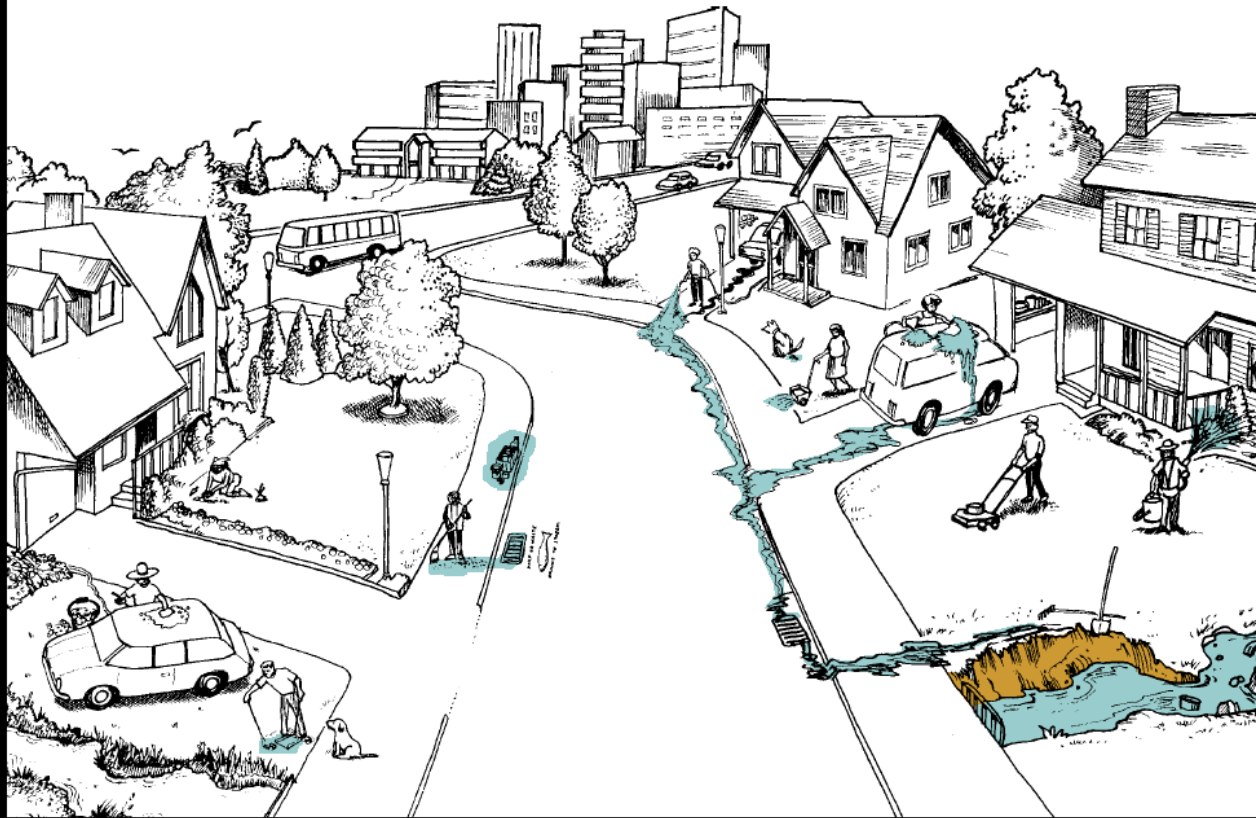


S U M M E R 2 0 0 2

Do Clean Rivers Begin at Home?

Exploring the Obstacles and Motivations of Homeowner Behavior

A Survey of Public Habits in Oregon's Tualatin River Watershed



Tualatin Basin
Public Awareness
Committee



CleanWater Services
Our commitment is clear.

 RILEY RESEARCH ASSOCIATES
Research for Marketing, Public Relations, and Planning

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EXECUTIVE OVERVIEW

Awareness

- 📊 Overall, streamside and “random” participants provided similar ratings regarding local water quality (5.7 and 5.8, respectively, on a 10-point scale). Compared to previous years, respondents’ average ratings slightly increased, from lows of 5.28 (streamside) and 5.44 (random).
- 📊 *Central County* respondents provided the highest average cleanliness ratings, followed by *East County* and *South County*.

Behavior

- 📊 Among the seven common behaviors listed below, those most often never done included 1) mowing or maintaining the lawn within 10 feet of the stream, 2) treating the roof to control moss growth, and 3) participating in outdoor volunteer projects.
- 📊 Among this list, only the practice of *washing the car in the street or driveway* was a benchmark question. It appears that fewer respondents are maintaining this practice, as 41% of streamside and 36% of random participants said they *never* do so (compared to 18-28% in previous years).

Streamside / Random	1x week	1x month	Several x year	1x year	Less often	Never
Mow/maintain lawn within <u>10</u> ft of stream	23%	4%	4%	1%	1%	63%
Random (not applicable):	-	-	-	-	-	-
Wash car in street or driveway	10%	16%	22%	9%	2%	41%
Random:	11%	20%	21%	7%	2%	36%
Wash car at drive-thru carwash	6%	32%	27%	8%	3%	23%
Random:	14%	33%	23%	9%	3%	16%
Participate in outdoor volunteer projects	3%	1%	8%	20%	8%	60%
Random:	-	2%	12%	17%	2%	65%
Use lawn fertilizer	1%	5%	28%	28%	4%	31%
Random:	2%	13%	24%	19%	4%	34%
Use weed-killing or insect control products	-	9%	23%	34%	6%	26%
Random:	4%	11%	23%	19%	8%	30%
Treat roof to control moss growth	-	-	1%	19%	17%	62%
Random:	-	1%	-	10%	15%	68%

- 📊 When asked about dog droppings, respondents said people leave them on the ground in public because *they are inconvenient to dispose of* or *they are unpleasant to pick up*. Roughly half of respondents provided their own reasons (not listed), many of which were related to laziness. When asked how to encourage people to clean up after their dog, the clear favorite among participants was a *monetary fine*, followed by *free collection devices, such as a scooper*.
- 📊 Regarding chemical use, respondents most often said they get used because *they are easy to use* or are the *only thing that is effective*. The most popular behavior change encouragements were *a list of natural or non-toxic products*, *a better understanding of the benefits*, or *a reduction in the price of less toxic alternatives*.

- ☒ People wash their vehicle at home rather than at a drive-thru or tunnel carwash because it is *less expensive*, according to respondents. In alignment with this response, respondents said the best way to encourage people to take their car to the drive-thru or tunnel carwash is to *provide discounts or coupons* for doing so.
- ☒ According to respondents, people like a maintained and manicured grass lawn because it *looks nice*. In addition, people feel that it *enhances the property value*. To encourage less grass and more native plants, trees, and landscaping, the most common suggestions were *discounts or coupons for native plants or trees, technical support, and time to work on it*.
- ☒ *It looks nice* was chosen by half of streamside respondents as the reason why streamside property owners mow or maintain their lawns or gardens up to the edge of the stream. This response was followed by *it is their property and they can do what they want*. The most popular encouragement for change was a *tax benefit for leaving a 10-foot buffer*, followed by *information on the benefits of doing so*.
- ☒ Respondents said people who don't volunteer *don't have time or are not aware of opportunities to do so*. The most mentioned encouragements for participation had to do with these two items: *being notified of opportunities* and *more involvement by the other groups they belong to*.
- ☒ Among the 12-17% of respondents who said they have made significant changes in the past few years to protect water quality in local streams and the Tualatin River, the most frequently mentioned reasons were *general awareness, media reports, and well-promoted public events*. The majority of respondents, however, said they made *some or no* changes.

Communications

- ☒ Respondents frequently receive information about local stream and river quality issues from the newspaper, TV, newsletters, and billing inserts.
- ☒ Both streamside and random respondents supported *general pollution prevention information in newspapers, TV and radio* (7.8 and 8.1 on a 10-point scale), *providing money-saving deals for the purchase of environmentally-friendly products* (7.5 and 8.3), and *sponsoring community involvement and cleanups* (6.9 and 7.7).

	Streamside 2002	Streamside 1997	Random 2002	Random 1997
General Pollution Prevention Information...	7.8	7.5	8.1	7.9
Providing money-saving deals for environ.-friendly products	7.5	-	8.3	-
Sponsoring Community Involvement and Cleanups	6.9	7.8	7.7	7.8
Providing Technical Assistance and Training	6.2	7.1	7.3	7.1
Mailing Information To Individuals	6.1	5.8	6.0	5.7
Volunteers coming to home to help with planting/clean-up	5.8	-	-	-
Strengthen Regulations and Enforcement	5.5	6.9	6.8	7.4

Demographics

- ☒ Among streamside respondents, 14% said they have a spa or pool at home (vs. 20% among random respondents).

INTRODUCTION

As part of the Healthy Streams Plan, Riley Research Associates was asked to conduct a scientific telephone survey among Clean Water Services' service-area residents, regarding public habits relating to water quality. The purpose of the study was to supplement previous public awareness and values studies with data relating specifically to actual habits. The purpose was also to examine barriers to, and incentives for, better water quality behavior. This was accomplished through an exploration of respondents' personal and household habits, as well as through the use of projection.

This study was designed to: 1) supplement Clean Water Services' Healthy Stream Plan public values study (conducted in June 2002) and 2) provide applicable benchmark data, based on studies conducted for Unified Sewerage Agency / Clean Water Services by Riley Research Associates in 1994 and 1997. Where appropriate, references are made to each of these data sources.

METHODOLOGY

Riley Research Associates, with input from Clean Water Services, developed the research plan and questionnaire. The study area included Washington County, and was split equally between pre-qualified streamside residents and a random sample of service-area residents. Clean Water Services provided a list of streamside residents, while the random sample was attained through the use of Random-Digit-Dialing (RDD).

Following a pretest, fielding took place between July 8 and July 17, 2002. A total of 430 interviews were completed, including 203 streamside interviews and 227 RDD interviews. This ensures a sampling error no larger than +/-6.9% for the streamside sample and +/-6.5% for the RDD sample, at a 95% level of confidence.

The results are displayed in a question-by-question format, including numeric tables. Relevant sub-group differences found to be statistically significant are cited. A copy of the questionnaire can be found in the Appendix; cross tabulations are bound separately.

Sample Characteristics

Following data collection, respondents were categorized based on demographic information, including gender, parental status, age, education, home ownership status, years at current residence, spa/pool ownership status, and location. As mentioned, respondents were also split between streamside and RDD subsamples.

Regarding location, 49% of the overall sample resided in what was defined as *East County*, while 26% resided in *South County* and 21% resided in *Central County*. Also, 13% were *renters*, 49% were *male*, 34% had *kids*, and 17% had a *spa or pool at their home*. Age categories were also well distributed: 18-24 (5%), 25-34 (17%), 35-44 (18%), 45-54 (23%), 55-64 (16%), and 65+ (17%).

CONCLUSIONS

Perception of Water Quality

Regarding perceptions of water quality, both streamside and “random” participants provided similar ratings regarding local water quality (5.7 and 5.8, respectively, on a 10-point scale), and both were up slightly which indicates that area residents have an improved outlook on local water quality from 1994 and 1997 (lows of 5.28 and 5.44). Within the County, Central respondents provided the highest average cleanliness ratings, followed by East County and South County.

Behavior

Among the seven common behaviors addressed¹, those most often never done included 1) mowing or maintaining the lawn within 10 feet of the stream, 2) treating the roof to control moss growth, and 3) participating in outdoor volunteer projects. Regarding moss growth treatment, it is encouraging to note that younger respondents were significantly more likely to never treat their roof for moss prevention. It is unfortunate, however, that respondents are also very likely to never participate in outdoor volunteer projects.

When asked about **dog droppings**, a large number of respondents provided colorful responses about dog owners being lazy, inconsiderate, and uncaring. These responses may indicate an opportunity to educate dog owners on the perceptions of others. Assuming that dog owners do not want to be viewed by the public as “lazy and rude,” this may represent a potential message to the dog owners of Washington County.

When asked how to encourage people to clean up after their dog, the clear favorite among participants was a monetary fine. This response suggests that respondents may view tougher regulations as the only way to address the issue.

