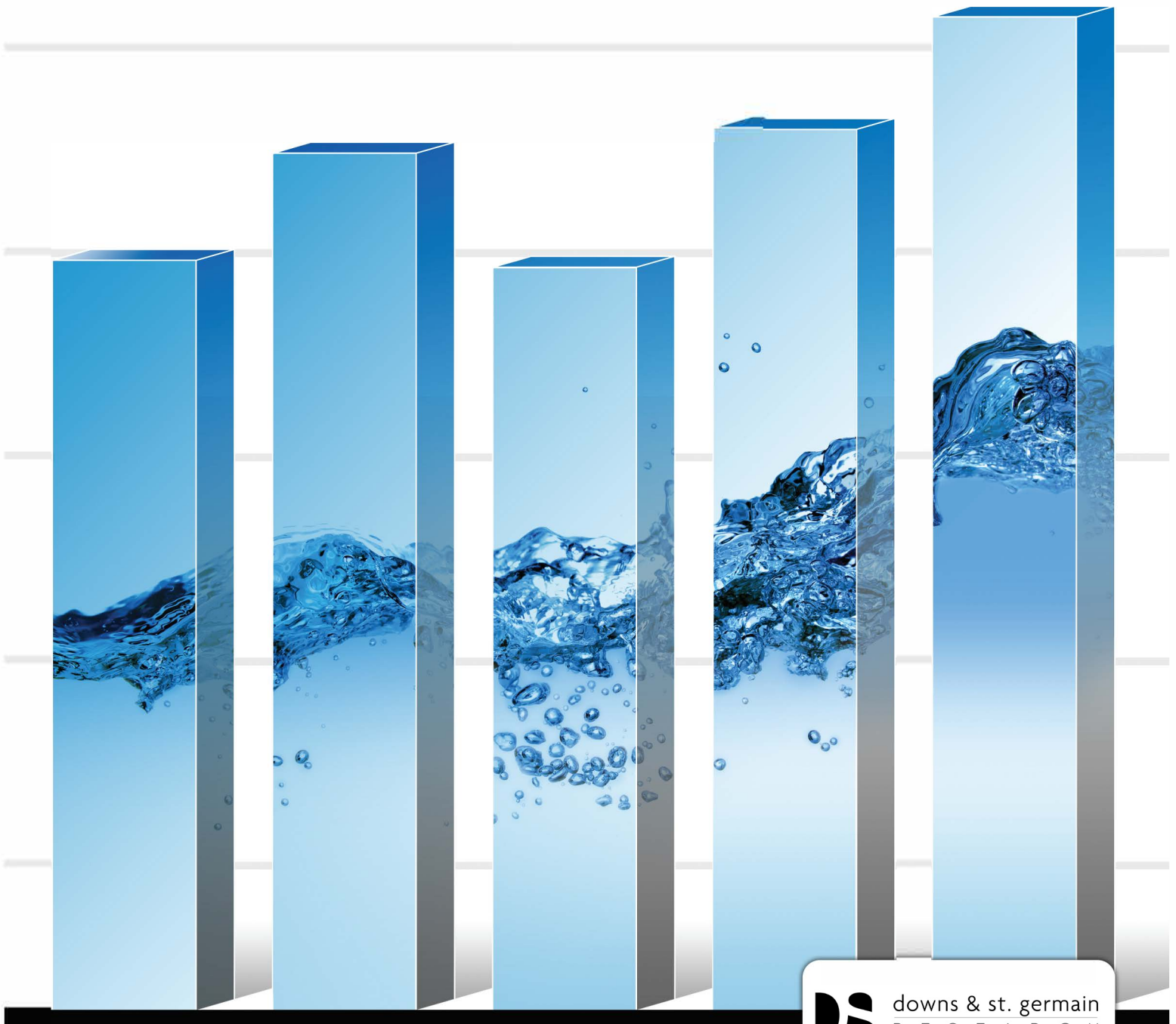


2018 Public Opinion Survey



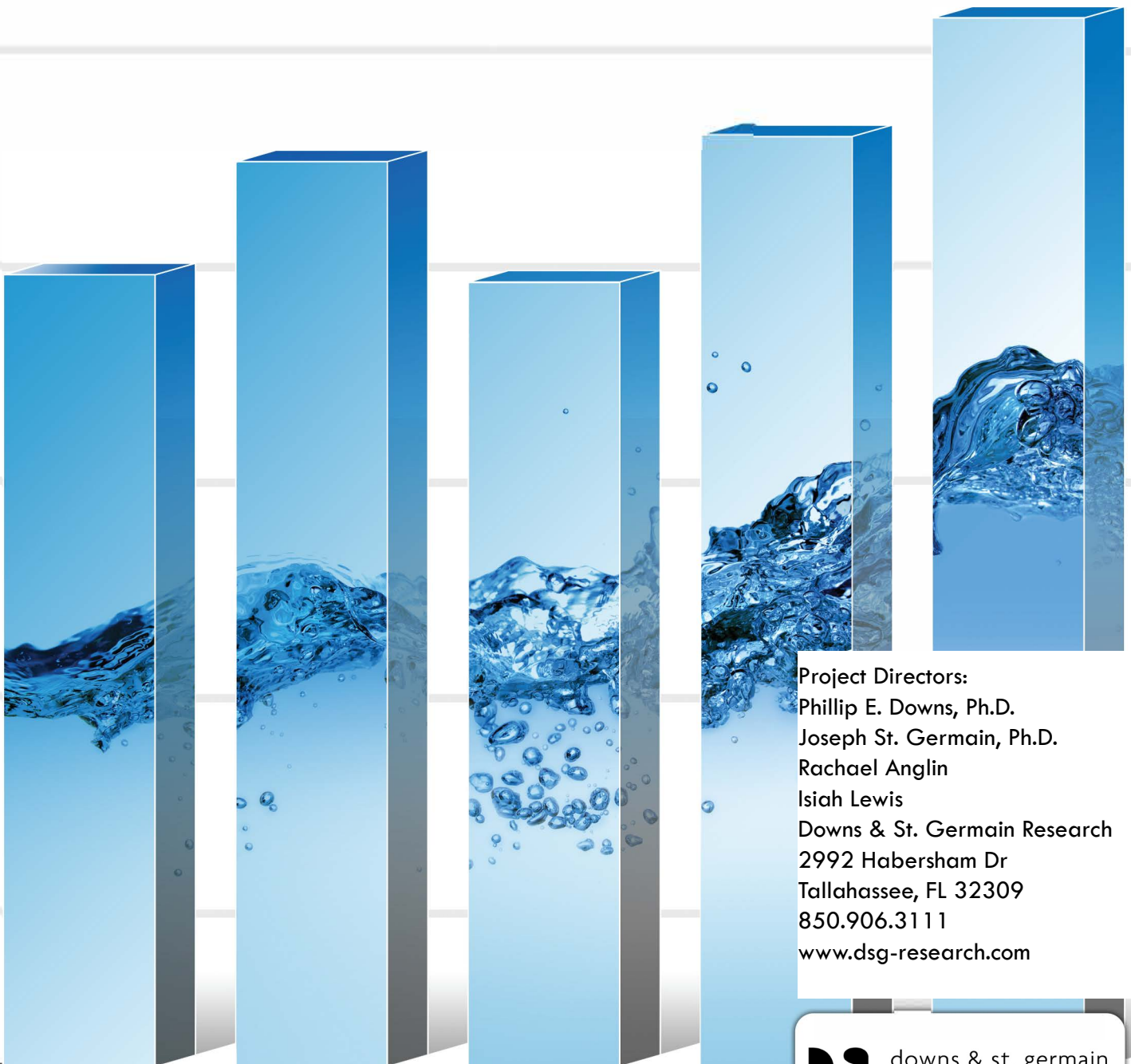
TAMPA BAY WATER

Supplying Water To The Region

CELEBRATING

20
years

2018 Public Opinion Survey



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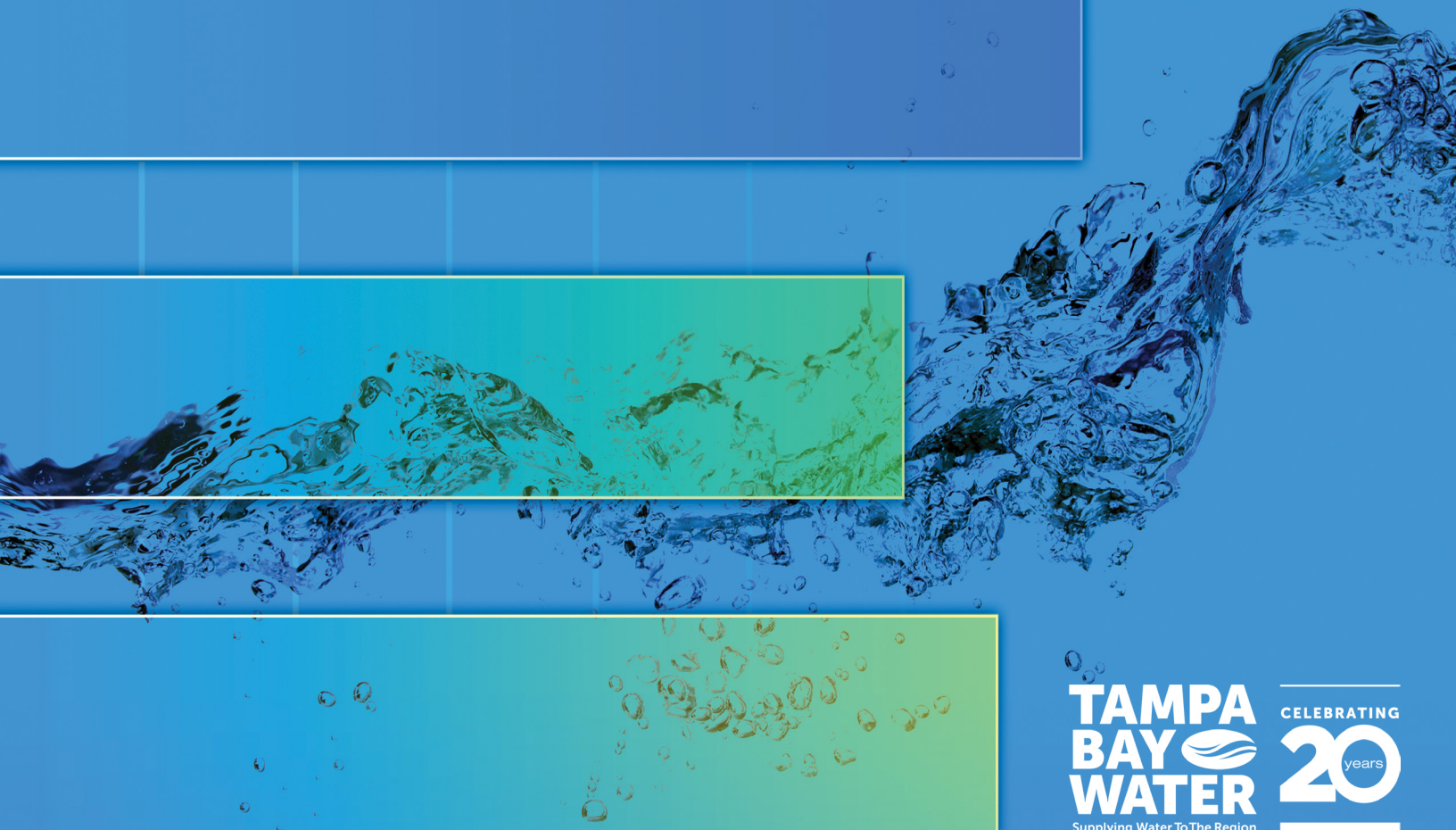


downs & st. germain
RESEARCH

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Introduction



Introduction

The objective of this research study is to explore public attitudes regarding the following issues:

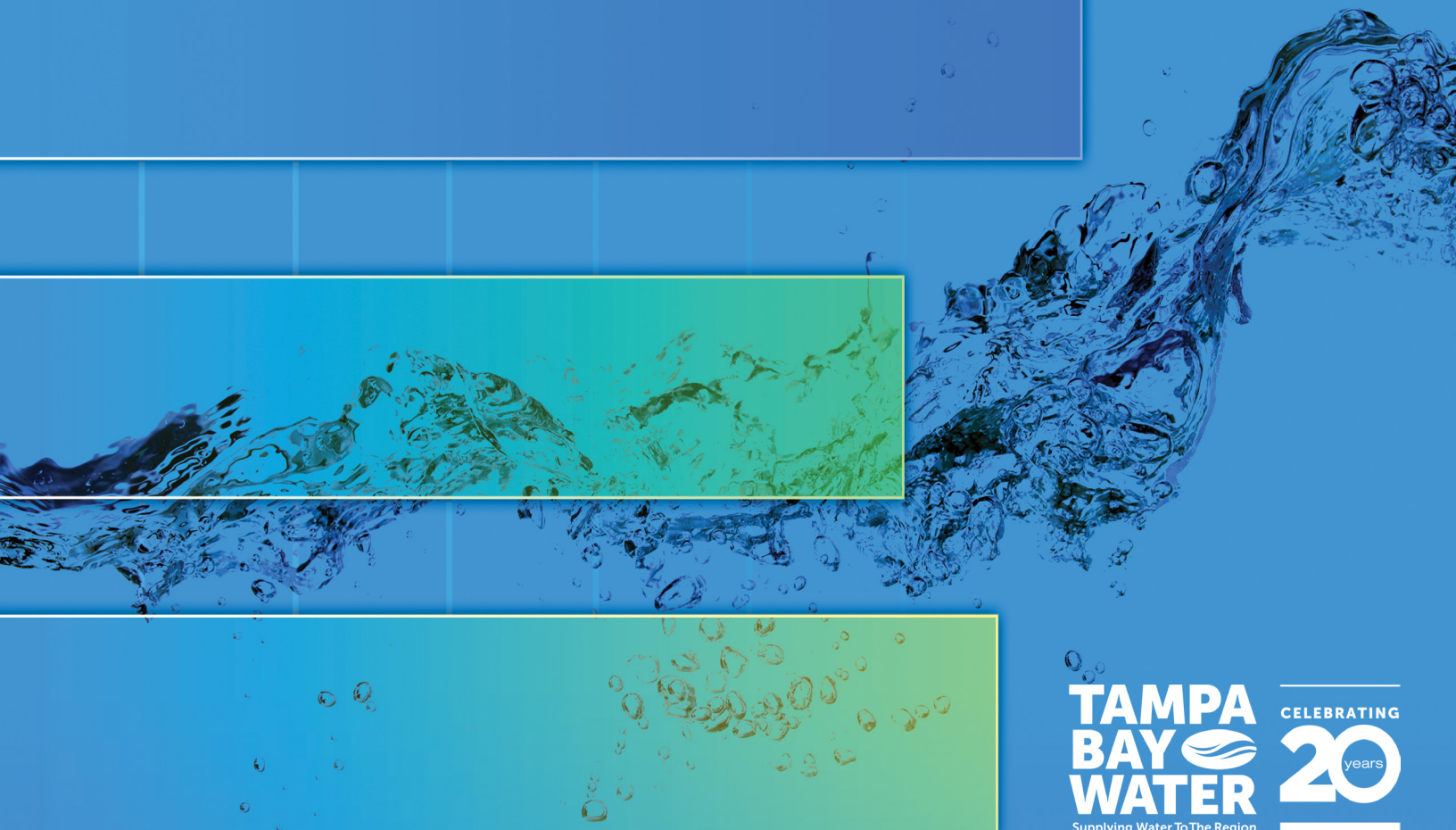
- Water Needs
- Tampa Bay Water
- Water Sources
- Reclaimed Water
- Conservation Programs
- Water Quality
- Water Cost
- Information Sources

A telephone and internet survey of 1,200 randomly selected households in the Tampa Bay Water service area was conducted from June 16, 2018 to June 26, 2018. The margin of error for responses from the three-county service area is 2.8 percentage points, and it is 4.9 percentage points for results from each county. If 100 studies identical to this one were conducted, results from 95 of these studies would be within 2.8 percentage points of the results that would be obtained if all residents in the Tampa Bay Water service area were interviewed. Final results have been weighted to reflect the demographics of the service area. Questions for the study emanated from past studies for Tampa Bay Water and from Tampa Bay Water management.

This report presents results from the 2018 study aggregated for the entire service area and broken down by county. Comparisons to results from 2015 are shown when appropriate. The report is divided into the following sections:

- Executive Summary
- Water Needs
- Tampa Bay Water
- Water Sources
- Reclaimed Water
- Conservation Programs
- Water Quality
- Water Cost
- Information Sources
- Demographics

Executive Summary



Executive Summary

Citizen Profile

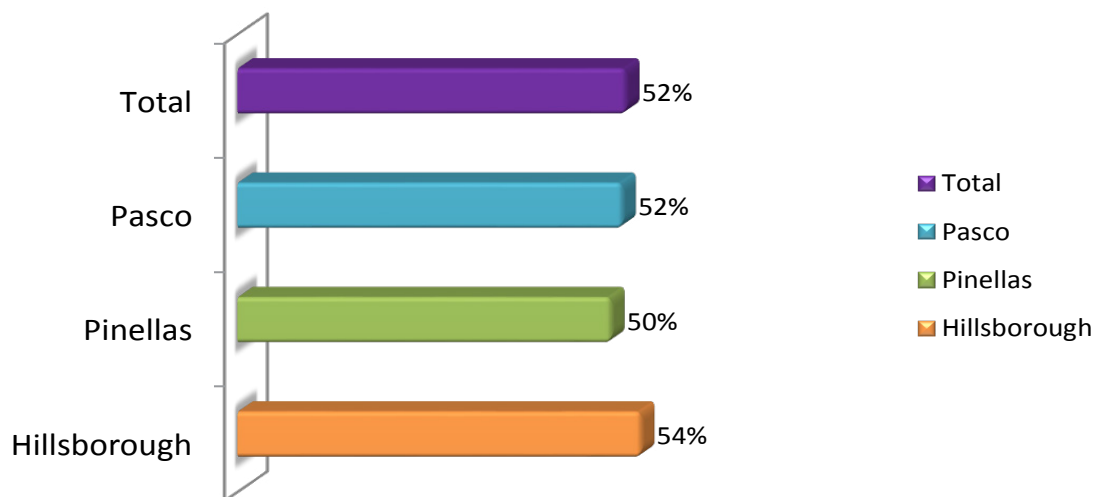
Residents of this study were chosen to match the demographic characteristics of the Tampa Bay Water service area based on United States Census data. Households not in the Tampa Bay Water service area and households served by wells were excluded from the study. The table below shows comparisons between United States Census data and study data on age, gender, and household income.

Participants of the study were evenly divided among Hillsborough, Pasco, and Pinellas counties with 400 residents in each county. The following table compares U.S. Census data with the sample used in this study.

	2016 Census Estimates	2018 Study
Gender		
Male	48%	48%
Female	52%	52%
Income		
Under 35k	39%	38%
35k-75k	33%	35%
75k+	28%	27%
Age		
21-34	26%	25%
35-44	19%	17%
45-54	15%	16%
55-64	17%	17%
65+	23%	25%

Water Needs

Over half of residents (52%) served by Tampa Bay Water believe that public officials are adequately meeting the drinking water needs for the region. Of those who disagree, most say public officials should improve water quality, adjust the amount of minerals or chemicals, and improve the taste of tap water.



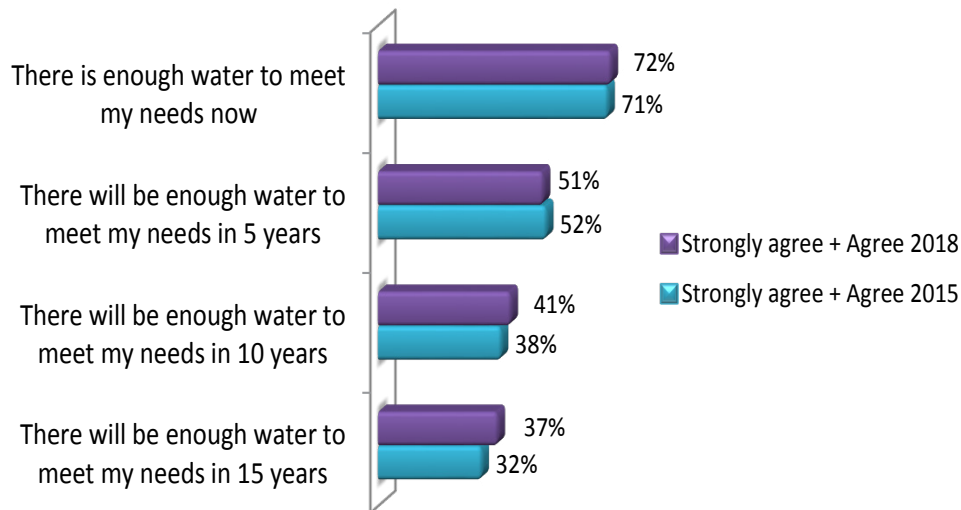
Executive Summary

Over seven in ten residents (72%) believe there is enough water to meet their needs today. Less than one in seven residents (15%) disagree.

