



MARKET
& OPINION
RESEARCH
SERVICES

King County Department of Natural Resources Water Quality Survey November 2017

Methodology

- ▶ Hybrid telephone and web survey of 505 registered voters in King County, WA
 - Past versions of this research were done with a telephone only methodology. This year, a hybrid approach was chosen in an effort to continue to reach a representative sample of voters while maintaining the ability to track results in future studies as email research becomes more ubiquitous.
- ▶ Conducted October 30 – November 12, 2017
- ▶ Margin of Error: 4.4 percentage points at the 95% confidence interval
- ▶ Weighted to reflect all registered voter population using key demographics
- ▶ Where applicable, results compared to previous surveys conducted:

June 10-13, 2013 n=400; MoE \pm 4.9 pts EMC #13-4895	October 2-5, 2011 n=400, MoE \pm 4.9 pts EMC #11-4503	August 2-5, 2009 N=401, MoE \pm 4.9 pts EMC #09-4111	December 18-20, 2007 n=400; MoE \pm 4.9 EMC #07-3789
December 3-5, 2006 n=400; MoE \pm 4.9 EMC #06-3621	December 14-18, 2005 n=400; MoE \pm 4.9 EMC #05-3389	December 19-21, 2004 n=401; MoE +4.9 EMC #04-3111	

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

Key Findings

King County's positive ratings for the job providing wastewater treatment services has declined from 2015.

A plurality (43%) of residents give a positive overall job rating for providing wastewater treatment services - down from 55% in 2015. However this rating improves by more than 17 points (to 60% positive) when residents hear basic information about King County Wastewater Treatment Division's service area, scope, and mission. Residents give King County a net positive rating on all 6 primary water treatment related responsibilities with the exception of "operating wastewater treatment facilities" where respondents are divided.

Awareness of King County wastewater services is at an all time high, however resident recall is dominated by recent negative news stories around the West Point Treatment Plant failure.

2-in-5 (40%) residents recall seeing or hearing something about the topic of wastewater services recently. Of those saying they have seen or heard something, "West Point Plant failure" and "Run-off/Sewage overflows/System failures" are the top mentions.

More than half (53%) of residents are not sure if the fees property owners pay for sewage collection and wastewater treatment are a good value. Of those that have an opinion on the value of these services, opinion is divided. Those saying "good value" has been steadily declining since 2013.

Intensity of importance has increased for the list of things King County is doing to protect water quality across the region.

Residents now give the highest importance to "reducing the amount of untreated wastewater and stormwater overflowing into Puget Sound, Lake Union, and Lake Washington (54% "Extremely Important)", closely followed by "maintaining aging infrastructure and investing in existing facilities to protect against large system failures (47% "Extremely Important)" and "monitoring water quality levels to track environmental health, spot problems, and identify ways to fix them (46%; Extremely Important)" when asked about the things King County could do to help protect water quality across the region.

Key Findings

Most residents strongly support King County's plans to invest in the reduction of combined sewage overflows (CSO)

An overwhelming majority (81%) favor the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows, with almost half (49%) saying they "strongly favor" the plans. Support for CSO reduction remains high at 74% even after learning about the associated costs to King County property owners and further holds at 65% favor after learning information in opposition.

The overwhelming majorities continue to favor using recycled biosolids and recycled/reclaimed water.

When informed about the use of recycled biosolids, most (87%) residents say they favor the recycling of biosolids. Only 4% oppose recycling of biosolids. All uses tested for recycled biosolids are supported by the majority of respondents, but opposition is highest for uses in growing vegetables.

Similarly, 89% of respondents support King County using as much reclaimed water as possible with only 9% saying King County should not make an effort to reuse. Top concerns continue to be about the use of reclaimed water in growing vegetables for sale.

A strong majority (62%) of respondents say they have used a compost or soil amendment product. Of the respondents having used a product, Cedar Grove and Zoo Doo have the highest overall awareness.

Less than half (40%) of respondents say they would be more likely to patronize a business or purchase a product if reclaimed water had been used with the plurality (43%) saying it would not make a difference. Only 7% say it would make them less likely.



Environmental Issues

Most Important Environmental Issue

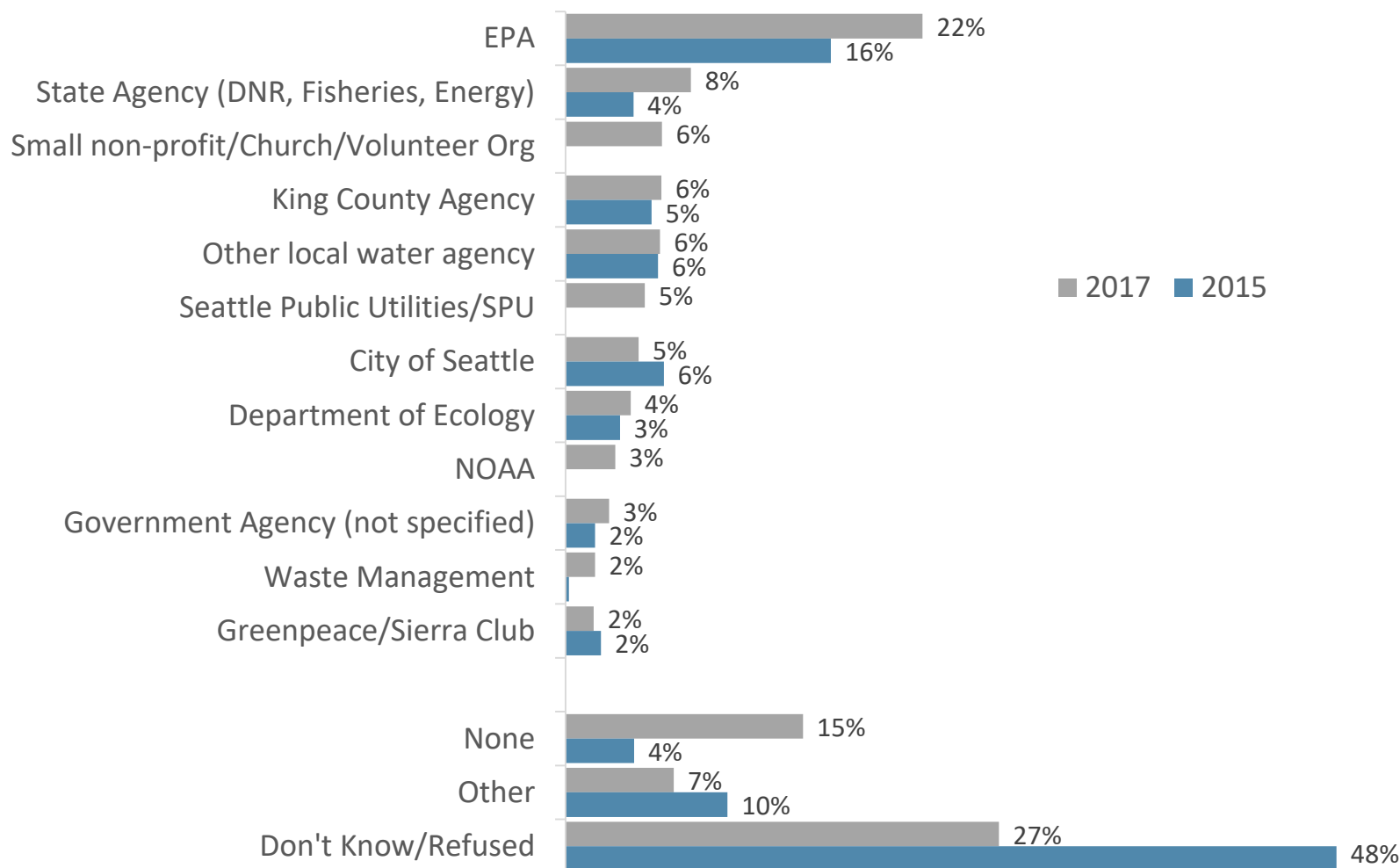
Climate change/global warming remain the top mention as the most important environmental issue facing our region today. Combining categories of water pollution/quality and storm water runoff/management would tie (16%) for the top environmental issue.

	Most Important Environmental Issue	2015	2017	+/- Change
	Climate Change/Global Warming/Ozone	22%	16%	-6%
	Traffic/Mass Transit	13%	15%	+2%
	Water pollution/quality	11%	12%	+1%
	Growth/population growth	3%	6%	+4%
	Air pollution	5%	6%	+0%
	Homeless/Litter/Spread disease	-	5%	+5%
	Deforestation/Conservation of Habitat	1%	4%	+3%
	Pollution General	5%	4%	-0%
	Carbon emissions	2%	4%	+2%
	Storm water/surface water run off/management	-	4%	+4%
	Political/Government/Economy	1%	3%	+2%
	Salmon/Salmon Conservation	1%	2%	+2%
	Drought	5%	-	-5%
	None	1%	2%	+1%
	Other	15%	7%	-7%
	Don't Know/Refused	16%	8%	-8%

Q3. What do you think is the most important environmental issue facing our region today?

Agencies Working to Improve Water Quality

*A quarter of residents cannot mention an agency or organization working to improve water quality in our region.
The Environmental Protection Agency (EPA) is still the top overall mention.*



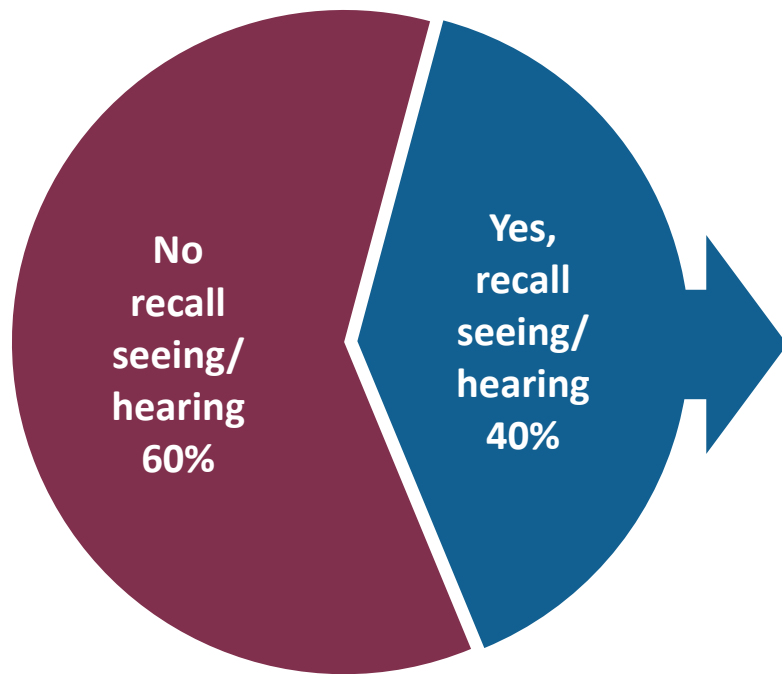
Q4. When you think of government agencies or private sector organizations that are working to improve water quality in our region, which agencies or organizations come to mind? **(Multi-Responses)**



Awareness of Wastewater Services

Awareness of Wastewater Services

2-in-5 residents say they have heard something about the topic of wastewater services lately. Of those that have heard of the topic, most mention the West Point Plant failure or run-off/sewage overflows.



What did you see or hear? (n=211; MoE ±6.75%)	%
West Point Plant failure/Overflow	54%
Run-off/Sewage Overflows	48%
Contaminated Water General	7%
Received a flyer with information/Saw news story (general)	7%
Habitat Damage/Salmon	4%
Construction related concerns	4%
Recycling waste water	1%
Expensive project/Budget issues	1%
Conservation importance/water shortage concerns	1%
It's a good thing/General positive responses	0%

Where did you see or hear? (n=211; MoE ±6.75%)	%
In the news	32%
Newspaper	25%
T.V.	20%
Radio	13%
Internet/Online	13%
Friends/Word of mouth	5%
Signs around town	2%
Pamphlet/Flyer in the mail	1%

Q6. Do you recall seeing or hearing anything about the topic of wastewater services lately?

Q7. What did you see or hear? **(Multiple-Response)**

Q8. Where did you see or hear that? **(Multiple-Response)**

Awareness of Wastewater Services/Issues – Trend

Awareness on the topic of wastewater services is at an all time high.