Regarding **chemical use**, respondents most often said they get used on yards because they are easy to use or are the only thing that is effective. The most popular behavior change encouragements were a list of natural or non-toxic products, a better understanding of the benefits, or a reduction in the price of less toxic alternatives. The barrier here, however, may be in convincing people that alternatives are easy to use and actually work.

People **wash their vehicle at home** rather than at a drive-thru or tunnel carwash because it is less expensive, according to respondents. In alignment with this response, respondents said the best way to encourage people to take their car to the drive-thru or tunnel carwash is to provide discounts or coupons for doing so. There may be an opportunity for co-branding through a Clean Water Services sponsored carwash discount program.

According to respondents, people like a **maintained and manicured grass lawn** because it looks nice. In addition, people feel that it enhances the property value. It looks nice was also the most popular reason given by streamside owners for mowing up to the edge of the stream. Promotion of the beauty of certain native plants and trees may serve as a successful message among this audience.

The other popular response, however, among streamside property owners was “it is their property and they can do what they want.” This view of property rights and fear of regulation

¹ Mowing within 10 feet of stream, washing the car in the street/driveway, washing the car at a drive-thru carwash, participating in outdoor volunteer projects, using lawn fertilizer, using weed-killing or insect control products, and treating the roof for moss growth.

among streamside residents was accentuated by the most often mentioned encouragement – provide a tax benefit for leaving a 10-foot buffer.

As for the positive habit among the list, respondents said people don't **volunteer** for outdoor projects because they don't have time or are not aware of opportunities to do so. The most mentioned encouragements for participation, and key promotional opportunities, had to do with these two items, as well: being notified of opportunities and more involvement by the other groups they belong to.

Communications

Respondents frequently receive information about local stream and river quality issues from the newspaper, TV, newsletters, and billing inserts. These four avenues should continue to serve as the vehicles for Clean Water Services' message.

Interestingly, while newsletters and billing inserts were two of the four most mentioned vehicles for water quality information, "mailing information to individuals" was one of the least popular options for the promotion of water quality. This indicates that while people notice what comes in the mail or with their bills, they may be "at their limit" when it comes to additional pieces of mail.

Both streamside and random respondents supported 1) general pollution prevention information in newspapers, TV and radio, 2) providing money-saving deals for the purchase of environmentally-friendly products, and 3) sponsoring community involvement and cleanups as ways to promote water quality.

A key theme repeated itself here in the need for money-saving deals. Respondents said money was the main barrier to taking their vehicle to the drive-thru or tunnel carwash, they suggested that discounts on non-native plants and trees would encourage people to reduce the size of their grass lawns, and they supported providing money-saving deals for the purchase of environmentally-friendly products. Much like the explosion in popularity of the CFL light bulb, which promoted energy savings while saving consumers money, Clean Water Services may have a great opportunity to promote improved water quality if the consumer can be shown that changing their habits will save them money.

RESULTS

Q1. To begin, on a 10-point scale, where "1" means completely polluted and "10" means completely clean, how would you rate the water quality of the streams and rivers in your area? (If Streamside) Including the stream near your property and any other streams or rivers in the local area.²

Overall, streamside and random participants provided similar ratings regarding local water quality, with streamside residents providing an average (mean) rating of 5.7 and random participants providing an average of 5.8.

Compared to previous years (since 1994), respondents' average ratings have slightly increased, from lows of 5.28 (streamside) and 5.44 (random) to 2002's ratings of 5.7 and 5.8.

Among streamside respondents, the higher a respondent's level of education, the less likely they were to report that their streams are *completely polluted* (From 13% of *high school or less* to 0% of *graduate degree*). Similarly, the higher the level of education, the higher the mean rating was (From 5.1 to 5.9).

Central County streamside respondents were most likely to reply that their streams were *completely clean* (13%). Understandably, they provided the highest mean rating (6.4), followed by *East County* and *South County* (5.8 and 5.3, respectively). *Central County* random respondents also provided the highest mean rating (6.5), compared to *East* and *South County* (5.8 and 5.1, respectively).

	STREAMSIDE			RANDOM ³		
	2002	1997	1994	2002	1997	1994
Total Participants	203	145	237	227	421	348
1 - Completely polluted	5%	5%	3	3%	2	3
2	2	4	3	2	1	2
3	6	8	8	7	6	7
4	5	12	15	7	14	11
5	25	30	25	19	33	34
6	11	12	14	11	16	13
7	10	14	15	15	15	16
8	13	12	14	12	9	9
9	4	1	1	3	1	3
10 - Completely clean	4	1	2	4	3	1
Don't know/Refused	14	-	-	17	-	-
Mean	5.7	5.28	5.49	5.8	5.56	5.44

² In 1997, this question read "On a one to ten scale, where one means completely polluted and ten means completely clean, how would you rate the water quality of the streams and rivers in your area?"

³ In 1997, this category was labeled "Non Stream".

Q2-8. I'm now going to read a short list of things people do from time to time, and I would like to know how often they may occur. Please give me your best estimate of whether, at your house, the following things occur once a week, once a month, every few months, only once a year, less often, or never. So, how often, at your house, does someone...

Q2. Wash the car in the street or driveway?

Never was the most popular reply for streamside respondents, followed by *every few months* and *once a month* (41%, 22%, and 16%, respectively). Random respondents were also most likely to answer *never*, then *every few months* and *once a month* (36%, 21%, and 20%, respectively).

It appears that fewer respondents are washing their cars in the street or driveway, compared to previous years, as 41% of streamside and 36% of random participants said they *never* do so (compared to 18-28% in previous years).

Among streamside respondents, those from the 18-34 age range were most likely to wash their cars in the street or driveway *once a week* (21% vs. 10% overall). Those *without kids* in the household were more likely to *never* wash their car in the street or driveway (49% vs. 25% of those with kids). Finally, the older a respondent was, the more likely they were to *never* wash their car in the street or driveway (From a low of 21% to a high of 60%).

	STREAMSIDE			RANDOM		
	2002	1997	1994	2002	1997	1994
Total Participants	203	146	243	227	448	360
Once a week	10%	11%	12	11%	11%	18%
Once a month	16	23	27	20	22	25
Every few months	22	25	22	21	27	28
Once a year	9	8	8	7	8	6
Less often	2	8	4	2	4	4
Never	41	23	27	36	28	18
Don't know/Refused	0	1	0	3	0	1

Q3. Wash the car at a drive-thru carwash?

The most popular response by the streamside sample was *once a month* followed by *every few months* and *never* (32%, 27%, and 23%, respectively). Among random respondents, the most popular answer was also *once a month* followed by *every few months* and *never* (33%, 23%, and 16%, respectively).

Interestingly, both streamside and random respondents who said they have made no significant changes in their behavior were the most likely to *never* wash their car at a drive-thru carwash, compared to those who have made some or significant changes (33% and 23%, vs. 4-17%, respectively).

Random respondents living in *Central County* were the most likely to *never* wash their cars at a drive-thru carwash (25%), followed by those from *East* and *South County* (16% and 4%, respectively). *Males* were also more likely than *females* to *never* wash their cars at a drive-thru carwash (21% vs. 12%).

	STREAMSIDE	RANDOM
Total Participants	203	227
Once a week	6%	14%
Once a month	32	33
Every few months	27	23
Once a year	8	9
Less often	3	3
Never	23	16
Don't know/Refused	0	2

Q4. Use weed-killing or insect control products such as Round Up or insecticide?

The most popular reply from streamside respondents was *once a year*, followed by *never* and *every few months* (34%, 26%, and 23%, respectively). Among random respondents, the most popular reply was *never*, then *every few months* and *once a year* (30%, 23%, and 19%, respectively).

Random respondents who *rent* their home were considerably more likely to *never* use these products (55% vs. 23% of owners).

	STREAMSIDE	RANDOM
Total Participants	203	227
Once a week	0%	4%
Once a month	9	11
Every few months	23	23
Once a year	34	19
Less often	6	8
Never	26	30
Don't know/Refused	1	4

Q5. (Streamside Only) Mow or maintain the lawn within 10 feet of the stream?

A majority of streamside respondents *never* mow or maintain the lawn within 10 feet of the stream (63%) while those who do are more likely to do it *once a week* (23%).

	STREAMSIDE	RANDOM
Total Participants	203	0
Once a week	23%	-
Once a month	4	-
Every few months	4	-
Once a year	1	-
Less often	1	-
Never	63	-
Don't know/Refused	4	-

Q6. Participate in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups?

Three of every five streamside respondents *never* participate in outdoor volunteer projects. Of those who do participate, most do so *once a year* (20%). A majority of random respondents also *never* participate in outdoor volunteer projects (65%). Of those who do participate, most do so *once a year* or *every few months* (17% and 12%, respectively).

Of streamside respondents, those in the *55-64* and *65 and over* age ranges were more likely to *never* participate (68% and 82%, vs. 60% overall). The lower a respondents' level of education was, the more likely they were to *never* participate, and the less likely they were to participate *every few months*. Understandably, the less respondents changed their habits in the past few years, the more likely they were to *never* participate.

Random respondents who *rent* their home were more likely to participate *every few months* (23% vs. 12% overall) while being less likely to *never* participate than those who own (57% vs. 67%).

	STREAMSIDE	RANDOM
Total Participants	203	227
Once a week	3%	0%
Once a month	1	2
Every few months	8	12
Once a year	20	17
Less often	8	2
Never	60	65
Don't know/Refused	-	2

Q7. Treat your roof to control moss growth?

A majority of streamside respondents *never* treat their roofs (62%) while those that do are likely to do so *once a year* or *less often* (19% and 17%, respectively). Random respondents are also most likely to *never* treat their roofs (68%). Those that do are more likely to do so *less often* than *once a year* (15% and 10%, respectively).

No significant differences could be seen between streamside subsegments. Random respondents *with kids* in the household were more likely to *never* treat their roofs (77% vs. 64% of those without kids). Also, the younger the respondent, the more likely they were to *never* treat their roof (From 84% to 41%). Finally, newer residents were also more likely to *never* treat their roof (From 81% to 45%).

	STREAMSIDE	RANDOM
Total Participants	203	227
Once a week	-	0%
Once a month	-	1
Every few months	1	0
Once a year	19	10
Less often	17	15
Never	62	68
Don't know/Refused	1	5

Q8. Use lawn fertilizer?

The most popular response from streamside respondents was *never* (31%), followed by *every few months* and *once a year* (28% each). Most random respondents use lawn fertilizer, most likely *every few months*, followed by *once a year* and *once a month* (24%, 19%, and 13%, respectively). The most popular answer, however, was *never* (34%).

Among random respondents, those who *rent* were more likely to *never* use fertilizer (66% vs. 25% of owners). Those who have spent *3 or fewer* years at their current residence were also more likely to *never* use fertilizer (48% vs. 34% overall).

	STREAMSIDE	RANDOM
Total Participants	203	227
Once a week	1%	2%
Once a month	5	13
Every few months	28	24
Once a year	28	19
Less often	4	4
Never	31	34
Don't know/Refused	2	4

I would now like to hear your thoughts on a few other common practices. For each of the following practices, I'll read a question followed by a series of potential answers. For each, I'll ask you to tell me which is the best answer, or the most fitting. The first question is...

Q9. Why do people leave their dog's droppings on the ground in public places? Is it because...(Read List)

When asked why people leave their dog's droppings on the ground, the most popular responses (from the list) were *inconvenient to dispose of* and *unpleasant to pick up* (22% and 21% for streamside and 18% each for random).

Among random respondents, those *without kids* in the household were more likely to find it *inconvenient to dispose of* dog droppings, compared to those *with kids* (24% vs. 9%).

	STREAMSIDE	RANDOM
Total Participants	203	227
It's inconvenient to dispose of	22%	18%
It's unpleasant to pick it up	21	18
Other people do it	3	5
It's a natural area	1	4
It will decompose quickly	2	4
Or something else?	50	51

Q9a. Or something else...

All responses are listed below. The most common of the “other” responses had to do with dog owners being *lazy, tired, or irresponsible* (65% streamside, 76% random), followed by *rude/inconsiderate* responses (11% streamside, 10% random).