Half of residents (51%) believe there will be enough water to meet their needs in five years, while only one in five residents (20%) disagrees.

Two in five residents (41%) believe there will be enough water to meet their needs in ten years, while one in four (25%) disagrees.

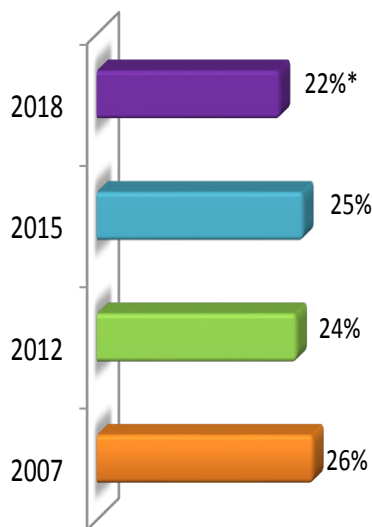
Over one in three residents (37%) thinks there will be enough water to meet their needs in fifteen years, while 27% disagree.



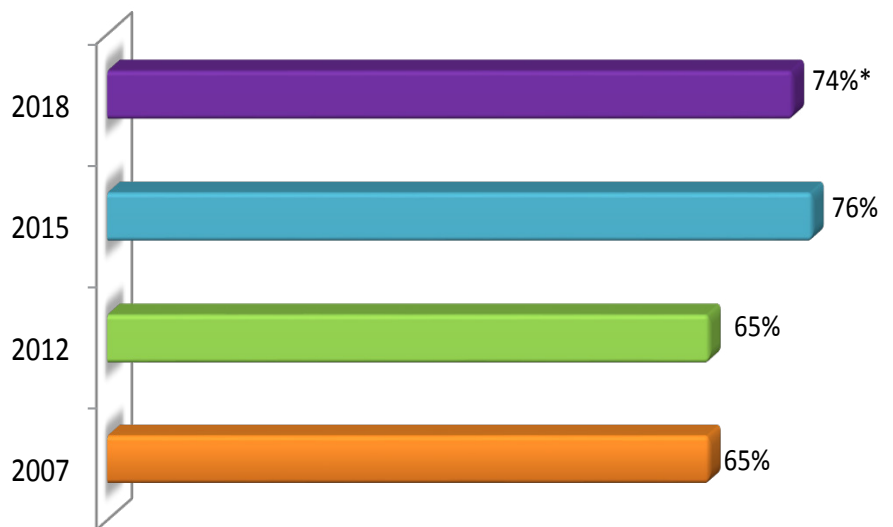
Tampa Bay Water

Aided recall of Tampa Bay Water is modest (22%) and has dropped since 2015. Of those aware of Tampa Bay Water, 74% agree that Tampa Bay Water is effectively supplying water to the region.

Aware of Tampa Bay Water



Tampa Bay Water Effectively Supplies Water to the Region



*Percent who agree

Two out of three residents who are aware of Tampa Bay Water agree that Tampa Bay Water is concerned about the environment (64%) and is concerned about finding new sources of water to meet their needs (65%). Three in five residents (58%) who are aware of Tampa Bay Water agree that Tampa Bay Water helps governments cooperate on water problems.

Three out of five residents (58%) familiar with Tampa Bay Water agree that the agency is effectively developing water conservation programs that can lower water use. Half of residents (52%) familiar with Tampa Bay Water agree that the agency listens to the community and accepts ideas that may benefit the region.

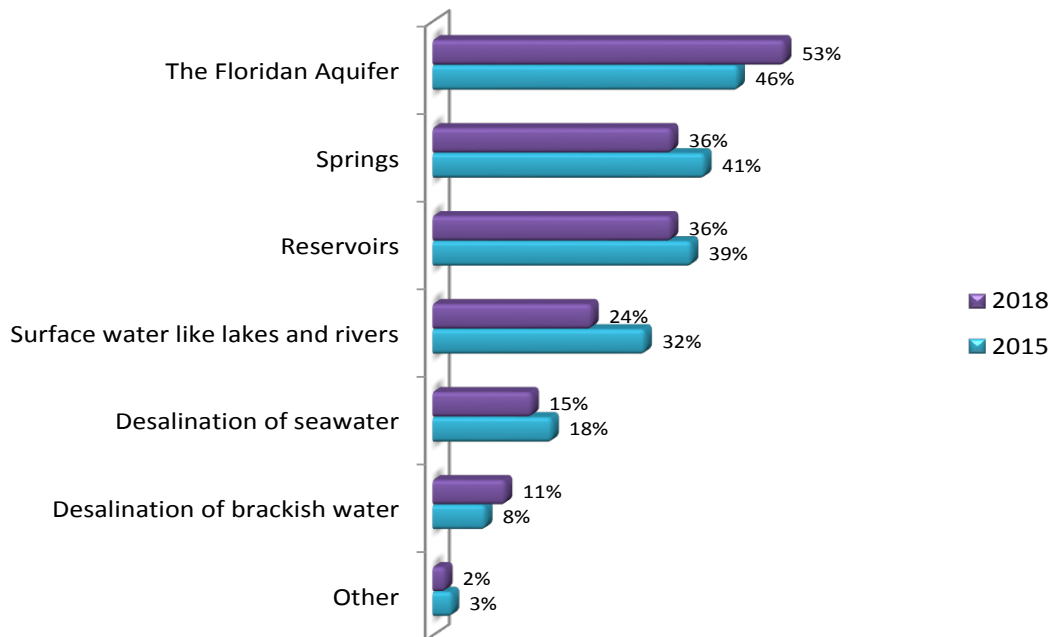
Two in three residents (65%) familiar with Tampa Bay Water believe that Tampa Bay Water helps protect the region's water resources, and over half of residents (52%) familiar with Tampa Bay Water think Tampa Bay Water develops new water sources in an environmentally sound manner.

Nearly three in five residents (56%) who are aware of Tampa Bay Water believe that Tampa Bay Water is concerned about climate change impacting water supplies.

Over two in three residents (66%) rate Tampa Bay Water as being good, very good, or excellent at planning, developing, producing, and delivering high quality water supply to the area.

Water Sources

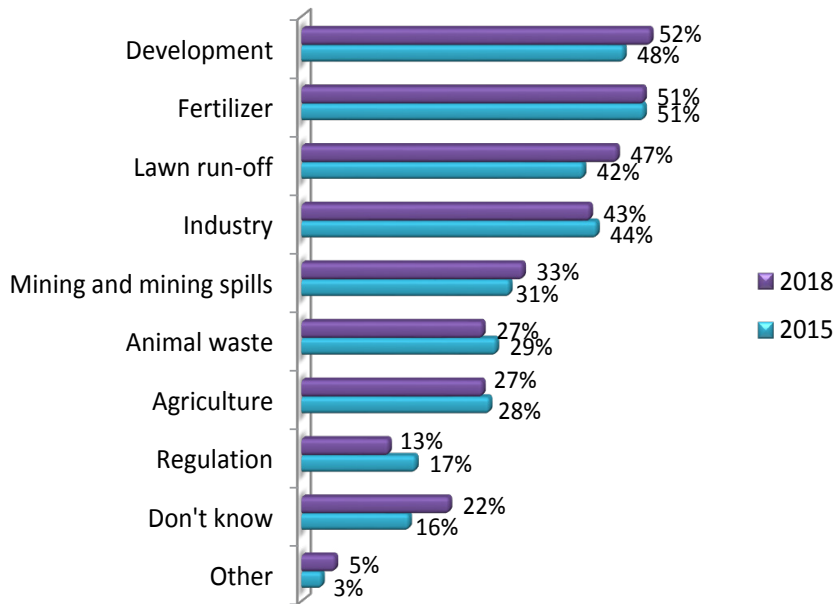
The Floridan Aquifer is more likely to be named by residents of the Tampa Bay Water service area (53%) than any other source of water. Springs (36%), reservoirs (36%), and surface water (24%) are also mentioned as sources of water frequently being used.



Four out of five residents (82%) believe there should be more comprehensive rules and regulations to protect the region's water resources, while fewer than one in ten (8%) disagrees.

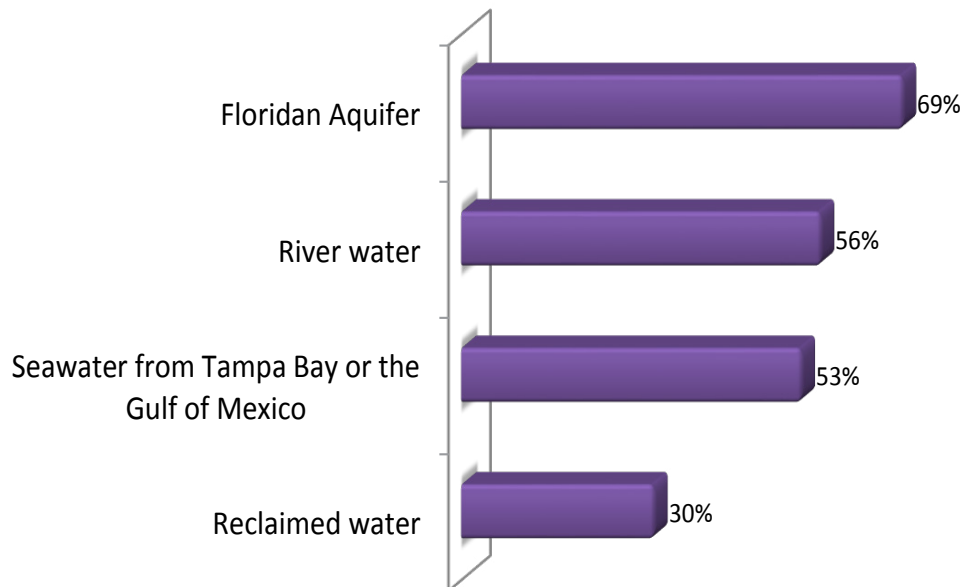
Seven out of ten residents (72%) believe that more stringent source water protection regulations and investment in more advanced treatment technology should be used, in tandem, to protect drinking water quality. Four in ten residents (39%) who believe advanced treatment technology should be used are not willing to pay anymore on their water bill each month for this technology.

Development, fertilizer, and lawn run-off are most cited as threats to the region’s water resources.



Three in five residents (60%) say they do care what the source of new water supplies is if the quality of water remains the same or better.

Residents are more willing to drink tap water that comes from groundwater from the Floridan Aquifer (69%) or from river water (56%). Only three in ten residents (30%) will drink tap water from reclaimed water.



Reclaimed Water

Nearly four in ten residents (39%) are willing to drink reclaimed water that has been cleaned to drinking water standards, then put back in groundwater, reservoirs, or rivers, then withdrawn and treated again to drinking water standards before being sent to homes and businesses. Four in ten residents (40%) are not willing to drink this water.

One in three residents (33%) is willing to drink reclaimed water that has been cleaned to drinking water standards and blended with other drinking water before being sent to homes and businesses, while nearly half of residents (45%) are not willing to drink water treated in this manner.

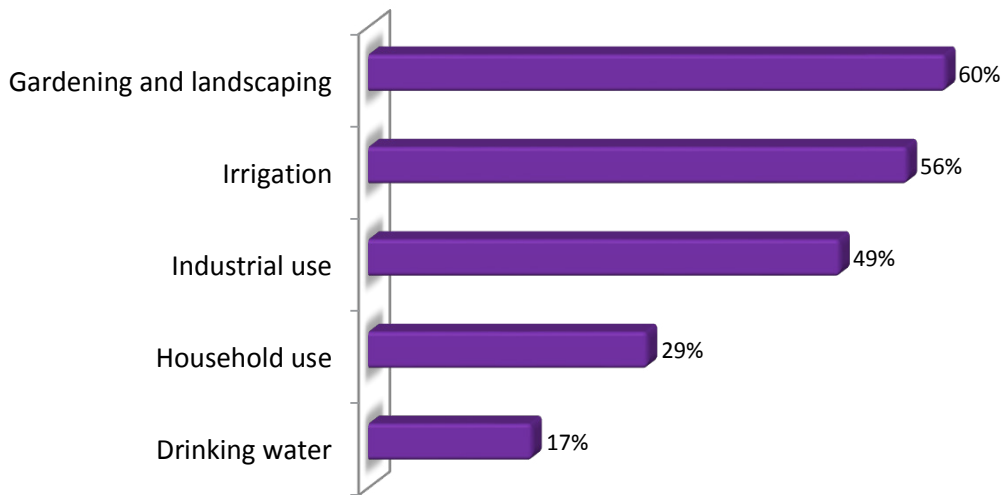
Over one in three residents (36%) is willing to drink reclaimed water that has been put back to groundwater, reservoirs, or rivers then withdrawn and treated again before being sent to homes and businesses, while over four in ten residents

(42%) are not willing to do so.

Over one in three residents (34%) is willing to drink reclaimed water that has been put in a salty or non-drinking water zone of the aquifer to increase groundwater levels, resulting in a credit to be used to withdraw groundwater at a different location, treated to drinking water standards, then sent to homes and businesses. Four in ten residents (40%) are not willing to do so.

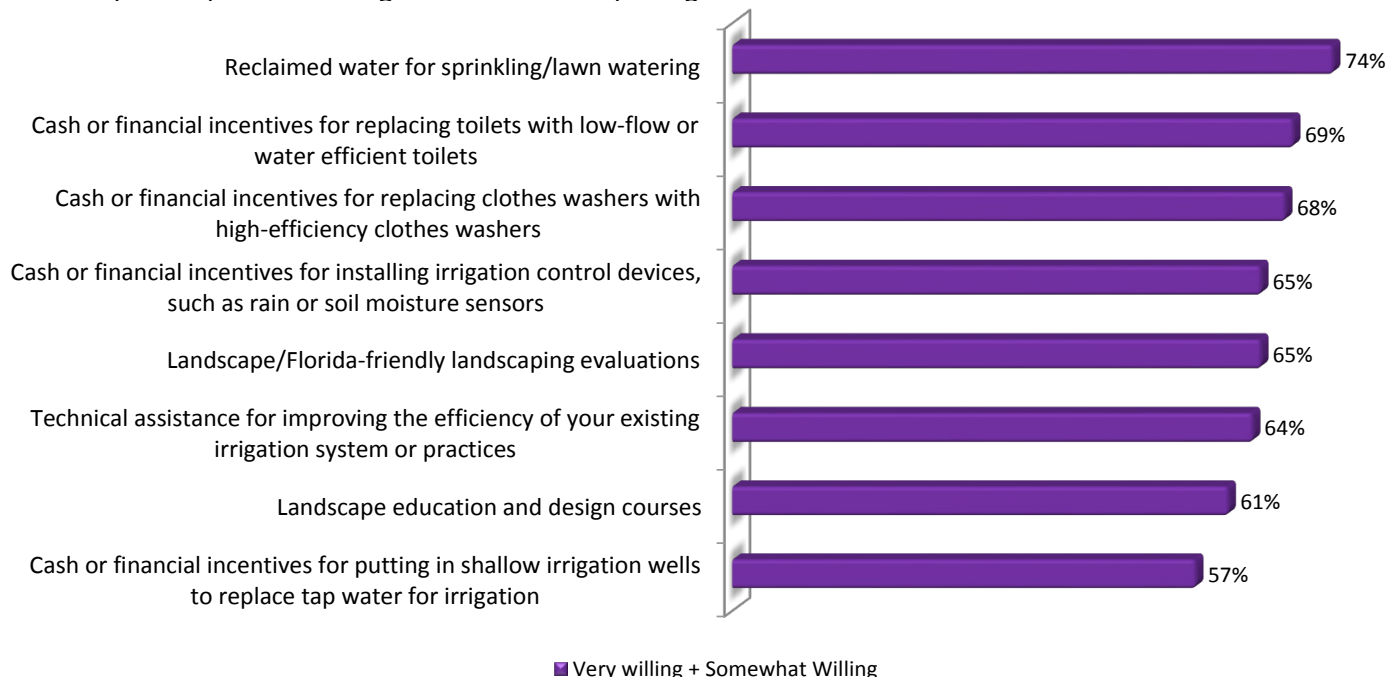
Residents’ biggest concern about cleaned and treated reclaimed water is that it may contain contaminants (71%). The next biggest concern about cleaned and treated reclaimed water is that it may fail to meet drinking water standards (69%).

Six in ten residents (60%) are completely willing to accept reclaimed water for gardening and landscaping, while nearly as many (56%) are completely willing to use reclaimed water for irrigation. Only one in six residents (17%) is completely comfortable drinking reclaimed water.



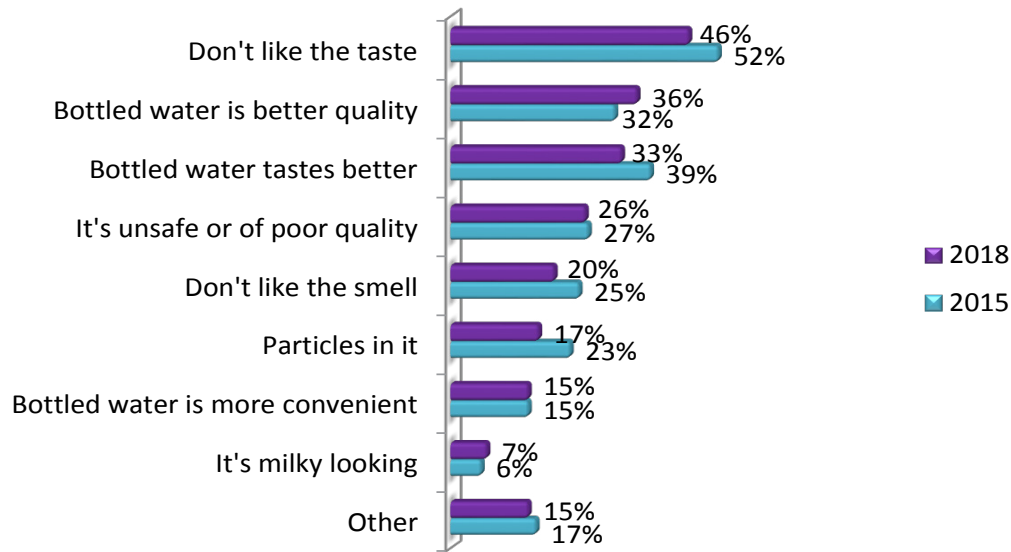
Conservation Programs

The percentage of residents in the Tampa Bay Water service area who are “very willing” or “somewhat willing” to participate in various conservation programs ranges from 57% to 74%; 74% are very willing or somewhat willing to use reclaimed water for sprinkling/lawn watering. The percentage of residents who are very willing or somewhat willing to participate in conservation programs that offer cash incentives ranges from a low of 57% for putting in shallow irrigation wells to replace tap water for irrigation to 69% for replacing toilets with low-flow or water efficient toilets.



Water Quality

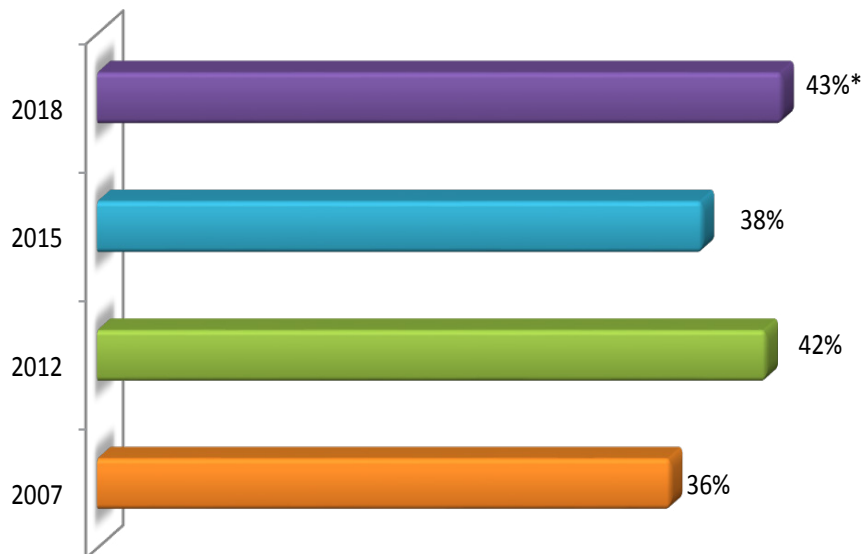
Over half of residents (56%) drink household tap water. Taste and preference for bottled water are the two most frequently offered reasons for not drinking tap water.



Over half of residents (53%) think bottled water is safer than tap water. The taste of tap water is rated a modest 3.2 on a 5-point scale, while cost (3.3), odor (3.5), appearance (3.7), safety (3.5), and purity (3.3) of tap water are rated higher than taste.

