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King County Department of Natural Resources Water Quality Survey

June 2013 EMC 13-4895



- Telephone Survey
- 404 King County residents age 18+ were selected for interviewing using a RDD (Random Digit Dial) sample
- *Conducted June 10th 13th, 2013*
- Trained, professional interviewers
- Results are compared where appropriate and possible to previous water quality surveys conducted for KC DNR by EMC Research
- Previous surveys were conducted in: 1999, 2000,2001, 2002, 2003, 2004, 2005, 2006, 2007, 2009, and 2011.

Please note that due to rounding, some percentages may not add up to exactly 100%.



A strong majority of residents give King County positive ratings for the job it is doing providing wastewater treatment services.

6-in-10 (56%) residents give a positive rating and this rating improves by more than 9 points (to 65% positive) when residents hear about King County Wastewater Treatment Division's mission. Since 2011 there has been a slight negative shift of 7 points (from 59% Positive/26% Negative to 56% Positive/30% Negative).

Just over two-thirds (70%) do not recall seeing or hearing anything about wastewater services. Of those saying they have seen or heard something, "New treatment plant/facility" and "Run-off/Sewage overflows/System failures" are the top mentions.

4-in-10 (41%) of residents say the fees they pay for sewage collection and treatment are a good value. As many (39%) say they are not sure about the value and about a fifth (19%) say the fees they pay are <u>not</u> a good value.

Water pollution and water quality continues to be the top mentioned environmental issue facing the region by King County residents.

Residents give the highest importance to "monitoring water quality levels (49%; Extremely Important) and "controlling untreated wastewater overflowing into Puget Sound" (48%; Extremely Important) when asked about things King County could do to help protect water quality.

When asked about agencies working to improve water quality in the region, the Environmental Protection Agency (EPA), Government (generic) and City Utility/Water agency get the top overall mentions.



The overwhelming majorities of King County residents favor using recycled biosolids and recycled/reclaimed water.

When informed about the use of recycled biosolids, most (81%) residents say they favor the recycling of biosolids. Only 12% oppose recycling biosolids.

The most serious objections to the use of recycled biosolids were around its use for growing vegetables. All other uses tested received a majority saying they have no objections.

Similarly, 82% of residents support King County using as much reclaimed water as possible with 17% saying King County should not make an effort to reuse. Top concerns about using reclaimed water are growing vegetables for sale, use in ground water to feed streams and rivers, and watering recreation fields at schools.

A majority 60% of residents say they have used a compost or soil amendment product. Of the residents having used a product, Cedar Grove and Zoo Doo were the products with the highest overall awareness.

Over a quarter (29%) of residents say would be more likely to patronize a business or purchase a product if reclaimed water had been used. The majority (52%) say it would not make a difference, and 14% say it would make them less likely.

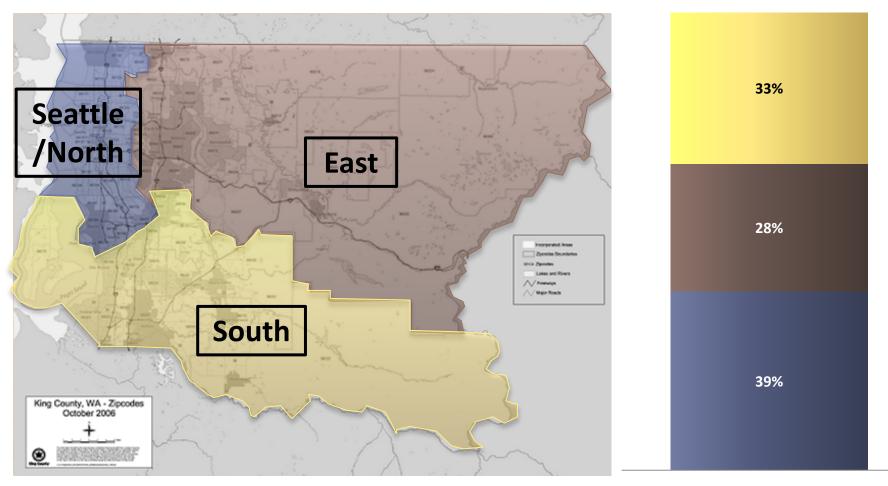
The majority of residents support funding King County efforts to reduce its environmental impact.

The majority of King County residents say they are willing to pay an extra dollar each month on their sewer bill to help King County fund efforts to reduce its impact on the environment.

All efforts tested receive a majority of residents support with efforts to "reduce the number of untreated wastewater overflows" receiving the highest level of support at 68% willing/29% not willing.