Streamside (101)

Lazy/Tired/Irresponsible (65%):

They are lazy. (36)

Laziness. (10)

They just don't care. They are lazy. (2)

They are lazy, irresponsible pet-owners. (2)

They are irresponsible. (2)

Too lazy to clean up after their dog.

They don't respect the area and are too lazy.

They are lazy and inconsiderate.

They are just too lazy to pick it up.

They're lazy and rude.

People are too lazy to pick it up themselves.

People are lazy and don't care.

Lazy people, dog training person.

They do not want to do it.

They are tired and just do it.

Irresponsibility.

I don't know it makes me mad, I guess they're just lazy.

Because they're too lazy to take care of it.

Because they're too lazy to pick it up.

Rude/Inconsiderate (11%):

They are rude and inconsiderate people.

They are rude.

They're too rude.

People are rude and inconsiderate.

Plain inconsideration for other people.

Lack of consideration and stupidity.

Its unpleasant to pick and they are also inconsiderate of others.

It will decompose quickly and people have lousy manners.

Inconsiderate idiots.

Inconsiderate.

Because they're rude people.

Uncaring (7%):

They don't care. (4)

They don't give a damn.

They don't care - they don't want to bother.

People just don't care.

Q9a. Or something else...(continued)

Streamside (continued)

Ignorance (4%):

They are unaware of the pollution problems it can cause.
People think it will decompose and be fertilizer.
People just don't know any better.
Because they are ignorant.

Miscellaneous (8%):

They're a bunch of slobs.
They forget their plastic bags.
They don't provide the plastic bags and scoopers to make it convenient.
They don't have the bags they need to pick it up.
People are careful around there.
Lack of having things to pick it up with.
All of the above.
Because they are pigs.

Don't Know (5%)

Random Digit Dial (114)

Lazy/Tired/Irresponsible (76%):

They are just plain lazy. (13)
They're too lazy. (12)
They are lazy. (11)
I don't know. (7)
Lazy. (6)
They are irresponsible. (5)
They don't care. (3)
They're too lazy to pick it up. (3)
They are lazy; they are inconsiderate. (2)
They're too lazy to pick it up. (2)
They don't want to pick it up. (2)
They don't want to be bothered.
They are mental and lazy.
They are lazy and irresponsible.
They're too lazy or just plain rude.
They're to damn lazy to pick it up.
They're stupid and lazy.
They must be lazy.
They are too lazy; if I had my way I'd kill them.
They are too lazy and have no consideration for others.
Stupidity and laziness.

Q9a. Or something else...(continued)

Random Digit Dial (continued)

Stupid, lazy and crazy if they do it in my yard.
People are lazy, no respect.
Those people will be lazy all their lives.
Lazy and thoughtless.
I think its because there lazy.
Because they're retarded and lazy.
Carelessness and laziness.
Because they are too damn lazy.
Because they're rude and lazy.
Because they're lazy.
Because they're lazy and don't care about parks.

Rude/Inconsiderate (10%):

They are rude. (2)
They're rude and inconsiderate, and have no regard for other people
They are inconsiderate of others; they want others to pick it up for them.
They are inconsiderate.
They do it because they have no regard for the rest of humanity.
They are selfish.
The people are inconsiderate.
Selfish people.
Rude people.
Because they're just rude and thoughtless.

Ignorance (2%):

They don't know better.
They are just ignorant.

Miscellaneous (9%):

They're just stupid. (2)
They do not think they will get caught.
Out here because it's the country and that's the way people are out here.
Mental.
I have no idea and it drives me nuts.
I do not care I live in the country.
Help fertilize.
Because they're cruds.
Because somebody else will pick it up.

Don't Know (4%)

Q10. Which of the following would most encourage people to clean up after their dog more often? (Read List)

The most popular responses among streamside and random respondents were *monetary fine*, followed by *free collection devices* and *more disposal locations* (44% & 42%, 20% & 19%, and 16% & 11%, respectively).

	STREAMSIDE	RANDOM
Total Participants	203	227
A monetary fine	44%	42%
Free collection devices (scooper or bags)	20	19
More disposal locations at parks / trails	16	11
Complaints of neighbors	6	6
Knowing it would protect public health	2	4
Knowing it would protect water quality	2	4
Knowing it would protect wildlife habitat	1	0
Or something else?	9	14

Q10a. Or something else...

All responses are listed below.

Streamside

All the above. (4 = 22%)

Don't know. (2 = 11%)

Visible signs along popular dog routes.

Stepping in it a few times.

People should take more responsibility.

People need to care more about it.

People need to be educated about the health hazards.

People are too liberal in our society & don't think about others.

Jail time.

I don't think anything would make those people comply.

Having their dog's droppings returned to them in a very inconvenient place.

Government needs to shut-up.

Education of the public.

Build fences.

Random Digit Dial

Don't know. (4 = 14%)

All of the above. (2 = 7%)

Shooting the dog. (2 = 7%)

You need to reach these people through some other aggressive methods.

Who cares?

To get them to do it--they have a responsibility.

Throw it in their cars.

Take it back to them.

Social pressure.

Re education.

Put in their yards, see how they like it.

Picket them, embarrassing them, make them care.

Nothing, these people only think of themselves, one can change them.

Nothing, not even a fine, it would raise our taxes.

None of these.

More dog parks w/plastic bags, gloves, throw away places.

Information of the effects of leaving it there.

If they stepped in it and tracked it into there house.

If I went up, picked it up and put it in the perpetrators pocket.

Get rid of the dogs.

Educating them about the negative results.

Confront them-remind them -complaint them.

A higher license fee to own a pet.

A citation if they are caught.

Q11. Why do people use chemicals to kill weeds and bugs in their yards and gardens? (Read List)

One third of streamside respondents think people use chemicals because *they are easy to use*, and nearly as many because *they are the only thing that is effective* (33% and 32%, respectively). Similarly, two in five random respondents also said *they are easy to use*, followed by *they are the only thing that is effective* (39% and 28%, respectively).

Among streamside respondents, those with a *high school or less* education were more likely to reply *they are safe to use* (10% vs. 3% overall). Those who have been at their current residence for *20 or more years* were more likely to answer *they are the only thing that is effective* (43% vs. 32% overall).

Random respondents in *South County* were most likely to be concerned with the *convenience* of the product (23% vs. 7-15% in the rest of the County), while *Central County* respondents were most likely to mention their *effectiveness* (40% vs. 28% overall).

	STREAMSIDE	RANDOM
Total Participants	203	227
They are easy to use	33%	39%
They are the only thing that is effective	32	28
The products are convenient to purchase	10	15
They are safe to use	3	6
They are inexpensive	3	2
Or something else?	19	11

Q11a. Or something else...

All responses are listed below. It is interesting to note that *laziness* was a popular answer among both groups (13% streamside / 17% random). A number of streamside residents answered *all of the above* (15%).

Streamside

They are lazy. (11 = 28%)
All of the above. (6 = 15%)
Don't know. (4 = 10%)
They have no imagination.
They don't want to physically do it themselves.
They don't understand how toxic they are.
The area may be too big.
Organic things, like soap.
Only way I know to do it.
Lack of knowledge.
Its what's available and it does the job.
Its quick and effective way, and lack knowledge on natural methods.
It's easier than digging.
If they are used properly, impact is not negative.
Easy and it works.
Don't know because it the easiest.
Depends on the size of the property.
Because they are the easy and cheap and because of there mass popularity.
Because of the amount of promotions of products.
Because hey work well and they are easy to use.

Random Digit Dial

They're too lazy. (4 = 17%)
Don't know. (3 = 13%)
They are faster and more convenient to use. (2 = 8%)
They should use animals.
They are unaware of the damage they do.
They are easy to get to and convenient.
They are disturbed by weeds; don't have time to pull by hand.
The chemicals are helpful to kill the insects.
Some weeds can do damage to the household.
So we can eat.
None of them work.
It is legal.
I have a company come and do it.
Easy to use and people think that's the only thing that is effective.
Don't know about any non-toxic products or any other products and don't want to learn.
Because of it being well marketed and its easy to use. Many also believe it is the best way.
All of the above.
Advertisement.

Q12. Which of the following would most encourage people to use less toxic weed and bug control methods? (Read List)

The most popular response from the streamside sample was *list of natural/non-toxic products*, followed by *better understanding of benefits* (30% and 17%, respectively). Coming in tied for third were *reduction in price of less toxic alternatives* and *convenient access to less toxic products* (15% each). Among the random sample, the most popular response was *better understanding of benefits*, followed by *list of natural/non-toxic products* (26% and 20%, respectively). Again tied at third were *reduction in price of less toxic alternatives* and *convenient access to less toxic products* (14% each).

Among random respondents, those *without kids* in the household were more likely to reply *better understanding of benefits* than those *with kids* (31% vs. 19%). Those with kids, however, were more likely to reply *list of natural or non-toxic products* (30% vs. 14%).

In the same group, we found that the higher respondents' level of education, the less likely they were to reply *better understanding of benefits*, but the more likely they were to reply *convenient access to less toxic products*.

	STREAMSIDE	RANDOM
Total Participants	203	227
A list of natural or non-toxic products	30%	20%
A better understanding of the benefits	17	26
A reduction in the price of less toxic alter.	15	14
Convenient access to less toxic products	15	14
Knowing it would protect water quality	4	7
Knowing it would protect public health	4	5
Knowing it would protect wildlife habitat	1	4
Or something else?	14	11

Q12a. Or something else...

All responses are listed below.

Streamside

All of the above options. (6 = 21%)

Don't know. (6 = 21%)

None. (3 = 11%)

To know that there are things out there that are less toxic that works the same that aren't expensive.
They need to know that it will be as effective as the toxic weed killer.

Something that works just as good.

None of the above. Readily available to replace.

Make those products illegal.

Knowing that non-toxic products would work.

Knowing that less toxic products are effective, natural and biodegradable.

I believe the survey is biased.

Have someone help to cut the weeds down.

Educate the people!

Combination of education of the benefits and offering non-toxic products.

Both availability of non-toxic products and knowing the problems with toxic products.

Being fined for using toxic methods/chemicals.

Availability and knowledge.

Random Digit Dial

All of the above. (3 = 12%)

Don't know. (2 = 8%)

The development of new more effective less toxic products.

Put a tax on toxic chemicals.

Not as long as we let everyone shit in the Tualatin River.

None.

Make people more aware of just how toxic things really are.

Less toxic does not work.

Less expensive.

Knowing what else is out there and the knowledge o knowing what else is out there.

Knowing there are alternatives.

Informing people that the less toxic products are just as fast and effective as the toxic products.

If they worked more people would use them.

If it was less expensive.

If it was available.

I don't think anything will work.

I do not know of any one using too much chemicals.

Do some proper marketing and educating people that they're out there and they work.

Catchy advertising and marketing.

Better understanding of prod.

Better natural killers.

Being told they can't use it; taking it off the market.

A better understanding of what to use.

Q13. Why do people wash their vehicles at home rather than at a drive-thru or tunnel carwash? (Aided)

Nearly half of streamside respondents thought that people wash their vehicles at home because *it's less expensive* (45%), while 14% said *hand washing is better for vehicle*. Similar numbers of random respondents said *it's less expensive*, followed by a tie between *hand washing is better for vehicle* and *it's more convenient* (37%, 14% and 14%, respectively).

	STREAMSIDE	RANDOM
Total Participants	203	227
It's less expensive	45%	37%
Hand washing is better for the care of vehicle	14	14
It's more convenient	10	14
A person gets the car cleaner	10	8
People like to do it themselves	7	11
It saves time	2	5
Or something else?	11	10

Q13a. Or something else...

All responses are listed below.

Streamside

All of the above. (6 = 27%)

Don't know. (4 = 18%)

To keep things out of storm drains.

They love their cars.

People like to control the process.

People just like to do it there self, for some reason.

Not to ruin the paint on the car.

It is safer to do it at home. My car gets damaged.

I can use less water.

Convenient and control.

Because I'm a man and I like it.

Because everyone has done it forever, out of habit.

