

Totals may exceed 100% since multiple responses were permitted.

E5. Have you ever visited the CRD water website?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		24%	34%
No		76%	63%
Don't know		0%	2%
Total	0%	100%	100%

F1. How satisfied are you with the quality of piped water to your home?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Very dissatisfied	1%	1%	0%
Dissatisfied	2%	2%	2%
Neutral	12%	7%	9%
Satisfied	31%	24%	25%
Very satisfied	52%	64%	63%
Don't know	1%	1%	0%
Prefer not to answer			0%
Total	100%	100%	100%

F2. What makes you dissatisfied with the quality of water piped to your home?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Don't like taste, chlorine taste	66%	19%	16%
Don't like the smell	7%	13%	11%
The water has too many chemicals	24%	9%	37%
The water is yellow or dirty	8%	7%	42%
Other	16%	27%	26%
Don't know		31%	
Total	121%	106%	132%

Totals may exceed 100% since multiple responses were permitted.

F3. Do you know how the CRD disinfects water to ensure that it is safe to drink?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes		40%	36%
No		60%	64%
Total	0%	100%	100%

F4. Which of the following best describes your consumption of water?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Drink only tap water	35%	40%	50%
Drink a combination of tap water and bottled or filtered water	33%	40%	36%
Drink a combination of bottled and filtered water		4%	5%
Drink only bottled water		5%	1%
Drink only filtered water		10%	7%
Don't know	1%	0%	0%
Prefer not to answer			0%
Total	69%	100%	100%

F5. Why do you consider it necessary to drink bottled or filtered water rather than tap water?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
It is more convenient	12%	26%	31%
Don't like the taste or smell of tap water	35%	22%	21%
Don't want to drink chlorine and other chemicals	8%	16%	13%
It is cold from the fridge	14%	14%	12%
Unsure about contents of tap water	5%	2%	1%
It is cleaner and purer than tap water	7%	2%	15%
Concerned with the quality of water pipes	2%	1%	2%
Just got into the habit of not using tap water	3%	0%	5%
Doctor's advice, health reasons, bacteria in tap water	3%	3%	5%
Don't know	10%	12%	4%
Other	1%	3%	11%
Total	100%	101%	120%

Totals may exceed 100% since multiple responses were permitted.

F6. Would you be interested in receiving information on the quality of your tap water?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes	59%	57%	63%
No	41%	43%	37%
Don't know			0%
Prefer not to answer			0%
Total	100%	100%	100%

F7. Are you aware that the Greater Victoria Water Supply Area is closed to public access to protect the source of our drinking water supply?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes			72%
No			28%
Don't know			0%
Total	0%	0%	100%

F8. Are you aware that some municipalities are considering applying a sewage treatment charge that is based on a household's water consumption?

	Survey Year		
	2004	2008	2012
	Column N %	Column N %	Column N %
Yes			47%
No			52%
Don't know			1%
Total	0%	0%	100%