King County Sub Regions





Regions

Environmental Issues



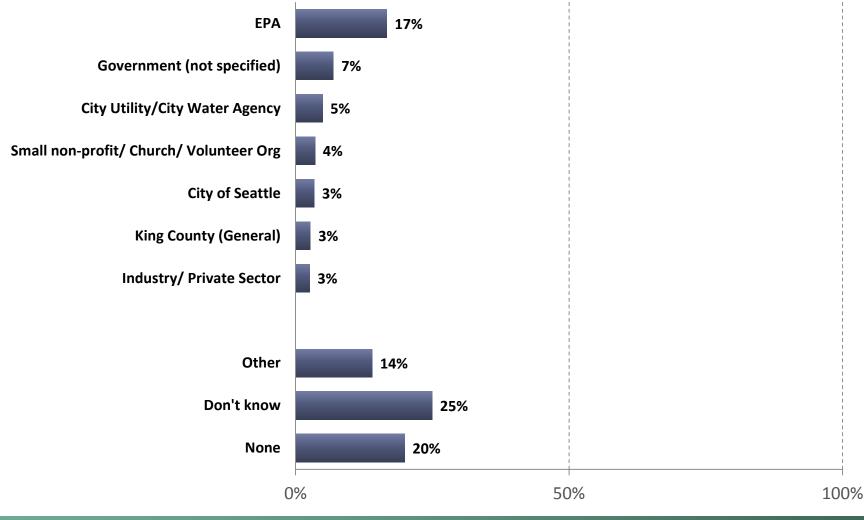
What do you think is the most important environmental issue facing our region today? (Q5)

| Most Important Environmental Issue | 2011 | 2013 | +/- Change | |
|--|------|------|------------|--|
| Water pollution/ quality | 20% | 19% | -1% | |
| Air pollution | 13% | 12% | -1% | |
| Climate change/ Global warming/ Ozone | 13% | 11% | -2% | |
| Traffic/ Mass transit/ Transportation | 8% | 7% | -1% | |
| Growth/ Population growth/ Use of land | 5% | 6% | +1% | |
| Fuel shortage/ Gas prices/ Oil prices | 5% | 4% | -1% | |
| Deforestation | 4% | 3% | -1% | |
| Toxic waste | 3% | 3% | | |
| Recycling/People Not Doing their Part | | 3% | | |

Agencies Working to Improve Water Quality



When you think of government agencies or private sector organizations that are working to improve water quality in our region, which agencies or organizations come to mind? (Q6; First Response)

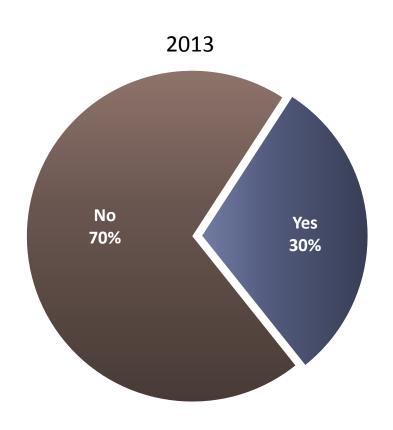


Wastewater Services

Awareness of Wastewater Services



Do you recall seeing or hearing anything about the topic of wastewater services lately? (Q7)

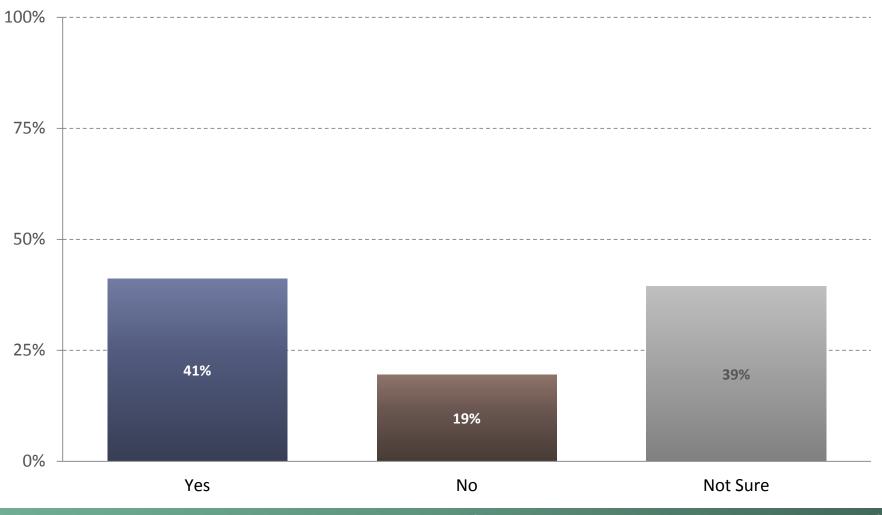


| (Q8) What did you see or hear? [n=117; MOE <u>+</u> 9.1%] | % of heard/seen something |
|--|---------------------------------|
| New wastewater plant being built/New facility | 18% |
| Run-off/Sewage Overflows/System Failures | 15% |
| Contaminated Water (general) | 12% |
| Received a flyer with information/Saw news story | 10% |
| It will increase our monthly bill/Too expensive | 5% |
| Habitat Damage/Salmon | 5% |
| Concern about waste water getting into the sound | 5% |
| It cleans our water | 3% |
| Conservation importance/water shortage concerns | 3% |