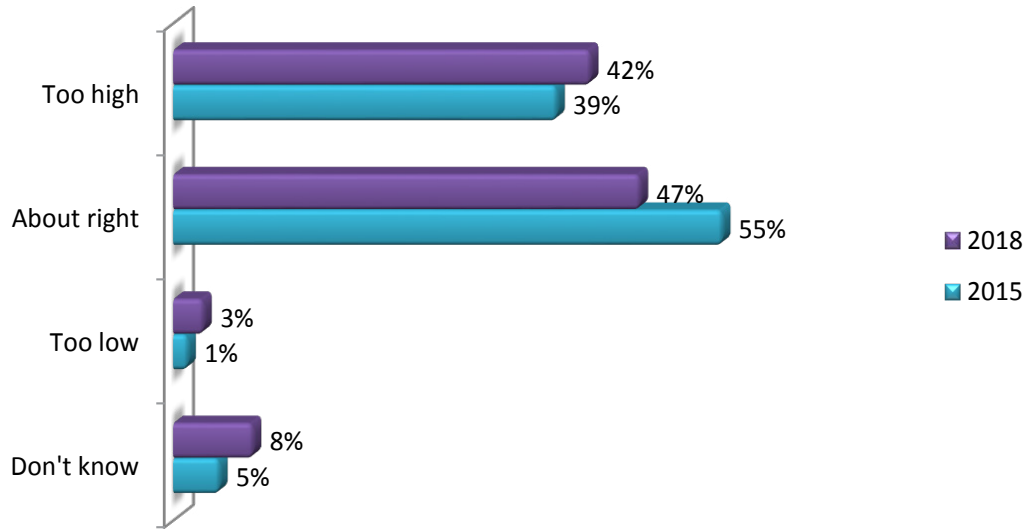
Water Cost

Over four in ten residents (43%) say that amount of their water bill affects the way they use water.



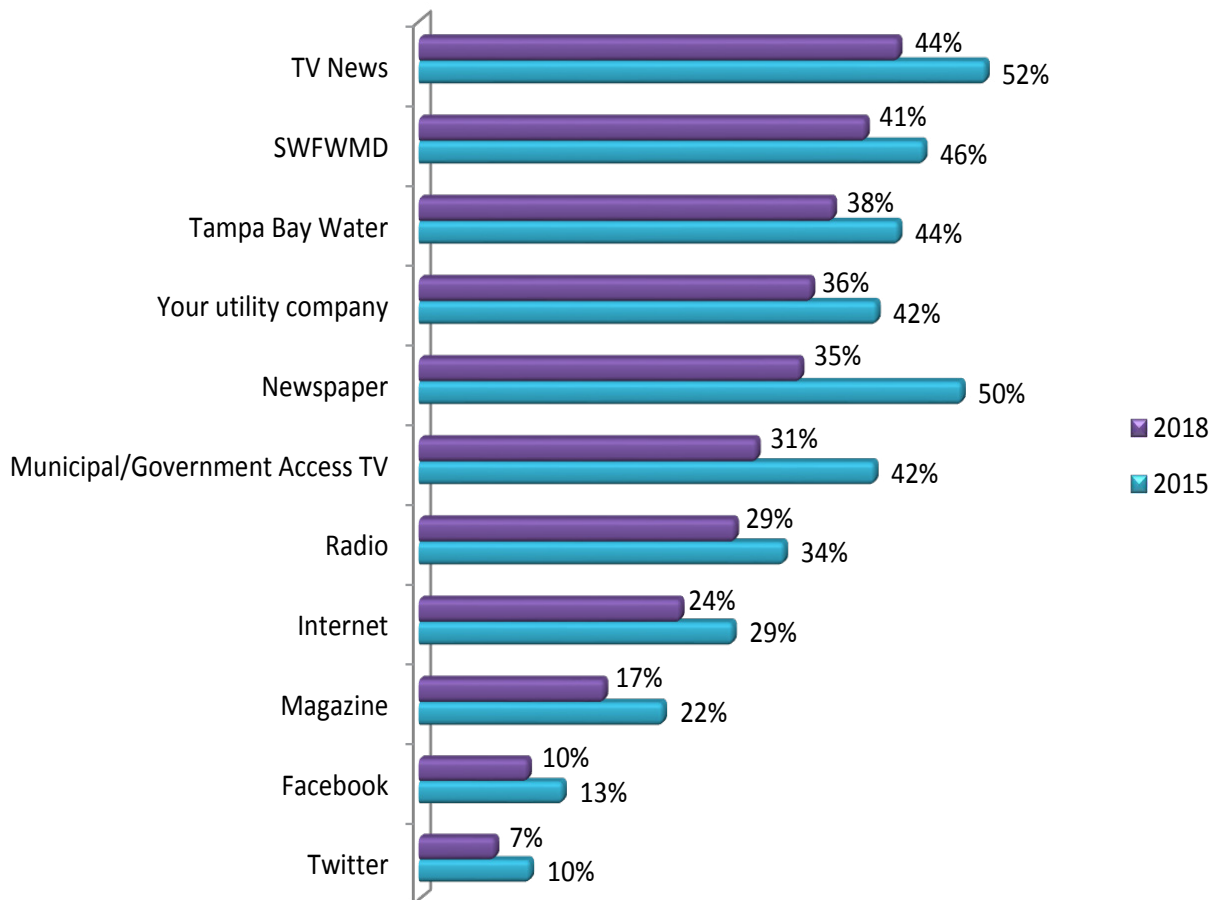
*Percent who agree

A plurality of residents (47%) believe the cost of tap water is about right; 42% of residents say the cost of tap water is too high.

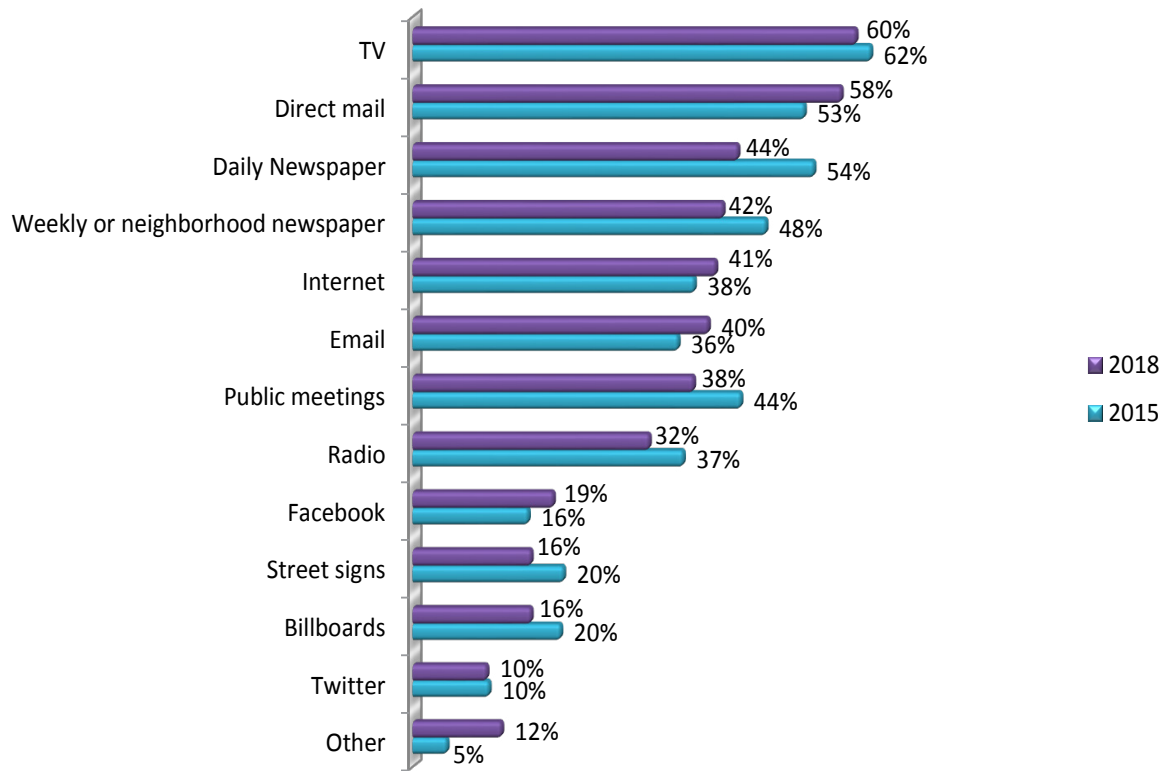


Information Sources

Television news is the most trusted medium for reporting on water issues with Southwest Florida Water Management District second and Tampa Bay Water third. It is interesting to note that trust in all information sources dropped from 2015.



Television, direct mail, and the daily newspaper are the three media from which residents prefer to receive information about water issues.

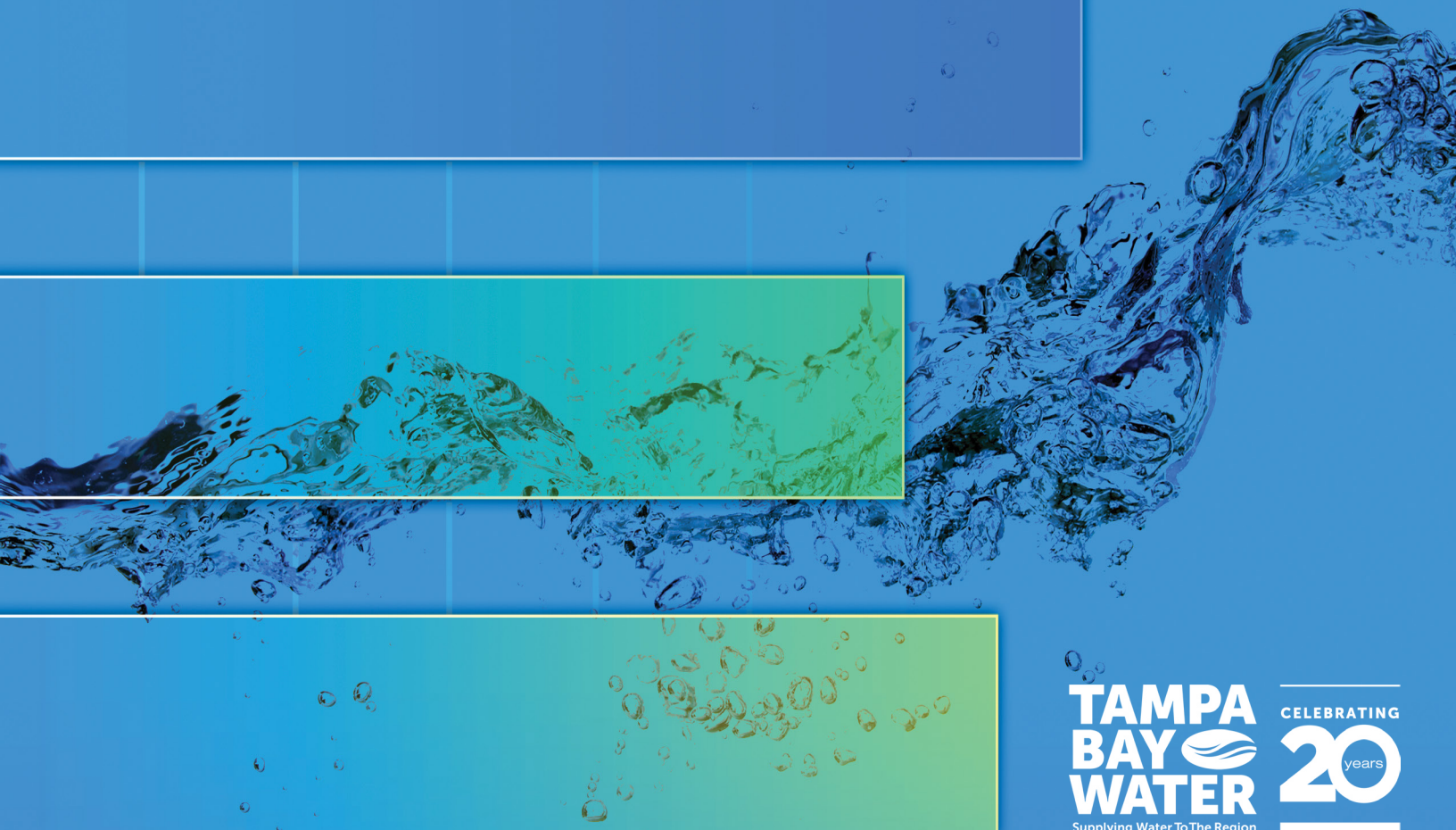


Demographics

The typical resident who participated in this study is:

- 49 years of age
- Registered to vote (87%)
- Owns their own home (69%)
- Income of \$47,900
- Female (52%)

Water Needs



Water Needs

There has been virtually no change in the past three years in residents' views on the performance of public officials in meeting drinking water needs for the region. In 2015, the figure of residents affirming that public officials adequately met drinking water needs for their citizenry was 53%; it stands at 52% in 2018. As in 2015, Hillsborough County residents are more likely to hold this opinion (54%) and Pinellas County residents least likely (50%).

Selected verbatim responses from residents for the question "What should public officials be doing differently to meet water drinking needs of your area?" are below.¹

"With the exploding population in Pinellas County and St. Petersburg, we need to plan for more resources and better enforcement of mandatory water restrictions. Even our reclaimed water resources are dwindling."

"The water should be tested more frequently, and they should provide solutions to fix contaminated water."

"The water quality isn't that great. I'm not sure what they are doing now, I need more information."

"We need more updates on water conservation and better ways to save money, along with better tap water quality. The tap water often smells off and doesn't taste right. It has been an ongoing issue."

Over seven in ten residents (72%) of the tri-county area believe there is enough water to meet Tampa Bay region's water needs presently. This figure is 1% point higher than in 2015. As in 2015, residents of Hillsborough County (74%) are more likely to agree, while Pasco County residents are slightly less likely to agree (70%).

Just over half of residents (51%) believe that there will be enough water to meet the area's needs in five years, down 1% point from 2015. Hillsborough County residents (55%) are more likely to agree, while fewer than half of Pasco County residents (43%) agree there will be enough water in five years.

As the time frame expands to 10 years, residents are less likely to agree there will be enough water to meet needs as only 41% think there will be enough water in ten years. However, this figure is 3% points higher than it was in 2015. Hillsborough County residents are most optimistic as 47% agree, while only 35% of Pasco County residents believe there will be enough water in ten years.

The percentage of residents in Tampa Bay Water's service area who think there will be enough water in 15 years is only 37%, yet this figure is 5% points higher than in 2015. As with other time frames, Hillsborough County residents are more optimistic (42% agree), while Pasco County residents are least optimistic (32% agree).

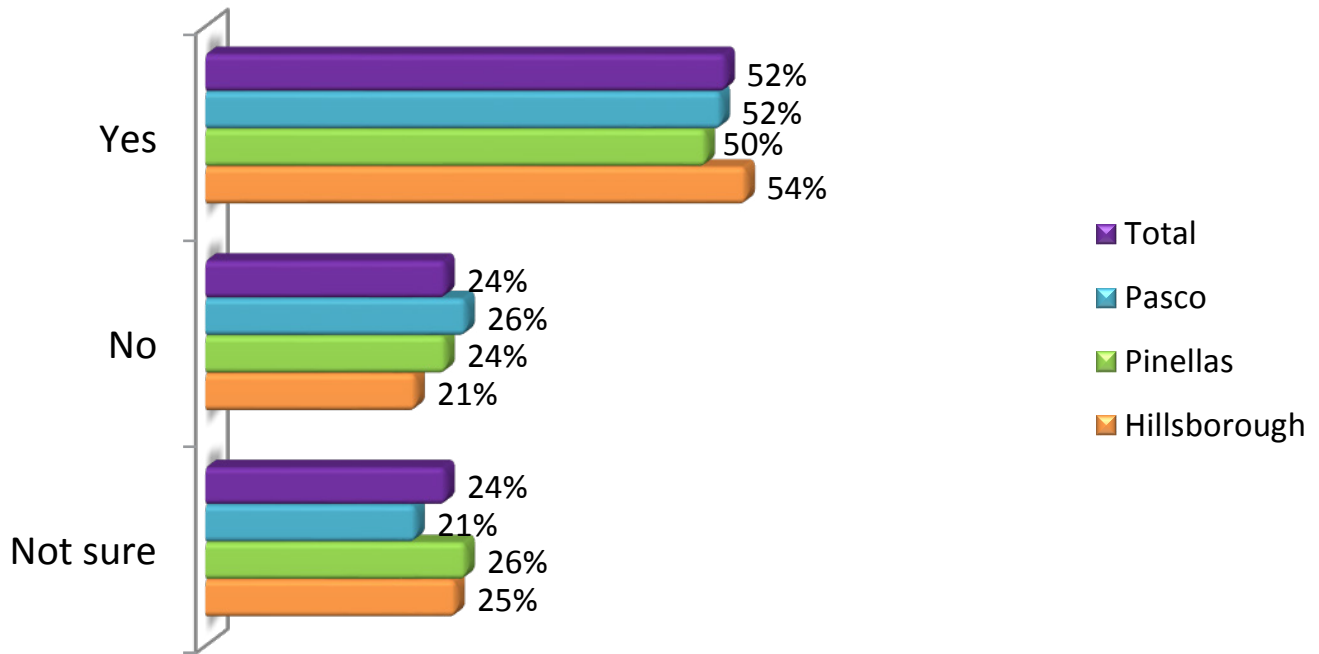
As the table below demonstrates, belief that there will be enough water declines as residents look further into the future. Belief is stronger in Hillsborough County regardless of the time horizon, and weaker in Pasco County.

Believe There Is/Will Be Enough Water								
	Hillsborough		Pinellas		Pasco		Total	
	2015	2018	2015	2018	2015	2018	2015	2018
Now	75%	74%	70%	71%	68%	70%	71%	72%
In 5 years	56%	55%	50%	53%	50%	43%	52%	51%
In 10 years	43%	47%	38%	42%	34%	35%	38%	41%
In 15 years	36%	42%	32%	37%	26%	32%	32%	37%

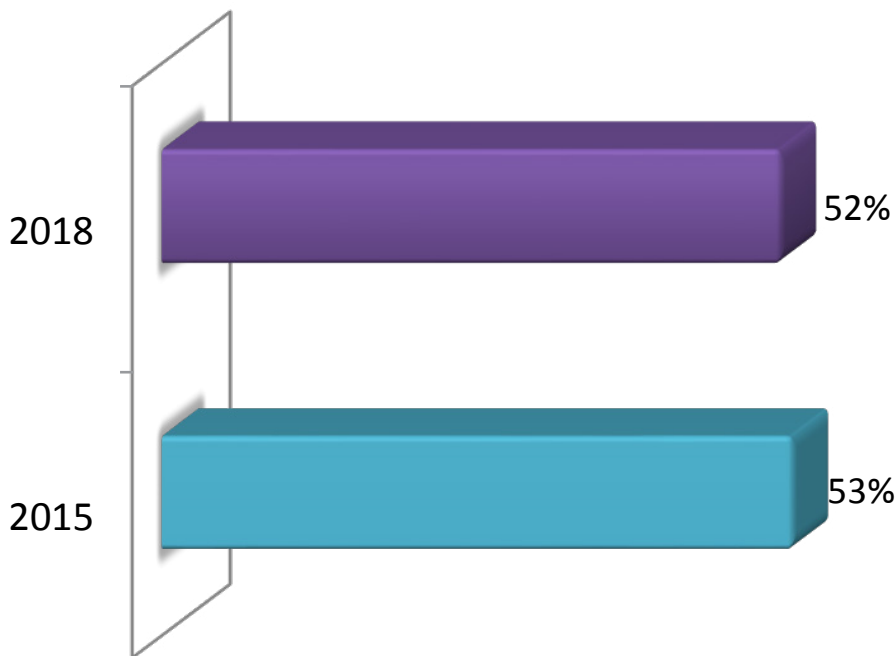
Just fewer than half of residents (47% in 2018 compared to 46% in 2015) agree that drinking water in the Tampa Bay area is harvested and supplied without harming the environment. Pinellas County residents are more likely (51%), while Pasco County residents are less likely (43%) to agree.