No, have not
seen/heard

71%



66%

71%

78%

60%

Yes, have
seen/heard

29%

34%

29%

22%

40%

2009

2011

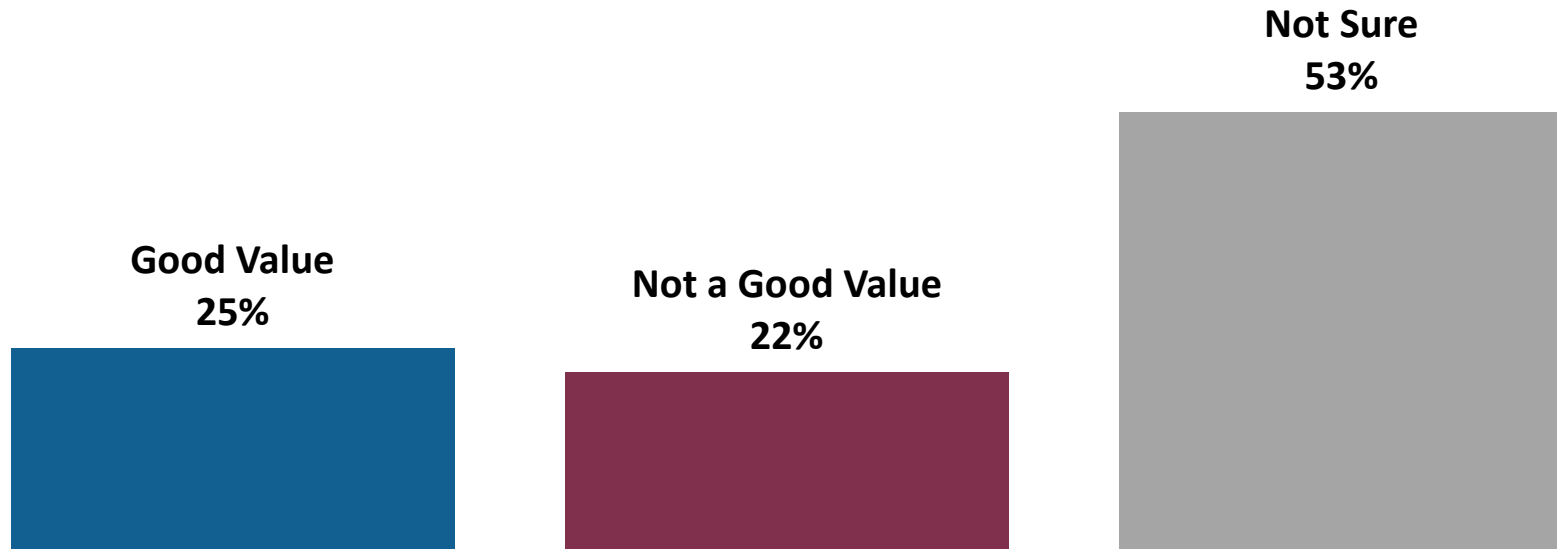
2013

2015

2017

Value of Wastewater Services

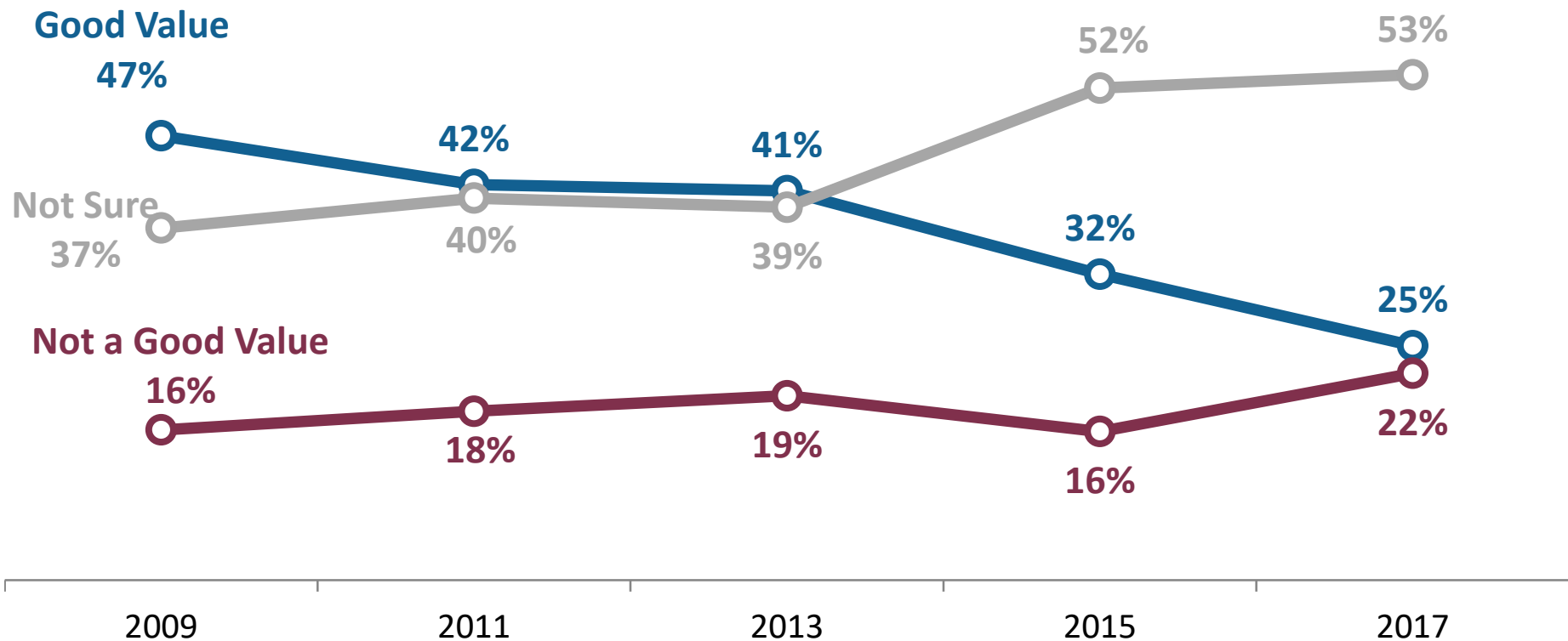
More than half (53%) of residents are not sure if the fees property owners pay for sewage collection and wastewater treatment services in King County are a good value. Of those that do have an opinion on the value of services, opinion is divided on whether is a good value or not.



Q16. In general, do you think the fees property owners pay for sewage collection and wastewater treatment services in King County are a good value, not a good value, or are you not sure? Question language changed from fees “you pay” in 2015 to fees “property owners” pay in 2017.

Value of Wastewater Services – Trend

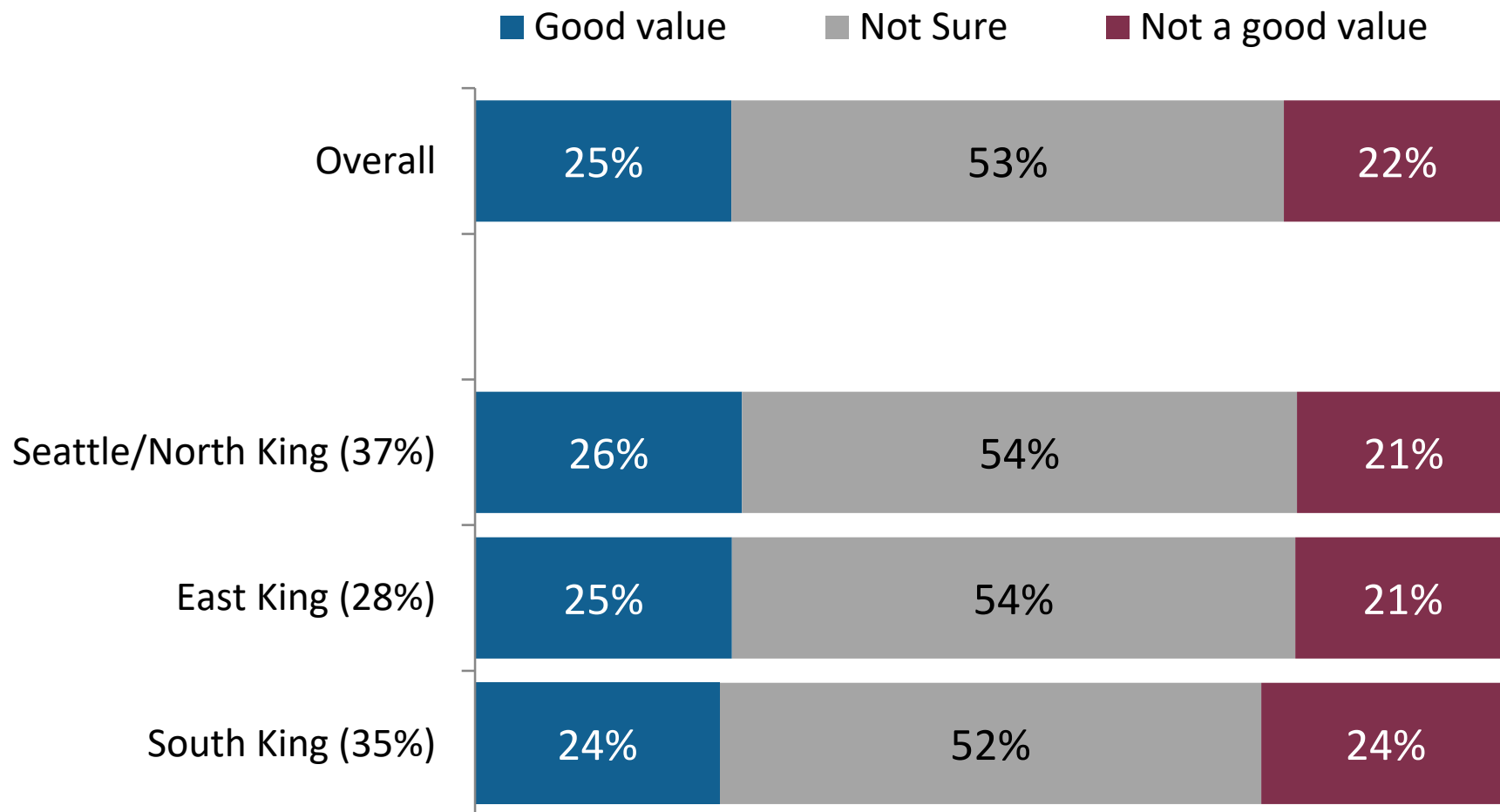
Respondents saying the fees (property owners) pay are a “good value” has decreased steadily since 2009. Currently, only a quarter (25%) of respondents say the fees property owners pay are a “good value”, down 7 points from 2015.



Q16. In general, do you think the fees **property owners** pay for sewage collection and wastewater treatment services in King County are a good value, not a good value, or are you not sure? Question language changed from fees “you pay” in 2015 to fees “property owners” pay in 2017.

Value of Wastewater Services - Region

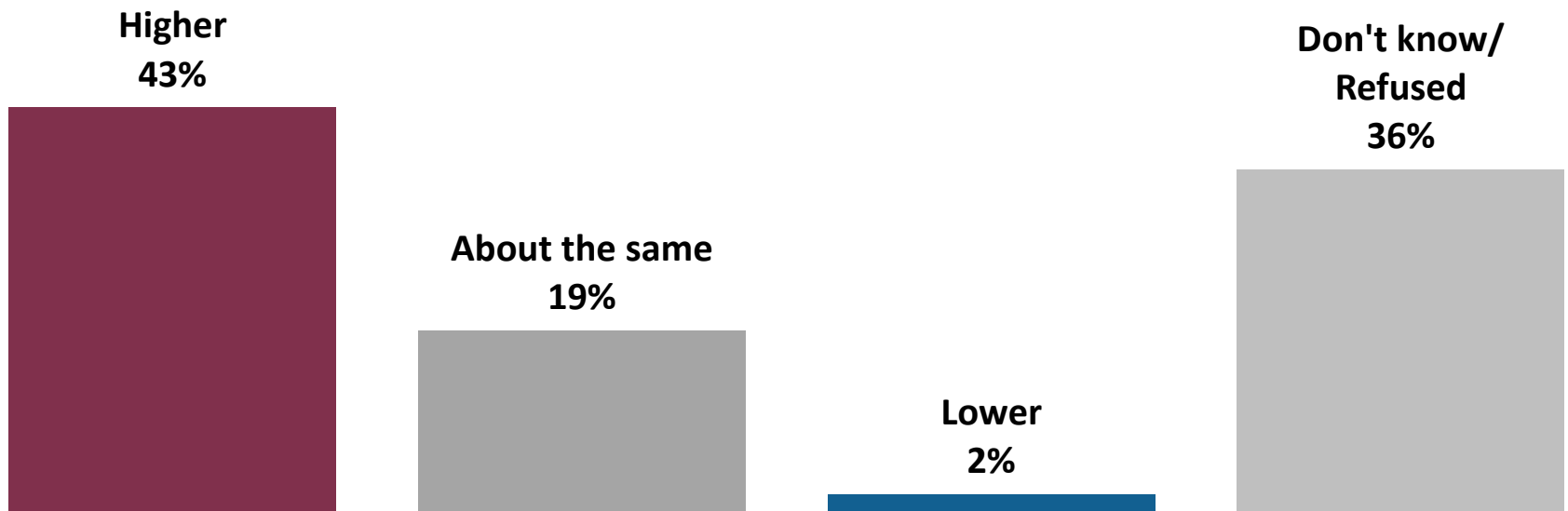
Across all regions, respondents are divided on the value of the fees property owners pay for wastewater treatment services.



Q16. In general, do you think the fees property owners pay for sewage collection and wastewater treatment services in King County are a good value, not a good value, or are you not sure?

Fees for Wastewater Services in King County

A plurality (43%) say the fees property owners pay for sewage collection and wastewater treatment services are higher than what property owners in similar counties pay. Over a third are not sure.



Q17. Do you think the fees property owners pay for sewage collection and wastewater treatment services in King County are higher, lower, or about the same as what property owners in other similar counties pay?