At drive-thru's the soap is bad for your car.

A reason to spend time outdoors when the weather is nice.

Random Digit Dial

I don't know. (6 = 24%)

All of the above. (3 = 12%)

No idea. (2 = 8%)

To many people it is a ritual to wash their own car.

Their cars get to scratched up.

Some people just like to do it themselves; some say it's too expensive.

People think they get it cleaner.

Just because I'm bored at home.

It's a waste of water.

It gets it cleaner.

It does a better job.

I'm lazy.

I think they like to baby their cars.

I have a nice car and I do not want it scratched.

Habit and they can do it anytime they feel like it.

Carwash will damage car.

At home they can do a better job.

Q14. Which of the following would most encourage people to use a drive-thru or tunnel carwash? (Read List)

A majority of streamside and random respondents felt that *providing discounts or coupons for carwashes* would most encourage people to use them (56% and 53%, respectively).

	STREAMSIDE	RANDOM
Total Participants	203	227
Providing discounts or coupons for CW's	56%	53%
Knowing they use recycled water	10	14
Knowing it would protect water quality	7	6
Adding more carwash locations	4	7
Knowing it would protect public health	4	5
Knowing it would protect wildlife habitat	3	3
Or something else?	16	12

Q14a. Or something else...

All responses are listed below. A couple of streamside residents answered *none* (6%), which was not a reply supplied by any random respondents. Significantly more streamside residents replied *don't know* (26%) than *all of the above* (12%), but both answers were notable because of the number of people who provided them. These answers were also popular among random respondents (8% each).

Streamside

Don't know. (9 = 26%)

All of the above. (4 = 12%)

None. (2 = 6%)

They'll do it until they're too ill to do it.

They would be able to clean my car as carefully as I do.

Something along the lines of enough of a shift in public sentiment to make it more popular.

Some way they could get the quality of care for their car but not recycle the water- capture it.

Protect their finish on their car.

People will do what they want regardless.

Maybe if worked better and was cheaper.

Make it non-damaging to the finish and detailing of the car.

Make it less damaging to finish of the car.

Less money.

Improving the car wash procedures to do a better job.

If it didn't ruin the paint.

I like to do it myself.

I don't believe in any of those methods.

Having more car washes that don't touch your car.

Free car washes.

Educate the public and I don't believe there is a value in the carwashes.

Do better job roof rack.

Coupons.

Random Digit Dial

Don't know. (2 = 8%)

All the above. (2 = 8%)

We live out in the country.

Water is not clean for the rinse.

Using something that won't hurt the car

They do not want to wait in line.

Nothing they don't do as good as a job

Not having to wait in line at the carwash

Making the carwash more effective

Making sure that the carwash does a good job as well as not hurting the vehicle

Lower car wash price, water bill is high already

Q14a. Or something else...(continued)

Random Digit Dial (continued)

Lack of time.

Knowing that it would not hurt their car.

Knowing it would protect environment.

Knowing it will not damage the car.

Knowing it was as good as hand washing.

It is a matter of convenience.

If the costs were lower.

Hurts the finish.

Having more touch less power washers.

Education that the water will not hurt the car.

Economic reasons.

Better quality tunnel carwashes.

All of the above; a guarantee it will not ruin the paint job on the car.

Q15. Why do people like a maintained and manicured grass lawn? (Read List)

Over half of streamside respondents thought that people liked a net lawn because *it looks nice* (57%). An even greater proportion of the random sample felt the same way (62%).

Streamside respondents *without kids* in the household were more likely to reply *they look nice* than those *with kids* (65% vs. 38%). However, those *with kids* were more likely to say *they look like the neighbors* (14% vs. 5%) or they *provide a play area for kids* (17% vs. 4%). *East County* respondents were more likely to say *they look nice* (65% vs. 57% overall), while *Central County* respondents were more likely to say *they enhance property values* (23% vs. 12% overall).

Of the random respondents, the less they changed habits in the past few years, the more likely they were to say *they look nice*. However, the less they changed, the less likely they were to say *they enhance property values* or *they provide a play area for kids*.

	STREAMSIDE	RANDOM
Total Participants	203	227
They look nice	57%	62%
They enhance property values	12	12
They look like the neighbors	8	9
They provide a play area for kids	8	6
They are easy to care for	5	1
They are less costly to maintain	1	2
Or something else?	8	8

Q15a. Or something else...

All responses are listed below.

Streamside

Don't know. (5 = 29%)

All of the above. (3 = 18%)

Take pride in their property. (2 = 12%)

This is something that has been taught to us - it's the way it's supposed to be.

The grass is maintained to have a firebreak between houses.

Pride in ownership.

No idea.

Makes your house look good.

It keeps dust down.

Fire hazard.

Random Digit Dial

All of the above. (4 = 21%)

Don't know. (3 = 16%)

We've been told that's what yard is supposed to look like.

They think that's how grass should be.

They are crazy.

Pride in ownership.

None.

Never understood why they do that, it takes to much time.

I think it has to do with a sense of control, and they feel like others judge them.

For some it's just a hobby.

For kids play on.

Because they like a grass lawn.

Because of their pride.

A sense of organization.

Q16. Which of the following would most encourage people to reduce the size of their grass lawns by using native plants, trees, and landscaping? (Read List)

The most popular response from the streamside sample regarding the encouragement of lawn-size reduction was *discounts/coupons for native plants/trees* and *technical support* (17%, and 16%, respectively). Among the random sample, the most popular responses were also *discounts/coupons for native plants/trees* and *technical support* (19% and 15%, respectively).

Streamside respondents with *some college or trade school* education were more likely to say *discounts or coupons for native plants or trees* (28% vs. 17% overall).

	STREAMSIDE	RANDOM
Total Participants	203	227
Discounts or coupons for native plants/trees	17%	19%
Tech. support (onsite expert advice/classes)	16	15
Time to work on it	14	13
If the neighbors did it	9	12
Knowing it would protect water quality	5	9
A list of native plants	9	4
Knowing it would protect public health	1	8
Knowing it would protect wildlife habitat	4	4
Or something else?	24	17

Q16a. Or something else...

All responses are listed below. Significantly more streamside residents replied *don't know* (35%) than *all of the above* (10%), but both answers were notable for the number of respondents providing them. These answers were also popular among random respondents (19% and 5%, respectively).

Streamside

Don't know. (17 = 35%)

All of the above. (5 = 10%)

They would do it for themselves.

They need to be educated in such things as it is less expensive and needs less water.

Their water rates would be going up.

Refused.

Property owners should be relatively free with what they do to their yards.

People don't realize native plants don't have to be maintained all the time.

Nothing-small lawns already....

Nothing. I would do it only because it made the yard look nicer.

Nothing.

None of the above, people who like lawns will keep their lawns.

No reason.

No opinion.

Neighbors have them.

Just make people aware of the different possibilities.

It's a stupid question.

It shouldn't be done. We need more land to take away the water.

If they weren't so ignorant about it.

If it was easier to maintain.

I won't.

Having the city provide them for free.

Good advice, counsel, and input.

Giving people ideas on what to plant and how to plant.

Education again.

Educate people that are better for the yard.

Change the culture so people would not want to have green lawns.

A lot of people don't want deal with it.

A little bit of everything.

Random Digit Dial

Don't know. (7 = 18%)

None of it will help. (5 = 13%)

No/Nothing. (3 = 8%)

All of the above. (2 = 5%)

Work!

Q16a. Or something else...(continued)

Random Digit Dial (continued)

Tax break.

Purchasing decorative items to fill the space.

No government interference in my life.

More education as to what they can do as an alternative.

Man has a lot of pride in their lawns.

It makes their house look good.

It is easier to mow a weed instead of pulling a weed.

If they had general knowledge about it.

If they didn't have to do the up keep.

If it would make it look nice.

If it was easier to maintain.

If it was cheaper to do.

I don't want to reduce it for any reason.

Have some neighbor hood plant swaps, and some discount prices.

Good advertising.

Get builders to do it when they build the houses and put in the lawns.

Developing a desire for that type of planting thru education.

Coupons as information classes.

Cost efficiency overall.

Because it requires less maintenance.

Advertisement, Coupons, Technical Support.

Q17. (Streamside Only) Why do streamside property owners mow or maintain their lawns or gardens up to the edge of streams? (Read List)

Half of streamside respondents felt that property owners maintain their lawns up to the edge of streams because *it looks nice* (50%).

Among streamside respondents, the higher their education level, the more likely they were to say *it's their property and they can do what they want* (From 7% to 22%).

	STREAMSIDE	RANDOM
Total Participants	203	0
It looks nice	50%	-
It's their property - they can do what they want	17	-
They want to see the water	10	-
It is a fire hazard to not do so	8	-
They want easy access to the water	4	-
Or something else?	11	-

Q17a. Or something else...

All responses are listed below.

Streamside

Don't know. (8 = 32%)

All of the above. (2 = 8%)

When people buy the property, it had been mowed before and they continued the practice.

Wants to keep it clean.

To keep the mosquitoes down.

To keep from having erosion.

They don't understand the environmental effects of doing so.

They don't know the benefits of keeping a buffer between the lawn and the stream.

The grass was there when they bought the house and they just keep mowing it.

So they will not have erosion problems.

Prevent erosion.

Its there property, it looks nice and they probably want to see the water.

It's there property and they can do what they want.

I don't know why they would do it.

I don't know anyone who does in our area.

For us it was already like that when we moved in to the house.

All of the above except for fire hazard.

Q18. (Streamside Only) Which of the following would most encourage people to leave at least a 10-foot buffer between their manicured yards and the stream? (Read List)

Almost half of streamside respondents felt that a *tax benefit* would most encourage people to leave a 10-foot buffer (47%).

	STREAMSIDE	RANDOM
Total Participants	203	0
A tax benefit for doing so	47%	-
Information on the benefits of doing so	20	-
Knowing it would protect water quality	8	-
Knowing it would improve wildlife habitat	6	-
Knowing it would protect fish	5	-
Knowing it would protect public health	1	-
Or something else?	12	-

Q18a. Or something else...

All responses are listed below.

Streamside

Don't know. (10 = 42%)

All of the above. (5 = 21%)

Nothing/None. (2 = 8%)

You have to either make it more popular or make it required.

Should education the people.

Nothing will, because it's a retirement area.

No way.

If it didn't just grow weeds and block the view.

Educate the owners.

Common sense.

Q19. Why don't people more often participate in outdoor volunteer projects such as tree plantings or stream clean-ups? (Read List)

The most popular response from the streamside sample was *they don't have time*, followed by *they are not aware of opportunities* and *they have not been asked* (42%, 21%, and 15%, respectively). For the random sample, the most popular response was also *they don't have time*, followed by *they are not aware of opportunities* (46% and 18%, respectively). Tied at third were *they have not been asked* and *they are not interested* (11% each).

Female streamside respondents were more likely to say *they don't have time* than male (50% vs. 33%), but were less likely to say *they are not interested* (7% vs. 16%).

	STREAMSIDE	RANDOM
Total Participants	203	227
They don't have time	42%	46%
They are not aware of opportunities to do so	21	18
They have not been asked	15	11
They are not interested	11	11
They don't think they will make a difference	2	6
Or something else?	10	9

Q19a. Or something else...

All responses are listed below.

Streamside

They're too lazy. (4 = 20%)

All of the above. (3 = 15%)

Don't know. (2 = 10%)

They are not interested and they are uninformed.

There to interested in their own life and not how they can help.

The grass needs to be mowed.

People are illiterate.

Not enough advance notice.

More involved with family.

Combination of all of them.

Because they are just too lazy.

Because of age I can't do a lot of hard work.

Because they're clueless.

At some point you get tired of picking up after everybody else.

Random Digit Dial

They are too lazy. (3 = 15%)

They don't care. (2 = 10%)

All of the above. (2 = 10%)

When they are elderly, in their 80's.

They don't have the knowledge or accessibility; it is not advertised

They are only on weekends.

There not advertised enough.

There all to old and our bones don't work as well.

People are too lazy and don't care.

None.

No time, and lazy.

I'm too old.

Health reasons.

Hard work.

Do not like government interference.