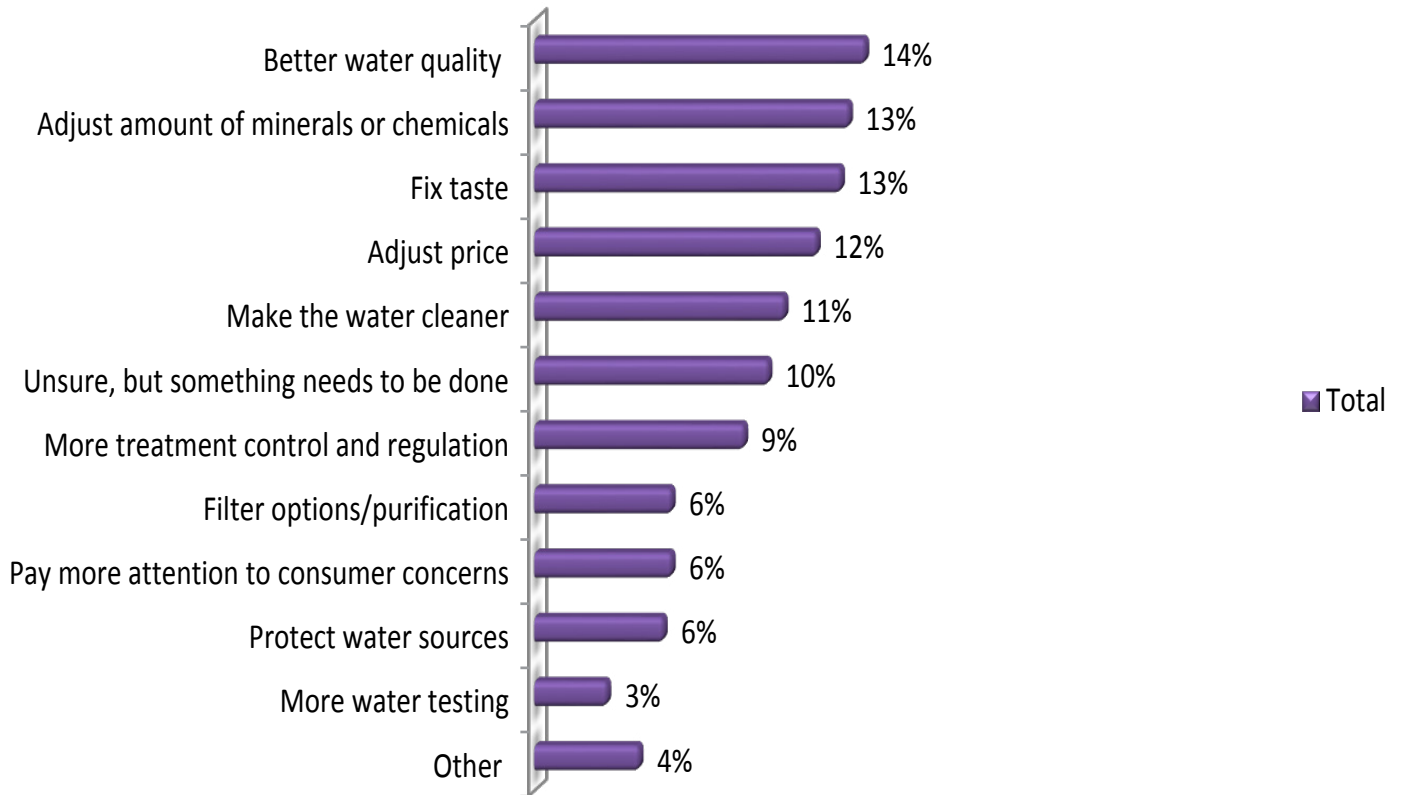
¹A separate report is available with all verbatim responses.

Do you think public officials are adequately meeting the drinking water needs for your region?



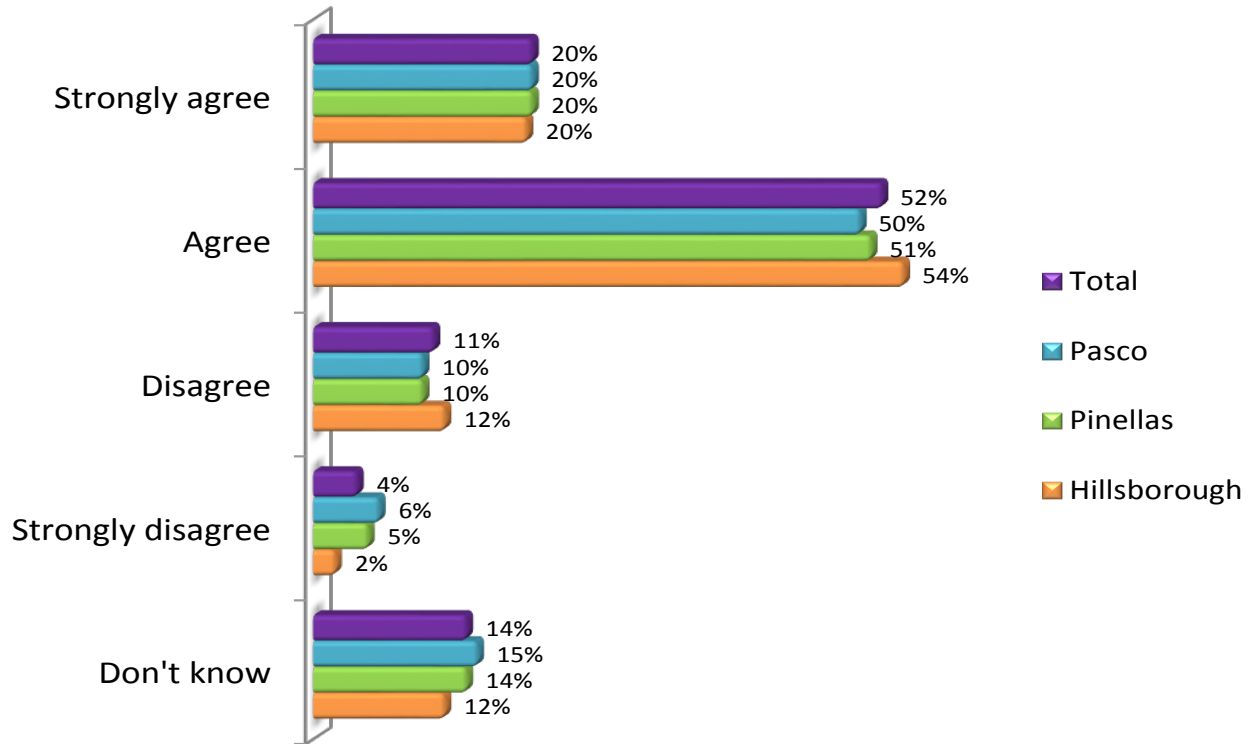
Needs met by Year



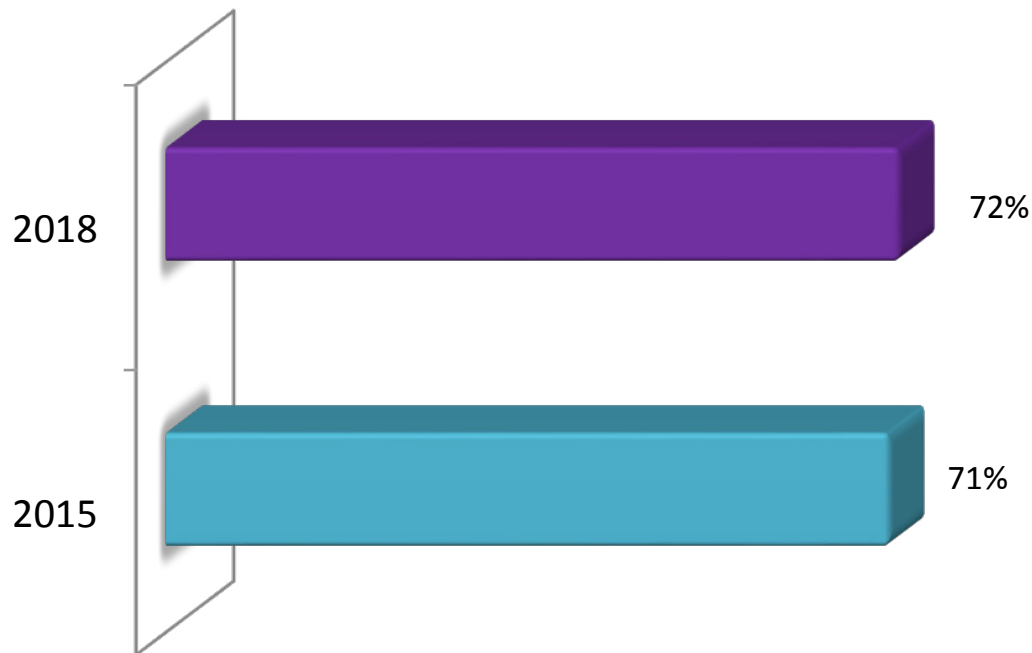
*What should public officials be doing differently to meet water needs?**

* Only asked to residents who answered “No” or “Not sure” to the previous question, coded responses from an open-ended question.

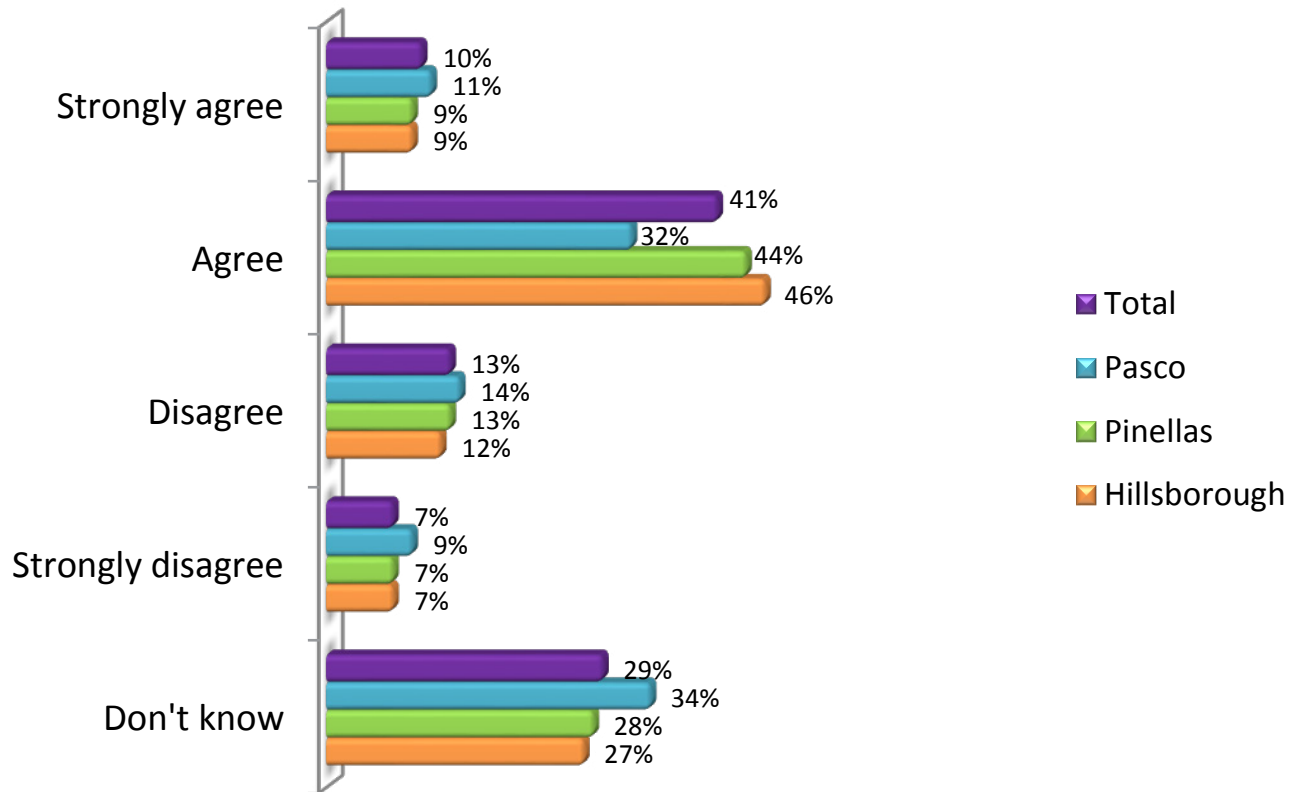
There is enough water to meet the Tampa Bay region's water needs today.



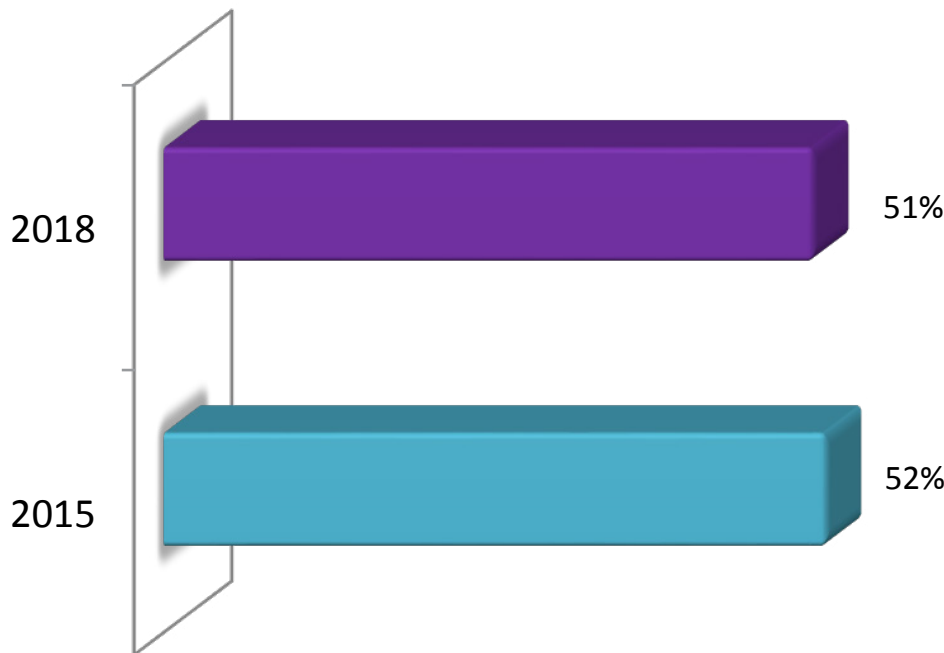
Strongly agree + Agree by Year



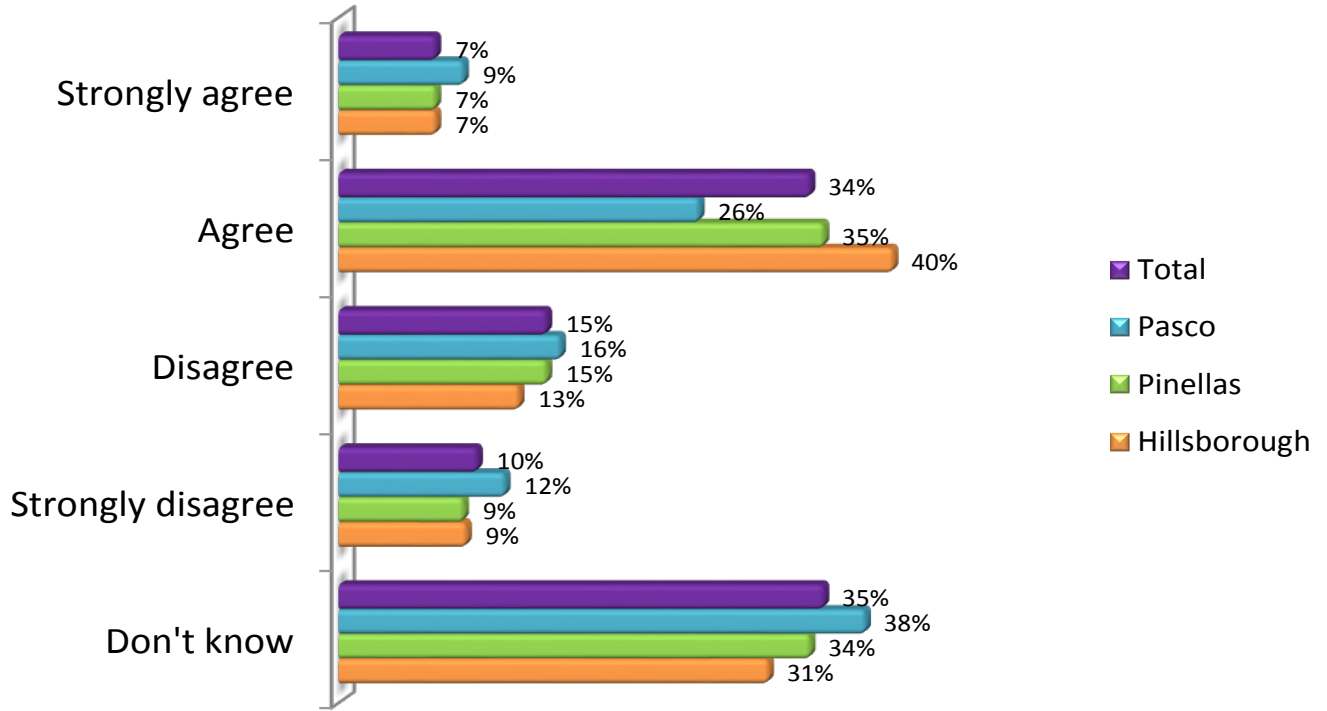
There will be enough water to meet the Tampa Bay region's needs in 5 years.



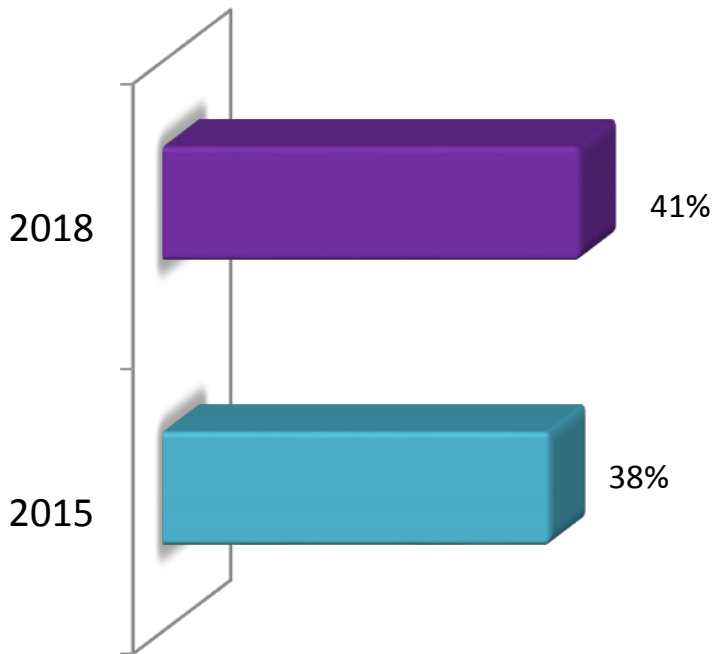
Strongly agree + Agree by Year



There will be enough water to meet the Tampa Bay region's needs in 10 years.