Value of Wastewater Services



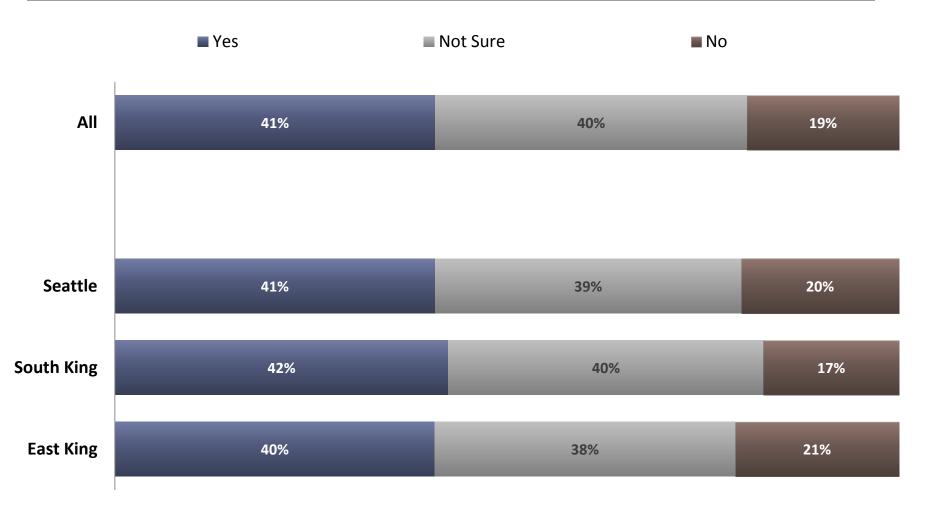
Do you think the fees you pay for sewage collection and wastewater treatment are a good value, yes, no, or are you not sure? (Q9)



Value of Wastewater Services



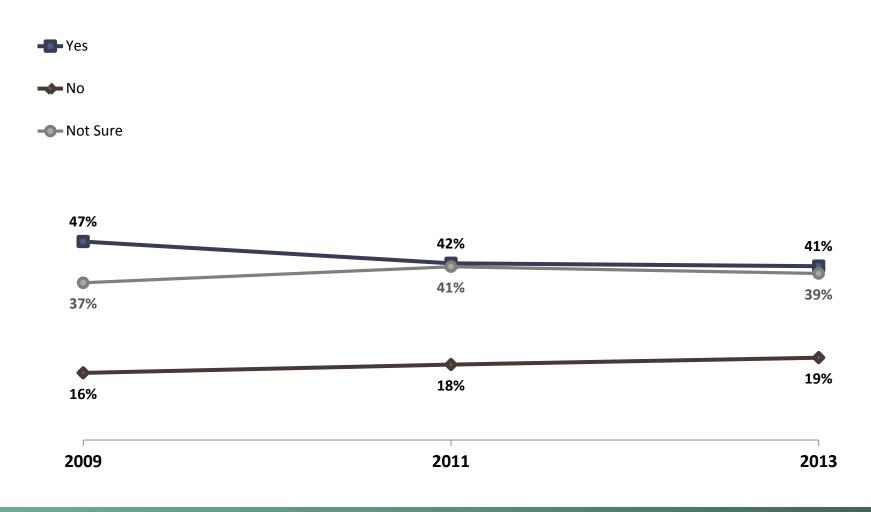
Do you think the fees you pay for sewage collection and wastewater treatment are a good value, yes, no, or are you not sure? (Q9)



Value of Wastewater Services - Track



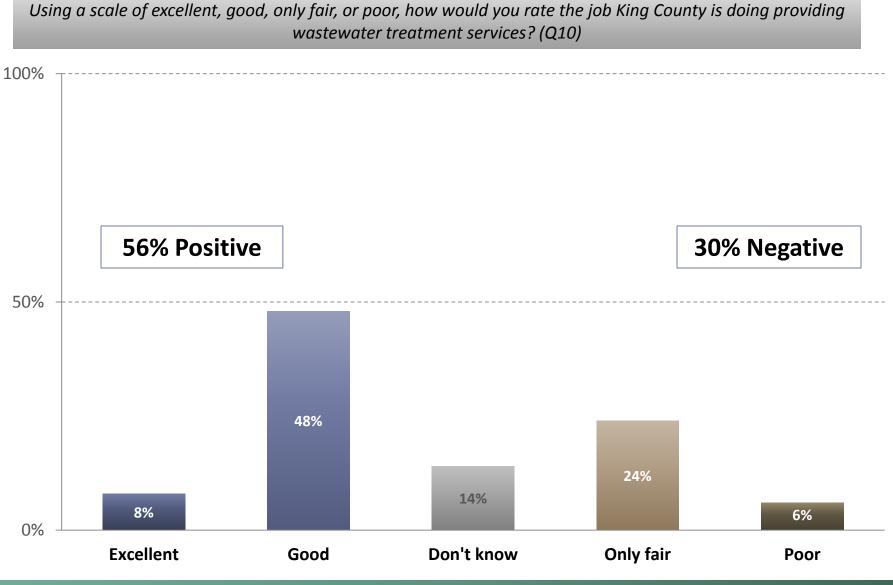
Do you think the fees you pay for sewage collection and wastewater treatment are a good value, yes, no, or are you not sure? (Q9)