Because they don't have enough information beforehand.

Q20. Which of the following would most encourage people to participate in such projects? (Read List)

The most popular response among both samples was *being notified of opportunities*, followed by *more involvement by other groups they belong to* (44% & 39% and 16% & 15%, respectively).

Female streamside respondents were more likely to say *more involvement by the other groups they belong to*, compared to males (21% vs. 10%), but less likely to say *recognition for the effort* (10% vs. 1%).

	STREAMSIDE	RANDOM
Total Participants	203	227
Being notified of opportunities	44%	39%
More involvement by the other groups they belong to	16	15
Recognition for the effort	5	11
Knowing it would protect public health	5	8
Seeing how others are helping	6	7
Knowing it would protect water quality	6	4
Knowing it would protect wildlife habitat	3	6
Or something else?	14	9

Q20a. Or something else...

All responses are listed below.

Streamside

Don't know. (8 = 33%)
All of the above. (3 = 13%)
Peer Pressure. (2 = 8%)
We need more public awareness like SOLV does.
Unknown.
Pride in knowing you accomplished something for your community.
Nothing.
No opinion.
No need for more projects.
More education.
If they had the time.
If it were close to home.
If it presented a fire hazard.
If employers encouraged it and gave some time off.

Random Digit Dial

All of the above. (5 = 22%)
None. (2 = 9%)
Protection of public health, wildlife and water quality.
Preventing the problem before it occurs.
People need to care first.
Pay people to do the job. I pay the government for the water I use.
More time in a day.
More local family involvement.
Monetary.
Maybe provide some kind of childcare while parent are doing the work.
Lower the sewer bill by not having studies done.
If they cleaned up after themselves.
I just don't have the time. More awareness stricter penalties for polluters.
Getting paid would help.
Get involved with the schools. Have free trees.
Employers giving people time off work to participate in environmental service projects.
Don't know.
Doing it with friends.

Q21. In the past few years, would you say that you have personally made significant changes, some changes, or no changes in any of your activities, specifically to protect the water quality in local streams and the Tualatin River?

The two most popular responses from the streamside sample were almost tied, but *no changes* was slightly ahead of *some changes* (41% and 40%, respectively). From the random sample, the most popular response was *some changes*, followed by *no changes* (48% and 40%, respectively).

Among streamside respondents, the higher their education level, the less likely they were to reply *no changes* and the more likely they were to say *some changes*.

	STREAMSIDE	RANDOM
Total Participants	203	227
No changes	41%	40%
Some changes	40	48
Significant changes	17	12
Don't know/Refused	1	0

Q22. What has prompted you to do so? (Unaided, Multiple Responses)

Approximately two in five streamside respondents said they were prompted by *general awareness*, followed by *media reports* (43% and 11%, respectively). Among the random sample, roughly one-third mentioned *general awareness*, followed by *well-promoted public events* (32% and 11%, respectively).

	STREAMSIDE	RANDOM
Total Participants	35	28
General awareness	43%	32%
Media reports (TV/radio/etc)	11	-
Well-promoted public events (SOLV, fairs, etc)	-	11
Seeing damage	3	4
Concern about drought/flood	3	4
Billing inserts	-	7
Family/Friends	3	-
Brochures/Newsletters	-	4
Signs	3	-
Miscellaneous	34	39

Q22. What has prompted you to do so? (Miscellaneous Responses)

All miscellaneous responses are listed below.

Streamside

Availability of more environmentally friendly products.
Because I have planted all native plants for the wildlife.
Common sense - I want to save the environment.
EPA people came out and tested the stream - They used my property to access the stream.
For the benefit of the environment.
Homeowners association.
I have concern for the environment, as well as health safety concerns.
I like the creek by my house.
I love the land.
I love what I do.
Newspaper - nitrogen in the water and different chemicals that are washing into the water.
Seminars through my work - I'm a real estate agent.
The price of the bills.
To protect the environment and the wetland near my house.
We have kids and are concerned that chemicals would not be healthy for them.

Random Digit Dial (RDD)

Knowledge from work of the results of not doing so.
I am a farmer, so I work with the conservation district.
Having more time in the yard and garden.
We have a community well that has prompted us to get more involved environmentally.
Water prices.
Necessity.
Self-initiative.
General concern.
I live on a ranch and have to do it for the cattle - I check the streams for pollution.
Concern over water quality.
Concern for the environment.
Organic gardening benefits.
Living abroad gave me a better appreciation for the environment.

Q23. From what sources have you gotten information about local stream and river quality issues? (Probe) And how else have you gotten information? (Multiple Responses, Unaided)

The most popular sources of information among all respondents were the *newspaper*, *TV*, *billing inserts*, *newsletters*, and *brochures*. While the *newspaper* and *TV* have declined in popularity as an information source (since 1994), it appears that *billing inserts* and *newsletters* were slightly more popular.

Among streamside respondents, we found that the more changes they made in the past few years, the more likely they were to get their information from *newspapers*, *word of mouth*, or *meetings*.

Among random respondents, those with a *graduate degree* were more likely to get their news from a *newspaper* (64% vs. 36% overall), *TV* (42% vs. 27% overall), or the *radio* (12% vs. 4% overall). Those with *some college or trade school* were more likely to get their news from the *TV* (35% vs. 27% overall). *South County* residents were more likely to say *newsletter* or *billing insert* (19% vs. 12% overall and 21% vs. 12% overall), while *Central County* residents were more likely to say *word of mouth* (13% vs. 6% overall).

	STREAMSIDE			RANDOM		
	2002	1997	1994	2002	1997	1994
Total Participants	203 47%	146 25%	239 40%	227 53%	448 75%	355 60%
Newspaper	39%	61%	83%	36%	69%	84%
TV	23	46	41	27	46	41
Billing insert	19	5	3	12	6	5
Newsletter	17	12	7	12	17	6
Brochures	12	8	5	9	11	5
Word of mouth	9	18	4	6	17	3
No where	8	7	5	12	5	8
Meetings	6	3	3	2	2	4
Radio	5	12	16	4	15	13
Kids/School material	2	5	2	1	2	2
Public events	2	2	3	4	1	5
Signs	1	3	0	1	0	0
Miscellaneous	21	5	6	27	4	6
Don't know/Not sure	2	1	2	3	1	1
Refused	-	-	-	1	-	-

Q23. From what sources have you gotten information about local stream and river quality issues? (Probe) And how else have you gotten information? (Miscellaneous Responses)

All miscellaneous responses are listed below.

Streamside

Internet. (3 = 7% of miscellaneous streamside responses)
Tualatin River Keepers. (3 = 7%)
From training in college. (2 = 4%)
My husband. (2 = 4%)
United Sewer Agency. (2 = 4%)
Water Bureau mailings. (2 = 4%)
A state official at a school in Cornelius, info with our building permit.
An employee of the Tualatin River District.
Audubon off of Cornell.
Boy Scouts & working with SOLV.
Bull Run Committees.
Clean Water Services sent mailings. Clean Water Services is doing a project on my property.
Clean Water, State Dept. of Fish and Lands, The Tualatin River keepers, Coastguard, local groups.
Direct contact with Clean Water Services.
E-mail, private consultation by soil conservationist.
Flyer mailed out from Tualatin Water Authority.
I have background in science.
In person, on the phone and in the office of Hillsboro agricultural agent, magazines, Farm Bureau.
Information mailed out by county.
Involved with a group called Drainage District.
Magazines.
Member of the Sierra club.
My education and profession (working for DEQ). Also working with volunteers from City of Tigard.
My work.
Neighbor had county do a water quality test. Warnings on sewers.
Oregon's recycling web site.
OSPIRG and grew up with environmentally friendly attitudes, values and practices.
Paid consultant who tests the water and recommends remedies.
Personal observation.
Reports from City of Beaverton in mail.
Seminars through my work.
Through Citizens Participation Organization - meetings and flyers. Also, thru employer, Intel.
I work as a secretary for the Farm Bureau & get information there.
Tualatin River Water District. Also, I get info at work.
Master gardeners.
Usually someone calls around voting time.
Website, Friends of Fanno Creek.

Q23. From what sources have you gotten information about local stream and river quality issues? (Probe) And how else have you gotten information? (Miscellaneous Responses - continued)

Random Digit Dial (RDD)

Magazines / books. (4 = 6% of miscellaneous random responses)
The United Sewer Agency. (4 = 6%)
Tualatin Valley Water newsletter. (4 = 6%)
Internet. (3 = 5%)
Tualatin Valley River keepers. (3 = 5%)
City of Tigard. (2 = 3%)
Clean Water Services; irrigation district. (2 = 3%)
Department of Agriculture. (2 = 3%)
News. (2 = 3%)
WWF. (2 = 3%)
A garden club; extension service.
City of Hillsboro.
Clackamas & Washington community.
Crest Wood Association; local papers from the neighborhood.
Fanno Creek newsletter.
Farm Bureau.
Fish & Wildlife Company.
Fishing and hunting magazines.
From moving to and living in the country, it just seems more important out here.
Husband's education.
I am informed by the DEQ. I receive a report on a monthly basis that keeps us informed.
I cross two everyday to go to work at our family dairy.
I fish and have a boat and I just pay attention to what is going on.
Internet; people at work.
Letters from the water company.
Local community group newsletter.
My own observation.
Nature Conservancy.
OSPRY.
Portland Water Bureau.
Boy/Girl Scouts.
Sierra Club of Oregon mailings.
Sportsman groups.
The Beaverton newsletter.
The church.
The City sends out a yearly report.
The County, and awareness from work of the damage done by pollutants.
The house next to the pet ridge store is polluting massively.
The Water disposal, and Watershed.
Tigard Water District.
Tualatin Valley water district.
TV ads; radio ads.
Metro; garden stores.
Water Company.
We also get reports pertaining to our water purity.
We get a statement on the quality of our water.

Q24-31. Now using a 10-point scale, where "1" means you do not support it at all and "10" means it has your highest level of support, please rate the following ideas for promoting improved water quality in streams and rivers...

Q24. General pollution prevention information in newspapers, TV, and radio

A majority of streamside respondents gave an answer of 8 or higher (63%, with 16% at 8, 3% at 9, and 44% at 10). Similarly, a majority of random respondents gave an answer of 8 or higher as well (66%, with 13% at 8, 6% at 9, and 47% at 10). The mean answer of the random sample (8.1) was slightly higher than that of the streamside group (7.8). Both averages went up slightly from 1997.

Female streamside respondents were more likely to provide a rating of 10, compared to *males* (52% vs. 34%), and also provided a higher average rating (8.5 vs. 7.1).

Among random respondents, those in the 35-44 age category had the highest mean (8.5) and were followed by those in the 18-34 and 45-54 categories (8.4 and 8.2, respectively). The lowest means were from the 65 and over and 55-64 categories, which were at 8.0 and 7.4, respectively.

	STREAMSIDE	RANDOM
Total Participants	203	227
1 - Do not support at all	2%	3%
2	3	1
3	1	1
4	3	2
5	12	9
6	4	5
7	6	7
8	16	13
9	3	6
10 - Highest level of support	44	47
Don't know/Refused	4	5
Mean	7.8	8.1
1997 Mean	7.54	7.88

Q25. Mailing information to individuals

Only slightly over half of streamside respondents were *supportive* of this idea (51% of respondents replying 6 or higher). A little less than half of random respondents felt the same way (49% of respondents at 6 or higher). Understandably then, the mean response of the streamside sample (6.1) was higher than that of the random one (6.0). Both averages went up slightly from 1997.

	STREAMSIDE	RANDOM
Total Participants	203	227
1 - Do not support at all	13%	13%
2	4	6
3	2	6
4	5	8
5	22	13
6	7	6
7	7	6
8	11	8
9	5	4
10 - Highest level of support	21	25
Don't know/Refused	2	5
Mean	6.1	6.0
1997 Mean	5.77	5.69

Q26. Strengthen regulations and enforcement

One-half of streamside respondents *did not support* this idea (50% rating at 5 or lower), while 58% of random respondents *supported* the idea (58% rating at 6 or higher). As a result, the mean rating of the random sample (6.8) was higher than that of the streamside sample (5.5). Both average levels of support fell significantly from 1997.