Perception/Job Ratings for WTD

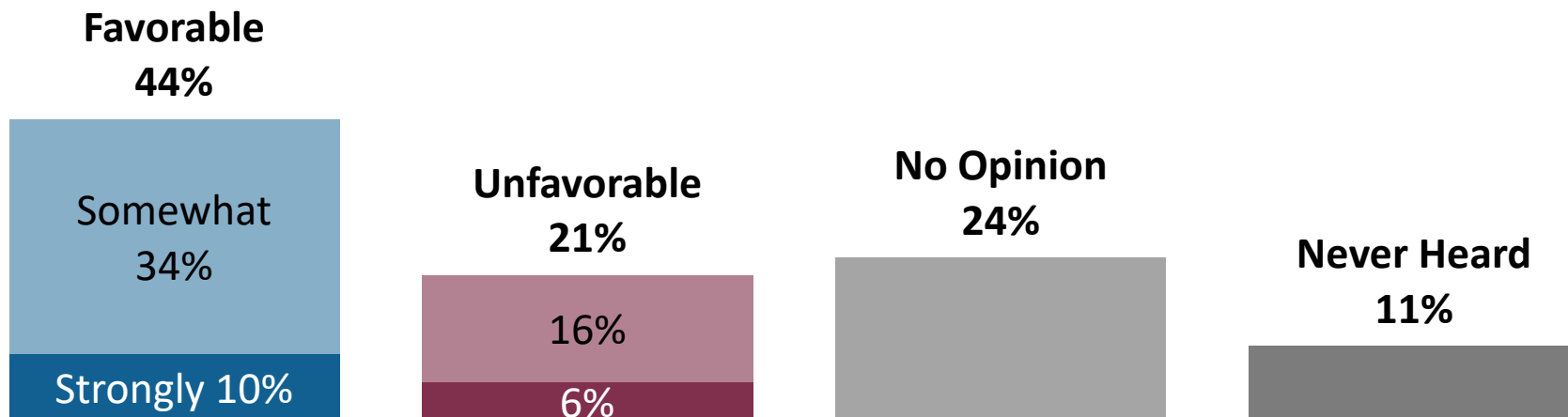
Perception of Wastewater Treatment Division

While the plurality (44%) of respondents have a favorable opinion of King County's Wastewater Treatment Division only 10% have a strongly favorable opinion and only 6% have a strongly unfavorable opinion. This indicates that most respondents do not have a strong opinion of the Division. A third (34%) of have never heard or have no opinion of the Division.

Have awareness of WTD = 89%

Have an opinion of WTD = 65%

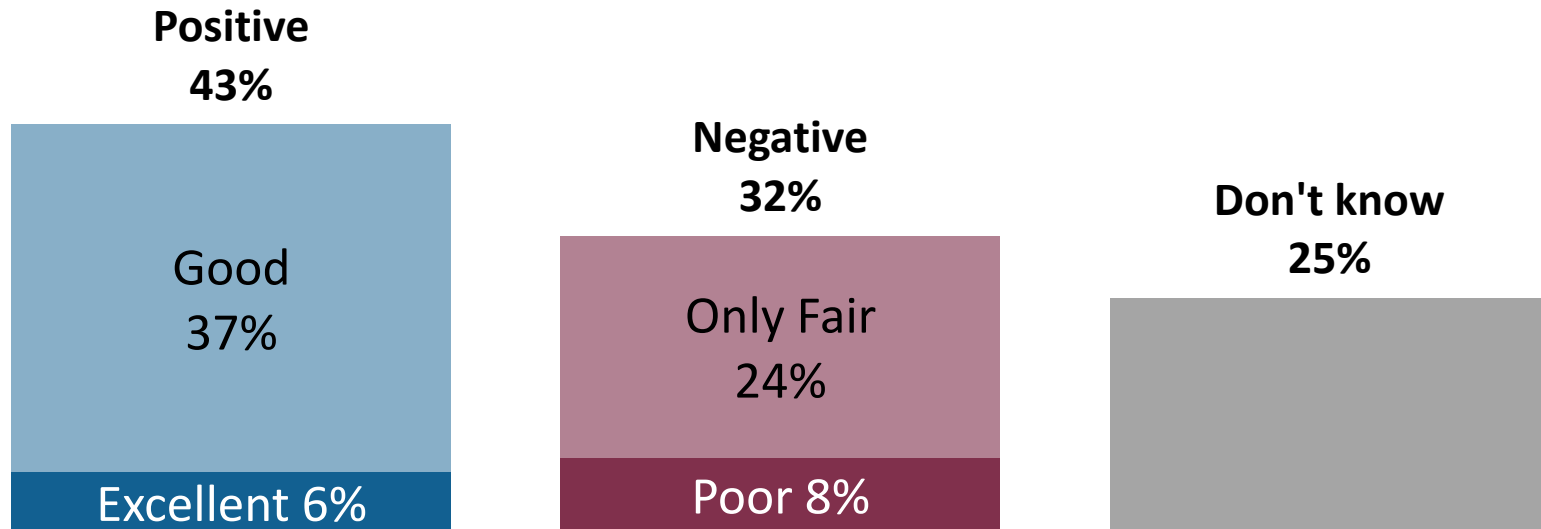
No Opinion + Never Heard of WTD = 35%



Q5. Do you have a strongly favorable, somewhat favorable, somewhat unfavorable or strongly unfavorable opinion of **King County's Wastewater Treatment Division**? ? [If respondent says, "Don't Know": Would you say that you have no opinion of King County's Wastewater Treatment Division, or that you have never heard of King County's Wastewater Treatment Division? *New question for 2017

Job Rating of Wastewater Treatment Division - Initial

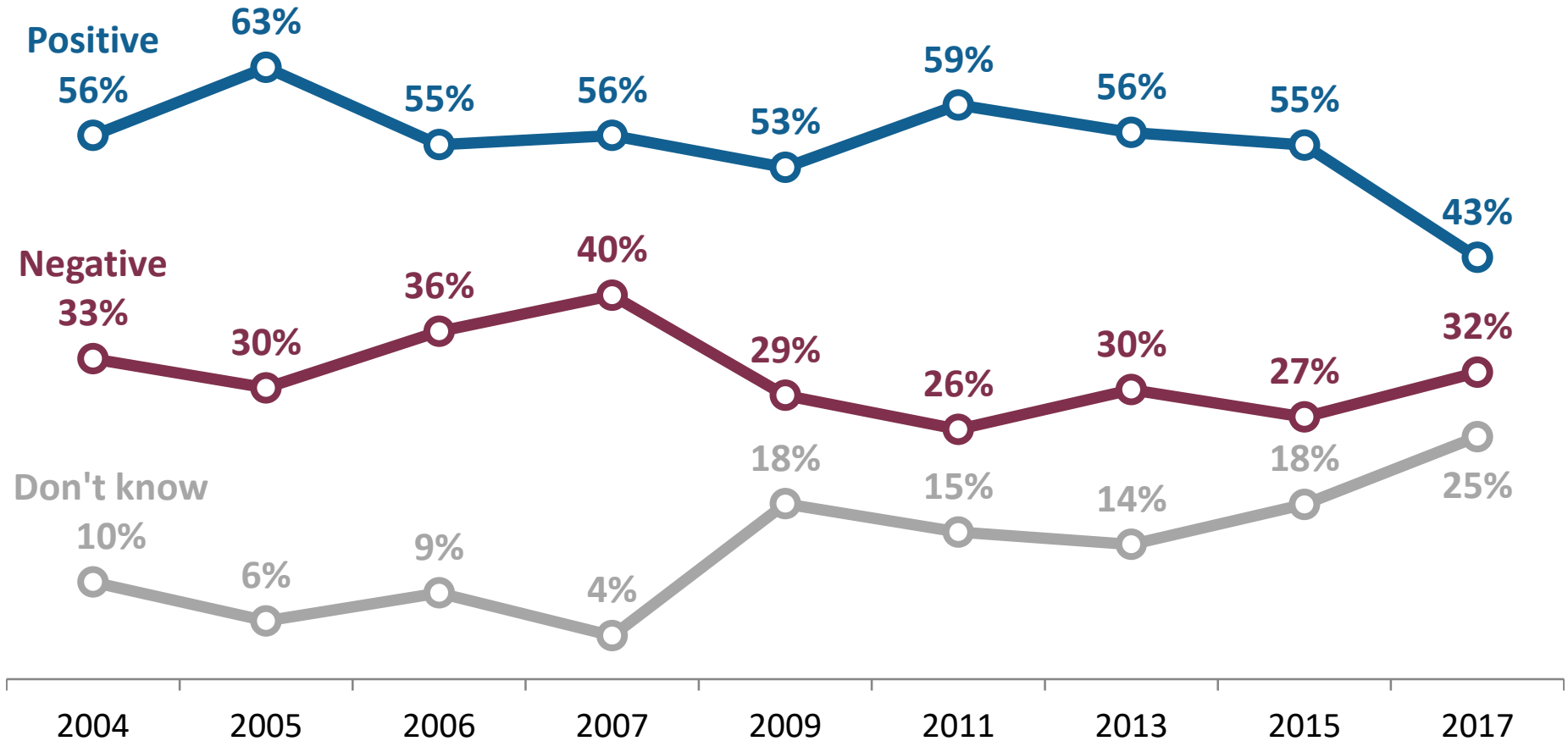
A plurality (43%) of residents give King County positive ratings for the job it is doing providing wastewater treatment services, however with very little intensity (Excellent 6% to Poor 8%). A quarter are not able to provide a rating.



Q9. Using a scale of excellent, good, only fair, and poor, how would you rate the job King County is doing providing wastewater treatment services?

Job Rating – Trend

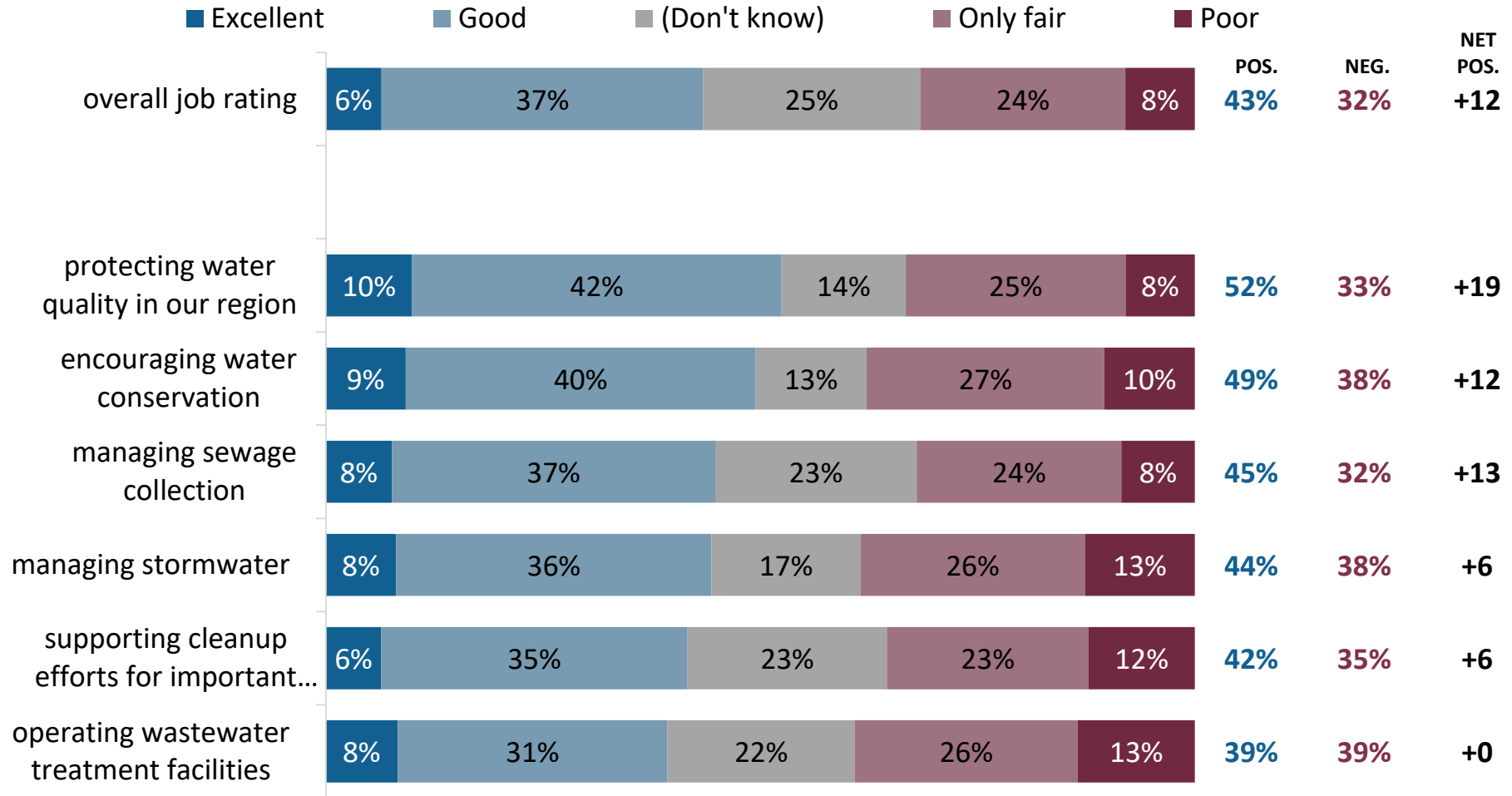
King County's positive rating for providing wastewater treatment services has declined 12 points since 2015, falling to 43% and the negative rating has increased 5 points to 32%. A negative shift of 17 points from 2015.



Q9. Using a scale of excellent, good, only fair, and poor, how would you rate the job King County is doing providing wastewater treatment services?

Job Rating per Responsibility

Respondents gave King County a net positive rating on all responsibilities with the exception of “operating wastewater treatment facilities” where respondents are divided.