Job Ratings – Wastewater Treatment

Job Providing Wastewater Treatment Services

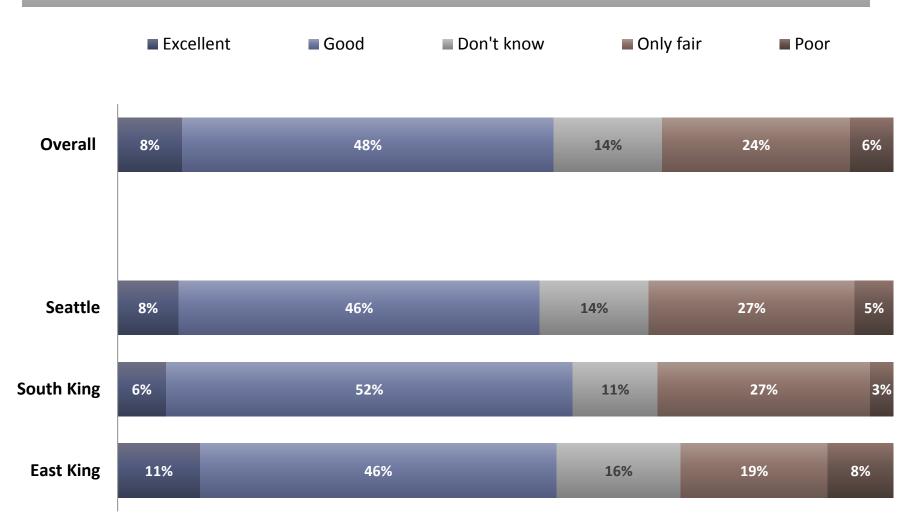




Job Rating by Region

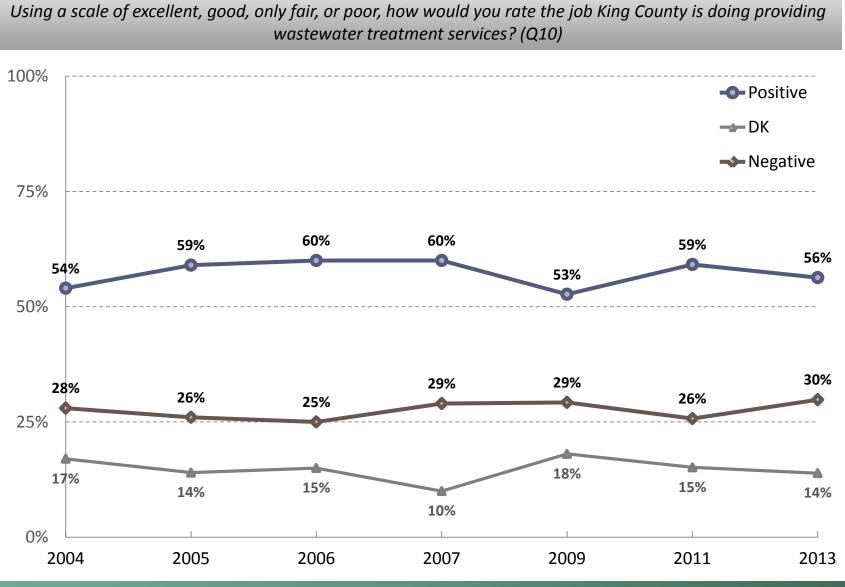


Using a scale of excellent, good, only fair, or poor, how would you rate the job King County is doing providing wastewater treatment services? (Q10)