Among random respondents, the longer they have lived at their current residence, the lower their provided average tended to be (From 7.8 for 3 years or less to 5.8 for 20 or more years). *South County* residents provided the highest mean at 7.4, followed by *East* and *Central County* (6.7 and 6.3, respectively).

	STREAMSIDE	RANDOM
Total Participants	203	227
1 - Do not support at all	21%	6%
2	5	5
3	5	2
4	6	9
5	13	14
6	7	4
7	4	8
8	10	13
9	3	5
10 - Highest level of support	20	28
Don't know/Refused	6	5
Mean	5.5	6.8
1997 Mean	6.89	7.35

Q27. Sponsoring community involvement and cleanups

More than three in every five streamside respondents gave a rating of 6 or higher (61%), but three in every four random respondents gave ratings in the same range. Predictably, the mean rating from the random sample (7.7) was higher than the streamside one (6.9). While the average support level among random respondents stayed virtually the same from 1997 to 2002, the streamside average declined by almost one point.

Female streamside respondents had a significantly higher mean than males (7.4 vs. 6.4). Streamside respondents in the 35-44 age category had the highest mean at 7.5, followed closely by the 45-54 category, at 7.4.

	STREAMSIDE	RANDOM
	203	227
Total Participants		
1 - Do not support at all	5%	3%
2	3	1
3	1	1
4	3	2
5	22	10
6	6	9
7	7	9
8	14	18
9	8	6
10 - Highest level of support	26	33
Don't know/Refused	2	7
Mean	6.9	7.7
1997 Mean	7.77	7.79

Q28. Providing technical assistance and training

Over half of streamside respondents provided a rating of 6 or higher (52%), while more than two in every three random respondents gave a rating in the same range (67%). Thus, the random mean (7.3) was higher than the streamside mean (6.2). While the average support level among random respondents increased slightly from 1997, the streamside average declined by almost one point.

Streamside respondents *without a spa or pool* were significantly more likely to support the *providing of technical assistance and training*, as demonstrated by a higher average level of support (6.4 vs. 5.1).

Random respondents between the ages of 18 and 54 tended to support this option (7.6, 7.5, 7.6, and 7.4, respectively), but the average support rating fell to 5.7 for those *over 65*. Also, random respondents who *rent* their homes had a significantly higher mean than those who *own* (8.4 vs. 6.9).

	STREAMSIDE	RANDOM
Total Participants	203	227
1 - Do not support at all	9%	5%
2	4	2
3	2	2
4	5	5
5	22	12
6	6	4
7	10	11
8	12	15
9	6	5
10 - Highest level of support	18	32
Don't know/Refused	4	7
Mean	6.2	7.3
1997 Mean	7.14	7.10

Q29. Providing money-saving deals for the purchase of environmentally-friendly products

A majority of streamside respondents *supported* this idea (69% rating 6 or higher). Similarly, a majority of random respondents *supported* this idea as well (82% rating 6 or higher). The random mean (8.3) was understandably higher than the streamside one (7.5).

Female streamside respondents had a significantly higher mean than males (8.2 vs. 6.8).

Among random respondents, the older they were, the lower their means tended to be (From 9.1 for 18-34 year olds to 7.2 for 65+ year olds). Also, the longer they had lived at their current residence, the lower their means tended to be (From 9.0 to 6.8).

	STREAMSIDE	RANDOM
Total Participants	203	227
1 - Do not support at all	4%	4%
2	1	1
3	2	0
4	3	3
5	14	5
6	6	6
7	6	6
8	16	13
9	6	7
10 - Highest level of support	35	50
Don't know/Refused	5	6
Mean	7.5	8.3
1997 Mean	-	-

Q30. (Streamside Only) Volunteers coming to your home to help with planting and clean up

Streamside respondents were evenly split between *not supportive* and *supportive* (49% rated 5 or lower and the same rated 6 or higher). The mean was 5.8.

	STREAMSIDE	RANDOM
Total Participants	203	0
1 - Do not support at all	20%	0%
2	5	0
3	6	0
4	4	0
5	14	0
6	3	0
7	6	0
8	8	0
9	4	0
10 - Highest level of support	26	0
Don't know/Refused	2	0
Mean	5.8	0.0
1997 Mean	-	-

Q31. Are there any other options you would support?

All responses are listed below. Looking beyond the *no, none, unsure, or no answer* responses (66% streamside, 62% random), the top mentions had to do with *Education / Raising Awareness* (12% streamside, 19% random).

Streamside (180)

No/None/Unsure/No Answer (66%):

No/None. (65)

Don't know/No Answer. (42)

N/A. (7)

Not that occurs to me.

Not that I can think of.

Not off the top of my head.

No, we've summed it all up.

Education / Raising Awareness (12%):

Just getting people to be more aware. (2)

Just informing people. (2)

Just need people to be informed.

It's really just education if they don't know the right way that can they do it the right way.

Information on what the outcome would be if we don't do something.

Website with information about what's going on, e-mail alerts to sign up and have notifications.

Use public figures to speak out and educate the public.

Unbiased training - people should be told about how their actions affect the environment.

Educational awareness, giving people options to take actions that are legal.

Education through the workplace.

Education on the part of Clean Water Services.

Education in schools. Also, employers can provide info to employees and sponsor speakers.

Education and awareness being given in a non-intrusive manner.

Community education, something short that people can come to. Education through neighborhood assoc.

More information released to the public concerning water purity, as well as cost for the job.

Giving information to people when they buy products at garden stores about pollution.

Communication with the residents.

Periodic television reminders.

Advertise on website.

Regulation / Enforcement / Penalties (3%):

Work by intimidation.

We need more restrictions on our property regarding environmental issues.

Threatening companies with closing them down and high fines for not complying with regulations.

Increasing taxes for people who use harsh chemicals on their property.

Regulating development and large sub-divisions.

Providing a hotline to turn people in for dumping.

Q31. Are there any other options you would support? (continued)

Streamside (continued)

Government Support/Leadership (3%):

More national leadership.
Local government should put more emphasis on water purity.
Government leaders that are pro-environment.
Get Mike Mathews back in office.
Flyers, city or county government.

Neighborhood/Community Involvement (2%):

More neighborhood involvement and getting neighbors more aware.
Everyone should go to church.
Getting more people involved.
Working as a neighborhood instead of working individually to accomplish clean water goals.

Incentives (2%):

Some kind of a rebate system with the water bill or an incentive program.
Giving financial incentives off our bill for good farming practices.
Appeal to groups to do things in area they live in. Offer them enticements such as publicity.

Less Government Interference (2%)

Support individual property rights, less state intrusions.
Not at this time. Get government out of our lives.
Less interference from the government.

County's Responsibility (1%)

The county can come out and do their job. It is their responsibility.
Most streams close to me are publicly owned. The county should get in there and clean it out.

Miscellaneous (10%)

We should do everything possible to keep it clean.
Stop.
People who have Christmas trees that can be replanted.
People should be proactive on keeping the environment clean and water pure.
More hand sanitizers available to people.
Make population control and density a high priority.
Keep all livestock out of streams.
Info in Valley Times or mayor's newsletter re: controlling insects & weeds naturally.
I would support a program where they give away plants that enhance water quality.
I have a problem with the sewers.
Helping with schools.

Q31. Are there any other options you would support? (continued)

Streamside (continued)

Have school kids sell native plants.
Going door to door, to let people who have streams in back know what to do to help out.
Give out free samples of environmentally friendly products.
Everybody should have his or her backflow device checked each year.
CWS should allow people to maintain their settings instead of sloping the bank to flow of creek.
CWS have people come in and clean out bushes so that the fish will come back at Cedar Mill Creek.
Change our liberal society so that people would care about others.

Random Digit Dial (213)

No/None/Unsure/No Answer (62%)

No/None. (115)
Don't know. (8)
Not at this time. (2)
I can't think of any. (2)
Not that I can think of.
Not sure.
Not really.
No ideas
Can't think of any.

Education / Raising Awareness (19%)

Try to make the public aware.
Through education.
Through education in schools, church, and community activities.
The education of the public. A list of toxic vs. non-toxic products at stores. (Lowe's)
Tell people how important water is to the United States.
Teaching the children at an early age.
Something in the schools to teach children; publicize beach clean-ups.
Some how just informing people and making them more aware.
Put some signs up just as a little reminder to keep the water clean.
Put some info on the Internet.
Put info door to door in the small communities.
Public education.
People just need to be more aware that they need to change; maybe flyers with coupons would help.
People just need to be educated.
Pamphlets at supermarkets.
None, constant education.
Generally its just getting people educated.

Q31. Are there any other options you would support? (continued)

Random Digit Dial (continued)

Need to put more info out there about products.
More through schools.
More education on the issue of the environment to the public.
Maybe through educating the public.
Maybe door to door hanging fliers on door knobs or something along that line.
Better way to present the information.
Better education on protecting water quality and the environment.
Better education of the people.
Anything that would help us learn about protecting the water from danger.
Any education is good.
Educating the public; holding people or corporations accountable for polluting.
Educate them -have campaigns-we are getting low & out of water- educate children.
Educate the people.
Educate about products that go down the drains, they end up in the drinking water.
Keeping the public aware of water purity issues. As well as protecting our natural wetlands.
Just somehow getting people aware.
Just getting the kids aware and involved.
Information is the best source.
TV commercials; radio ads.
I would support local business sponsorship through workshops and demonstrations.
I think they should send people to the neighborhoods and speak on the issues.
I think info should be put out all over all the time and close together so people don't forget.
Get the kids in school more aware.
Form more watershed councils to inform the ranchers and farmers in the area.

Regulation / Enforcement / Penalties (6%):

Tax toxic product like they were cigarettes.
More fines.
Monetary fines for violating water pollution regulations.
Lobby for penalties for offenders. Political involvement.
Making example out of corporation like Intel they dump hot water in the Tualatin (they kill fish).
Responsibility from corporations and dentists polluting the rivers with mercury.
I would support severe sanctions against eco –terrorists.
I would like to see more legislation to get stricter laws passed for water purity.
I strongly support monetary fines for polluting and dumping wastes.
Heavy fines for polluters.
Having educational information on the Web.
Citizen patrol.

Q31. Are there any other options you would support? (continued)

Random Digit Dial (continued)

Incentives (1%):

Money talks the other stuff walks, money is a good incentive.

Tax credits for energy efficient improvements to home and property.

Miscellaneous (12%):

Yes-keep an eye on your sewer that runs over the Tualatin, it overflows most of the time.

They should be in English and Spanish.

They read the book "fostering sustainable behavior" Douglas McKenzie Mohr.

These are pretty well covered.

The steams are cleaner now than when the Indians had them.

Testing the water on a regular basis, maintain the correct water quality all the time.

Technology.

River keepers.

Preservation of animals.

Networking with groups.

Mass media support.

Making people clean up oil deposits after they work on their cars.

More chemical disposal days. Lower the cost of landfills.

I think they should lower their budget.

I really like the idea of Volunteers coming to the home to help with planting of trees in the yards.

Groups, methods long-term effect, make sure they won't do more damage in the long run.

Free samples of environmental and natural products.

Free public plant trading post.

Government action: prevent discharge in rivers lake take pesticides off market w/ bad effects.

Getting the public school children more involved in environmental projects and programs.

Getting other environmental groups to participate.

Get rid of the nurseries.

Find the polluters, find out what they use to pollute, see if working together will stop polluting.

Drinking water- do the bull run -don't do the Willamette.

City of Portland needs to fix sewer, when it rains it runs over into the Willamette, Yuk, Yuk.

Assistance for homeowners to improve their streams.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved?

All responses are listed below. The most common source from which streamside residents first heard about the volunteer opportunity was through the *community or volunteer involvement* (16%), followed by a tie between *at work* and *miscellaneous / motivations* (11%). The most common source from which random respondents first heard about the volunteer opportunity was through *schools* (19%), followed by the *community or volunteer involvement* (18%).

Streamside (81)

Community/Volunteer Involvement (16%):

Peer support.

Our church. General awareness.