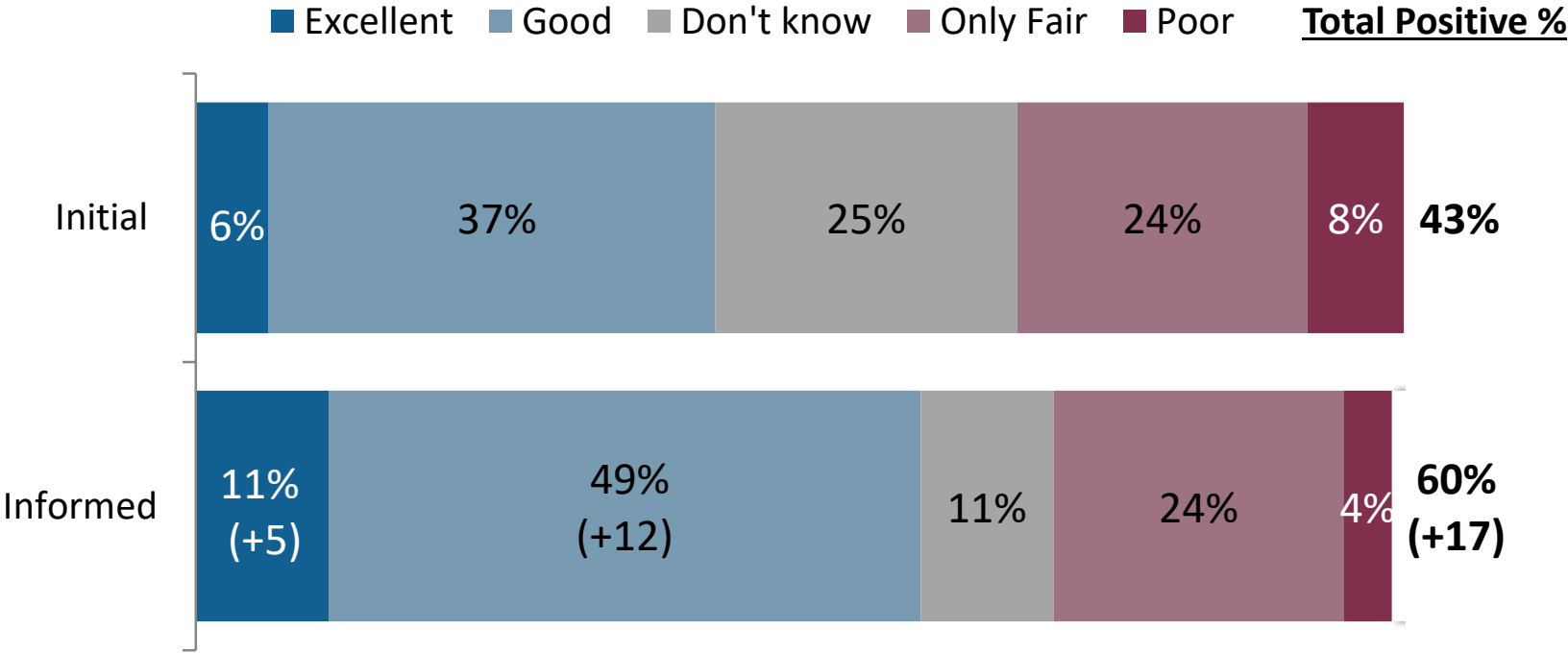


Q10-15. Using a scale of excellent, good, only fair or poor, please rate the job you think King County is doing on each of the following related responsibilities:

Informed Job Rating

The job rating for Wastewater Treatment Division improves by more than 17 points (to 60%; total positive) when residents hear basic information about WTD’s service area and mission.

Full Statement: *The King County Wastewater Treatment Division protects public health and enhances the environment by collecting and treating wastewater for the Puget Sound region. King County’s Wastewater Treatment Division serves 1.6 million residents in 17 cities and 17 local sewer utilities and is an industry leader in recycling water and solids, and generating renewable energy to support sustainable communities.*



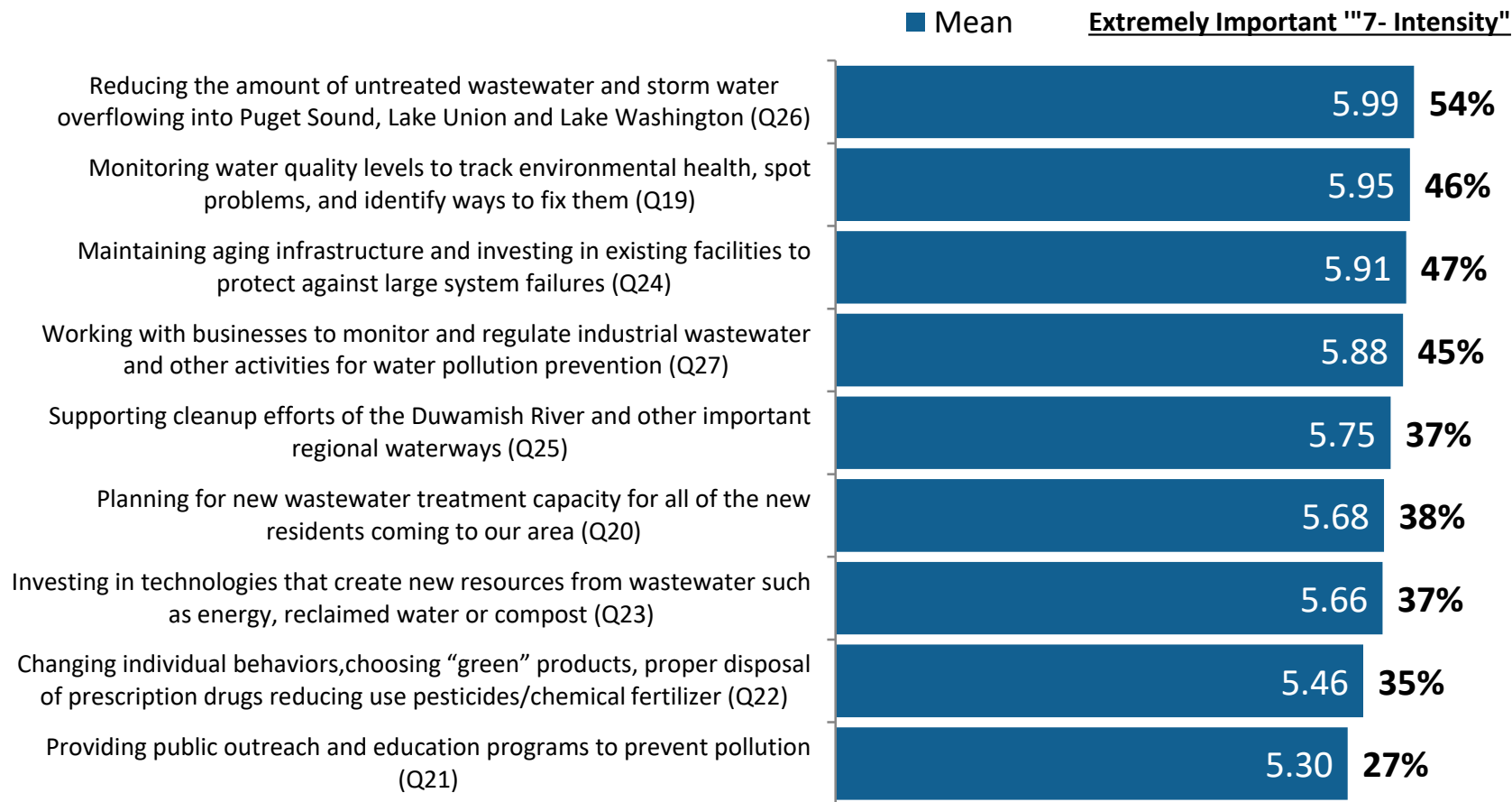
Q19. King County’s Wastewater Treatment Division serves 1.6 million residents in 17 cities and 17 local sewer utilities. Their mission is... Knowing this, how would you rate the job King County is doing providing wastewater treatment services?



Water Quality Priorities

Protecting Water Quality Importance

All of the things King County could do to protect water quality are important to the majorities of respondents, but the items with highest importance are about “reducing the amount of untreated wastewater and storm water overflowing into the Puget Sound, Lake Union and Lake Washington” and “Monitoring water quality levels to track environmental health, spot problems, and identify ways to fix them”.



Q19-27. I’m going to read you some things King County could do to help protect water quality across the region. I’d like you to tell me how important each item is. Use a scale of one to seven, where one is not at all important and seven is extremely important.

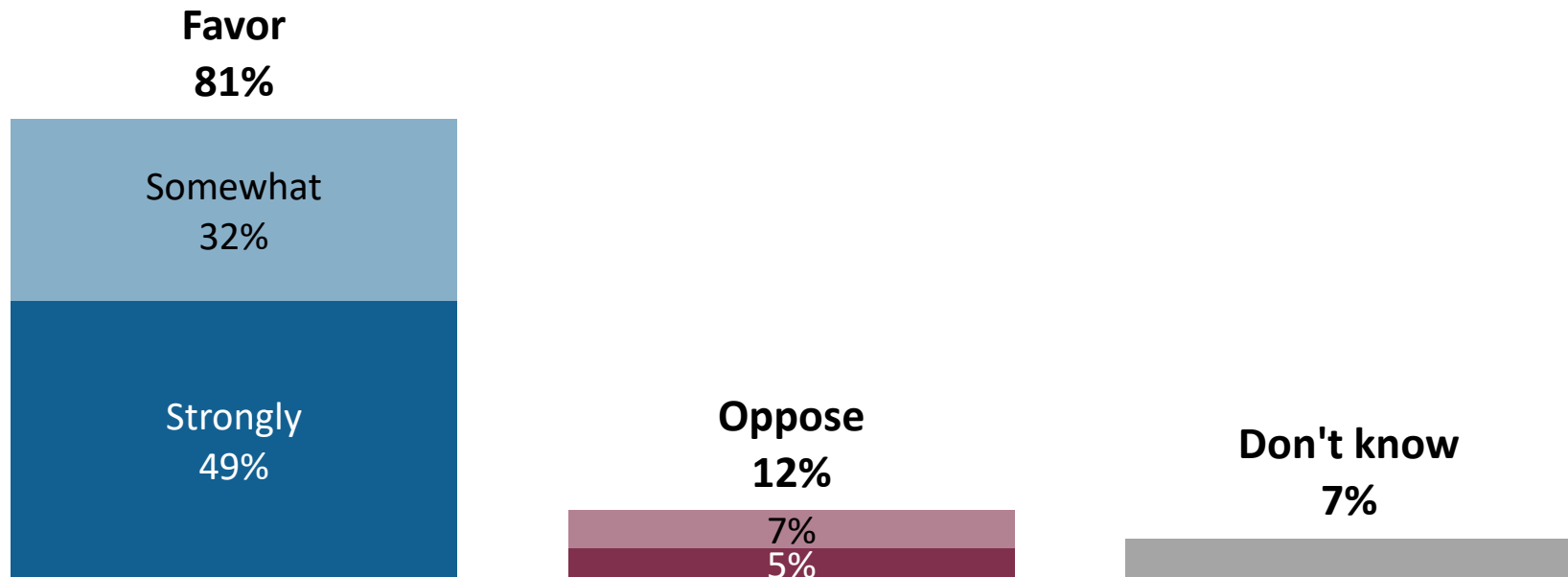


Support for CSO Reduction

Support for CSO Reduction – Initial

An overwhelming majority (81%) of respondents favor the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows, with almost half (49%) saying they "strongly favor" the plans.

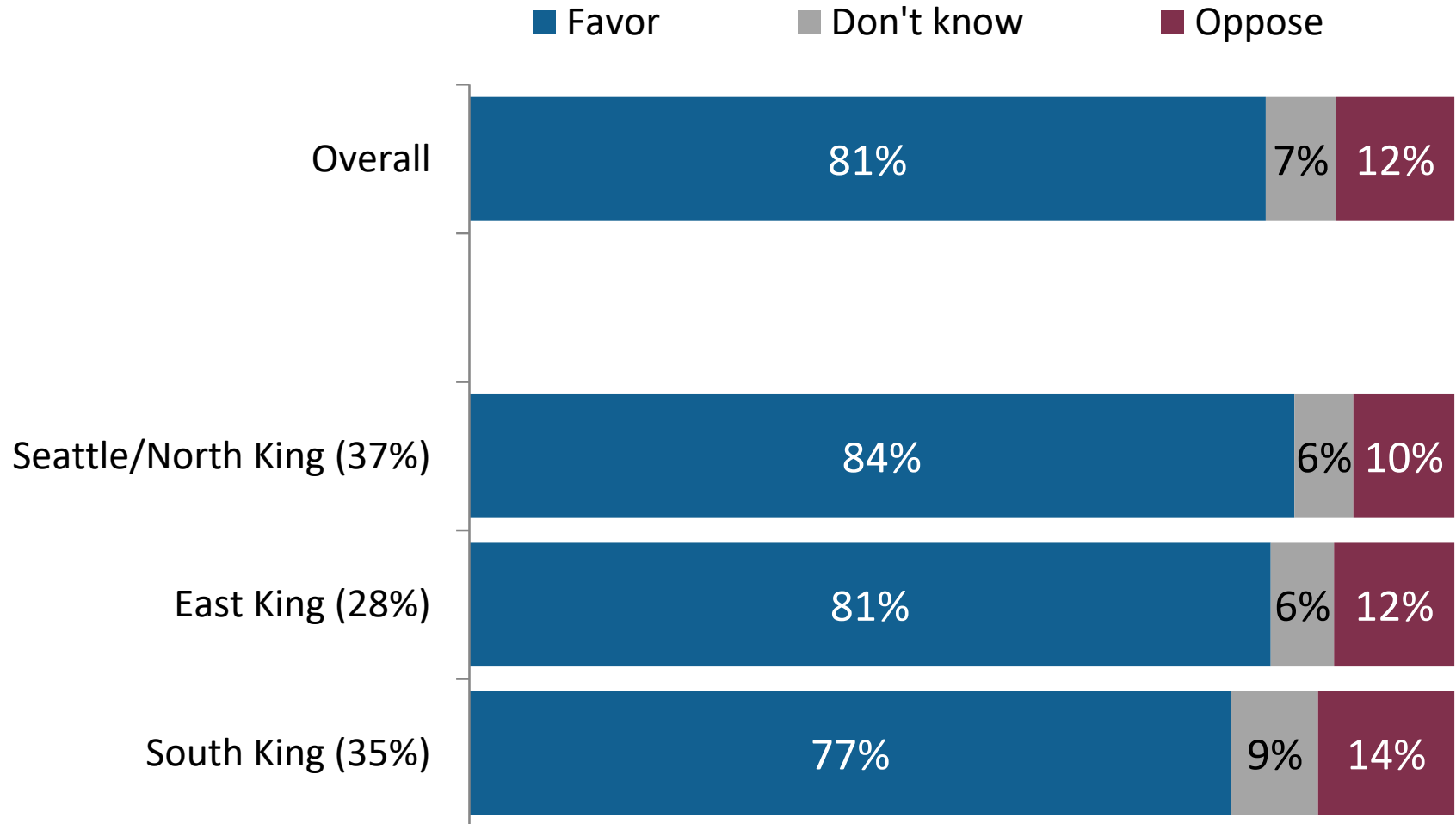
In the oldest parts of the County both storm water and sewage travel through the same pipes. During heavy rains, storm water mixes with a small amount of sewage and both overflow into local waterways like the Puget Sound and Lake Washington. When this happens, it is called a combined sewer overflow, or CSO. Depending on the location, these combined sewer overflows can happen 20-30 times a year. King County plans to prioritize and fund a billion dollars in capital projects over the next 10 years to reduce combined sewage overflows to no more than once a year by 2030.