Job Rating - Track

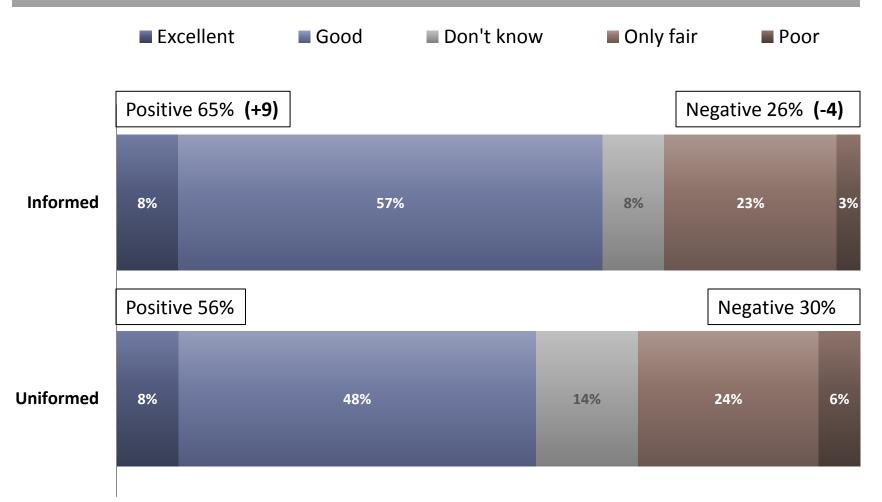




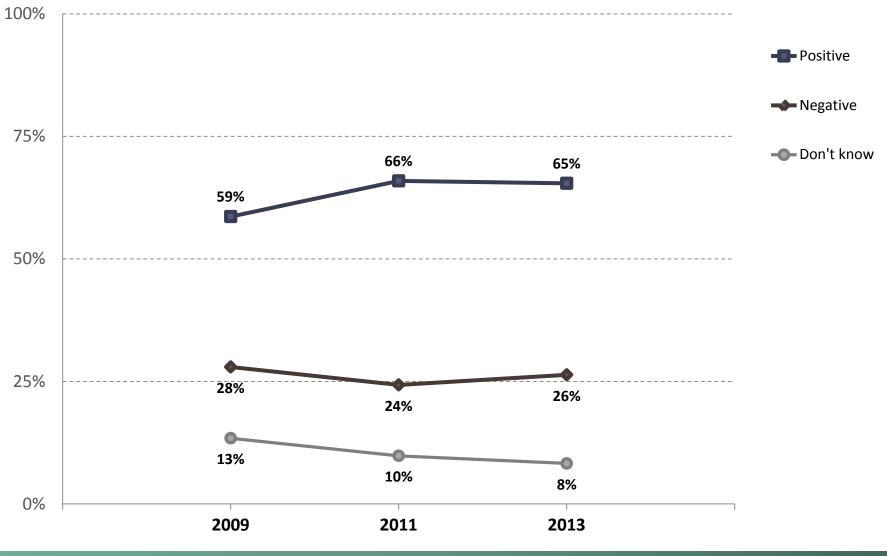
Job Rating w/ Mission Statement



The mission of King County's Wastewater Treatment Division is to protect public health and enhance the environment by treating and reclaiming water, recycling solids and generating energy. Knowing this, how would you rate the job King County is doing providing wastewater treatment services? (Q19)



Job Rating w/ Mission Statement - Track



Protecting Water Quality

Protecting Water Quality - Importance



I'm going to read you some things King County could do to help protect water quality in our rivers and Puget Sound. I'd like you to tell me how important each item is, using a scale of one to seven, where one is not at all important and seven is extremely important to help protect water quality

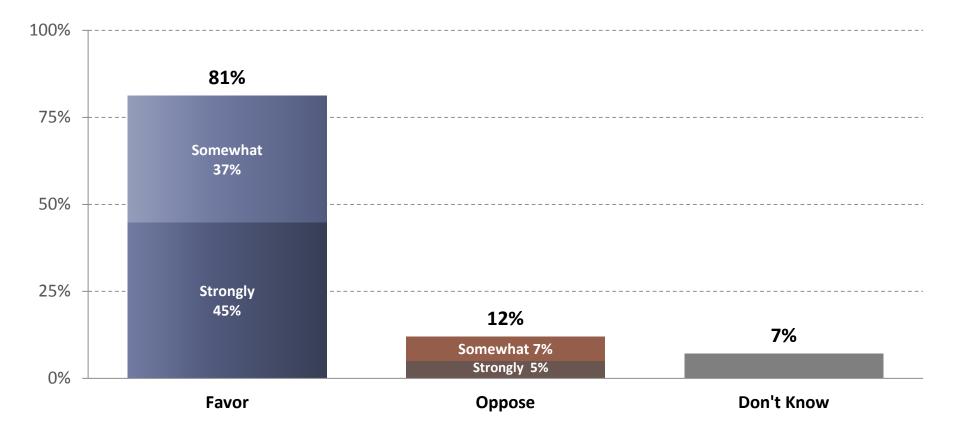
| 7 | 7 - High Importance | | ■ 6 | | 5 | |
|--|---------------------|-------|-----|--------|-----|-----|
| 11. Monitoring water quality levels | 49% | | 20% | | 19% | 88% |
| 18. Controlling untreated wastewater overlowing into Puget Sound | 48% | | 20% | | 18% | 87% |
| 14. Ensuring builders follow construction standards to reduce runoff and topsoil erosion | 46% | | 22% | | 21% | 88% |
| 15. Changing individual behaviors | 41% | % 20% | | 20% | | 81% |
| 17. Supporting cleanup efforts of Duwamish River & other regional waterways | 39% | 23 | 23% | | 6 | 82% |
| 12. Planning for new wastewater treatment capacity | 36% | 20% | | 25% | | 82% |
| 16. Investing in new technologies to cleaner standards | 36% | 20% | | 20% 77 | | % |
| 13. Providing public outreach & education programs | 31% | 22% | | 23% | 75% | , |