I'm a member of Eco Builder Guild. We had a presenter speak to the group about getting involved in restoration work.

I heard about beach clean up through a group I belong to. Motivation was to have fun with the group and do something good for the environment.

I don't remember how I found out about it. I got involved because fun people were doing it.

I am a volunteer for the City Of Tigard.

At my church, I heard about Adopt A Road. This is what motivated us.

Civic club, interested in helping the community better.

Washington County Extension and we were motivated because we know the importance of trees.

We heard about it thru a social clean up project, large corporate sponsorship functions.

Someone from an organization came over and offered assistance.

One time beach clean up.

A 4-wheel drive club and liked to help.

At Work (11%):

Work, doing good for others.

We heard at work and we were motivated from that.

Work.

My wife helped with a clean up of an area down by the Willamette. She found out about it through a group at her work place. Her motivation was general community interest.

My wife got involved thru her work at Intel and we just got tired of seeing the trash along Baseline Road. This was our motivator.

My husband heard about it at Nike, where he works. The motivation was that it was a group doing it and it was already organized. We did not have to do anything but show up.

I heard about it through my work. It was a restoration project where you could plant trees, pull weeds, etc. Motivation was to give a contribution back to the community. Whole family did it.

Heard about beach clean up through work - Intel and SOLV sponsored it. Motivation was I had the time available and it was a good thing to do.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Streamside (continued)

Found out about them through work, and felt I needed to get involved (name of the project SOLV).

Word Of Mouth / Friends or Family Members (10%):

Word of mouth, wanting to help make things healthy, nice and clean.

My wife and daughter did a beach clean up - they found out about it through a friend. Their motivation was that they had been down to the beach previously and noticed it needed to be cleaned up.

My father respected trees and nature and introduced me to this process.

From the community or from other groups I'm in. I care about where I live and what it looks like.

From friends because they were doing it.

Friends, being aware.

Heard about it from friends, and went because we have a beach house and because friends went.

An ex-spouse planted trees out toward Sherwood. She found out about it through a friend.

Audubon Society sponsored it. Her motivation was to have a clean environment and it was social.

Newspaper (10%):

Newspaper. (2)

We learned about SOLV thru the newspaper and my husband and the neighbors. Collaborate on keeping our stream healthy. We have also worked with Penn state alumni, which organizes environmental services project.

Thru the newspaper articles.

Paper.

My wife and I heard about it in the newspaper (SOLV). Motivation was a cleaner environment.

Read it in the Argus. Wanted to help clean up litter. Would like to see more publicity re: SOLV and beach clean-ups well ahead of time on the TV and in the newspapers.

News.

Schools (7%):

My son was informed through the high school. He cares about the environment. He understands the importance of this.

My kids heard about it through their school. Motivation was that it was a class project – it was not required but was something they chose to participate in.

Schools, my grandbabies encouraged me to do so.

I found out about SOLV through middle school where my kids go. Some of my kids and I participated. For me, my motivation was to make a difference and for the kids it was a fun experience.

At school and they are very aware at home.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Streamside (continued)

At our local elementary school.

Self-Aware / Self-Motivated (7%):

Self-awareness.

Personal desire to plant trees.

It wasn't anything formal when we go someplace we clean as we go.

I motivated myself, thru self-awareness.

I do it on my own. I clean up the area around my home, about 1/8th of a mile, whenever I see a need to do it. It's my way of giving back to the community. It's my neighborhood, I want it clean.

Have just always been aware of the importance of planting.

TV (5%):

TV and radio and concern about the environment.

Two years ago my husband and I participated in beach clean up when we were at the beach.

We heard about it on TV. It's important to us to keep beach clean & we often do it on our own. My husband and I found out about beach clean up on TV. Motivation was that we want clean beaches.

I heard about on Television, it was SOLV beach cleanup.

Boy Scouts / Girl Scouts (7%):

Boy scout service project. (2)

Through the scouts. Good for community.

Through Boy Scout and Girl Scout, It gives the children something to do.

Kids in Cub scouts and always hearing about projects (most from SOLVE).

I was a scoutmaster. We did a lot of volunteer cleaning up with the kids.

SOLV (5%):

SOLV, walk the beaches.

SOLV, believe in protecting environment.

SOLV.

It was through SOLV - can't remember where I first heard about it. My motivation was that I feel it's everyone's responsibility to get involved.

Posters/Flyers (5%):

Through high school, and posters around the neighborhood.

Through a mailing. I was motivated because the stream gets flooded.

Through a flyer at Lowami Hartswoods Park , friends of Johnson Creek.

Posted at park.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Streamside (continued)

Radio (2%):

Kink radio informed us about a beach clean up organized by S.O.L.V.
I heard on the radio, I wanted to help out.

Miscellaneous / Motivations (11%):

My sons and I planted trees on Tualatin River - heard about it from information in mail from River Keepers. We were motivated because it's where we live, no cost, and benefits everyone.

Pops.

Oregon's recycling website.

India.

Creek is 15 feet from house.

We own land with wetlands on the property so we felt more like we should get involved.

We are surfers and we did the Surf Riders Foundation to keep our water and beaches clean.

The environment.

Setting good example for children.

N/A / No Answer (2) (2%)

Random Digit Dial (74)

Community/Volunteer Involvement (18%):

We went to Seaside for beach cleanup.

Through other clubs.

Through a garden club on street cleanup.

Our church is sponsoring a project that people all over the state do; this year they are helping the wetland up on cooper-mountain. Also been involved in boy scouts all my life.

Our church group. Our church members who were already involved motivated us.

Northwest steer headers assoc, (member)-wanted to keep the fish safe & around forever.

Local nature conservation group. Was interested in helping return farmlands to nature.

Info through Cub Scouts and Hillsboro Parks & Recreation. Did it out of concern for environmental quality.

I was at the beach and bunches of people were picking up and I joined them and made friends.

Friends of trees, approved of what they are doing.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Random Digit Dial (continued)

Church sponsored service projects.

Clean up through my church.

A watershed council member approached me. I have donated equipment and supplies. I am motivated because I live on a ranch and I have to care for the livestock.

Schools (19%):

We learned through school.

It was a community project through school.

The beach clean-ups was from the local high school. By family or groups.

Through the school. We are self-motivated.

Through school. They were self-motivated after going on a field trip to the coast and seeing the garbage on the shoreline.

Son's school project.

Some through school in advanced Bio, and liked the feeling of helping out the environment.

Mostly through friends and my children's school's newsletter. My son's school has it's own arboretum.

In school.

In college.

I was introduced to it through boy scouts and high school sponsored service projects.

From school a teacher required us to participate three times.

A school field trip.

A tree planting program at elementary school.

Work (16%):

Work: beach clean up, curiosity, work with fish and wildlife company. Want to better the environment.

Work. Wanted more exercise and I could help out at the same time.

Work, seeing trash in the woods and neighborhoods, wanted to do my share for the.

Work and school is here I heard about it. Something to do.

Through the companies.

Through work they have the SOLV program.

Through my work. Self-motivated.

They got involved through their work and were motivated through social reasons.

My fellow staff members at work got me to go on a tree-planting trip. We really enjoy going out and doing things for the environment as a family

Beach cleanup was sponsored at work.

It was a program at work.

I was aware of the opportunity through friends at work.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Random Digit Dial (continued)

Word Of Mouth / Friends or Family Members (16%):

With my daughter through Christmas in April.

My dad taught us about the environment.

Tree planting was from friends.

The neighbors were doing it. I did the roadside clean up.

My wife, who did it with a bunch of her friends.

My friend got me to do it and I enjoy helping the community.

It was a friend of the family who was working for an environmental agency and got me involved.

From other people.

Flyer, word of mouth, --feel like I'm doing the right thing.

Family and friends.

A family member was in contact with somebody. We thought it would be fun.

Beach Clean Ups. Friend called and went to beach to clean.

SOLV (7%):

SOLV-wanted to help the planet.

SOLV-jack Magellan (director)-----don't like seeing garbage on the side of road.

SOLV, kids pushing me.

SOLV, feel that I needed to do something for the environment.

SOLV.

Boy Scouts / Girl Scouts (7%):

Girl Scouts and Boy scouts.

Cub Scouts; my son.

Cub scouts and for a badge.

Boy scouts.

Tree planting w/ Cub scouts for Arbor Day.

TV (5%):

We first heard it on TV.

TV advertising.

There was an ad on the TV. The dirty beach was what motivated us.

It was advertised on TV.

Newspaper/Radio (4%):

Stream cleanup and it was advertised in the newspaper.

I did beach clean up that I saw advertised in the paper.

The volunteer opportunity came from SOLV, via the radio. They were self-motivated.

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved? (continued)

Random Digit Dial (continued)

Miscellaneous (5%):

Researching on Internet.

P.G.E-if everyone took a day out to clean America, we wouldn't have this survey, bad water quality problems, or environment problems.

I just take my children to places like the park, and we pick up the trash. We do it on a regular basis.

I would like to say through self-awareness.

Don't Know / Unsure (3%):

I can't remember it was too long ago.

Don't know.

DEMOGRAPHICS

Q33. How many years have you lived at your current residence?

	STREAMSIDE	RANDOM
Total Participants	203	227
3 years or less	28%	32%
4-9 years	23	28
10-19 years	20	21
20 years or more	28	19
Refused	1	1

Q34. Do you rent or own your home?

	STREAMSIDE	RANDOM
Total Participants	203	227
Rent	0%	23%
Own	98	75
Refused	1	2

Q35. May I ask for your zip code?⁴

	STREAMSIDE	RANDOM
Total Participants	203	225
97005	6%	5%
97006	6	8
97007	14	12
97008	4	4
97035	0	1
97062	3	5
97113	0	3
97116	4	5
97119	0	3
97123	6	5
97124	5	9
97133	0	2
97140	1	4
97219	0	2
97221	0	1
97223	17	8
97224	10	4
97225	9	4
97229	13	10
Refused / NA	1	5

Region:

South County	32%	21%
East County	52	46
Central County	15	27
Refused / NA	1	5

⁴ South County: 97035, 97062, 97140, 97223, 97224 – East County: 97005, 97006, 97007, 97008, 97219, 97221, 97225, 97229 – Central: 97113, 97116, 97119, 97123, 97124, 97133.

Q36. What is the highest level of education you have had the opportunity to complete?

	STREAMSIDE	RANDOM
Total Participants	203	227
High school or less	15%	19%
Some college/trade	30	30
4-year college degree	35	33
Graduate school/more	18	15
Refused	2	4

Q37. Which of the following categories best describes your age? (Read List)

	STREAMSIDE	RANDOM
Total Participants	203	227
18-24	1%	7%
25-34	15	19
35-44	14	22
45-54	26	21
55-64	19	13
Or over 64?	22	13
Refused	3	5

Q38. Do you have children under age 18 living in your household?

	STREAMSIDE	RANDOM
Total Participants	203	227
Yes	32%	35%
No	66	62
Refused	2	3

Q39. And finally, do you have a spa or pool at your home?

	STREAMSIDE	RANDOM
Total Participants	203	227
Yes	14%	20%
No	85	79
Refused	1	1

Gender:

	STREAMSIDE	RANDOM
Total Participants	202	226
Male	48%	50%
Female	52	50

APPENDIX

RECORD LIST SOURCE:

Streamside 1
Random Digit Dial (RDD) .. 2

[IF THE ANSWER TO QUESTION 1 IS 1, THEN SKIP TO QUESTION 3]

Hello, my name is _____ of Riley Research Associates, a local polling firm. We have been asked to listen to your thoughts regarding water quality issues in the Tualatin River watershed. (IF NECESSARY) Are you 18 or older? (IF UNDER 18) Is there an adult available? (IF NO TIME) When would be a good time to call back?

Continue .. 1

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 4]

Hello, my name is _____ of Riley Research Associates, a local polling firm. We have been asked to listen to your thoughts regarding water quality issues in the Tualatin River watershed. You may have received a similar call in the past few weeks, but this is actually a separate study that will have a direct impact on water-related issues in our local community. (IF NECESSARY) Are you 18 or older? (IF UNDER 18) Is there an adult available? (IF NO TIME) When would be a good time to call back?