Q28. In general, do you favor or oppose the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows?

Support for CSO Reduction – By Region

Support is strong for CSO reduction plans across all regions in King County.

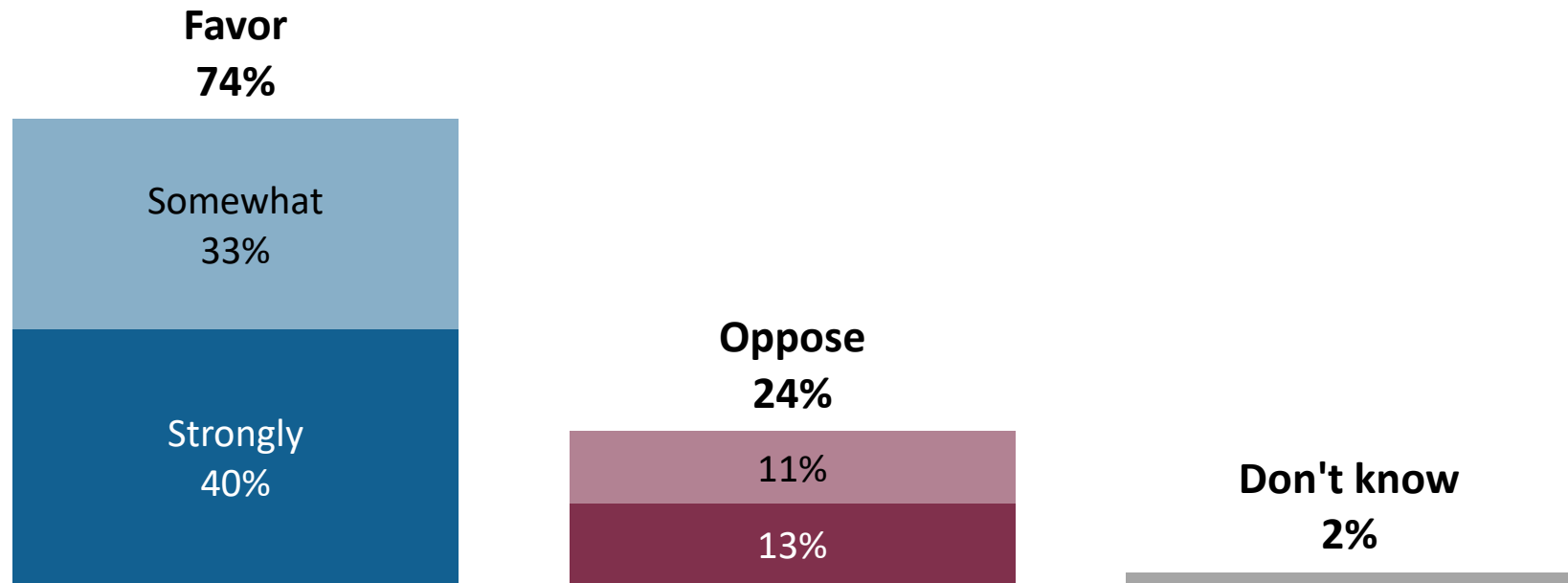


Q28. In general, do you favor or oppose the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows?

Support for CSO Reduction – After Cost

With three quarters (74%) in favor of the plan, support for CSO reduction remains high even after learning about the associated costs to King County property owners.

*Funding projects to reduce combined sewage overflows could raise local sewage rates by **\$5 dollars a month** or **\$60 dollars a year** for the average King County property owner.*

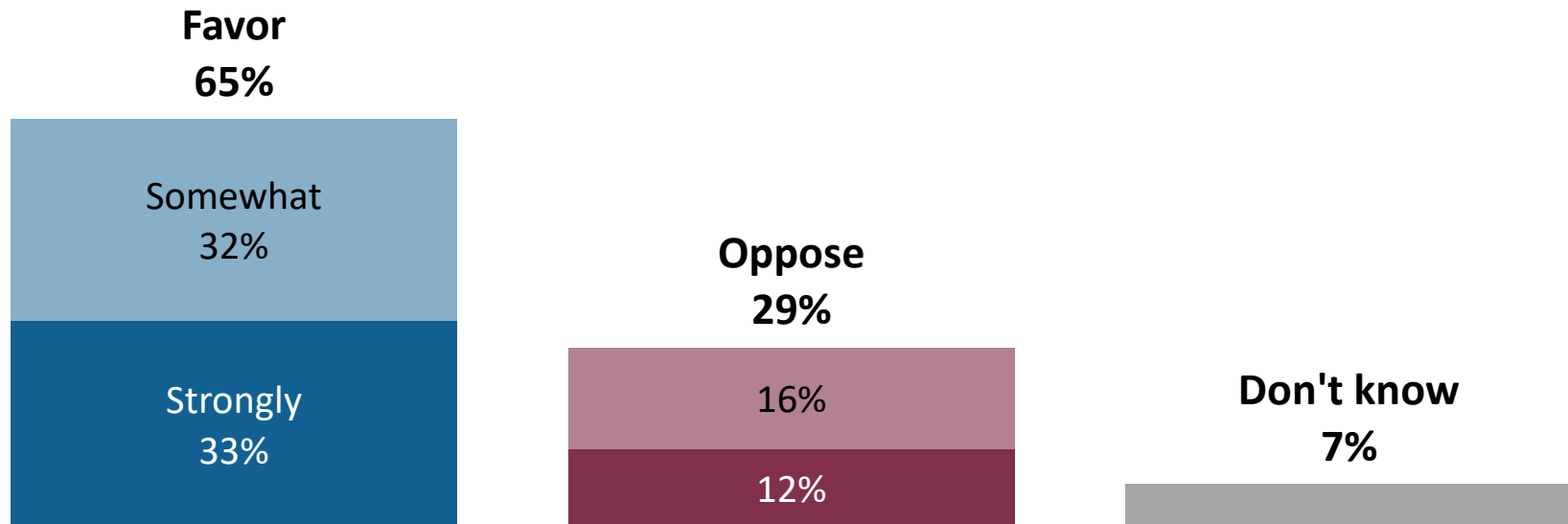


Q29. Knowing this, do you favor or oppose the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows?

Support for Increased Funding – After Negative

After hearing additional information in opposition of the County's plan, support remains in the majority with almost two-thirds (65%) in favor of the plan.

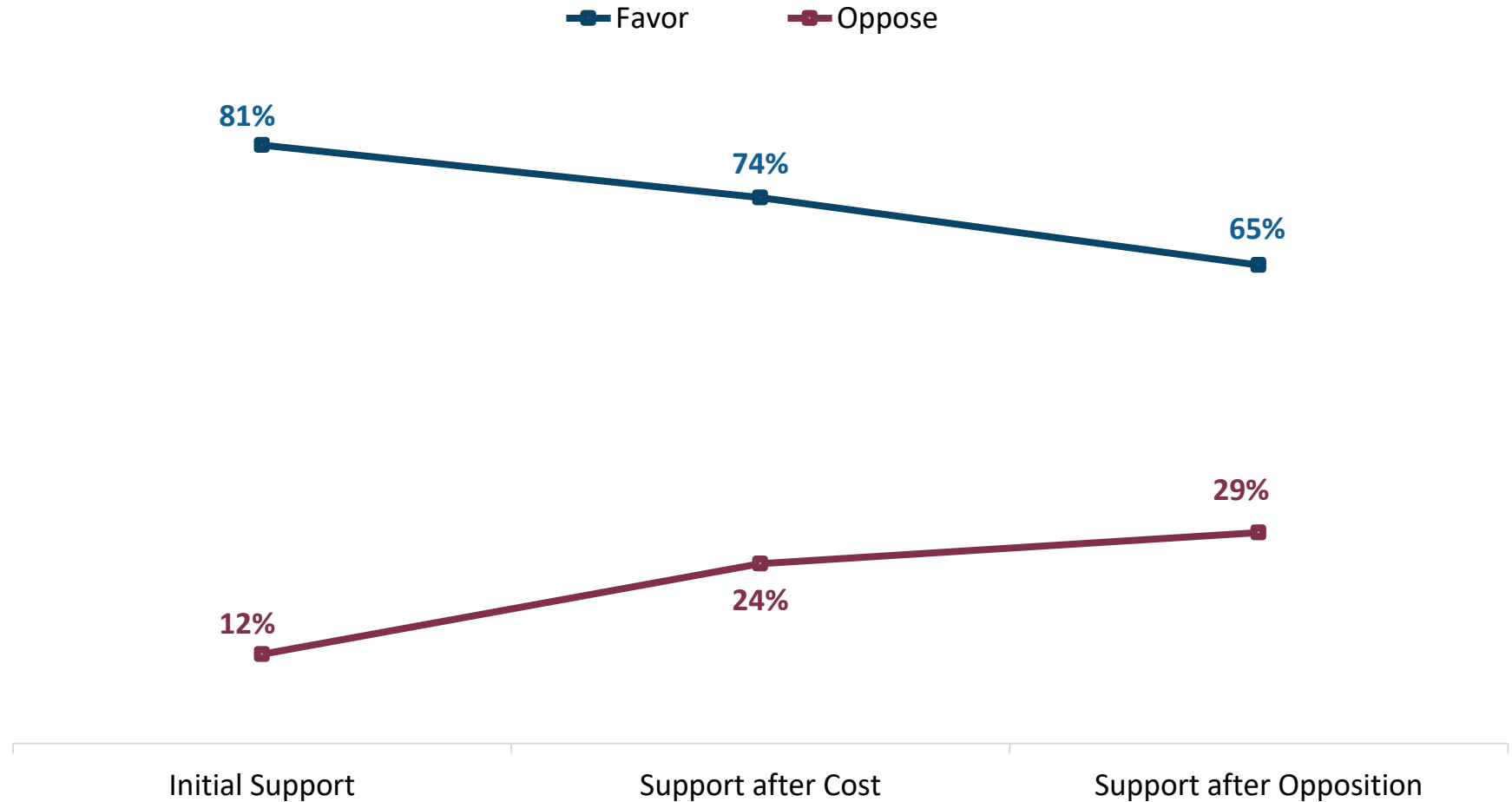
Some argue combined sewage overflow is virtually undetectable after 24 hours and that releasing small amounts of diluted sewage into local waterways during storms does not create any real health hazards for people or wildlife. They say it's not worth raising sewage rates to prevent these overflows.



Q30. Hearing this, would you favor or oppose the County's plans to invest one billion dollars over the next 10 years to reduce combined sewage overflows?

Support for CSO Reduction - Trend

Although support for the County's plan to reduce CSO's decrease when respondents learn of the cost and hear additional information against, almost two-thirds (65%) continue to support the County's plans.



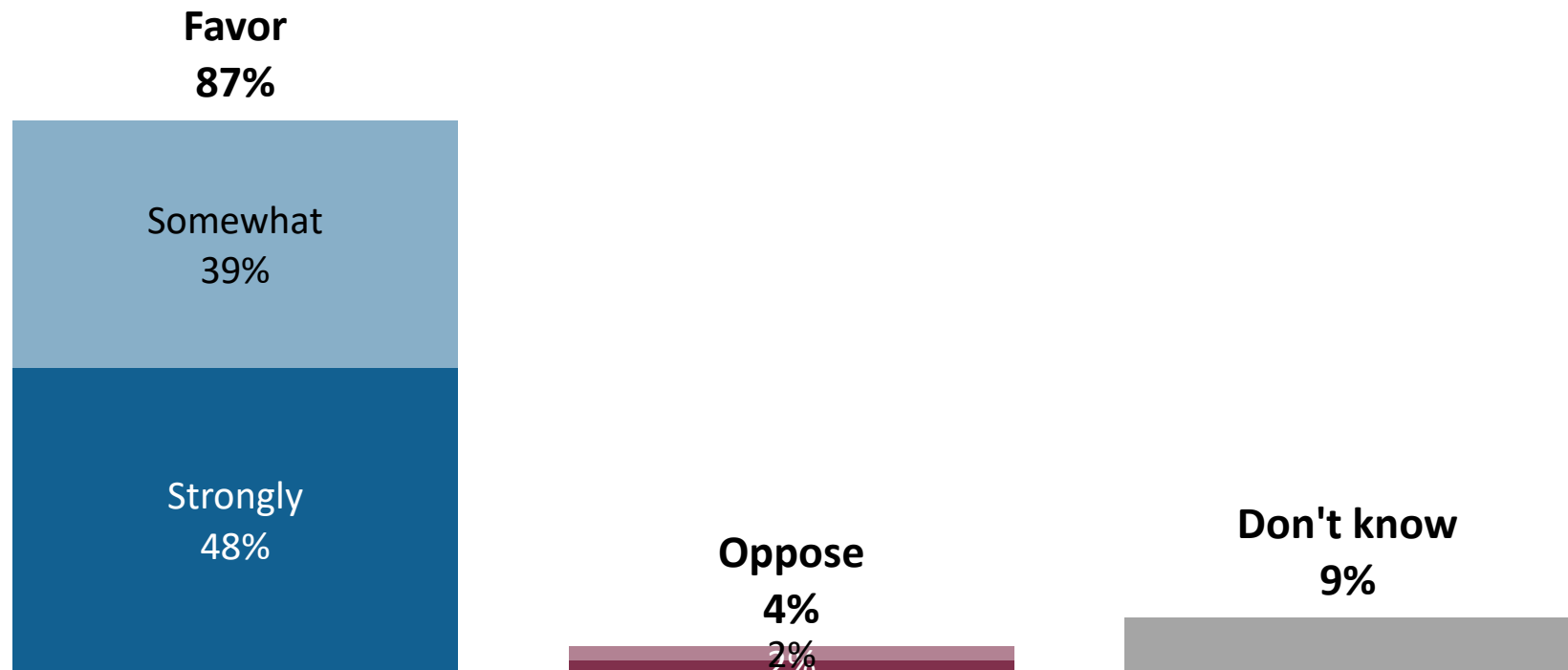


Bio-solids

Support for Biosolids

An overwhelming majority (87%) of respondents favor the recycling of biosolids with almost half (48%) saying they “strongly favor” the recycling of biosolids.

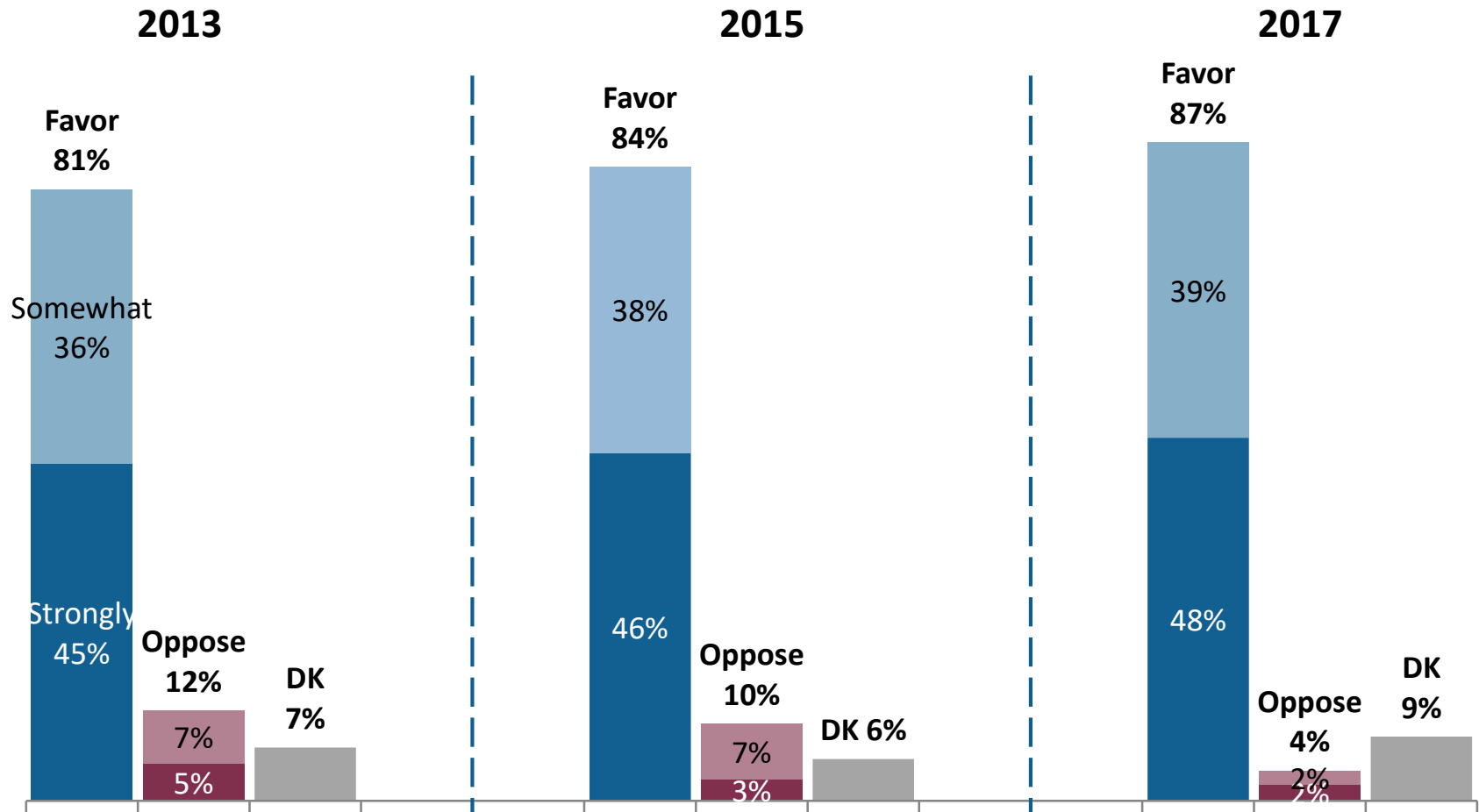
In our area, storm water and sewer water from homes is cleaned at treatment plants. During the process, nutrient-rich, organic solids are recovered and treated to make a product called biosolids. For many years, King County has been safely recycling bio-solids.



Q31. Hearing this, do you strongly favor, somewhat favor, somewhat oppose or strongly oppose the recycling of biosolids?

Support for Biosolids - Trend

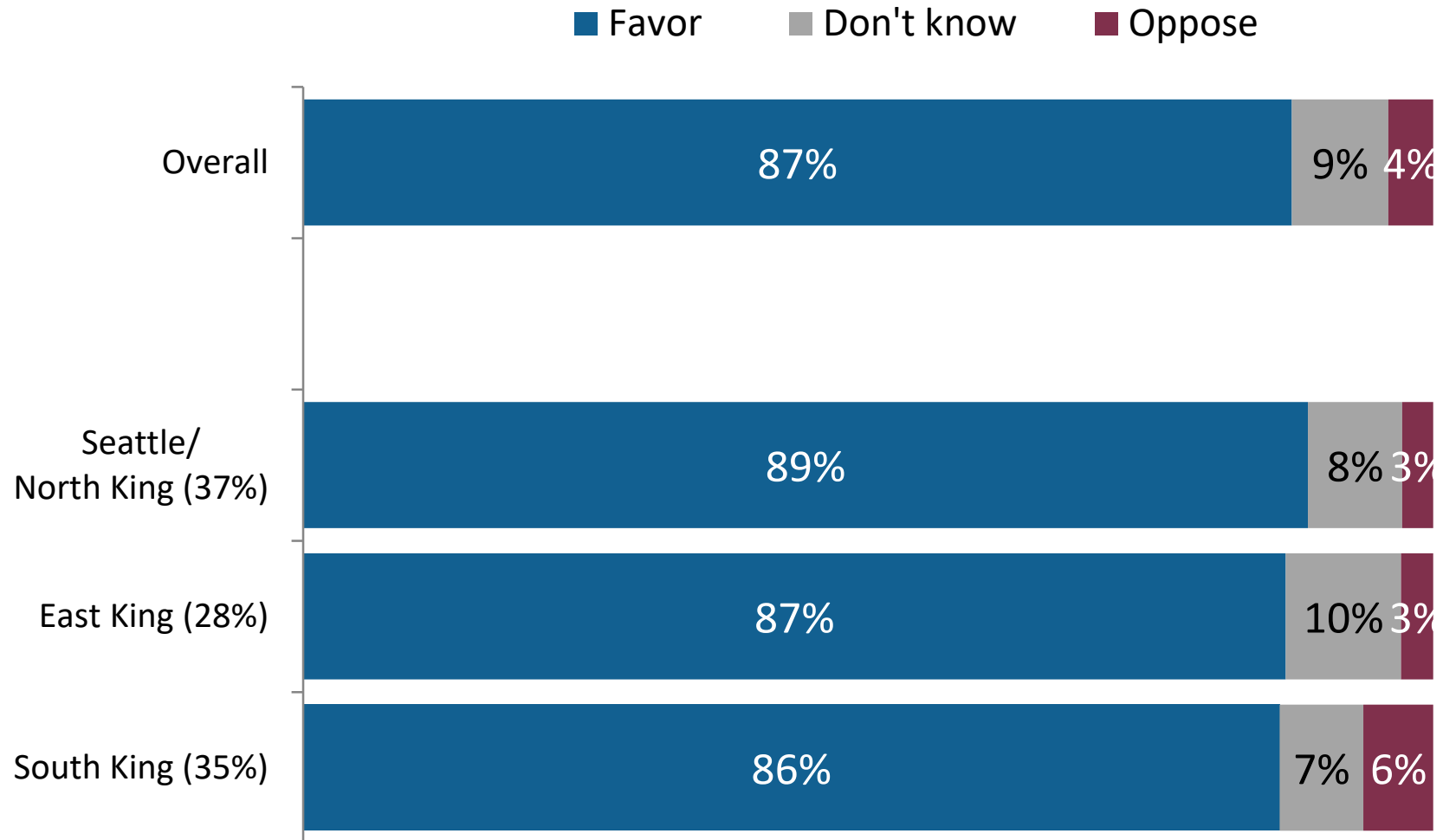
Support for recycling biosolids has remained consistent since 2013.



Q31. Hearing this, do you strongly favor, somewhat favor, somewhat oppose or strongly oppose the recycling of biosolids?

Support for Biosolids - Region

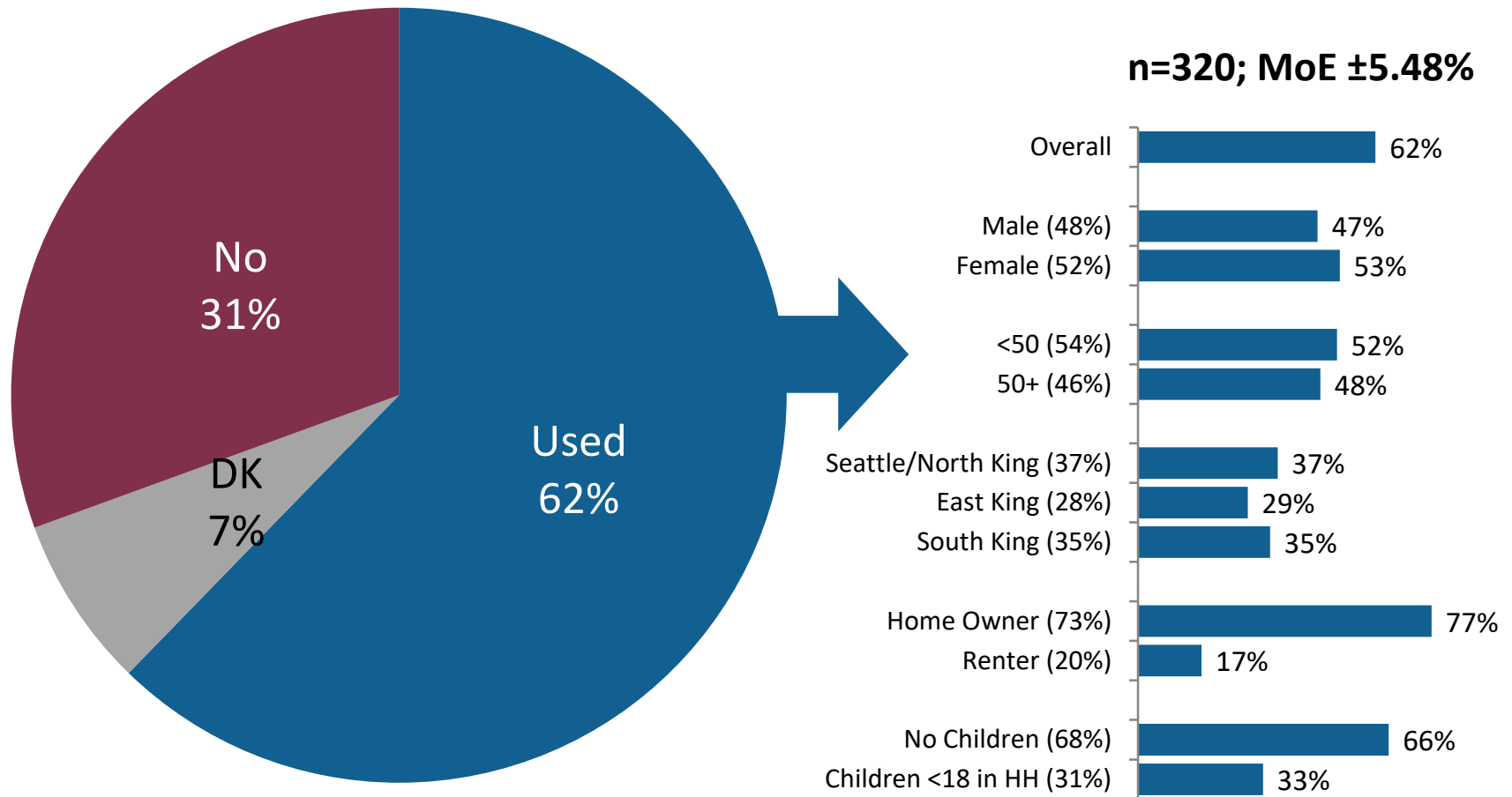
Support for recycling biosolids is consistent across King County.



Q31. Hearing this, do you strongly favor, somewhat favor, somewhat oppose or strongly oppose the recycling of biosolids?

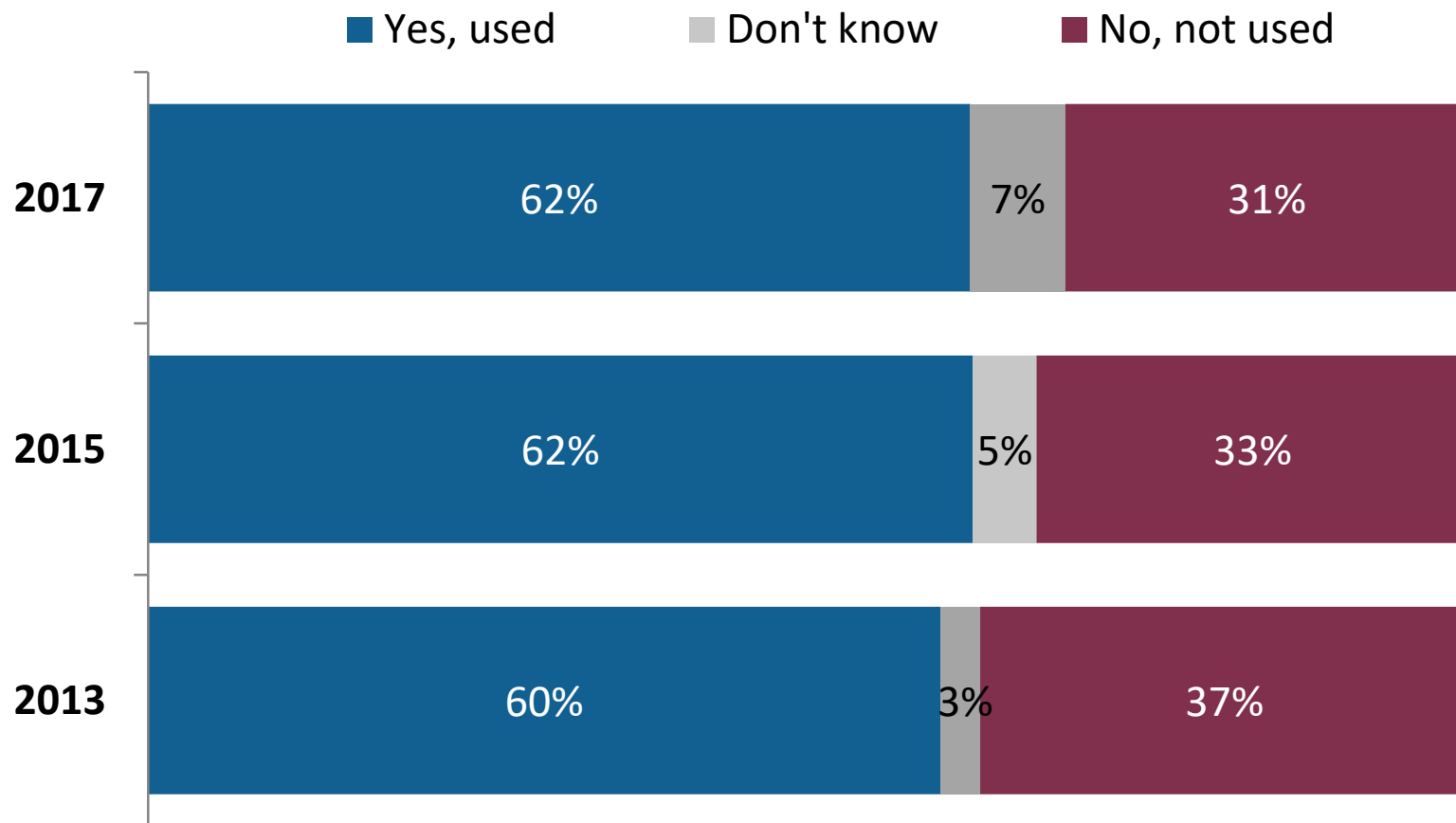
Use of Soil Amendment Products

Six-in-ten (62%) respondents say they have used a compost or soil amendment product. Product users tend to be under 50 years old, female, home owners, and without children <18 in the household.



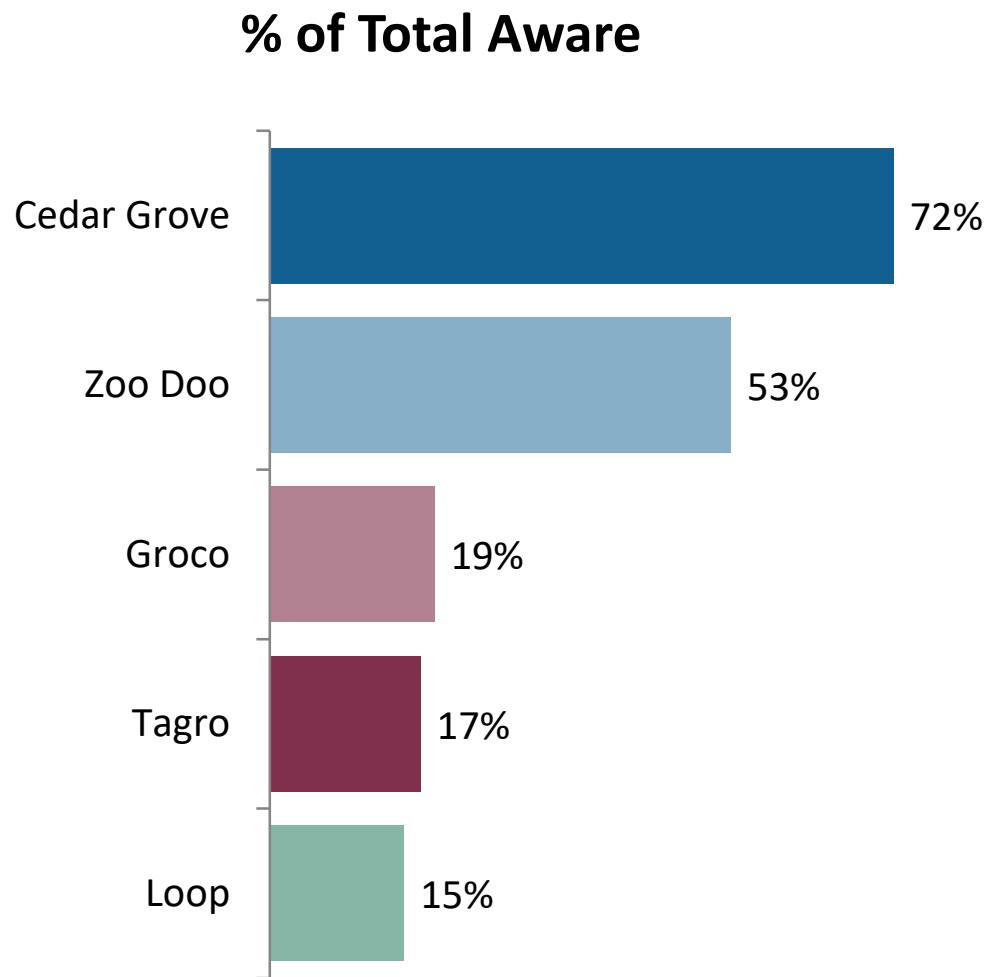
Use of Soil Amendment Products - Trend

Since 2013 use of soil amendment products has remained consistent.



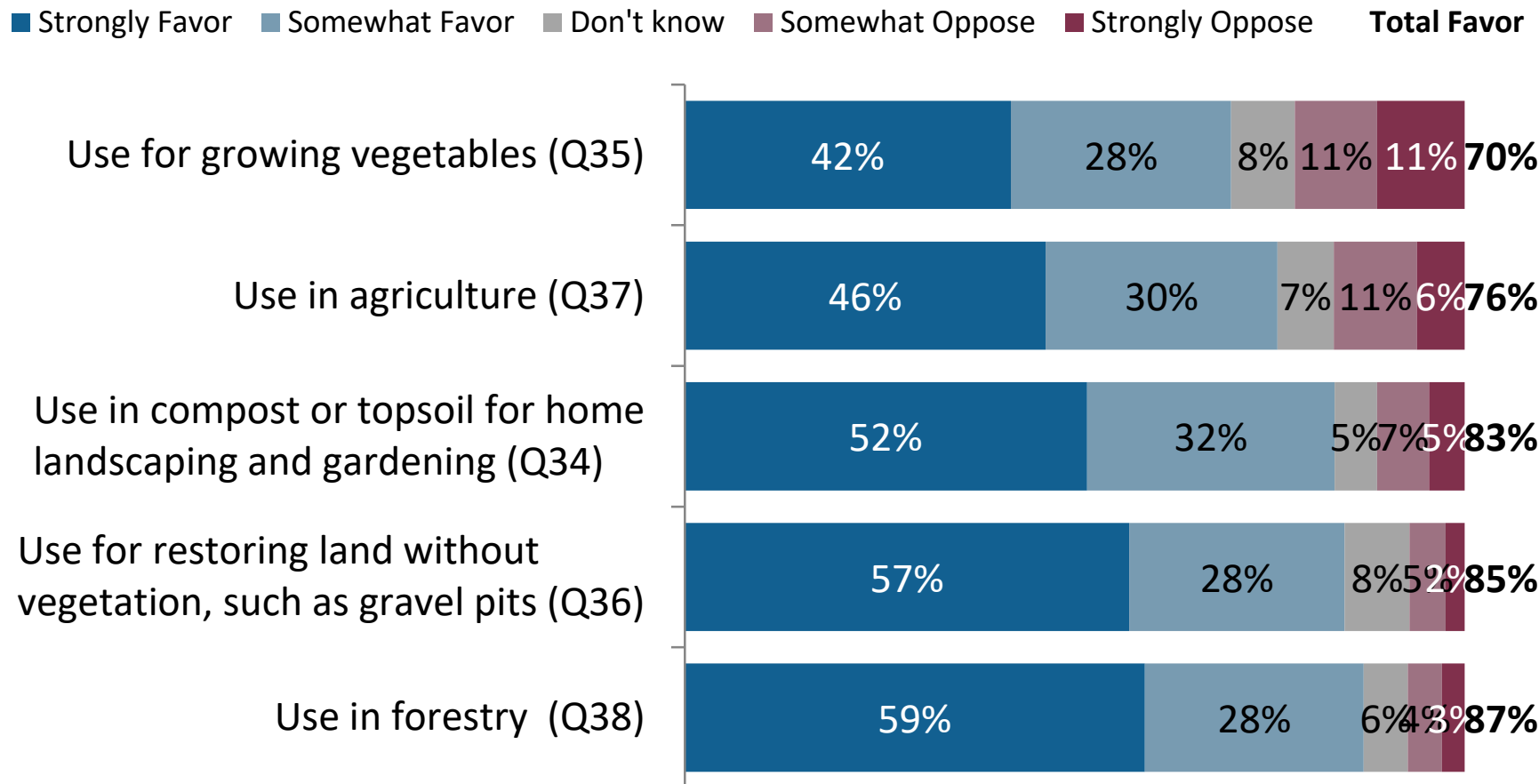
Use or Heard of Specific Products

Among those respondents that have used a soil amendment project, awareness is highest for Cedar Grove (72% aware) and Zoo Doo (53% aware).



Support For Uses of Biosolids

All uses for recycled biosolids are supported by the majority of respondents. Opposition is highest for uses in “growing vegetables” and “in agriculture”.



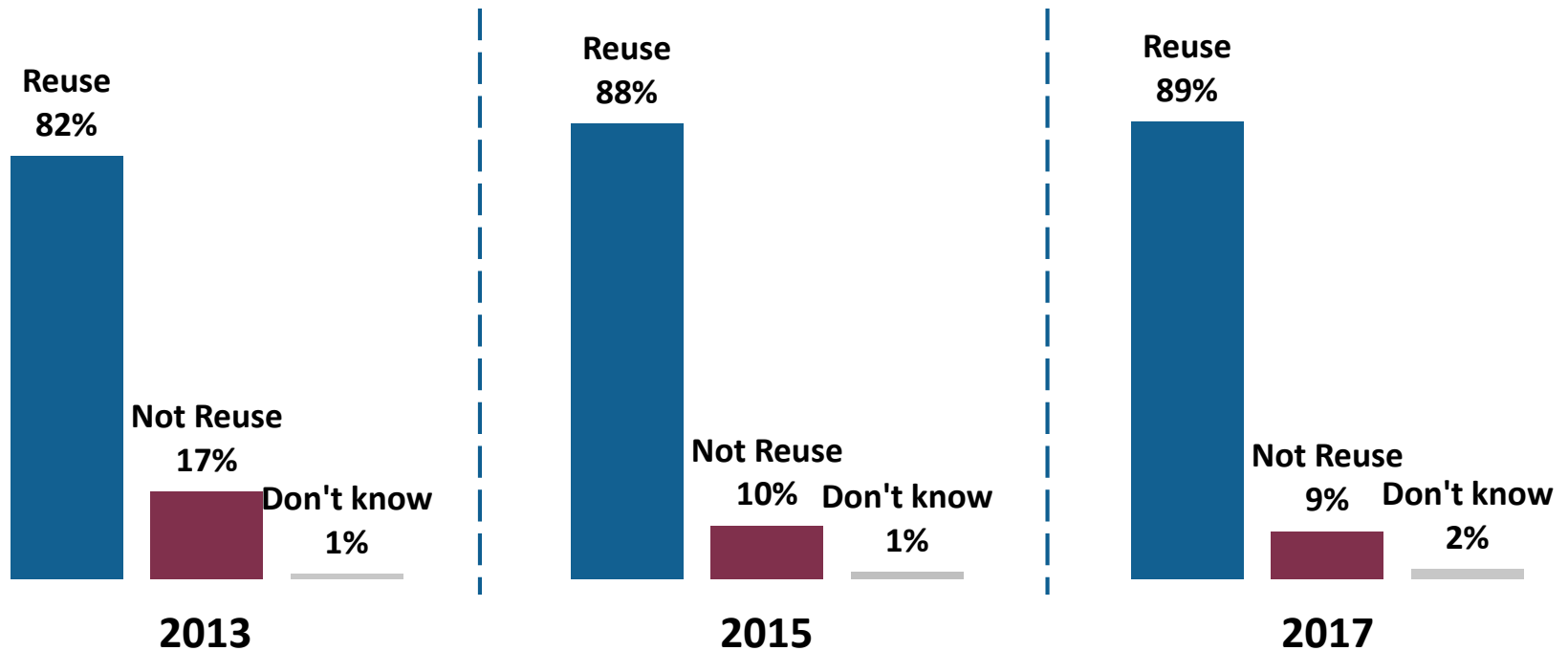
Q34-38. I'm going to read you a list of possible uses for recycled biosolids. Please tell me if you would strongly favor, somewhat favor, somewhat oppose or strongly oppose the use of recycled biosolids for each of the following purposes:

Recycled Water

Use of Recycled Water

Support for re-use of water by King County has remained steady since 2015.

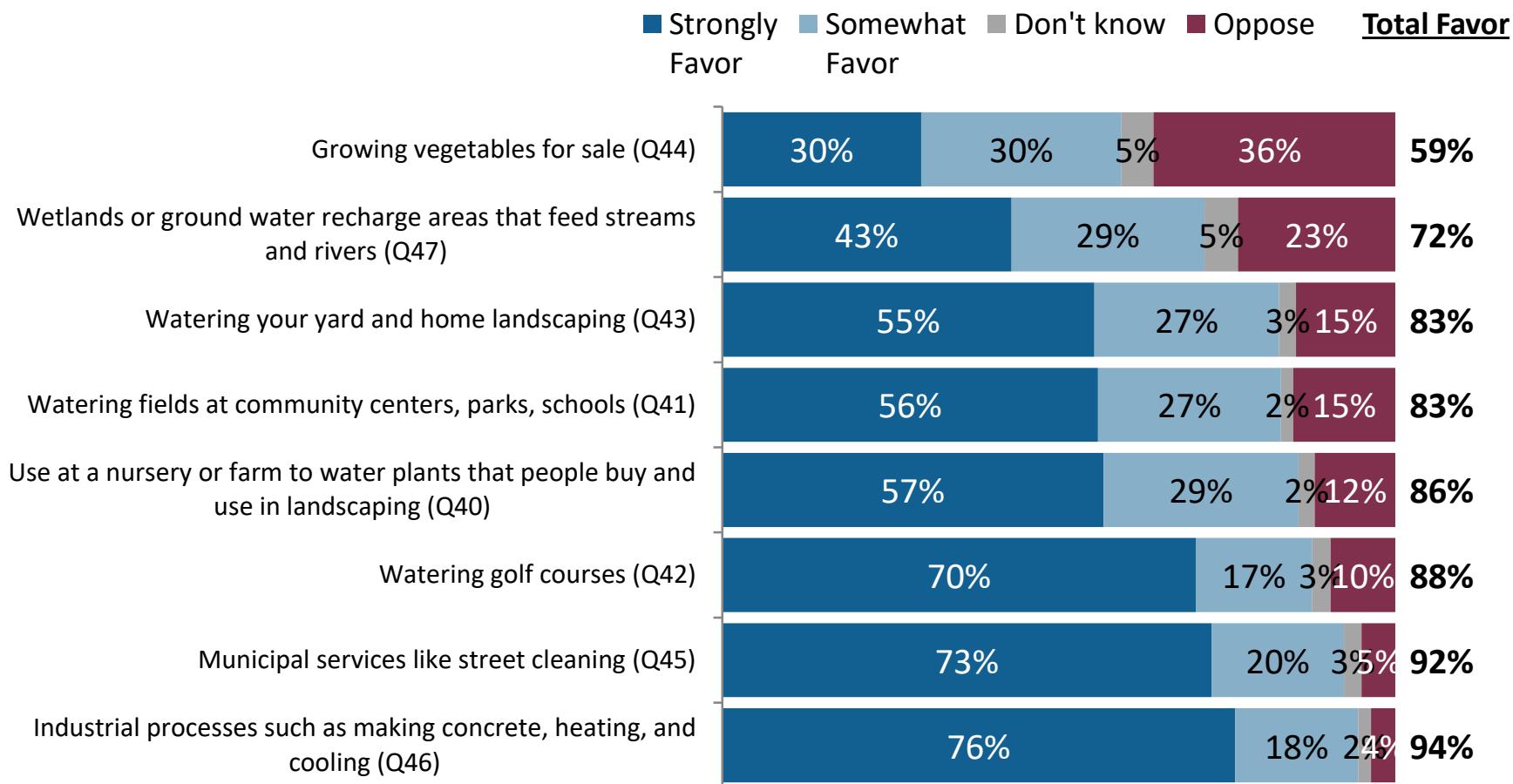
Now I'd like to ask you about recycled water, also known as reclaimed water. King County collects wastewater from sewers. Some of this water will be sent to a treatment plant that can treat this water to strict and highly regulated standards. This water is called recycled water. Although it is not suitable for drinking, recycled water can be used for a variety of purposes such as irrigation and industry.



Q39. ...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?

Support For Uses of Recycled Water

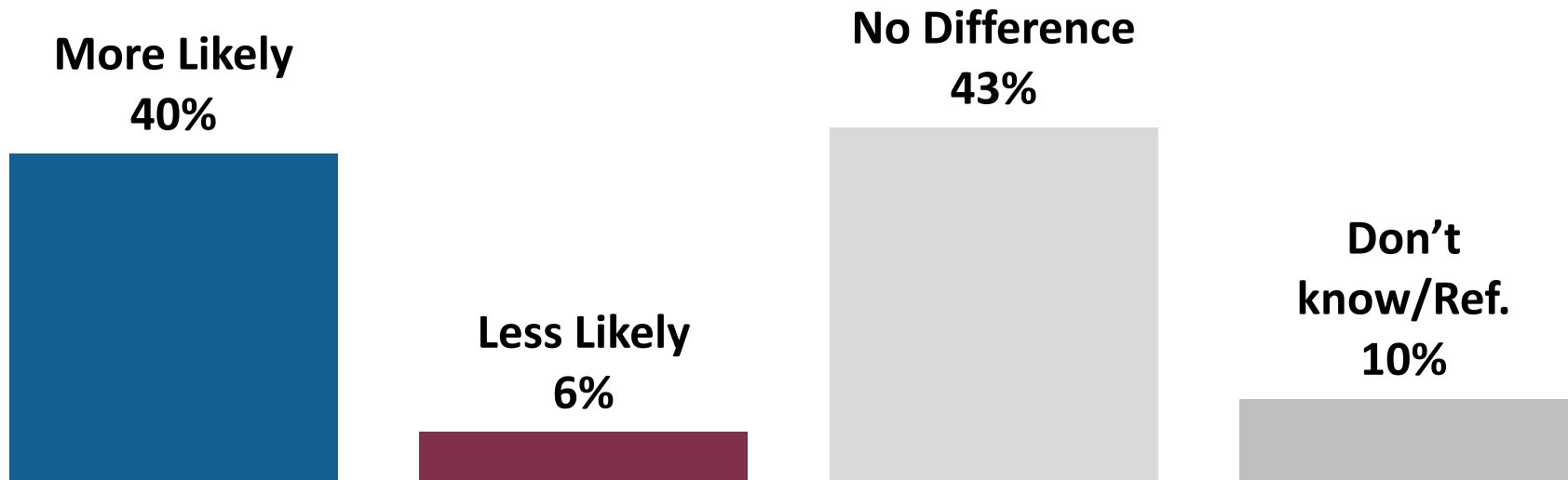
There is majority support for all uses of recycled water tested in the survey, however a third (36%) still say they are opposed to using recycled water for growing vegetables for sale and almost a quarter (23%) say they are opposed to using water for wetlands or ground water recharge areas that feed streams and rivers.



Q40-47. I'm going to read you a list of possible uses for recycled water. Please tell me if you would strongly favor, somewhat favor, somewhat oppose or strongly oppose the use of recycled water for each of the following purposes...?

Patronage of Businesses Using Recycled Water

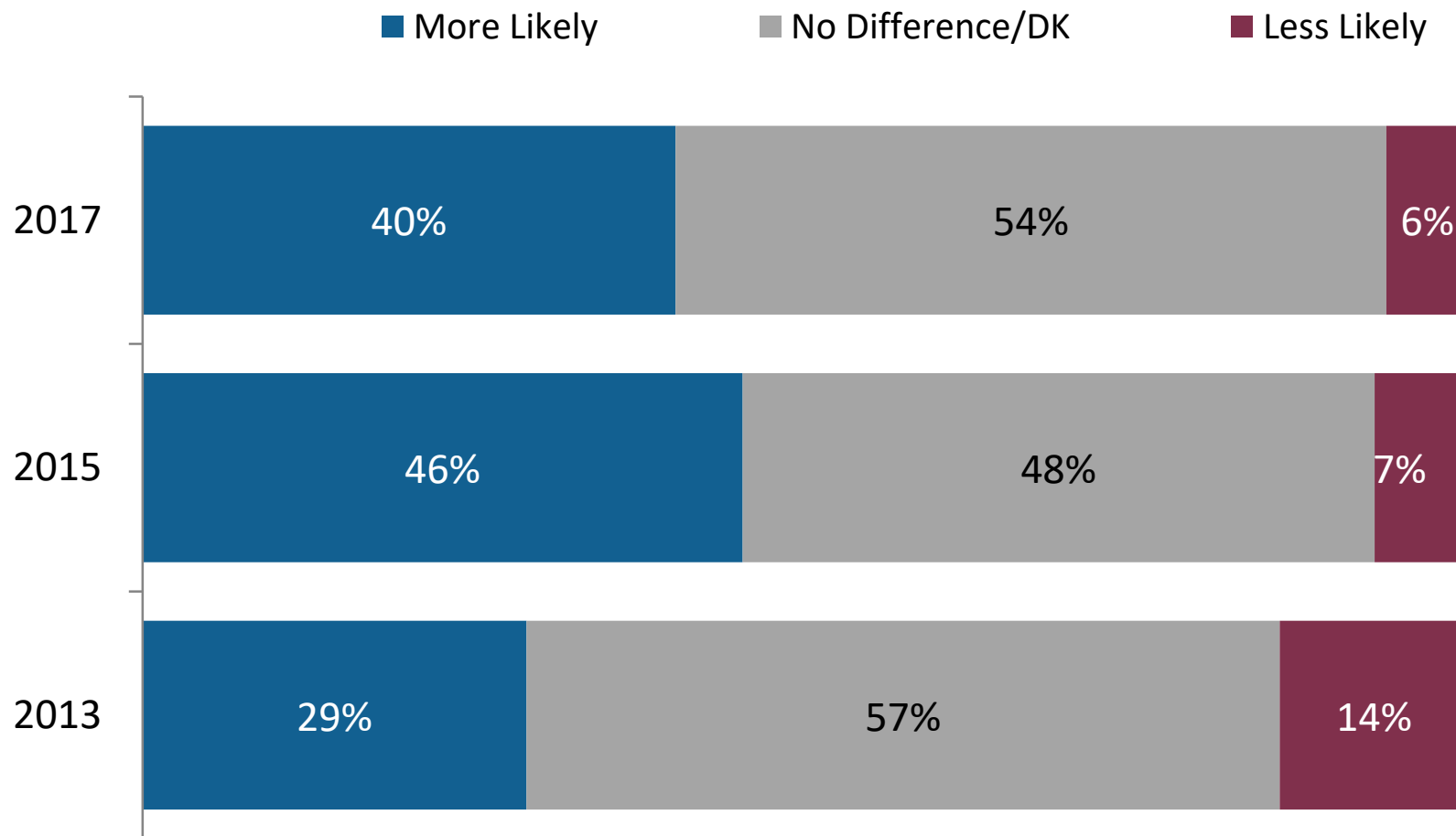
Two-fifths (40%) of respondents say if they knew a business was using recycled water they would be more likely to conduct business with them or buy their products. Only 6% say they would be less likely. Most (43%) say it would not make a difference.



Q48. In general, if you knew a business was using recycled water, would that make you more likely to conduct business with them or buy their products, less likely, or would it not make a difference?

Patronage of Businesses Using Recycled Water - Trend

Support for businesses that use recycled water has remained consistent since 2015.



Q48. In general, if you knew a business was using recycled water, would that make you more likely to conduct business with them or buy their products, less likely, or would it not make a difference?



Demographics

Demographics