Support for Biosolids



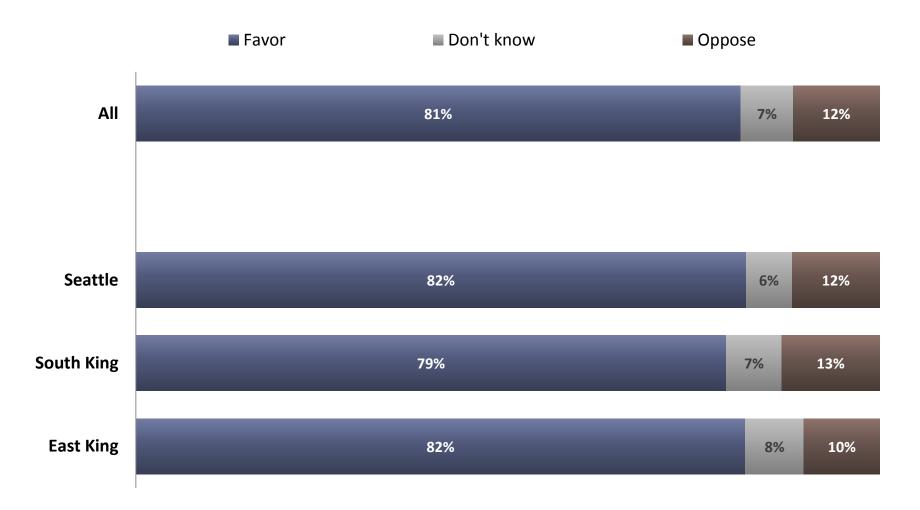
In our area, storm water and wastewater from homes is cleaned at regional wastewater treatment plants. During the process, nutrient-rich, organic solids are recovered and treated to make a carbon-rich product called biosolids. The state Department of Ecology encourages recycling of biosolids for use as a natural soil amendment that enriches soil and boosts plant growth. Do you strongly favor, somewhat favor, somewhat oppose or strongly oppose recycling of biosolids?(Q20)



Support for Recycling Biosolids by Region

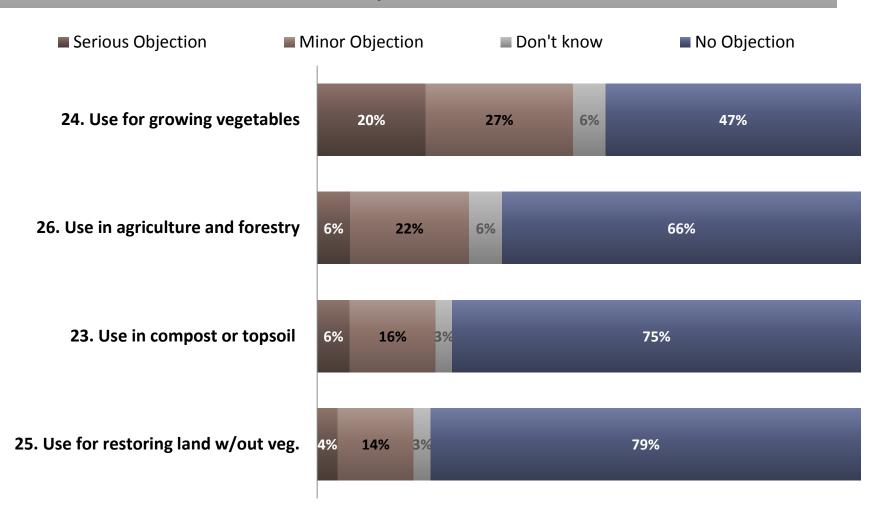


Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose recycling of biosolids? (Q20)





I'm going to read you a list of possible uses for recycled biosolids. I'd like to know how you feel about these uses. For each one, please tell me if you have no objection, minor objections, or serious objections about that use for biosolids.

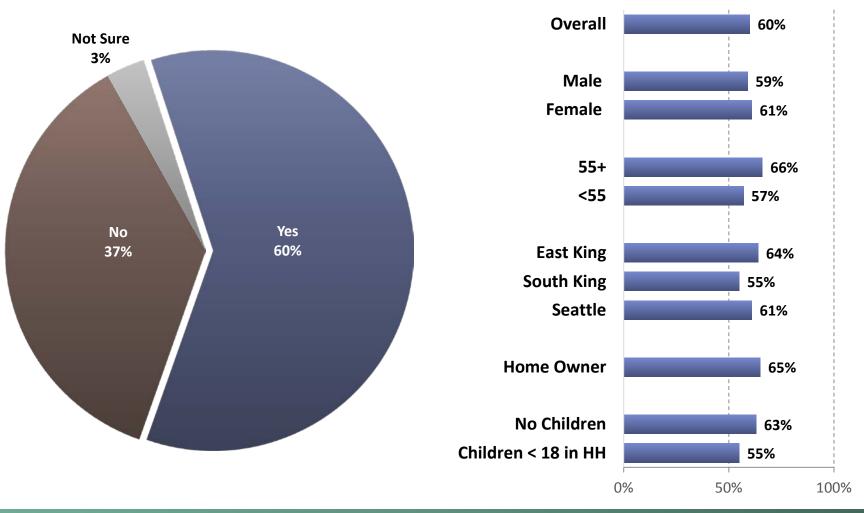


Use of Soil Amendment Products

EMC

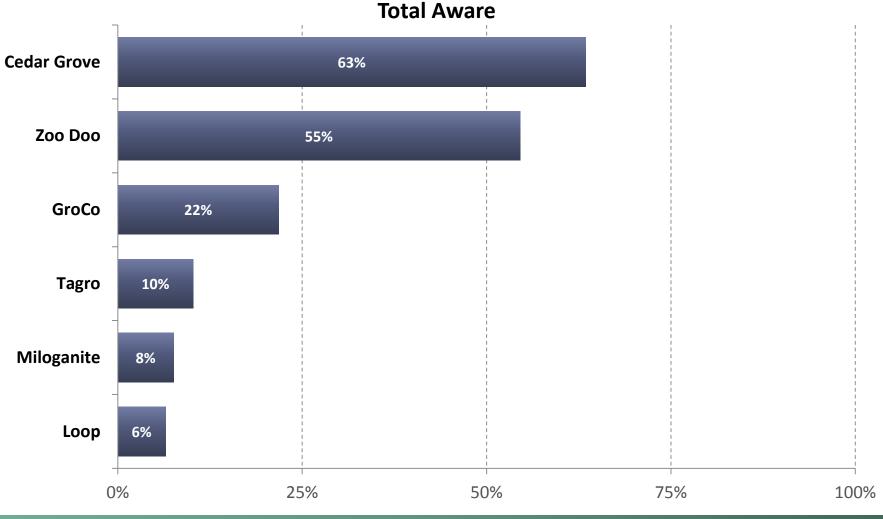
Have you ever used a compost or soil amendment product? (Q21)

Percent Used or Aware of Soil Amendment Products





Have you ever **used or heard of** the following soil amendment products? (Q22) "(Aware of Soil Amendment Products) [n=245=+/-6.3]."

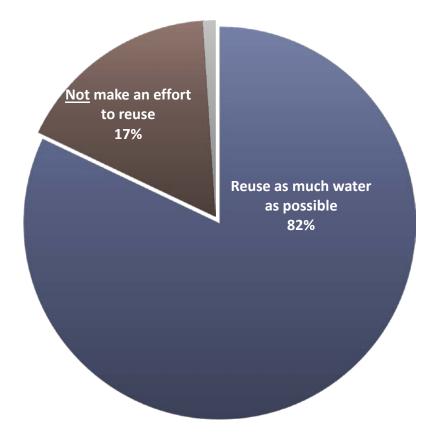


Reclaimed Water

King County Use of Reclaimed Water

EMC

Now I'd like to ask you about recycled water, also known as reclaimed water. King County collects wastewater from sewers. Some of this water will be sent to a treatment plant that can treat this water to high and strictly regulated standards. This water is called recycled water. Although it is not suitable for drinking, recycled water can be used for a variety of purposes such as irrigation and industry. In general, would you like to see King County reuse as much of this water as possible, or should King County not make an effort to reuse this water? (Q26a)



Objections to Uses of Recycled Water

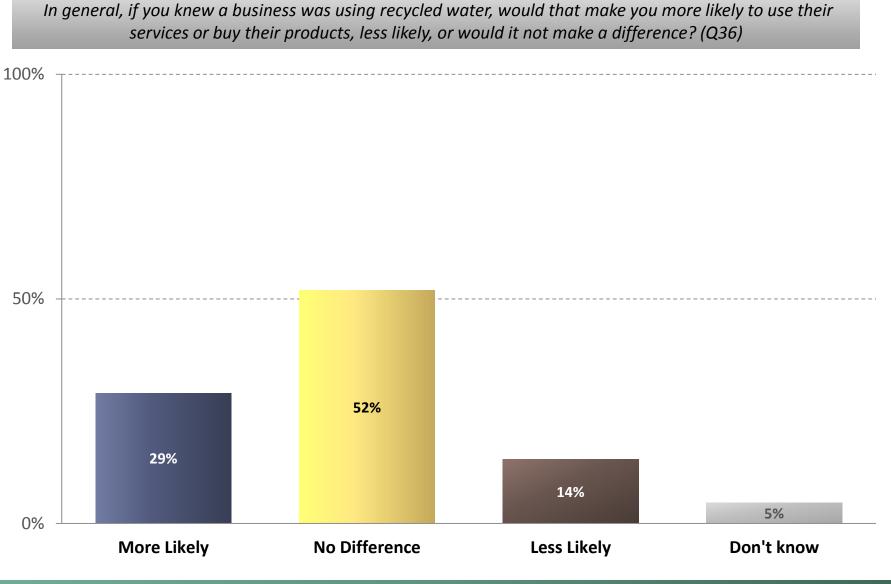
EMC

I'm going to read you a list of possible uses for recycled water. I'd like to know how you feel about these uses. For each one, please tell me if you have no objection, minor objections, or serious objections about that use for recycled water.