Continue .. 1

Before we start, I'd like you to know that all of the information you provide will be held in strict confidence, and you will not be identified with any of your responses. There are no right or wrong answers, as I am here to simply record your viewpoints.

Continue .1

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 6]

Our map shows a stream within 25 feet of your property. Do you know the name of that stream?

Q1. To begin, on a 10-point scale, where "1" means completely polluted and "10" means completely clean, how would you rate the water quality of the streams and rivers in your area? (IF STREAMSIDE) Including the stream near your property and any other streams or rivers in the local area.

01 - Completely polluted .. 1
02 2
03 3
04 4
05 5
06 6
07 7
08 8
09 9
10 - Completely clean 10
Don't know/Refused 11

Q2-8. I'm now going to read a short list of things people do from time to time, and I would like to know how often they may occur. Please give me your best estimate of whether, at your house, the following things occur once a week, once a month, every few months, only once a year, less often, or never. So, how often, at your house, does someone...

Continue .. 1

[ASK QUESTIONS 8 TO 14 IN RANDOM ORDER]

Q2. Wash the car in the street or driveway?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

Q3. Wash the car at a drive-thru carwash?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

Q4. Use weed-killing or insect control products such as Round Up or insecticide?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 9999]

Q5. Mow or maintain the lawn within 10 feet of the stream?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

Q6. Participate in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

Q7. Treat your roof to control moss growth?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

Q8. Use lawn fertilizer?

- Once a week 1
- Once a month 2
- Every few months 3
- Once a year 4
- Less often 5
- Never 6
- Don't know/Refused .. 7

I would now like to hear your thoughts on a few other common practices. For each of the following practices, I'll read a question followed by a series of potential answers. For each, I'll ask you to tell me which is the best answer, or the most fitting. The first question is...

Continue .. 1

[ASK QUESTIONS 16 TO 39 IN RANDOM ORDER IN GROUPS OF 4]

Q9. Why do people leave their dog's droppings on the ground in public places? Is it because...(READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- It's a natural area 1
- It will decompose quickly 2
- Other people do it 3
- It's unpleasant to pick it up 4
- It's inconvenient to dispose of .. 5
- Or something else? 6

[IF THE ANSWER TO QUESTION 16 IS NOT 6, THEN SKIP TO QUESTION 9999]

Record "something else":

Q10. Which of the following would most encourage people to clean up after their dog more often? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- More disposal locations at parks or along trails 1
- A monetary fine 2
- Complaints of neighbors 3
- Free collection devices, such as a scooper or bags .. 4
- Knowing it would protect public health 5
- Knowing it would protect water quality 6
- Knowing it would protect wildlife habitat? 7
- Or something else? 8

[IF THE ANSWER TO QUESTION 18 IS NOT 8, THEN SKIP TO QUESTION 9999]

Record "something else":

Q11. Why do people use chemicals to kill weeds and bugs in their yards and gardens? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- The products are convenient to purchase .. 1
- They are easy to use 2
- They are inexpensive 3
- They are the only thing that is effective 4
- They are safe to use 5
- Or something else? 6

[IF THE ANSWER TO QUESTION 20 IS NOT 6, THEN SKIP TO QUESTION 9999]

Record "something else":

Q12. Which of the following would most encourage people to use less toxic weed and bug control methods? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- A list of natural or nontoxic products 1
- A reduction in the price of less toxic alternatives .. 2
- Convenient access to less toxic products 3
- A better understanding of the benefits 4
- Knowing it would protect public health 5
- Knowing it would protect water quality 6
- Knowing it would protect wildlife habitat 7
- Or something else? 8

[IF THE ANSWER TO QUESTION 22 IS NOT 8, THEN SKIP TO QUESTION 9999]

Record "something else":

Q13. Why do people wash their vehicles at home rather than at a drive-thru or tunnel carwash? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- It saves time 1
- It's less expensive 2
- It's more convenient 3
- People like to do it themselves 4
- A person gets the car cleaner 5
- Hand washing is better for the care of the vehicle .. 6
- Or something else? 7

[IF THE ANSWER TO QUESTION 24 IS NOT 7, THEN SKIP TO QUESTION 9999]

Record "something else":

Q14. Which of the following would most encourage people to use a drive-thru or tunnel carwash? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- Knowing it would protect public health 1
- Knowing it would protect water quality 2
- Knowing it would protect wildlife habitat 3
- Knowing they use recycled water 4
- Adding more carwash locations 5
- Providing discounts or coupons for carwashes .. 6
- Or something else? 7

[IF THE ANSWER TO QUESTION 26 IS NOT 7, THEN SKIP TO QUESTION 9999]

Record "something else":

Q15. Why do people like a maintained and manicured grass lawn? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- They are easy to care for 1
- They look nice 2
- They look like the neighbors 3
- They enhance property values 4
- They are less costly to maintain 5
- They provide a play area for kids .. 6
- Or something else? 7

[IF THE ANSWER TO QUESTION 28 IS NOT 7, THEN SKIP TO QUESTION 9999]

Record "something else":

Q16. Which of the following would most encourage people to reduce the size of their grass lawns by using native plants, trees, and landscaping? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- Time to work on it 1
- Discounts or coupons for native plants or trees 2
- A list of native plants 3
- Technical support, such as on site expert advice or classes ..4
- If the neighbors did it 5
- Knowing it would protect public health 6
- Knowing it would protect water quality 7
- Knowing it would protect wildlife habitat 8
- Or something else? 9

[IF THE ANSWER TO QUESTION 30 IS NOT 9, THEN SKIP TO QUESTION 9999]

Record "something else":

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 9999]

Q17. Why do streamside property owners mow or maintain their lawns or gardens up to the edge of streams? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- It's their property and they can do what they want .. 1
- It looks nice 2
- It is a fire hazard to not do so 3
- They want to see the water 4
- They want easy access to the water 5
- Or something else? 6

[IF THE ANSWER TO QUESTION 32 IS NOT 6, THEN SKIP TO QUESTION 9999]

Record "something else":

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 9999]

Q18. Which of the following would most encourage people to leave at least a 10-foot buffer between their manicured yards and the stream? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- Information on the benefits of doing so 1
- Knowing it would protect public health 2
- Knowing it would protect water quality 3
- Knowing it would protect fish 4
- Knowing it would improve wildlife habitat .. 5
- A tax benefit for doing so 6
- Or something else? 7

[IF THE ANSWER TO QUESTION 34 IS NOT 7, THEN SKIP TO QUESTION 9999]

Record "something else":

Q19. Why don't people more often participate in outdoor volunteer projects such as tree plantings or stream clean-ups? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- They are not aware of opportunities to do so .. 1
- They don't have time 2
- They are not interested 3
- They don't think they will make a difference 4
- They have not been asked 5
- Or something else? 6

[IF THE ANSWER TO QUESTION 36 IS NOT 6, THEN SKIP TO QUESTION 9999]

Record "something else":

Q20. Which of the following would most encourage people to participate in such projects? (READ LIST)

[READ ANSWERS IN RANDOM ORDER, EXCEPT THE LAST 1]

- Being notified of opportunities 1
- More involvement by the other groups they belong to .. 2
- Recognition for the effort 3
- Knowing it would protect public health 4
- Knowing it would protect water quality 5
- Knowing it would protect wildlife habitat 6
- Seeing how others are helping 7
- Or something else? 8

[IF THE ANSWER TO QUESTION 38 IS NOT 8, THEN SKIP TO QUESTION 9999]

Record "something else":

Q21. In the past few years, would you say that you have personally made significant changes, some changes, or no changes in any of your activities, specifically to protect the water quality in local streams and the Tualatin River?

- Significant changes ... 1
- Some changes 2
- No changes 3
- Don't know/Refused .. 4

[IF THE ANSWER IS 2-4, THEN SKIP TO QUESTION 43]

Q22. What has prompted you to do so? (DO NOT READ LIST - MULTIPLE RESPONSES OK)

- General awareness 1
- Family/Friends 2
- Seeing damage 3
- Concern about drought/flood 4
- Media reports (TV/radio/etc) 5
- Brochures/Newsletters 6
- Movie ads 7
- Signs 8
- Billing inserts 9
- Well promoted public events (SOLV, fairs, festivals, etc) .. 10
- Nothing 11
- Don't know/Not sure 12
- Refused 13
- Other (list) 14

[IF THE ANSWER IS NOT 14, THEN SKIP TO QUESTION 43]

Other (list):

Q23. From what sources have you gotten information about local stream and river quality issues? (PROBE) And how else have you gotten information? (MULTIPLE RESPONSES OK, DO NOT READ LIST)

- TV 1
- Radio 2
- Newspaper 3
- Newsletter 4
- Brochures 5
- Meetings 6
- Movie ads 7
- Word of mouth 8
- Public events 9
- Kids/School material .. 10
- Billing insert 11
- Signs 12
- No where 13
- Don't know/Not sure .. 14
- Refused 15
- Other 16

[IF THE ANSWER IS NOT 16, THEN SKIP TO QUESTION 45]

Other (list):

Q24-31. Now using a 10-point scale, where "1" means you do not support it at all and "10" means it has your highest level of support, please rate the following ideas for promoting improved water quality in streams and rivers...

Continue .. 1

[ASK QUESTIONS 46 TO 52 IN RANDOM ORDER]

Q24. General pollution prevention information in newspapers, TV, and radio

01 - Do not support at all	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10 - Highest level of support ..	10
Don't know/Refused	11

Q25. Mailing information to individuals

01 - Do not support at all	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10 - Highest level of support ..	10
Don't know/Refused	11

Q26. Strengthen regulations and enforcement

01 - Do not support at all	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10 - Highest level of support ..	10
Don't know/Refused	11

Q27. Sponsoring community involvement and cleanups

01 - Do not support at all	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10 - Highest level of support ..	10
Don't know/Refused	11

Q28. Providing technical assistance and training

- 01 - Do not support at all 1
- 02 2
- 03 3
- 04 4
- 05 5
- 06 6
- 07 7
- 08 8
- 09 9
- 10 - Highest level of support .. 10
- Don't know/Refused 11

Q29. Providing money-saving deals for the purchase of environmentally-friendly products

- 01 - Do not support at all 1
- 02 2
- 03 3
- 04 4
- 05 5
- 06 6
- 07 7
- 08 8
- 09 9
- 10 - Highest level of support .. 10
- Don't know/Refused 11

[IF THE ANSWER TO QUESTION 1 IS 2, THEN SKIP TO QUESTION 9999]

Q30. Volunteers coming to your home to help with planting and clean-up

- 01 - Do not support at all 1
- 02 2
- 03 3
- 04 4
- 05 5
- 06 6
- 07 7
- 08 8
- 09 9
- 10 - Highest level of support .. 10
- Don't know/Refused 11

Q31. Are there any other options you would support?

[IF THE ANSWER TO QUESTION 12 IS 6 OR 7, THEN SKIP TO QUESTION 55]

Q32. You mentioned earlier that a member or members of your household had participated in outdoor volunteer projects such as tree plantings, or stream or beach clean-ups. How did they (or you) first hear about the volunteer opportunity and what motivated them (or you) to get involved?

Q33. Finally, just a few questions for classification purposes...How many years have you lived at your current residence?

Q34. Do you rent or own your home?

- Rent 1
- Own 2
- Refused .. 3

Q35. May I ask for your zip code?

Q36. What is the highest level of education you have had the opportunity to complete?

- High school or less 1
- Some college/trade 2
- 4-year college degree ... 3
- Graduate school/more .. 4
- Refused 5

Q37. Which of the following categories best describes your age? (READ LIST)

- 18-24 1
- 25-34 2
- 35-44 3
- 45-54 4
- 55-64 5
- or over 64? .. 6
- Refused 7

Q38. Do you have children under age 18 living in your household?

- Yes 1
- No 2
- Refused .. 3

Q39. And finally, do you have a spa or pool at your home?

- Yes 1
- No 2
- Refused .. 3

That concludes our survey. Thank you very much for your participation!

RECORD GENDER:

- Male 1
- Female .. 2

RECORD PHONE NUMBER:

INTERVIEWER NAME: