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# **King County**

## **Department of Natural Resources and Parks**

### **Water Quality Survey**

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December 2004



**King County**

Department of Natural Resources and Parks

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## METHODOLOGY

This report is based on the findings of a telephone survey conducted December 19-21, 2004 by Evans/McDonough. Four hundred and one (401) King County residents were selected at random using a Random Digit Dial sample and interviewed by trained, professional telephone interviewers. Respondents were screened to make sure they were over 18 years old and lived in King County. The margin of error for the overall survey results is  $\pm 5.0$  percentage points at the 95% confidence level.

### Research Design Summary

<b>#Interviews:</b>	401
<b>Interviewing Dates:</b>	December 19-21, 2004
<b>Margin of Error:</b>	$\pm 5.0$ points at the 95% confidence level
<b>Universe:</b>	King County residents 18 years or older

## KEY FINDINGS

*Air and water pollution continue to receive a majority of the mentions as the most important environmental problem facing the region.*

*Almost all (94%) residents continue to agree that there is a direct link between water quality and the health of salmon. Residents' concern about the risk to salmon populations in the region has decreased somewhat after remaining steady for the last three years -- although a majority (55%) still think salmon populations are at risk.*

*Most (77%) residents are aware that the county provides salmon and habitat protection, and for the first time, a majority (53%) give the county a positive rating for the job it does protecting salmon and salmon habitat. Also, the percentage of residents who say the county is doing "too little" to bring salmon and bull trout back from endangerment has dropped from 49% to 37%.*

*Almost all residents (90%) agree that county services like garbage disposal, sewage treatment, recycling and stormwater management help to protect the environment.*

*Reported awareness of King County groundwater management, stormwater management, and water quality management services is high and has not changed since last year.*

*When asked to rate the job the county does providing various services, residents gave the county the same or higher ratings than in previous surveys for every service tested. King County continues to receive the highest ratings for recycling services and education (75% positive).*

*King County's rating for the job it does protecting water quality (56% positive / 33% negative) has improved since 2003 and is the highest it has been since we first asked the question in 1999.*

*When asked how the county can improve its efforts to protect water quality, the top response continues to be "education/increase awareness."*

*When read response choices, roughly three-quarters of residents (71%) successfully pick the correct definition of a watershed, but most do not know which watershed they live in.*

*After a significant increase in 2003 in awareness that the county is running out of sewage treatment capacity and planning for new facilities, awareness has dropped back to the same level as in years before 2003. A strong majority of residents (73%) continue to express concerns about the possible negative consequences of the county running out of sewage treatment capacity.*

*A majority of residents (55%) say they would be at least somewhat likely to purchase biosolids soil mix or compost. This represents a drop-off of 10 points from last year. Residents are more likely to think that the best use of biosolids is for agriculture and forestry purposes (37%) and land reclamation and soil improvement projects (28%).*

*Attitudes about the best use for reclaimed wastewater are the same as in previous years. Parks and golf courses are the top choice (36%), followed by residential lawns (15%), street cleaning (11%), and commercial heating and cleaning (11%). Nearly one-fifth (17%) think reclaimed wastewater should be used for all of these things.*

*A strong majority (68%) of residents continue to say they dispose of their fats, oils, and grease in the garbage. Nine out of ten residents (91%) say they are aware of the damage that can be caused by pouring cooking oils and grease down the drain.*

## SUMMARY OF FINDINGS

### General Environmental Issues

#### Most Important Environmental Issue

*Air and water pollution continue to receive a majority of the mentions as the most important environmental problem facing the region.*

- Concern about air pollution has increased slightly, from 23% to 30%.
- Growth is mentioned by 12% of residents – the same as in 2003.

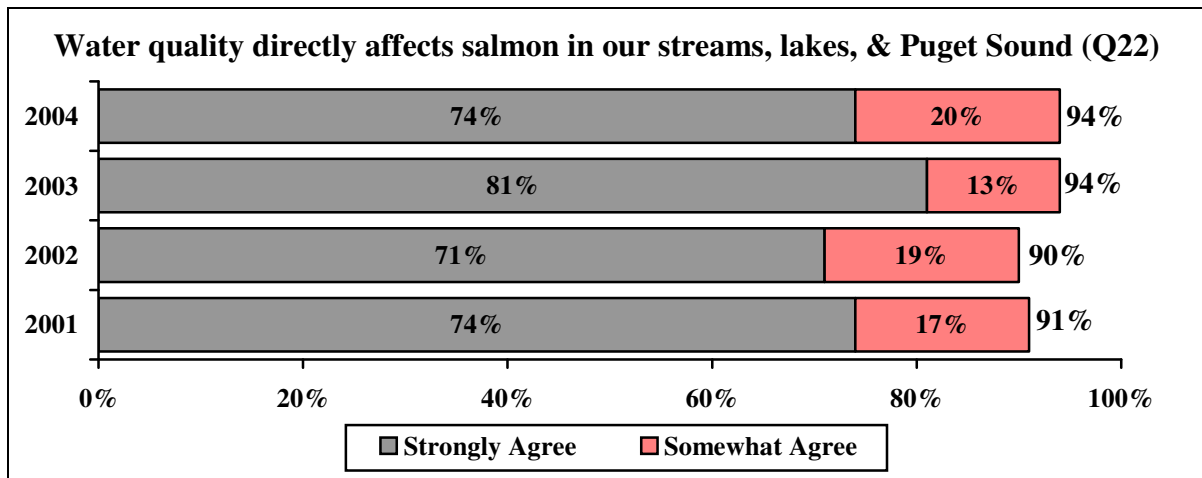
*What do you think is the most important environmental issue facing our region today?  
(Q7)*

<b>Issue</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Air pollution	38	20	19	23	<b>30</b>
Water pollution/quality	17	23	22	26	<b>24</b>
Growth/Population growth	8	16	29	12	<b>12</b>
Global warming/Ozone	5	3	6	4	<b>6</b>
Deforestation	5	3	4	5	<b>3</b>
Salmon	9	5	3	2	<b>4</b>
Toxic waste	2	2	3	1	<b>2</b>
Vehicle Emissions	--	--	--	6	--
Energy/Power Conservation	--	--	--	1	--
Garbage/Landfills/Trash	--	--	--	1	--
Recycling	--	--	--	1	--
Water Shortage/Availability	--	--	--	1	--
Traffic/Transportation	--	7	4	--	--
Anthrax	--	1	1	--	--
War/terrorism	--	1	--	--	--
None/Other/DK/Refused	17	19	10	16	<b>19</b>

## Salmon populations

*Almost all (94%) residents continue to agree that there is a direct link between water quality and the health of salmon. Residents' concern about the risk to salmon populations in the region has decreased somewhat after remaining steady for the last three years -- although a majority (55%) still think salmon populations are at risk.*

- After a brief increase in the intensity of sentiments (% who “strongly agree”) surrounding this question in 2003, percentages have returned to the 2001-2002 levels.
- A majority (55%) of residents think salmon populations in the region are at risk, down 10 points from 65% in the 2003 survey.



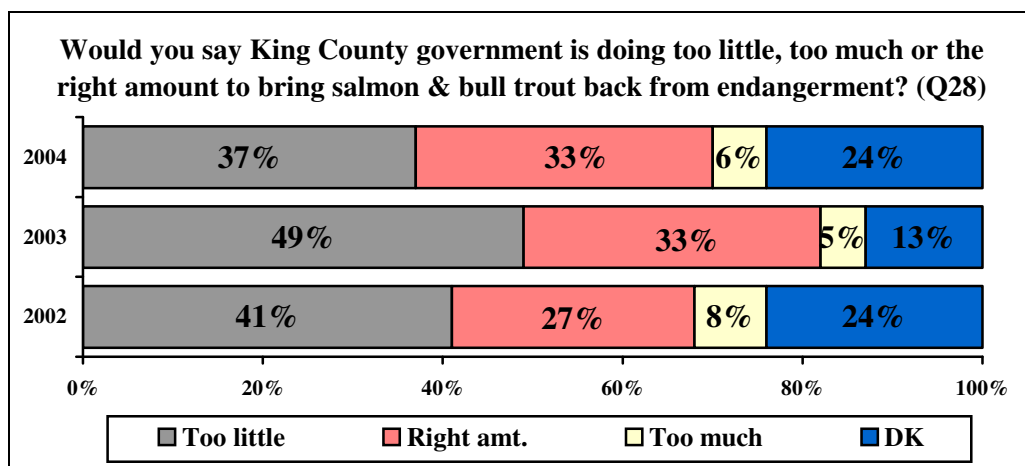
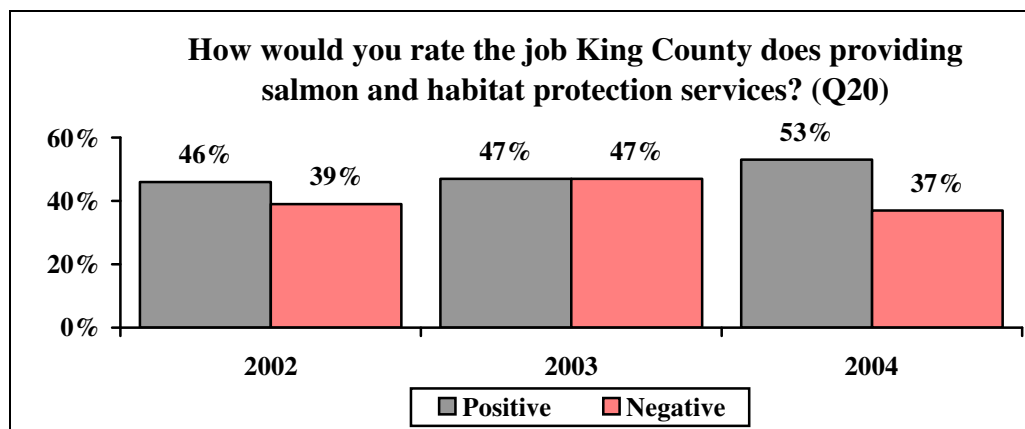
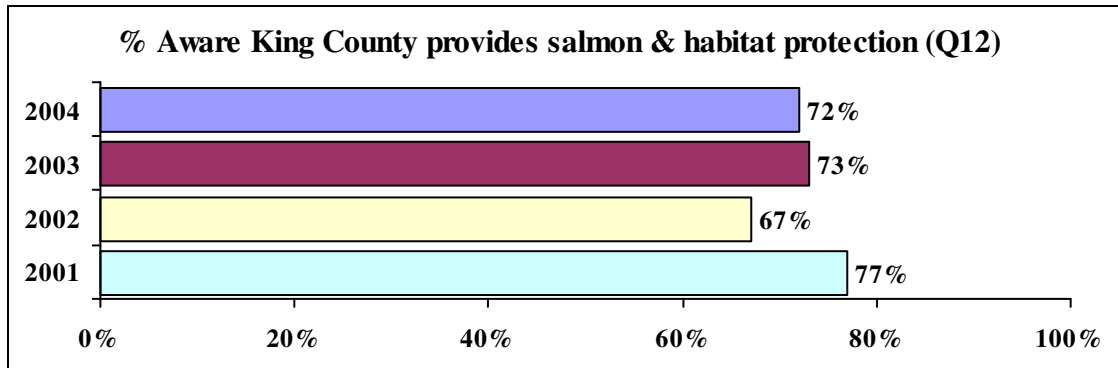
*On a scale of 1 to 7, where 1 means not at all at risk and 7 means extremely at risk, how at risk do you think salmon populations in our region are? (Q27)*

Rank	2001	2002	2003	2004
7- Extremely at risk	20	22	23	<b>19</b>
6	17	17	16	<b>11</b>
5	26	24	26	<b>25</b>
4	18	17	17	<b>15</b>
3	7	6	10	<b>15</b>
2	3	3	3	<b>3</b>
1- Not at all at risk (Don't Know)	5	4	3	<b>3</b>
	4	7	2	<b>7</b>
MEAN	4.92	5.11	5.03	<b>4.78</b>

## County Efforts to Protect Salmon/Habitat

*Most (72%) residents are aware that the county provides salmon and habitat protection, and for the first time, a majority (53%) give the county a positive rating for the job it does protecting salmon and salmon habitat. Also, the percentage of residents who say the county is doing “too little” to bring salmon & bull trout back from endangerment has dropped from 49% to 37%.*

- Residents’ assessment of the job the county does providing salmon and habitat protection services has improved a net 16 points since 2003, from 47% positive / 47% negative, to 53% positive / 37% negative.



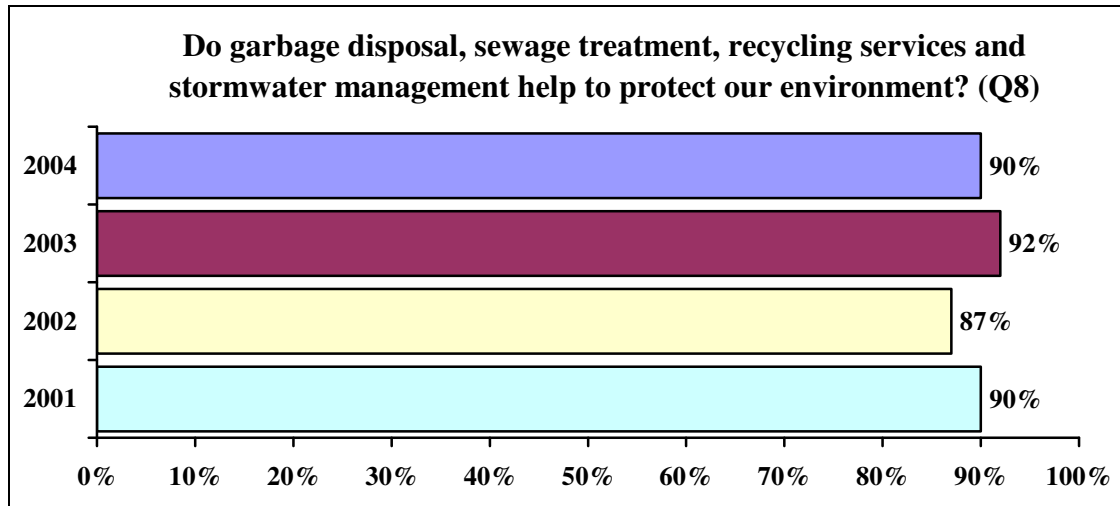


## County Services

### County Services and the Environment

*Almost all residents (90%) agree that county services like garbage disposal, sewage treatment, recycling and stormwater management help to protect the environment.*

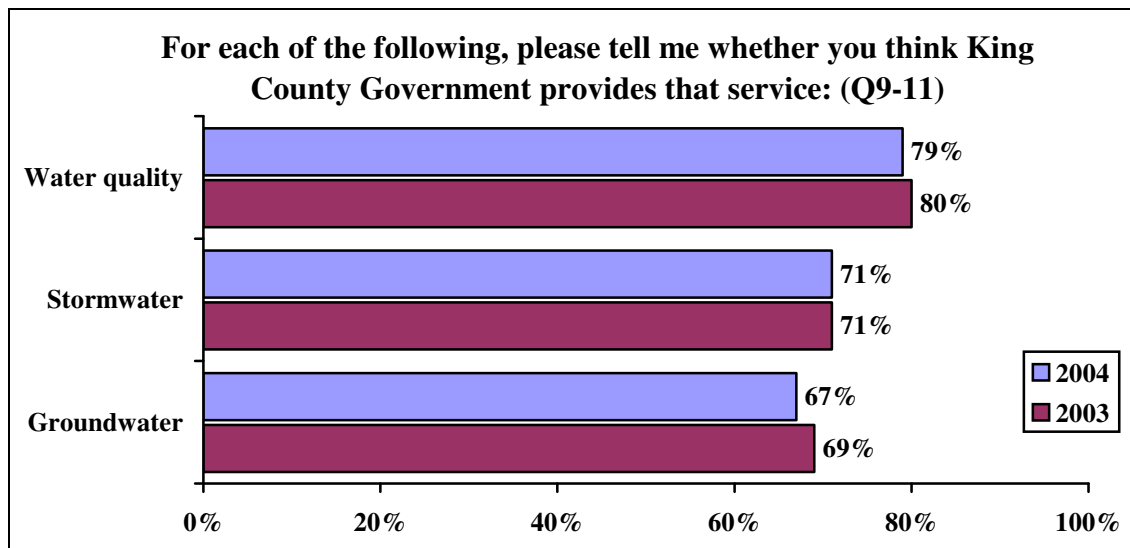
- These results are statistically equivalent to the results from previous surveys.



### Familiarity with selected King County services

*Reported awareness of King County groundwater management, stormwater management, and water quality management services is high and has not changed since last year.*

- Two-thirds or more of residents report that they are aware that the county provides these services.



## Rating of selected King County services

*When asked to rate the job the county does providing various services, residents gave the county the same or higher ratings than in previous surveys for every service tested. King County continues to receive the highest ratings for recycling services and education (75% positive).*

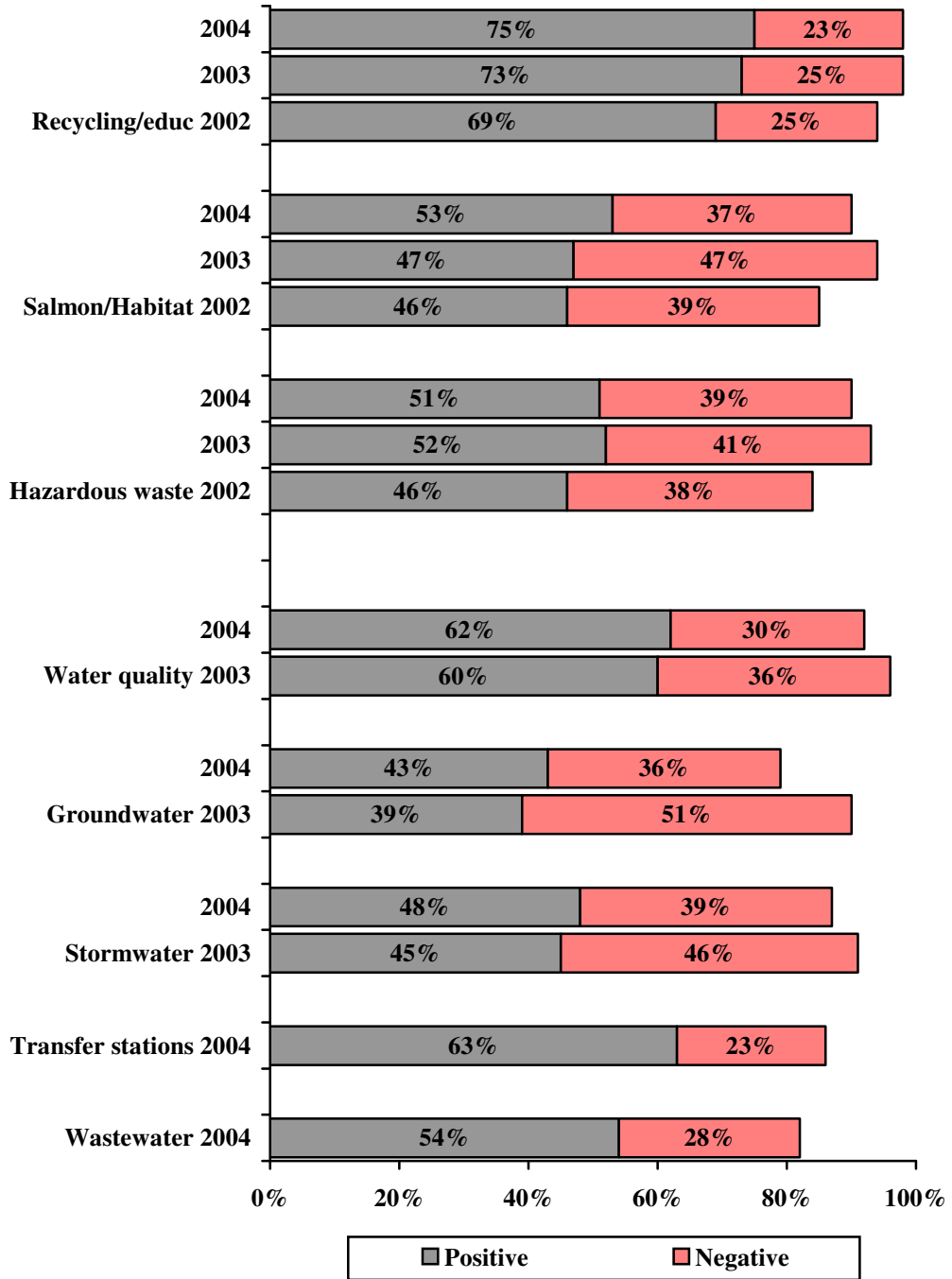
- As noted earlier, there has been a significant positive increase in the rating for salmon and habitat protection services -- from 47% positive / 47% negative, to 53% positive / 37% negative.
- Water quality management (+8), groundwater management (+19) and stormwater management (+10) services have all shown net positive increases since 2003. Most of the net change is due to lower negative ratings rather than any substantial increase in the positive ratings.
- **NOTE:** There have been a number of wording changes in this year's and last year's surveys which makes several of the multi-year comparisons on service ratings problematic. These services are shown at the bottom of the graph.

In 2002, "water quality, stormwater, and groundwater management" were asked as a single question. Starting in 2003 these services were asked individually.

Prior to this year we asked about "garbage disposal services" which is now phrased as "solid waste transfer stations."

Prior to this year we asked about "sewage treatment services" which is now "wastewater treatment services."

**How would you rate the job King County does providing the following environmental services? (Q13-20)**

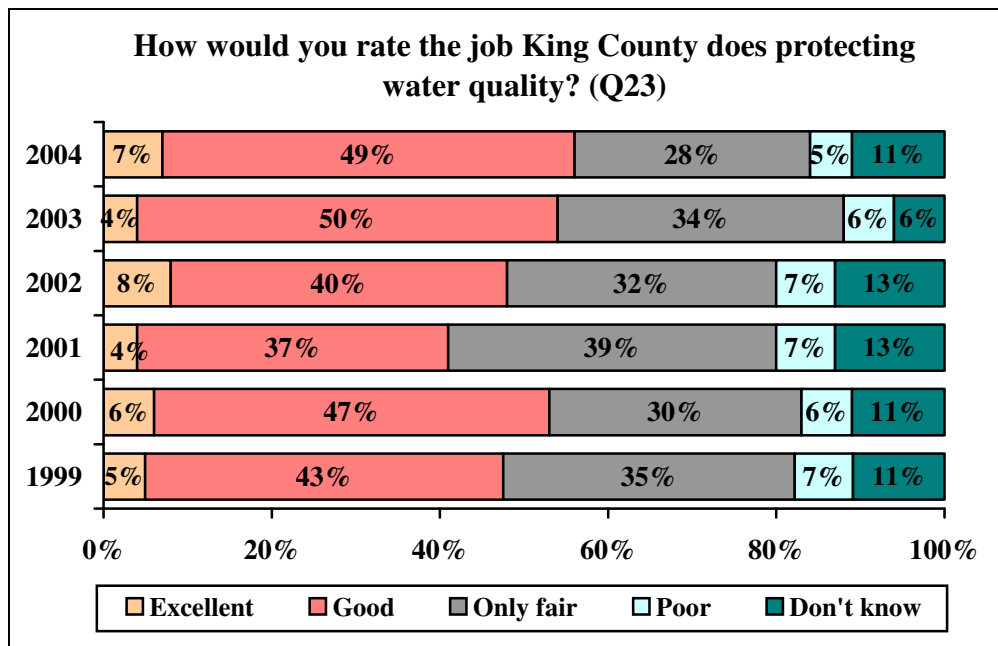


## Water Quality in King County

### Protecting Water Quality

*King County's rating for the job it does protecting water quality (56% positive / 33% negative) has improved since 2003 and is the highest it has been since we first asked the question in 1999.*

- The positive rating (56%) is the highest it has been since we first asked the question in 1999 and the negative rating (33%) is the lowest it has been.
- As in past years, there is little intensity of opinion (“excellent” or “poor”) in residents’ rating of the job King County does protecting water quality.



## Water Quality Education

*When asked how the county can improve its efforts to protect water quality, the top response continues to be “education/increase awareness.”*

*How could King County improve its efforts to protect water quality throughout the county? (Q24)*

	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
Education/Make people aware	19	16	18	21	22	14

- The complete list of responses is shown below:

(Education/Awareness)	14
(Better enforcement of laws/higher fines)	8
(Limit development)	4
(Tougher environmental laws)	4
(Spend more money/higher priority)	5
(Better storm water/runoff water management)	5
(More research)	2
(Doing a good job now)	2
(OTHER)	7
(Nothing)	2
(Don't Know/Refused)	45

## Watersheds

*When read response choices, roughly three-quarters of residents (71%) successfully pick the correct definition of a watershed, but most do not know which watershed they live in.*

- These results are statistically equivalent to the results from previous years.
- When asked what watershed they live in, half (50%) say they don't know.

<i>Which of the following three definitions best describes a watershed? (Q25)</i>				
	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
A shed that contains water pumps	4	5	7	4
A facility where water is purified	16	11	11	13
An area of land that drains water to a common outlet		72	66	75
<b>71</b>				
(Don't know)	7	18	6	11

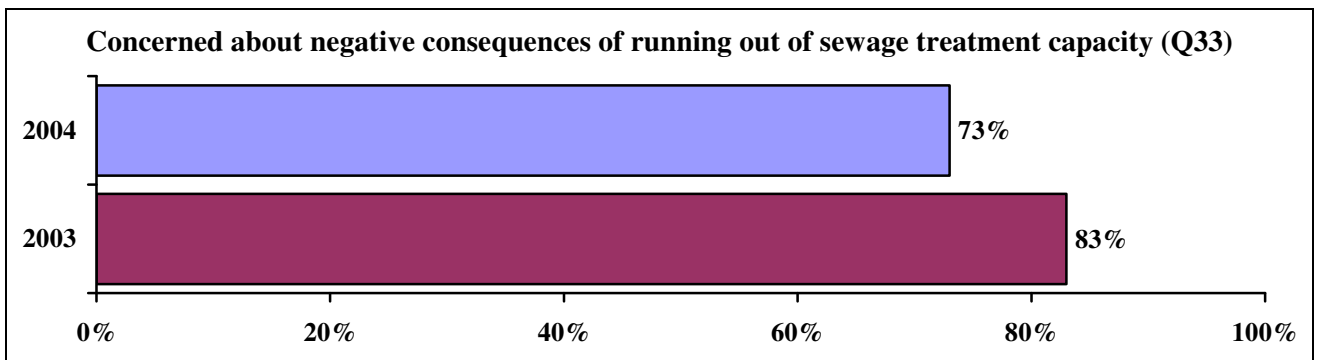
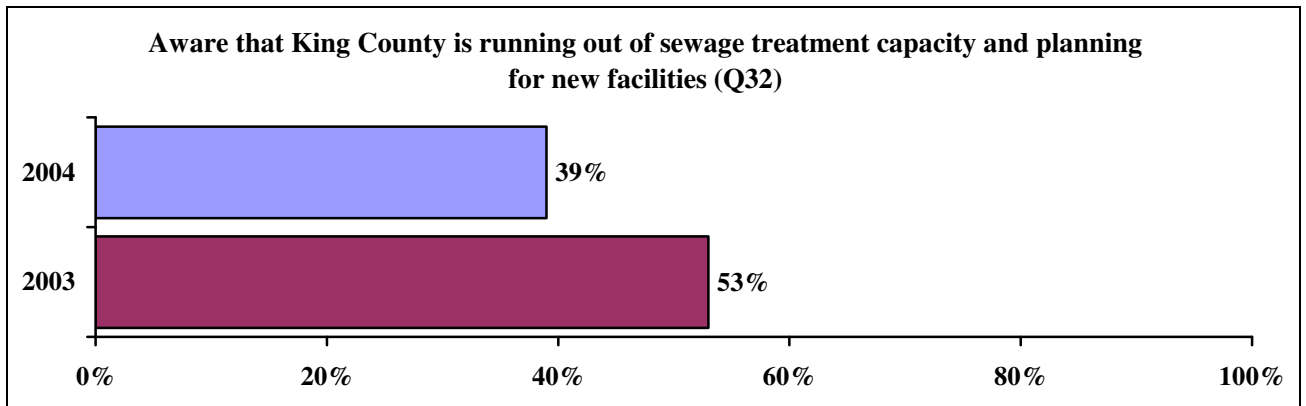
*\*Asked open-ended from 1999-2000.*

<i>As you may know, a watershed is an area of land that drains water to a central outlet. Can you tell us what watershed you live in? (Q26)</i>					
	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Cedar/Cedar River	8	10	12	12	14
Lake Young		2	2	1	3
Tolt River	2	5	3	3	2
Thornton Creek			1	1	2
Soos Creek	2	1	1	2	2
Puget Sound	2	2	1	1	2
Piper Creek		2	2	1	1
King County		2	1	1	1
Green River	2	4	3	3	1
Lake Washington			1	1	1
Sammamish			1	1	1
Redmond			1	1	
Other Mentions	20		8	18	18
Don't know	64	71	62	54	50

## Sewage Treatment Facilities

*After a significant increase in 2003 in awareness that the county is running out of sewage treatment capacity and planning for new facilities, awareness has dropped back to the same level as in years before 2003. A strong majority of residents (73%) continue to express concerns about the possible negative consequences of the county running out of sewage treatment capacity.*

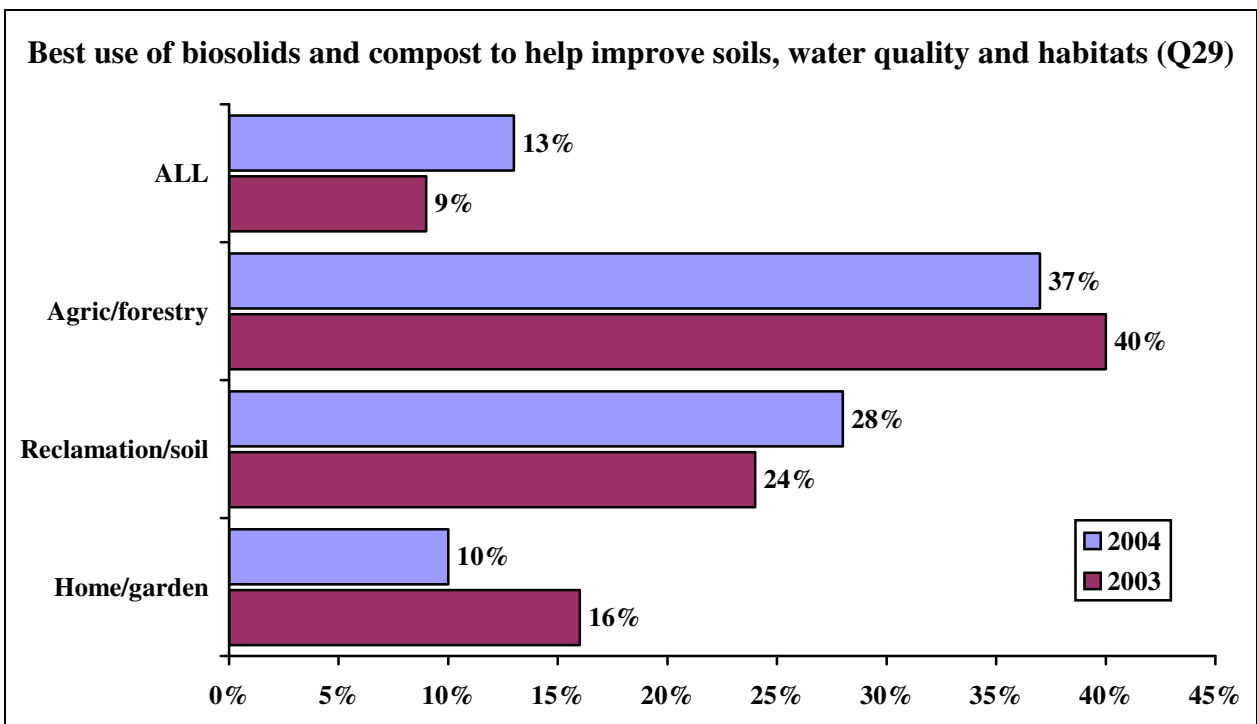
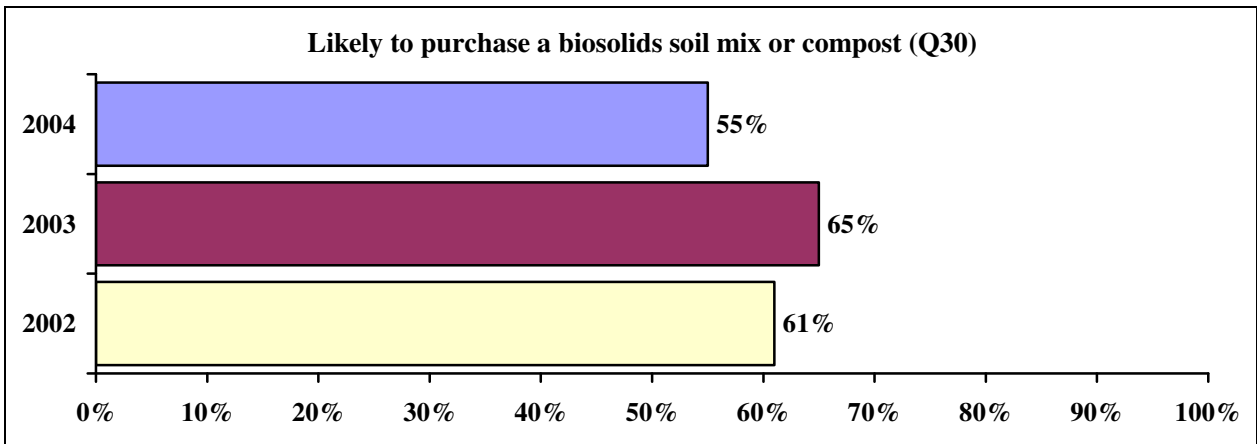
- A majority of residents (61%) say they are not aware that the county is running out of sewage treatment capacity and planning for new facilities. Just over a third (39%) are aware.
- **NOTE:** Prior to 2003, this question was asked as “Are you aware that King County is planning for future sewage treatment facilities?” In 2002, awareness was at 36%.
- Three-quarters of residents (73%) say they are concerned that either sewage overflows and backups could occur or that new building permits could be halted if King County runs out of sewage treatment capacity. One-in-four (26%) say they are not concerned. This represents a 10-point decrease in concern since last year (83% to 73%).



## Biosolids

*A majority of residents (55%) say they would be at least somewhat likely to purchase biosolids soil mix or compost. This represents a drop-off of 10 points from last year. Residents are more likely to think that the best use of biosolids is for agriculture and forestry purposes (37%) and land reclamation and soil improvement projects (28%).*

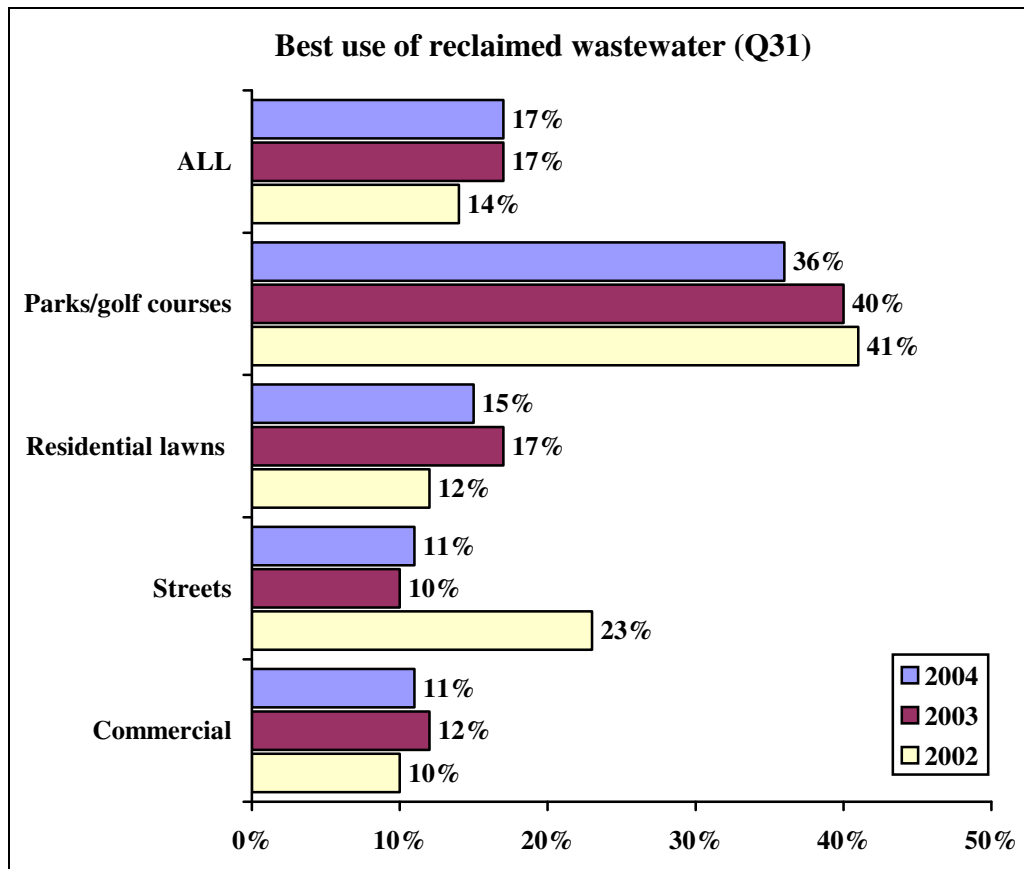
- A majority (55%) say they would be at least somewhat likely to purchase biosolids soil mix or compost if it were available at a competitive price.





## Reclaimed Water

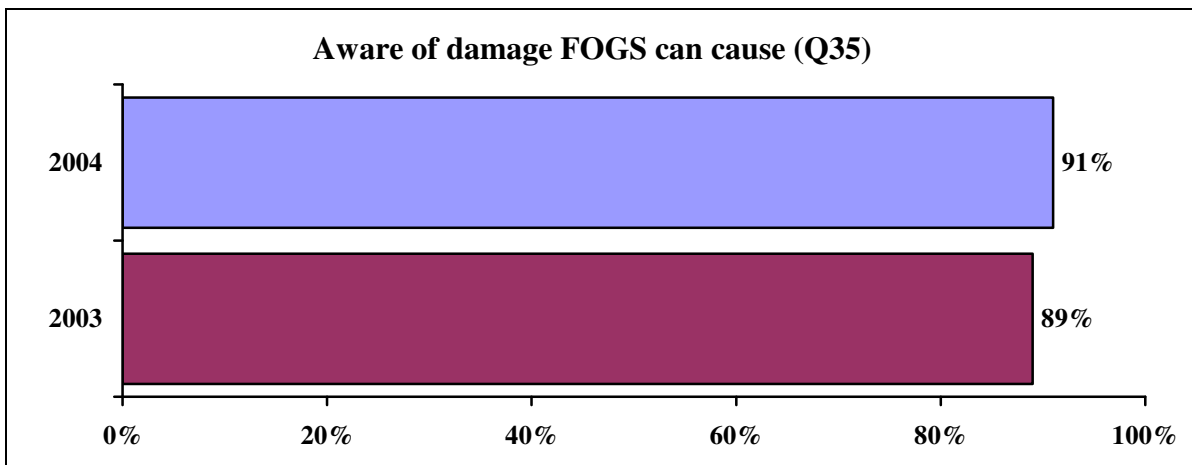
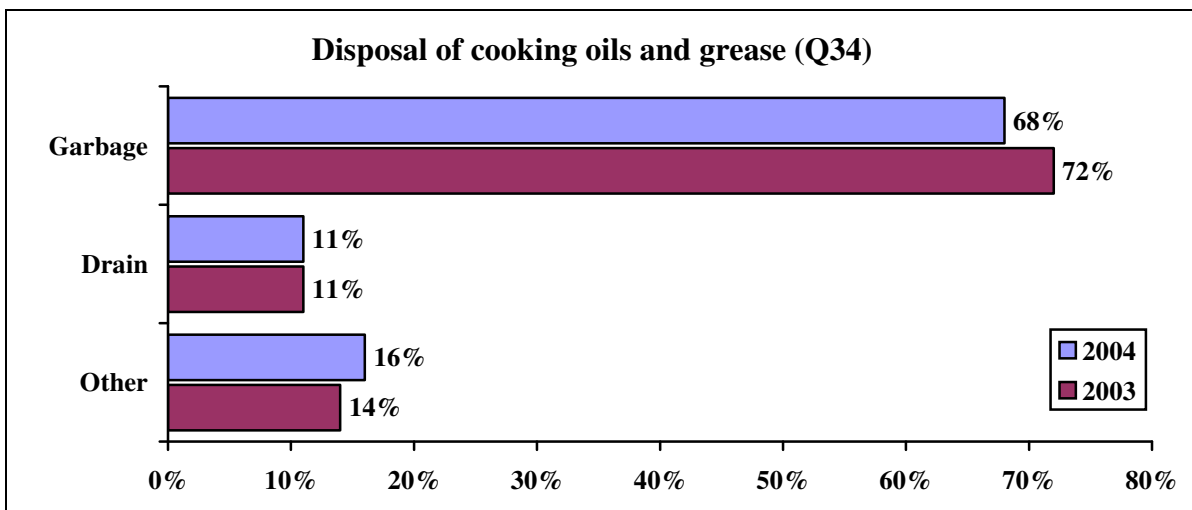
*Attitudes about the best use for reclaimed wastewater are the same as in previous years. Parks and golf courses are the top choice (36%), followed by residential lawns (15%), street cleaning (11%), and commercial heating and cleaning (11%). Nearly one-fifth (17%) think reclaimed wastewater should be used for all of these things.*



## Fats, Oils, and Grease (FOG)

*A strong majority (68%) of residents continue to say they dispose of their fats, oils, and grease in the garbage. Nine out of ten residents (91%) say they are aware of the damage that can be caused by pouring cooking oils and grease down the drain.*

- Most residents (68%) say they dispose of fats, oils, and grease in the garbage – 11% say they pour them down the drain.
- Almost all residents (91%) say they are aware of the negative consequences of pouring fats, oils, and grease down the drain.
- Of the 11% who use the drain, three-fourths (72%) say knowing the damage this can cause makes them likely to dispose of fats, oils, and grease in the garbage in the future.



## APPENDIX A: DEMOGRAPHICS

	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
<b>Gender</b>						
Male	48	48	48	49	50	49
Female	52	52	52	51	50	51
<b>Homeowner</b>						
Own/buying	72	66	72	69	72	77
Rent	28	32	27	29	27	21
(DK/Refused)	2	2	1	2	1	1
<b>Children living at home</b>						
Yes	31	36	32	33	27	33
No/(Refused)	69	64	68	67	73	67
<b>Age</b>						
18-24	8	10	8	8	7	6
25-29	6	9	10	9	7	6
30-34	9	10	8	9	10	10
35-39	10	11	8	8	10	11
40-44	13	12	12	12	8	11
45-49	14	10	9	10	12	11
50-54	8	12	11	10	11	11
55-59	7	6	7	6	9	9
60-64	5	6	5	3	8	7
65+	18	13	18	21	16	15
(Refused)	3	3	3	4	2	1