| Serious Obje | ection Minor Objection | | n ∎Don't | know No | No Objection | |
|--|------------------------|----------|----------|---------|--------------|--|
| 32. Growing vegetables for sale | 32% | | 32% | 2% | 33% | |
| 35. Put into ground water recharge areas feed streams & rivers | 21% | 25% | 4% | 50% | | |
| 28. Watering recreational fields at schools children use | 19% | 28% | | 51% | | |
| 31. Watering your own yard | 11% 169 | % 3% | 70% | | | |
| 29. Watering fields at community centers, & parks | 9% 2 | 5% | 66% | | | |
| 27. At a nursery to water plants people buy & use in lanscaping | 7% 17% | | 75% | | | |
| 30. Watering golf courses | 5% 10% | _ | 84% | | | |
| 33. Municipal services like street cleaning | 4% 9% | 86% | | | | |
| 34. Industrial processes such as making concrete, heating, & cooling | 3% 9% | % 9% 86% | | | | |

Patronage of Businesses Using Reclaimed Water

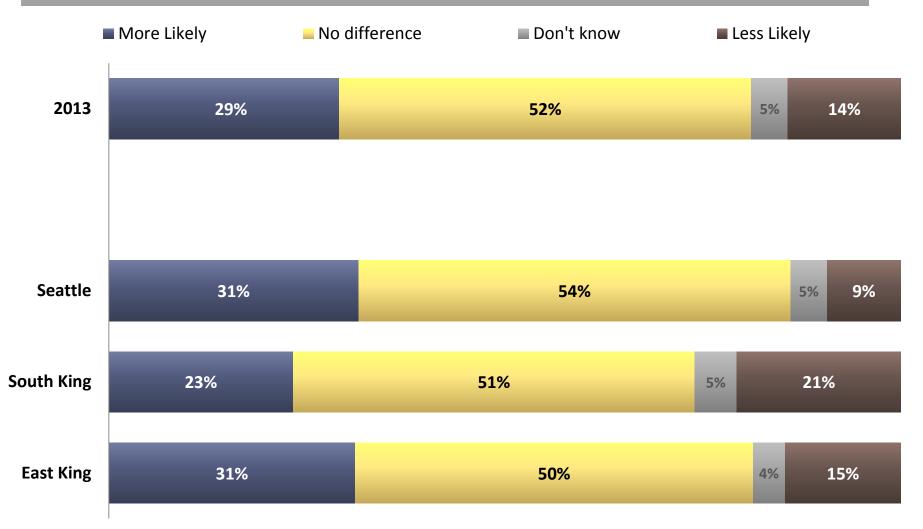




Patronage of Businesses Using Reclaimed Water

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In general, if you knew a business was using recycled water, would that make you more likely to use their services or buy their products, less likely, or would it not make a difference? (Q36)

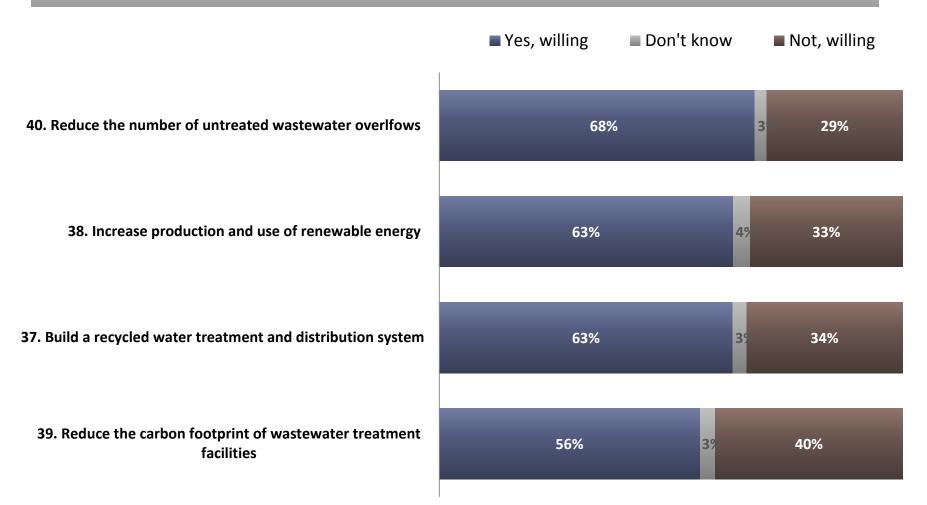


Support for Increased Funding

\$1 more per/month for Increased Services



There are a number of things King County Waste Water can do to reduce its impact on the environment. For each of the following, please tell me if you would be willing to pay \$**1 per month** more on your sewer bill to help fund that effort.



Demographics

Survey Demographics