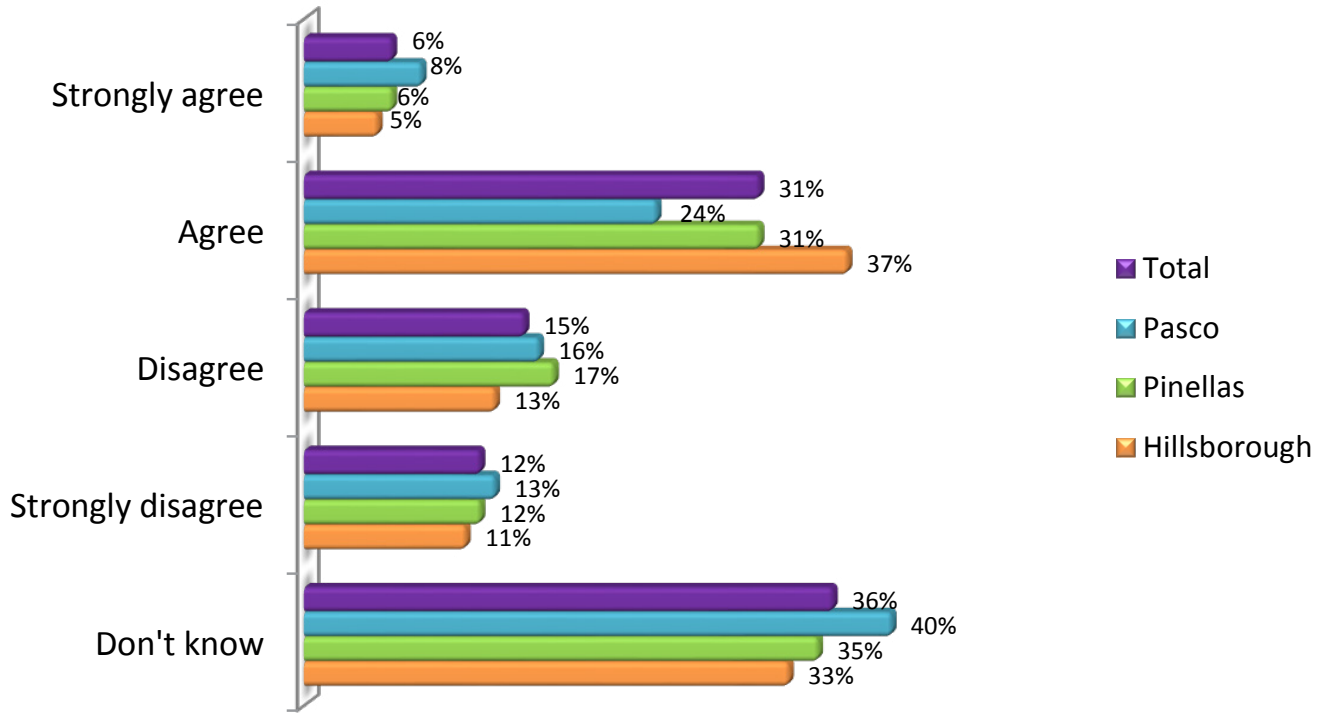


Strongly agree + Agree by Year

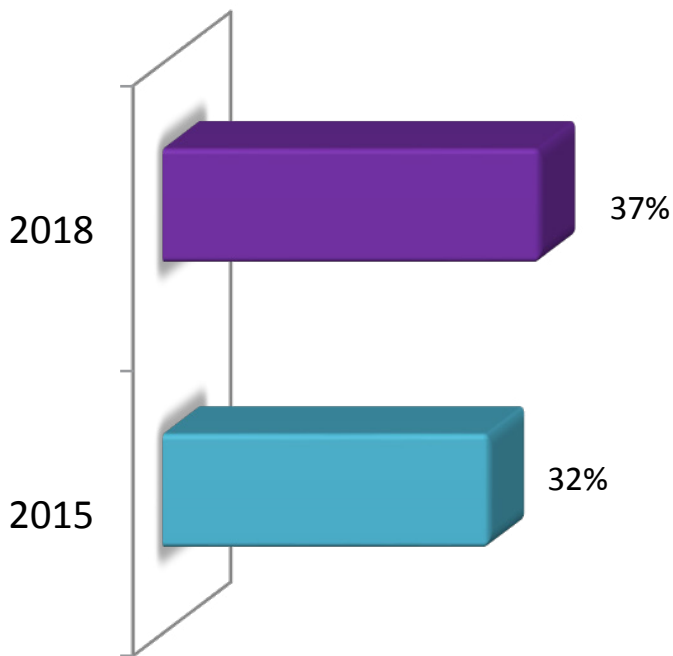


* Only asked to residents who answered "Yes" to the previous question.

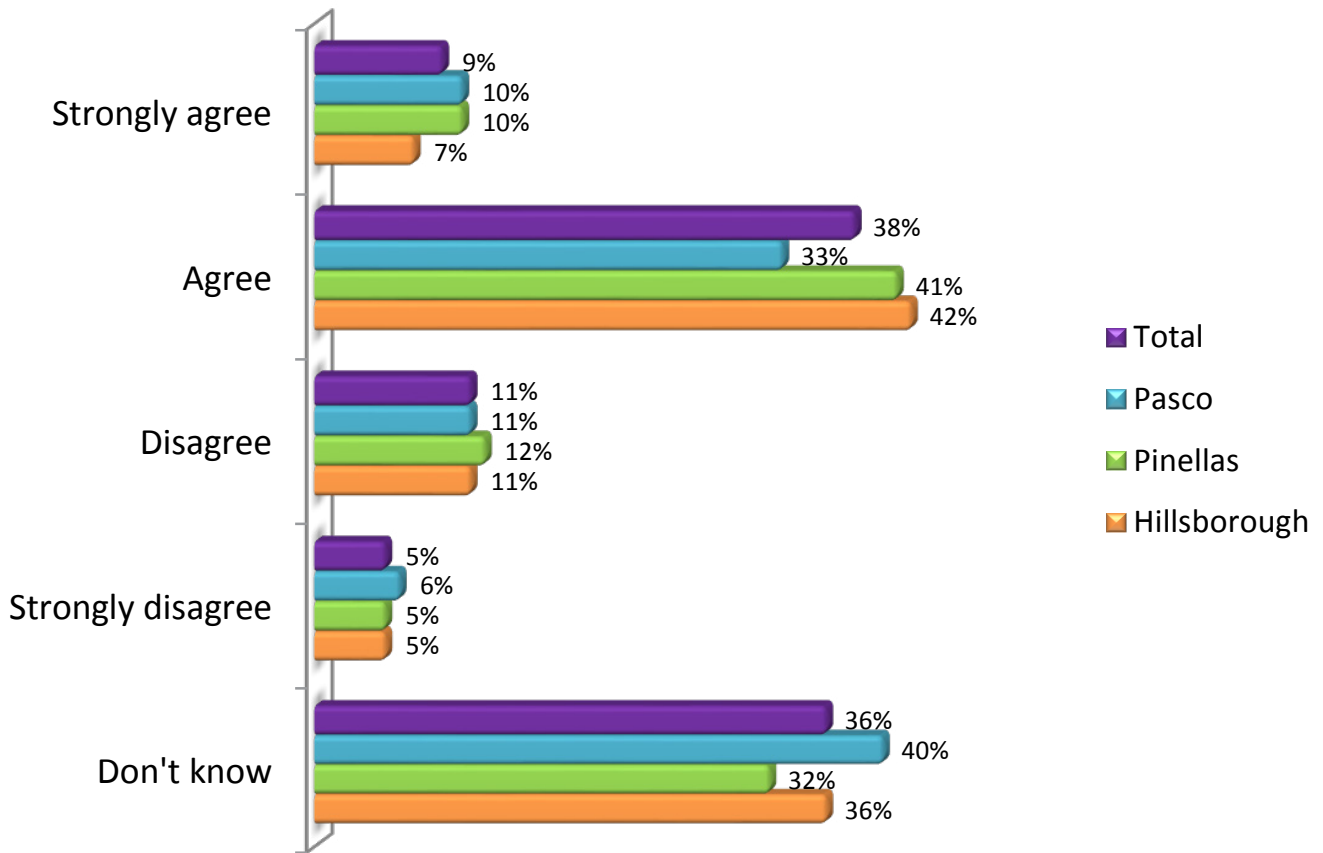
There will be enough water to meet the Tampa Bay region's needs in 15 years.



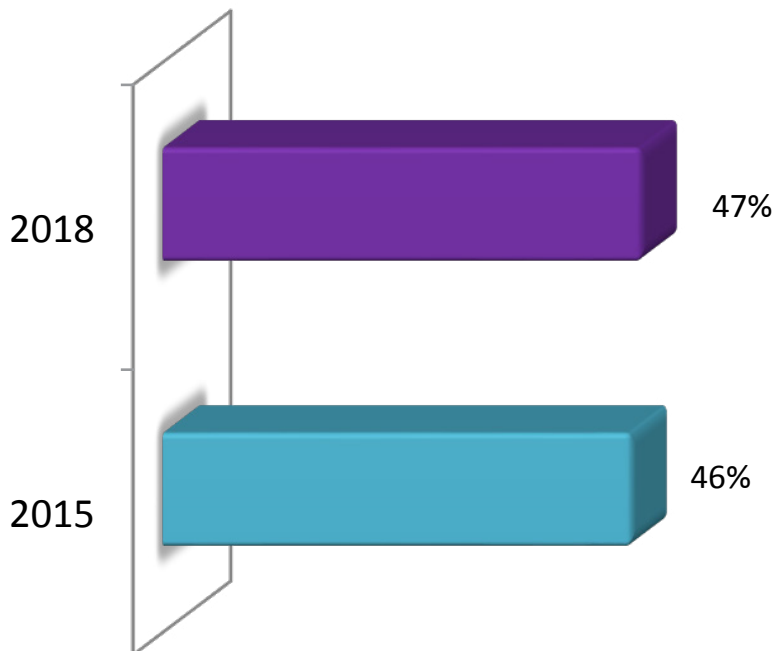
Strongly agree + Agree by Year



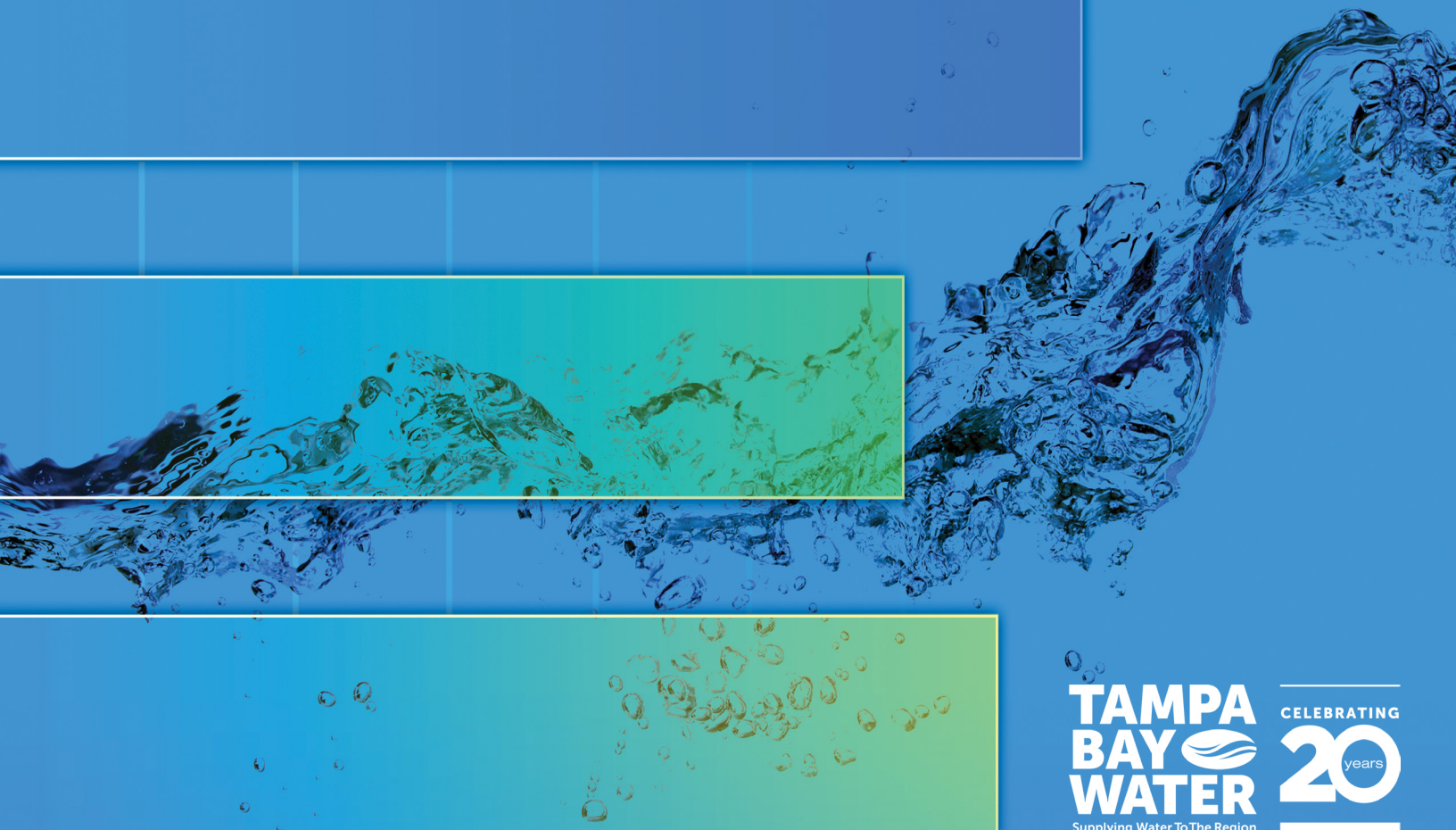
In our area, drinking water is harvested and supplied without harming the environment.



Strongly agree + Agree by Year



Tampa Bay Water



**TAMPA
BAY
WATER**
Supplying Water To The Region

CELEBRATING
20
years

Tampa Bay Water

Just over two in ten (22%) residents in the Tampa Bay Water service area claim to have heard of Tampa Bay Water – this is lower than in 2015 (25%). Hillsborough County residents (26%) are more familiar and Pasco and Pinellas (20%) residents are less familiar with Tampa Bay Water.

Nearly three out of four residents (74%) who have heard of Tampa Bay Water agree that it is effective in supplying water to the region. This figure is 2% points lower than in 2015. Pinellas County and Hillsborough County (79%) residents are more likely to believe that Tampa Bay Water is effective in supplying water to the regions, while Pasco County residents (64%) are least likely to believe this assertion.

Not quite two out of three residents (64%) who have heard of Tampa Bay Water agree that Tampa Bay Water is concerned about the environment. This is identical to the 2015 finding. Pinellas County residents (73%) are more likely to agree that Tampa Bay Water is concerned about the environment, while less than half of Pasco County residents (47%) believe this.

Two in three residents (65%) who have heard of it believe Tampa Bay Water is concerned about finding new sources of drinking water to meet the region's needs. There has been little change in opinions on this issue since 2015. Pinellas County residents (69%) are more likely to agree, while Pasco County residents (61%) are less likely to agree that Tampa Bay Water is concerned about finding new sources of drinking water.

Not quite three in five (58%) residents of Tampa Bay Water's service area who have heard of the organization believe it helps local governments cooperate on drinking water problems. In 2015, 61% of residents believed this statement. Pinellas County residents (69%) are most likely to believe that Tampa Bay Water helps local governments cooperate in solving drinking water problems, while only 42% of Pasco County residents feel this way.

About three in five (58%) residents who are familiar with Tampa Bay Water agree that it effectively develops water conservation programs that can lower water use. This finding is up 3% points since 2015. Residents in Hillsborough (66%) are more likely to agree, while residents in Pasco County (42%) are less likely to agree that Tampa Bay Water is effective in developing water conservation programs that lower water usage.

Only half (52%) of residents who are familiar with Tampa Bay Water believe that it listens to the community and accepts ideas that may benefit the region. In 2015, 53% believed this statement. Pinellas County residents (58%) are more likely to believe that Tampa Bay Water listens to the community, while only 40% of Pasco County residents believe.

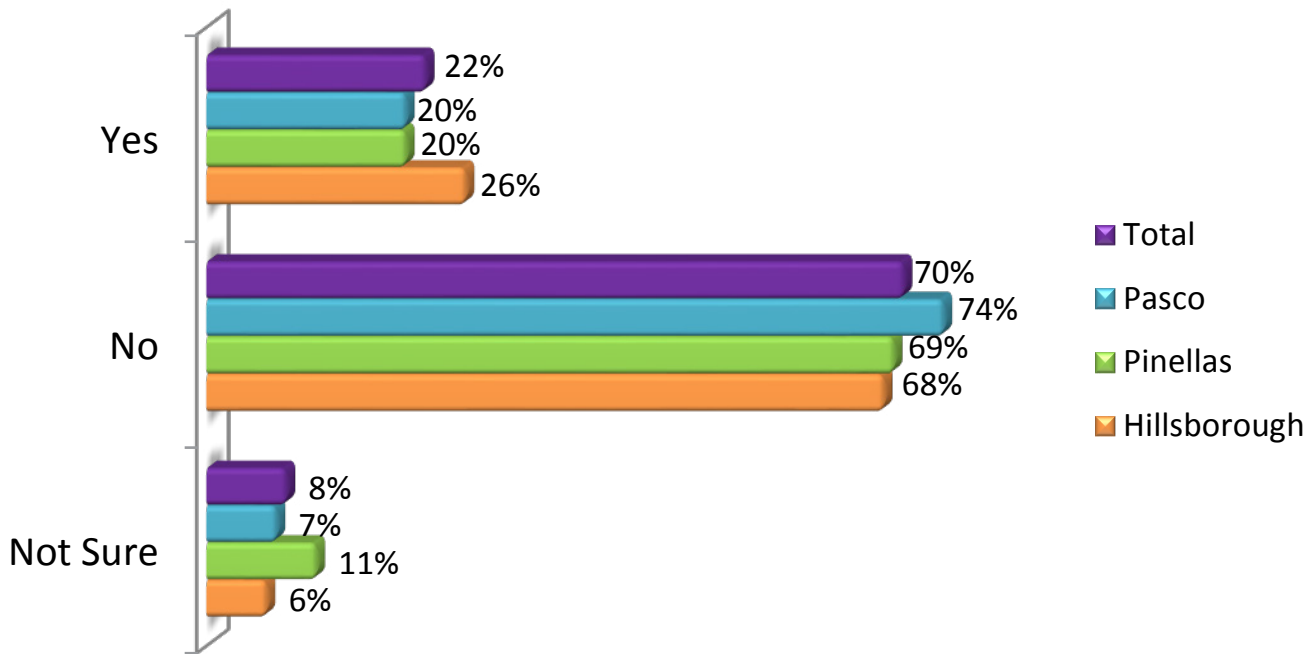
Of residents who are aware of Tampa Bay Water, two in three (65%) agree that it helps protect the region's water resources. This is down one percentage point since 2015. Pinellas County residents (71%) are more likely, while Pasco County residents (57%) are less likely to believe that Tampa Bay Water helps protect the region's water resources.

Just over half of the residents who are aware of Tampa Bay Water (52%) think that it has developed new water sources in an environmentally friendly fashion. This compares to 53% in 2015. Hillsborough County residents (61%) are more likely to agree, while Pasco County residents (39%) are less likely to agree.

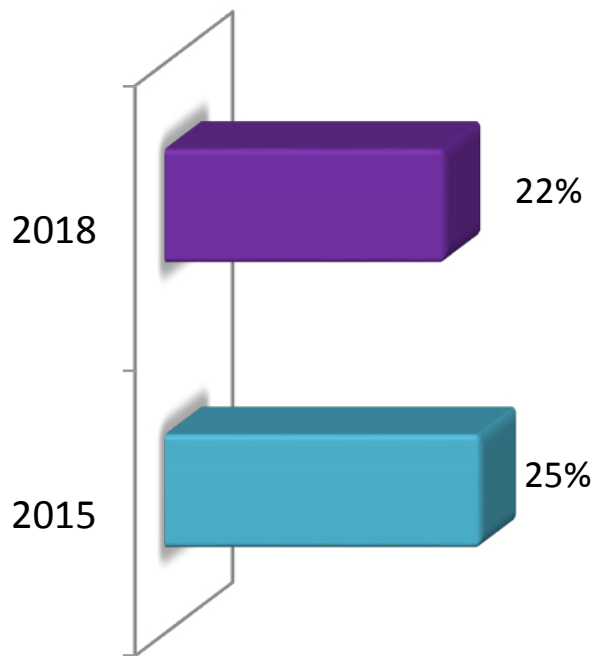
Of residents who are aware of Tampa Bay Water, 56% agree that it is concerned about climate change impacting water supplies. In 2015, only 51% of residents agreed. Hillsborough County residents (61%) are most likely to agree, while Pasco County residents (46%) are least likely to agree that Tampa Bay Water is concerned about climate change's impact on water supplies.

Not quite two out of five (38%) residents who are familiar with Tampa Bay Water rate it "Excellent" or "Very Good" in planning, developing, producing, or delivering high quality water supplies to their area. This figure is exactly the same as in 2018. Two out of three residents (66%) give Tampa Bay Water an "Excellent," "Very Good," or "Good" rating on this dimension. Pasco County residents (59%) are less likely to give Tampa Bay a "Good" or better rating on planning, developing, producing, and delivering high quality water supplies to their area, while 73% of Hillsborough County residents give Tampa Bay Water a "Good" or better rating.

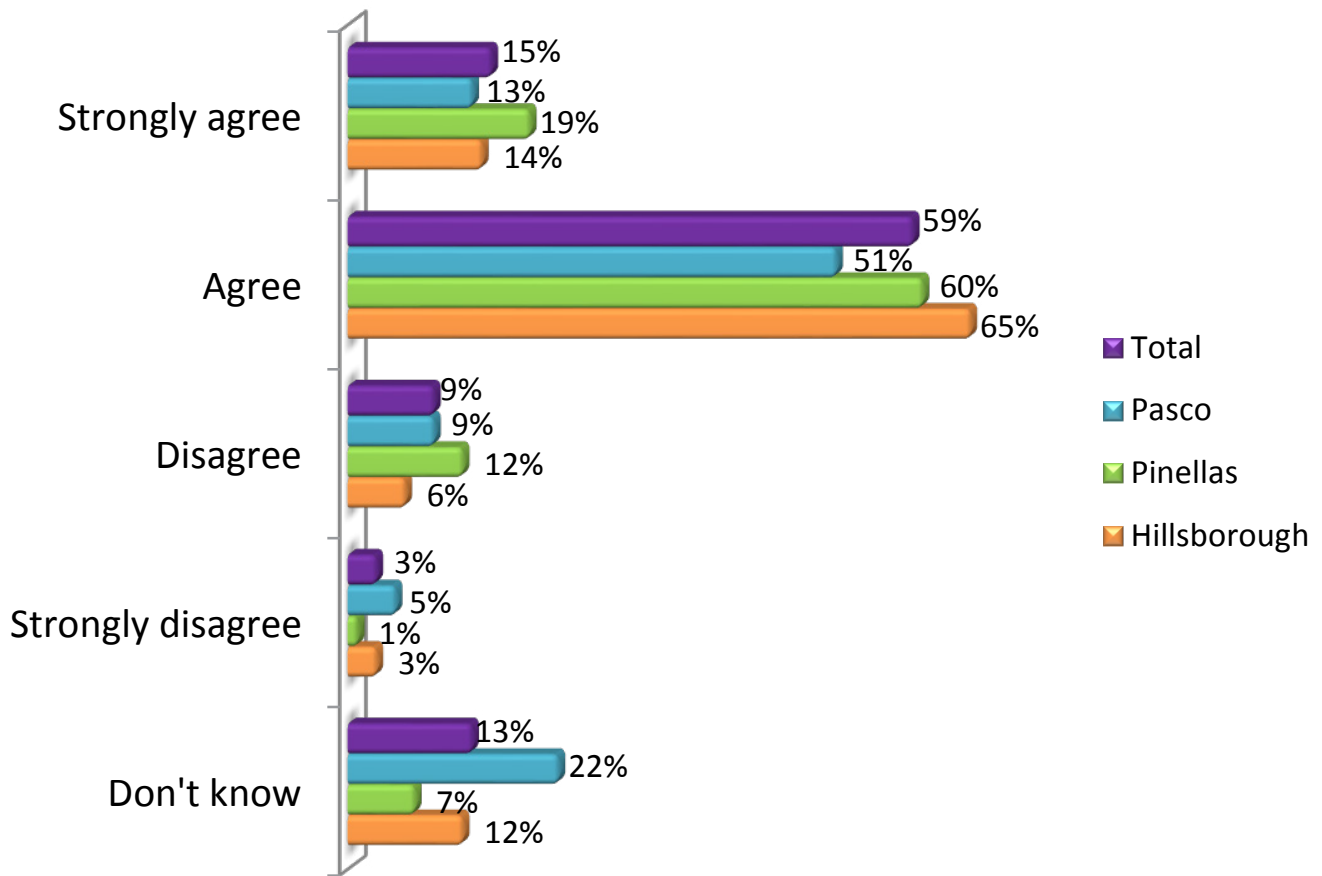
Have you heard of Tampa Bay Water, the region's wholesale drinking water provider?



Awareness by Year



*Tampa Bay Water is effectively supplying water to the region.**

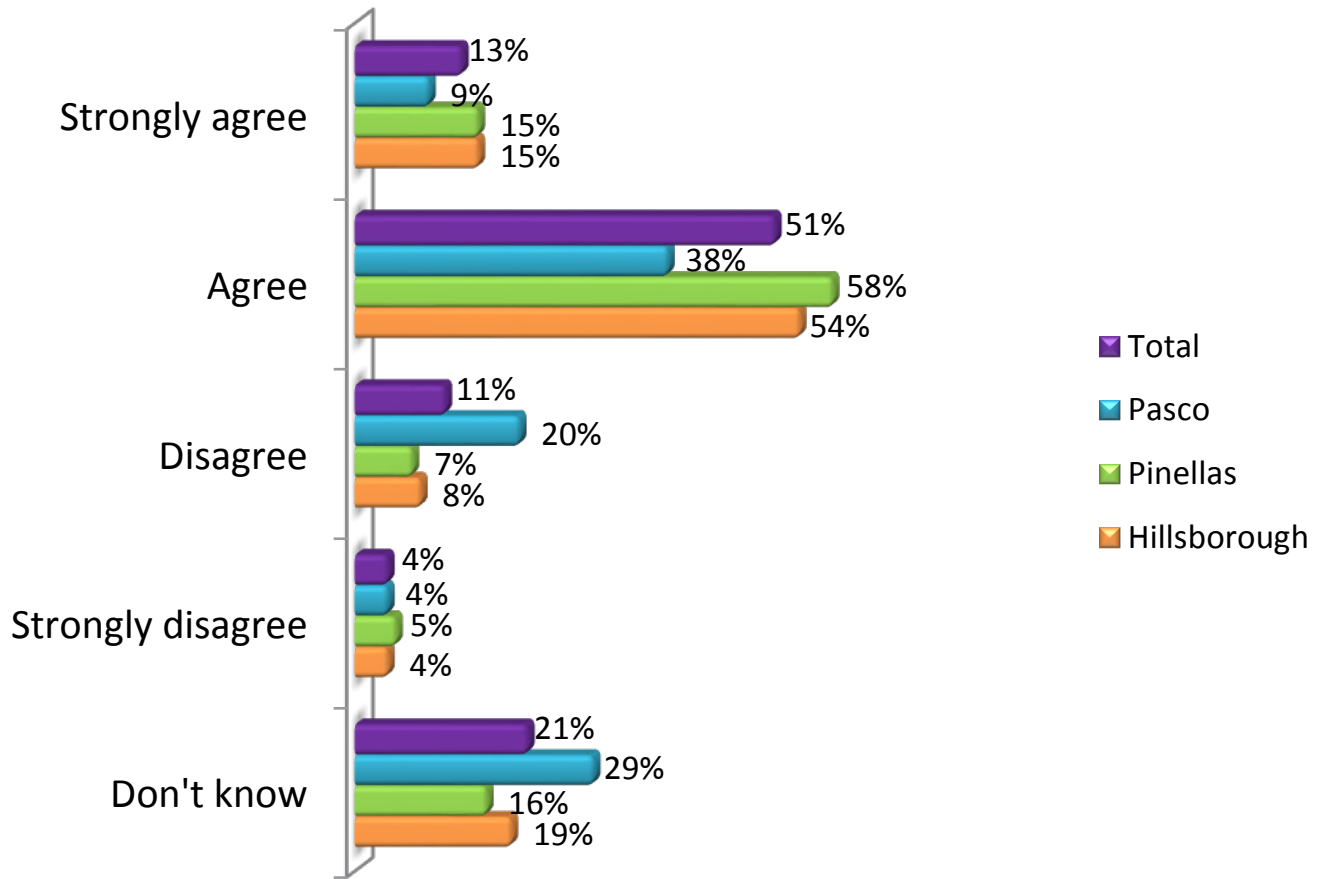


Strongly agree + Agree by Year

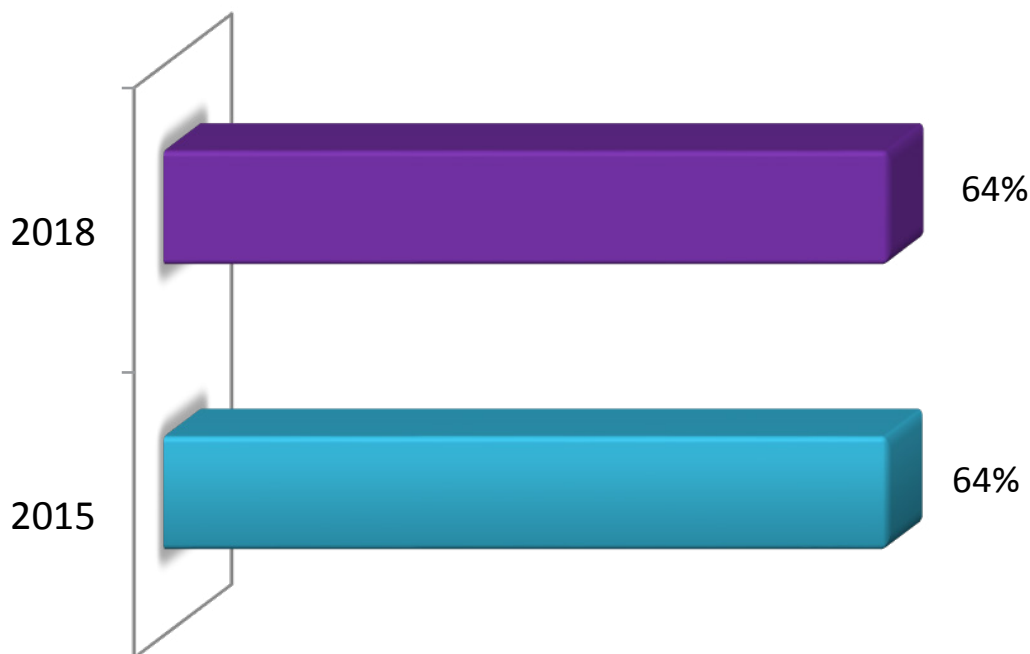


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water is concerned about the environment.**

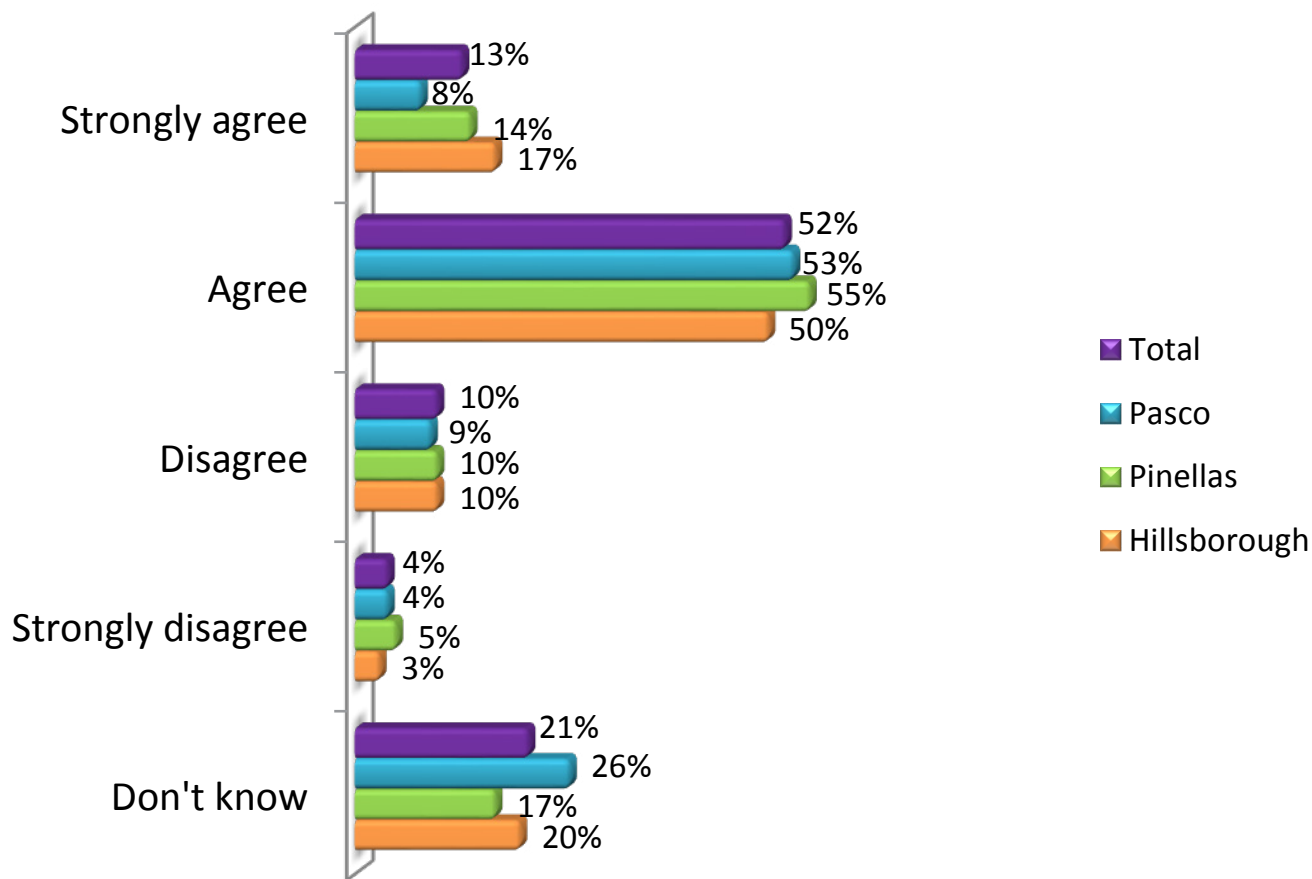


Strongly agree + Agree by Year

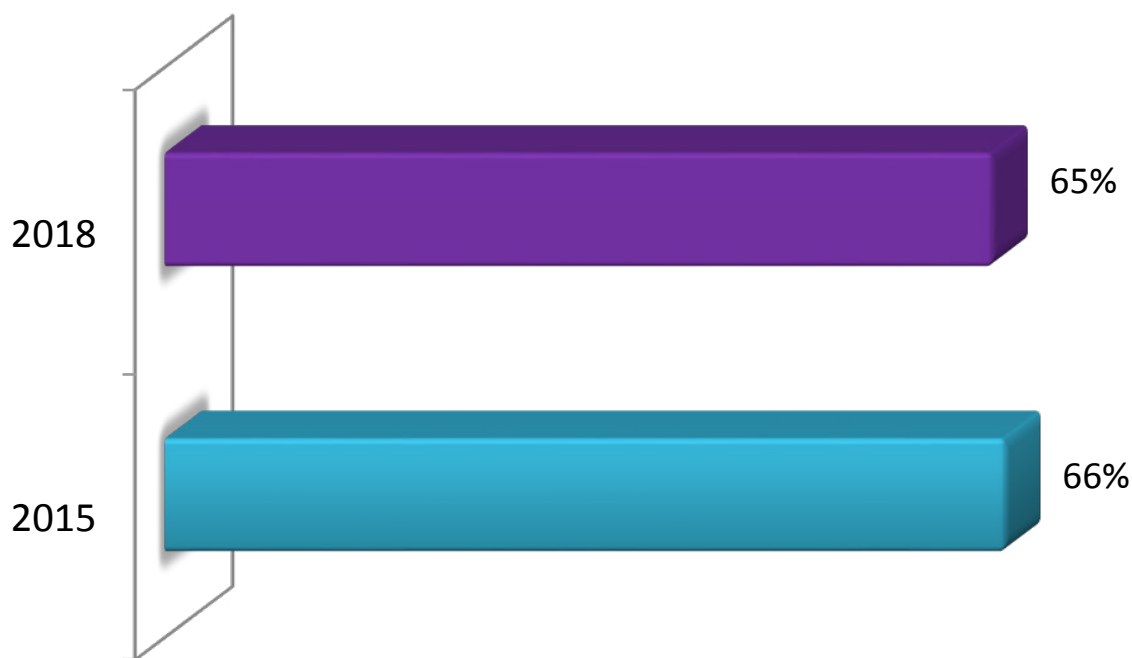


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water is concerned about finding new sources of water to meet our needs.**

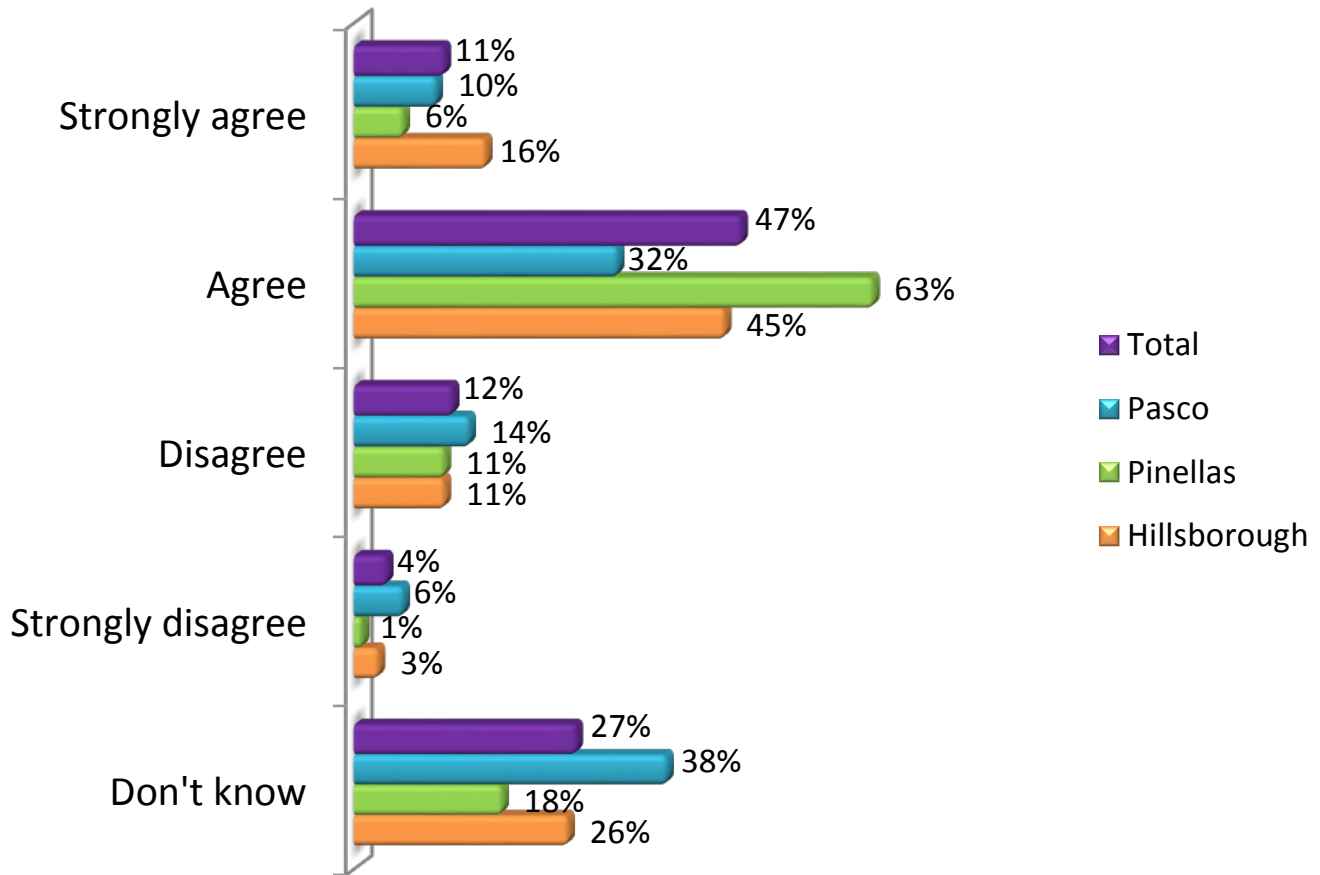


Strongly agree + Agree by Year

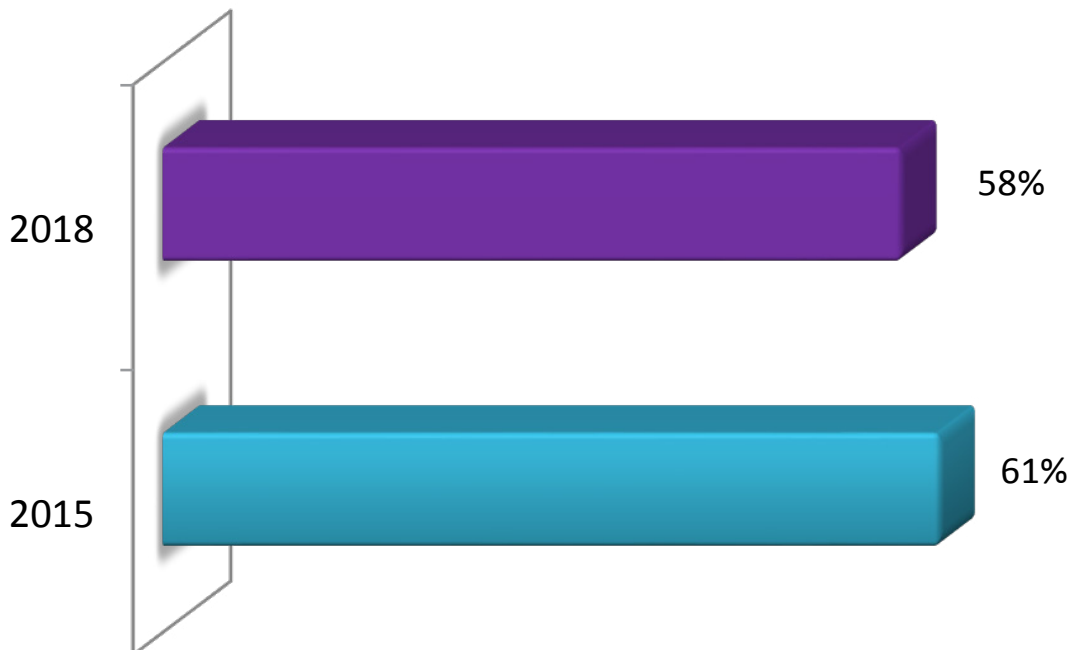


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water helps local governments cooperate on water problems.**

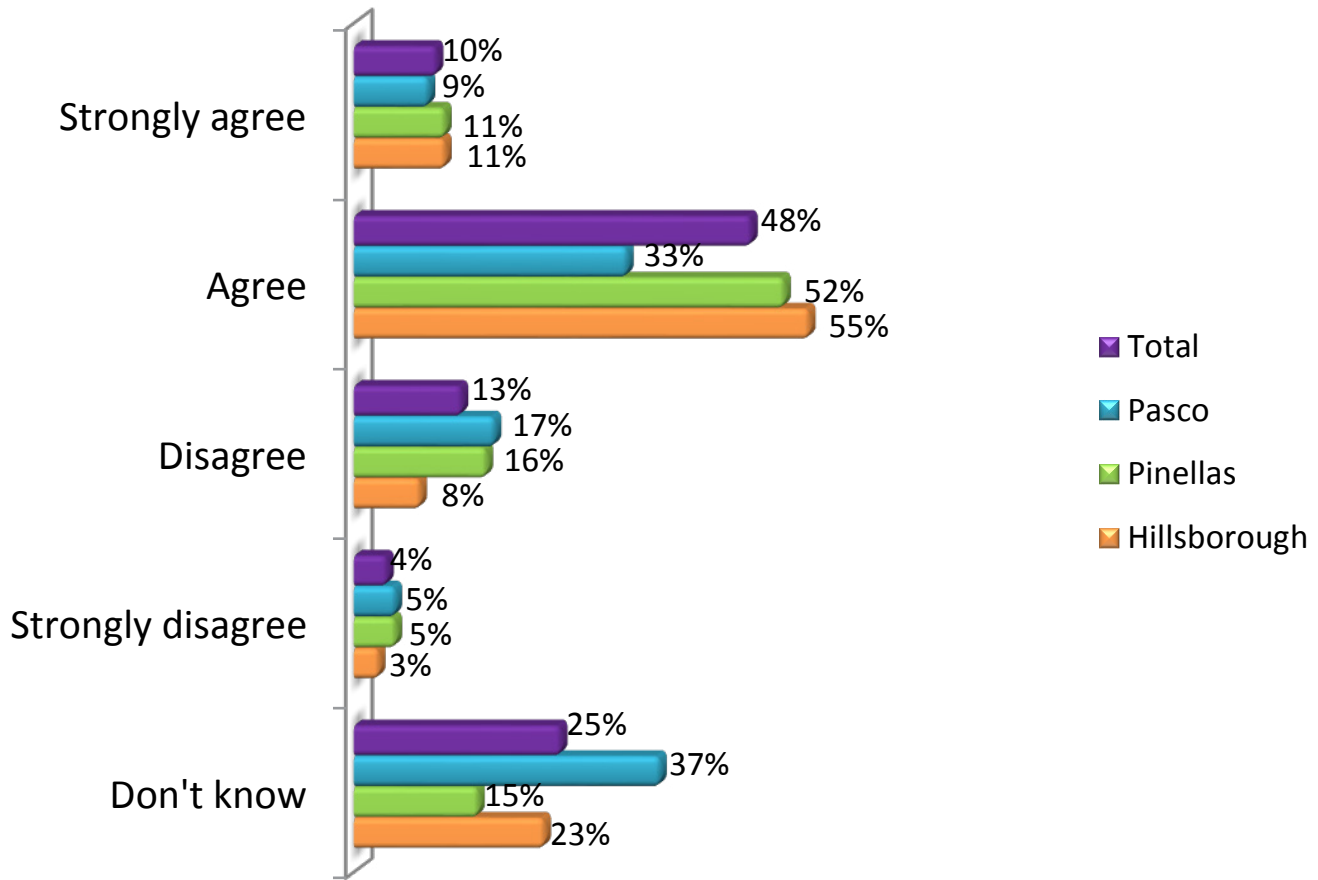


Strongly agree + Agree by Year

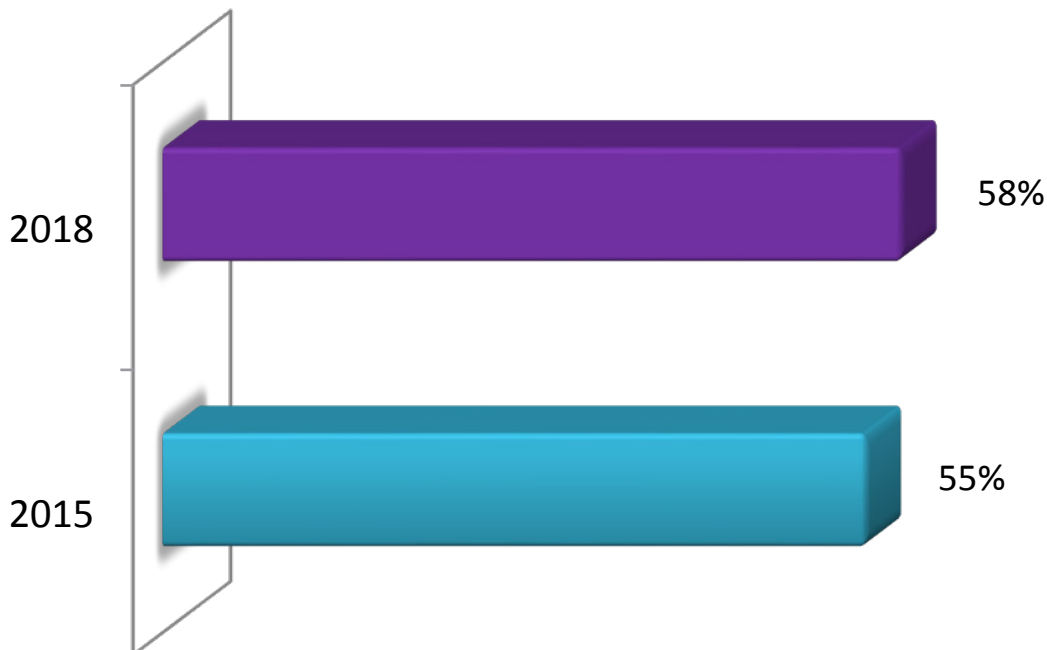


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water is effectively developing water conservation programs that can lower your water use.**

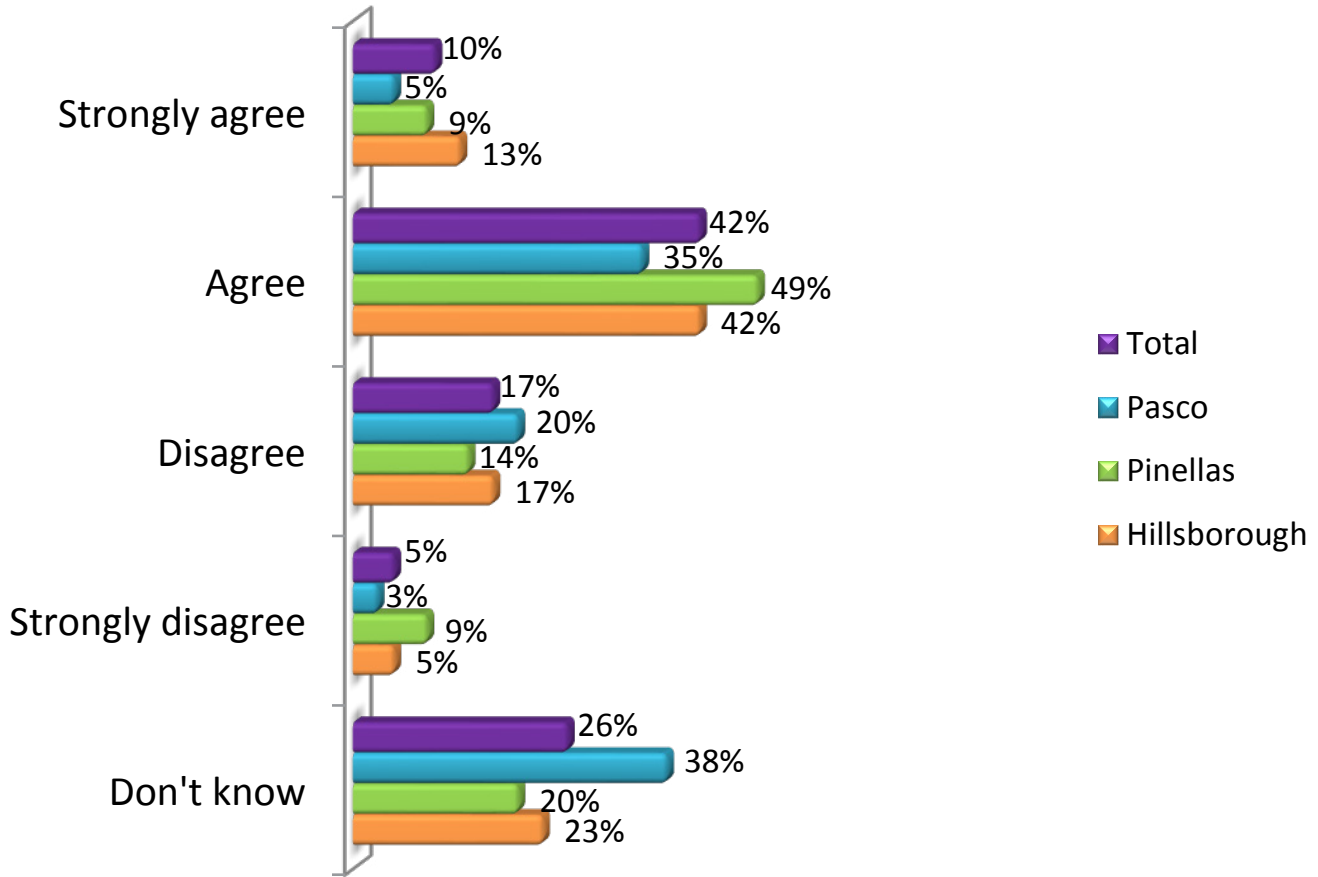


Strongly agree + Agree by Year

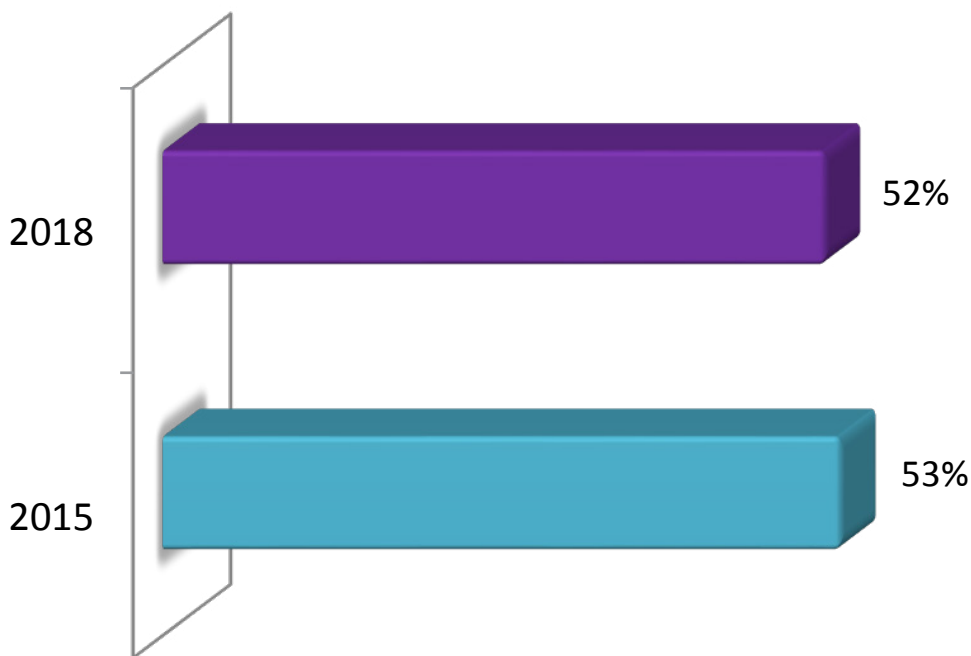


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water listens to the community and accepts ideas that may benefit the region.**

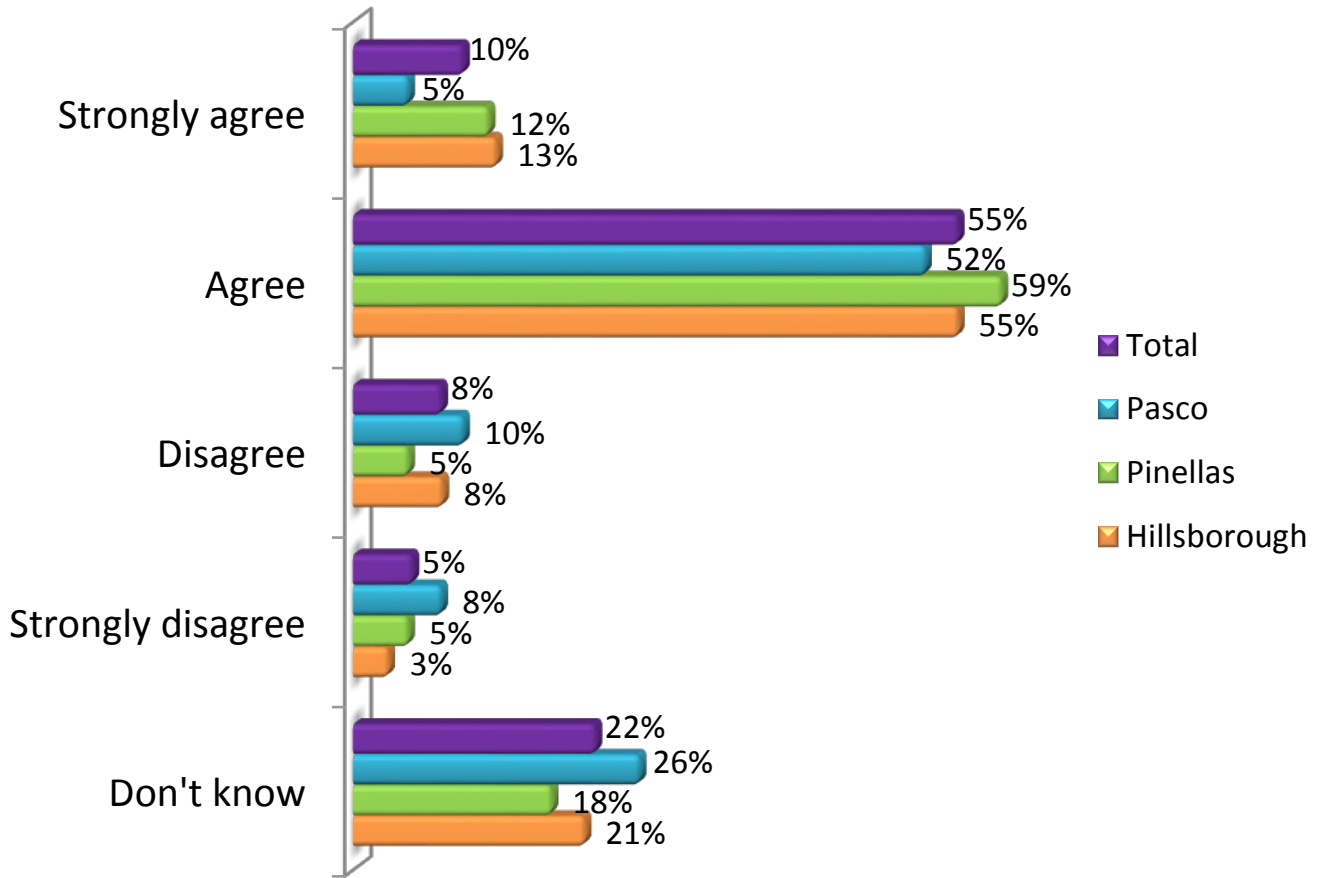


Strongly agree + Agree by Year



* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water helps protect the region's water resources.**

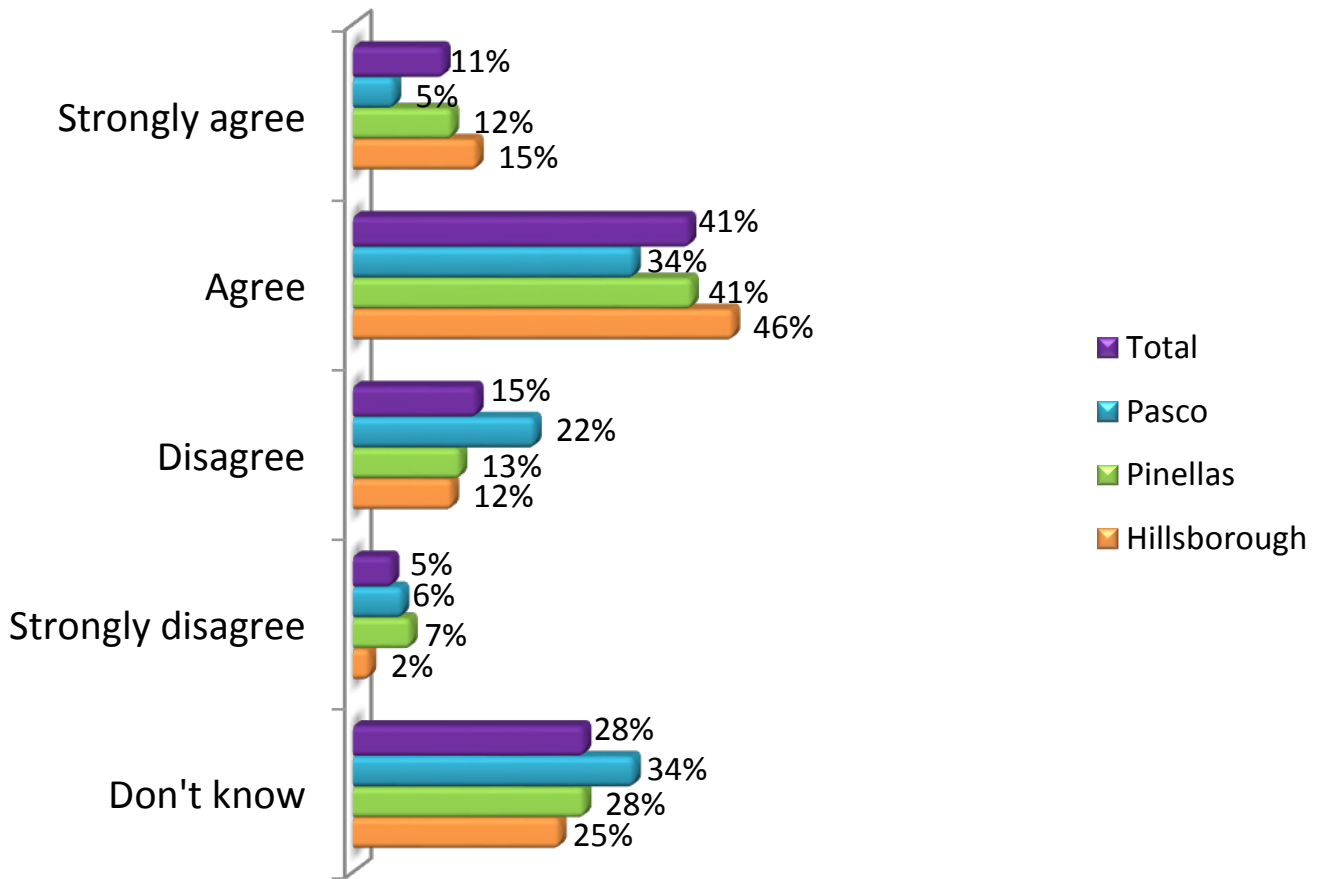


Strongly agree + Agree by Year

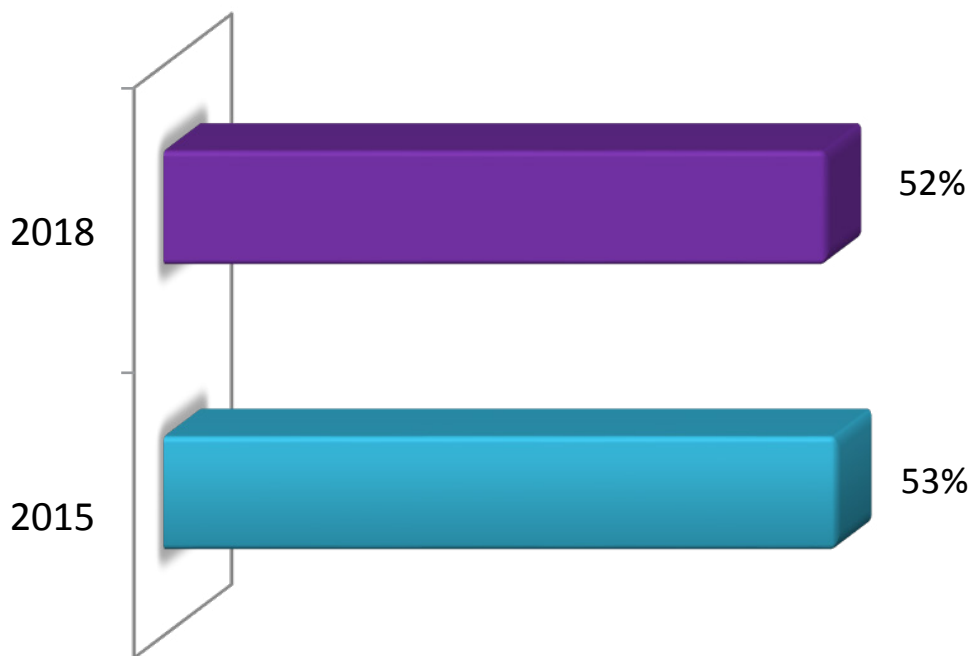


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water has developed new water sources in an environmentally sound manner.**

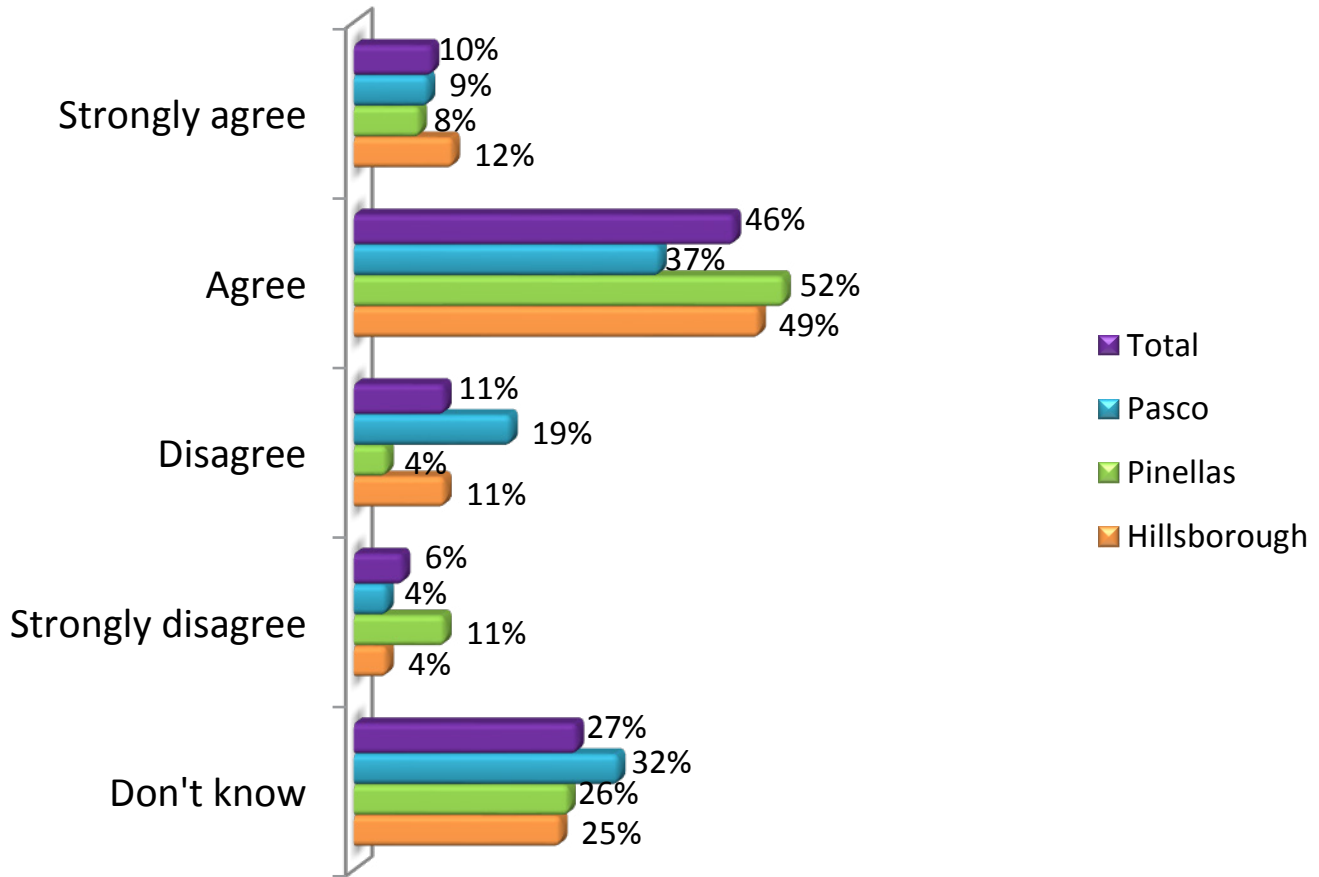


Strongly agree + Agree by Year

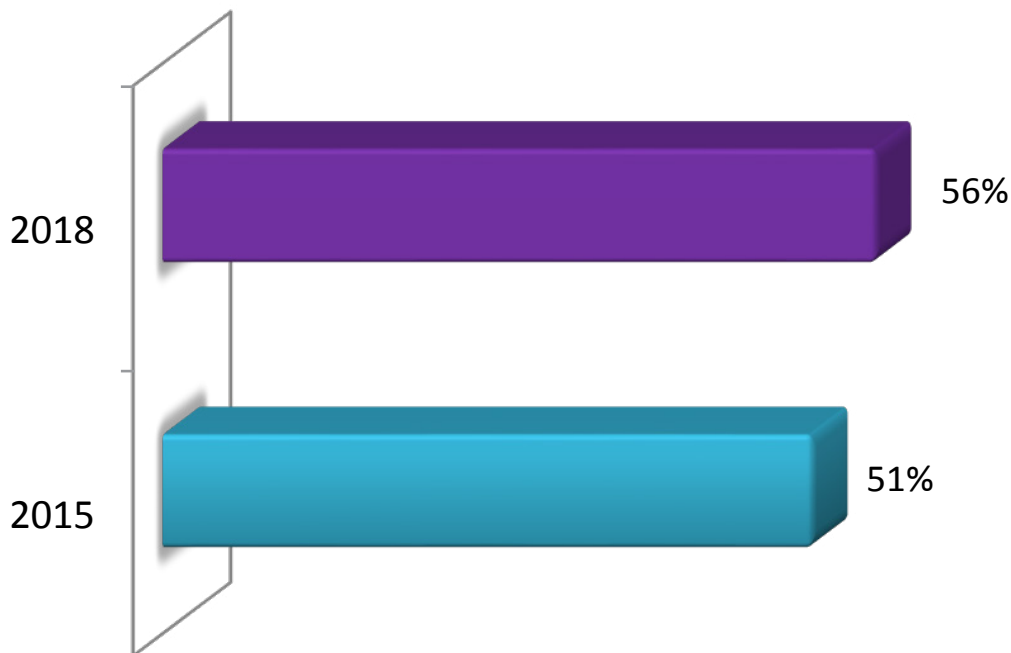


* Only asked to residents who have heard of Tampa Bay Water.

*Tampa Bay Water is concerned about climate change impacting water supplies.**

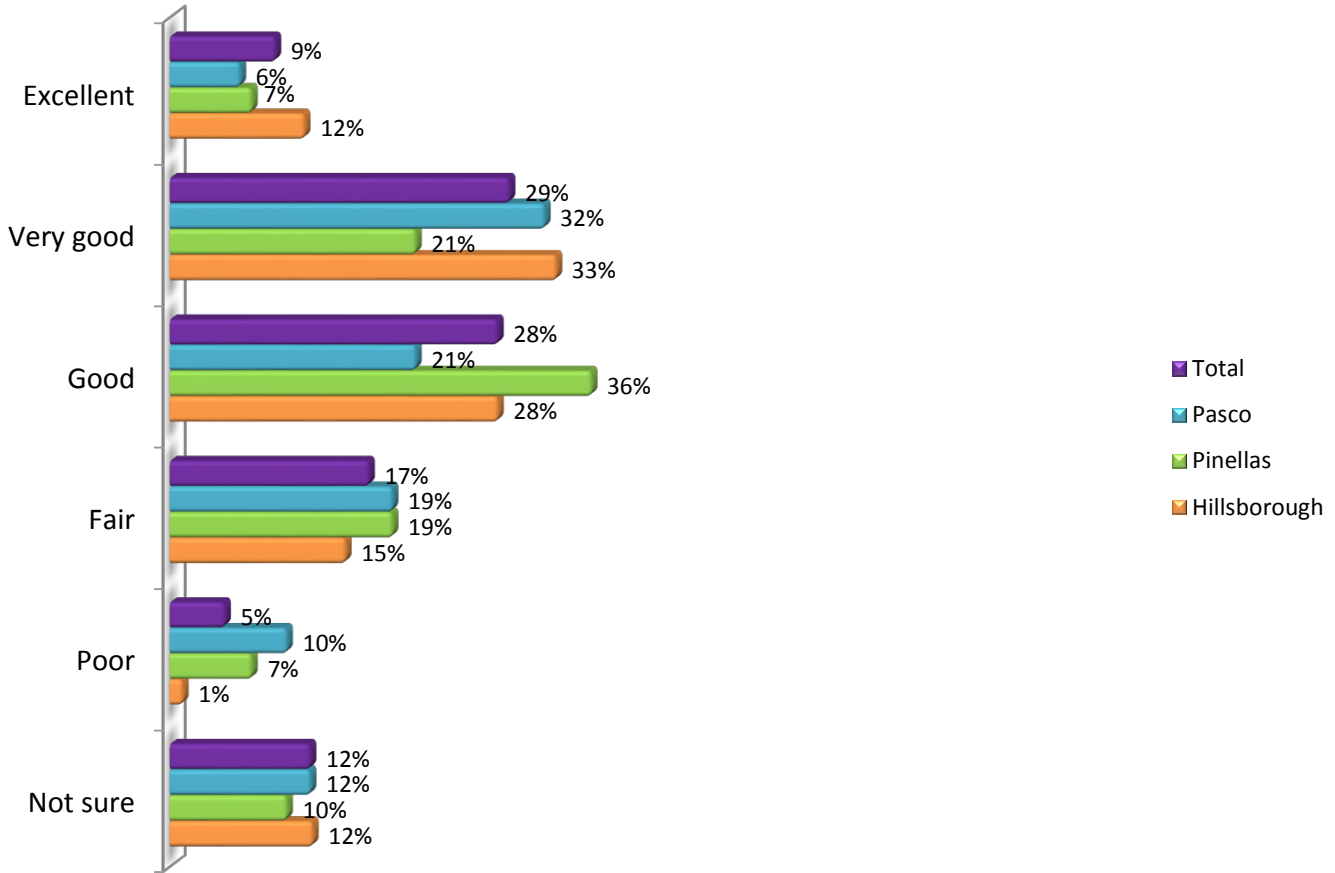


Strongly agree + Agree by Year

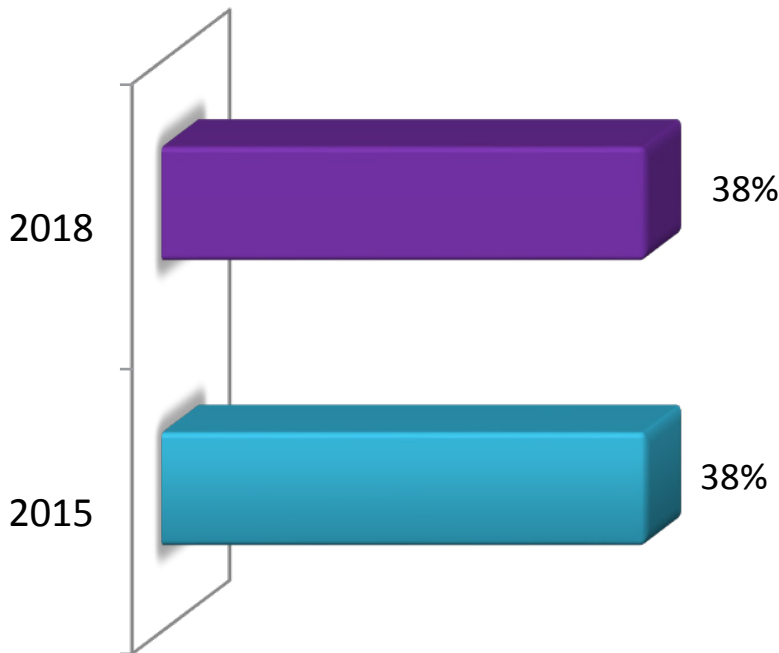


* Only asked to residents who have heard of Tampa Bay Water.

*How would you rate Tampa Bay Water on how well it is planning, developing, producing and delivering high quality water supply to your area?**

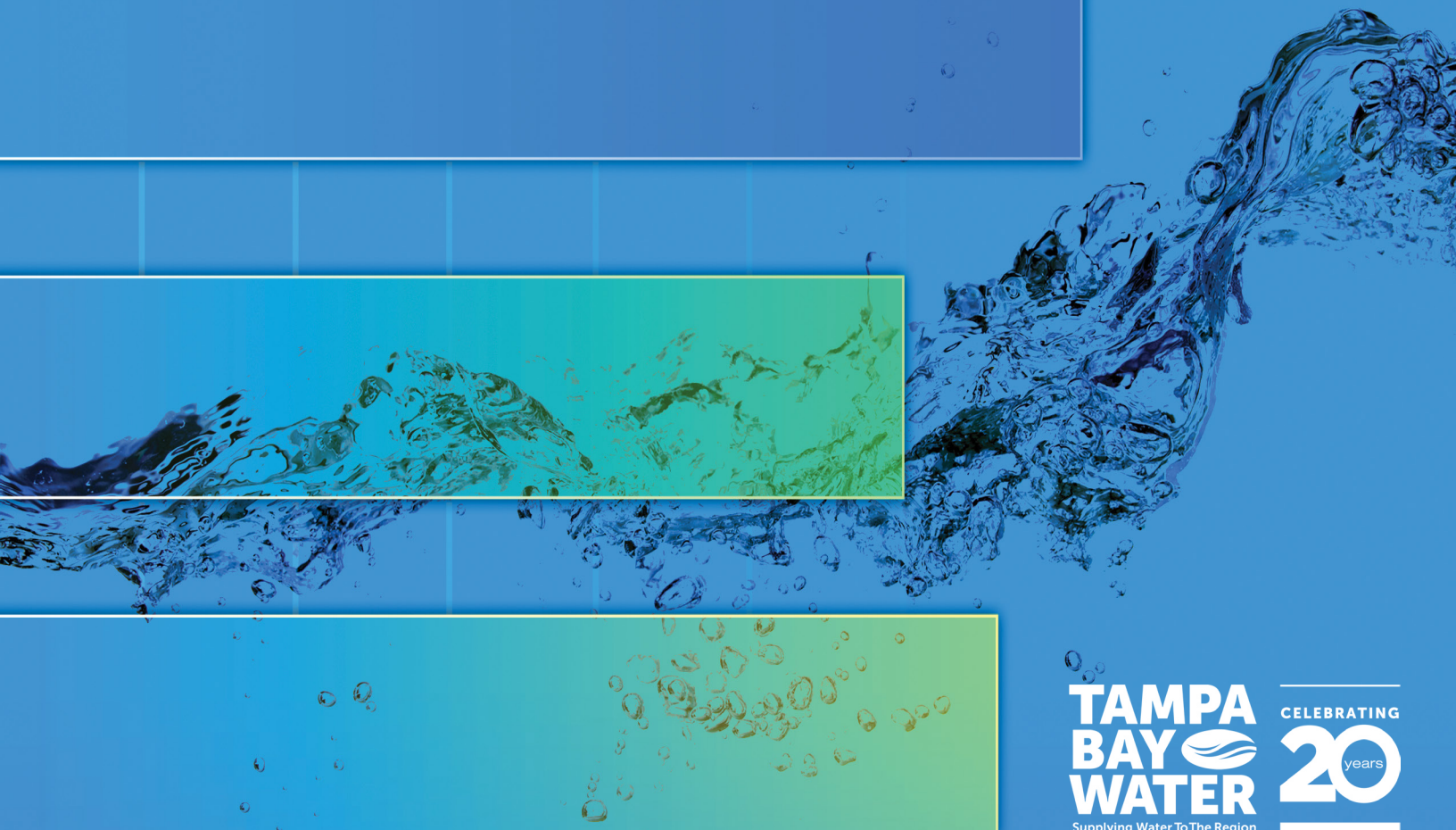


Excellent + Very Good by Year



* Only asked to residents who have heard of Tampa Bay Water.

Water Sources



Water Sources

The table below shows that a majority of residents (53%) believe their drinking water comes from the Floridan Aquifer. Hillsborough residents are slightly more likely (56%) to believe their drinking water comes from the Floridan Aquifer, while Pinellas County residents are less likely (50%) to believe so.

Source of Drinking Water	2015	2018
Floridan Aquifer	46%	53%
Springs	41%	36%
Reservoirs	39%	36%
Surface water	32%	24%
Desalination of seawater	18%	15%
Desalination of brackish water	8%	11%

One in three residents (36%) believes the source of their drinking water is either springs or reservoirs. Pinellas County residents (39%) are slightly more likely to think their drinking water comes from springs, and Hillsborough residents (42%) are slightly more likely to think their tap water comes from reservoirs.

One in four residents (24%) thinks drinking water emanates from surface water such as lakes and rivers. Hillsborough residents (28%) are slightly more likely to name this source of tap water.

Only 15% of residents of the Tampa Bay Water service area think their drinking water comes from desalination of seawater with Pinellas County residents (18%) slightly more likely to believe so. Just 11% of residents believe their drinking water comes from desalination of brackish water with 13% of Pinellas County residents believing this assertion.

Over eight out of ten residents in (82%) the Tampa Bay Water service area think there should be more comprehensive rules and regulations to protect the region's water resources. This result compares with 86% who felt this way in 2015. Comparatively more Hillsborough County residents (87%) believe this, while only 77% of Pinellas County residents share this opinion.

Comparatively more residents in 2018 (72%) than in 2015 (67%) think it makes more sense to combine more stringent source water protection regulations with more investment in advanced treatment technology to protect drinking water quality than to take only one of these measures. Comparatively more Hillsborough County residents (74%) believe that both measures should be used in tandem to protect drinking water. Fifteen percent of residents think only more advanced water treatment is the best approach, while 13% of residents think only more stringent regulations is the best approach to ensure drinking water quality.

Among residents who support investment in more advanced treatment of water, nearly four in ten (39%) are not willing to pay anything more to their utilities on their monthly bills to affect change. On the other hand, 10% of residents are willing to pay over \$10 per month for investment in more advanced treatment technology. The average amount residents are willing to pay for more advanced treatment technologies is \$5 per month. When considering this \$5 figure, it should be noted that around 40% of all residents in each county are not willing to pay anything.

Development remains the greatest threat to the region's water resources according to residents of Tampa Bay Water's service area as 52%, up 4% points from 2015, named it as a major concern. Fertilizer is a close second as just over half of residents (57%) select it as one of the greatest threat to water resources. Lawn runoff, selected by 47% of residents, is the third most significant threat as it garners 5% points more this year than in 2015.

Greatest Threats to Region's Water Resources		
	2015	2018
Development	48%	52%
Fertilizer	51%	51%
Lawn runoff	42%	47%
Industry	44%	43%
Mining	31%	33%
Animal waste	29%	27%
Agriculture	28%	27%
Regulation	17%	13%

Three in five (60%) residents say they care what the source of new water supplies is. This concern is stable across the three counties of Tampa Bay Water's service area.

Of residents who say they care what the source of new water supplies is, over one in three (36%) wants to know the source to ensure it is safe. Three in ten (30%) simply want to know where their water is coming from, and one in four (25%) wants to make sure the water source is one of which they approve.

Participants in this study were told that Tampa Bay Water's three main sources of drinking water are groundwater from the Floridan Aquifer, river water, and seawater. They were then asked if they would drink water from these three sources as well as a fourth source that was described as follows:

A fourth source – reclaimed water – is also being considered for drinking water. Any new source would go through an extensive cleaning, testing and monitoring process to ensure it is safe to drink before it reaches your home or business. All drinking water would meet or surpass the United States Environmental Protection Agency's Safe Drinking Water Act Standards. And all water would be tested in laboratories certified by the Department of Health.

Seven out of ten residents (69%) claim they will drink groundwater from the Floridan Aquifer, while over half will drink water from river water (56%) or seawater (53%). However, only 30% of residents who live in the Tampa Bay Water service area will drink reclaimed water even though it would go through extensive cleaning, testing, and monitoring to ensure that it was safe to drink before it reached their homes and businesses, and that it would meet or surpass USEPA's Safe Drinking Water Act Standards, and that it would be tested in laboratories certified by the Department of Health.

Source of Drinking Water	Would Drink Water
Groundwater from Floridan Aquifer	69%
River water	56%
Seawater	53%
Reclaimed water	30%

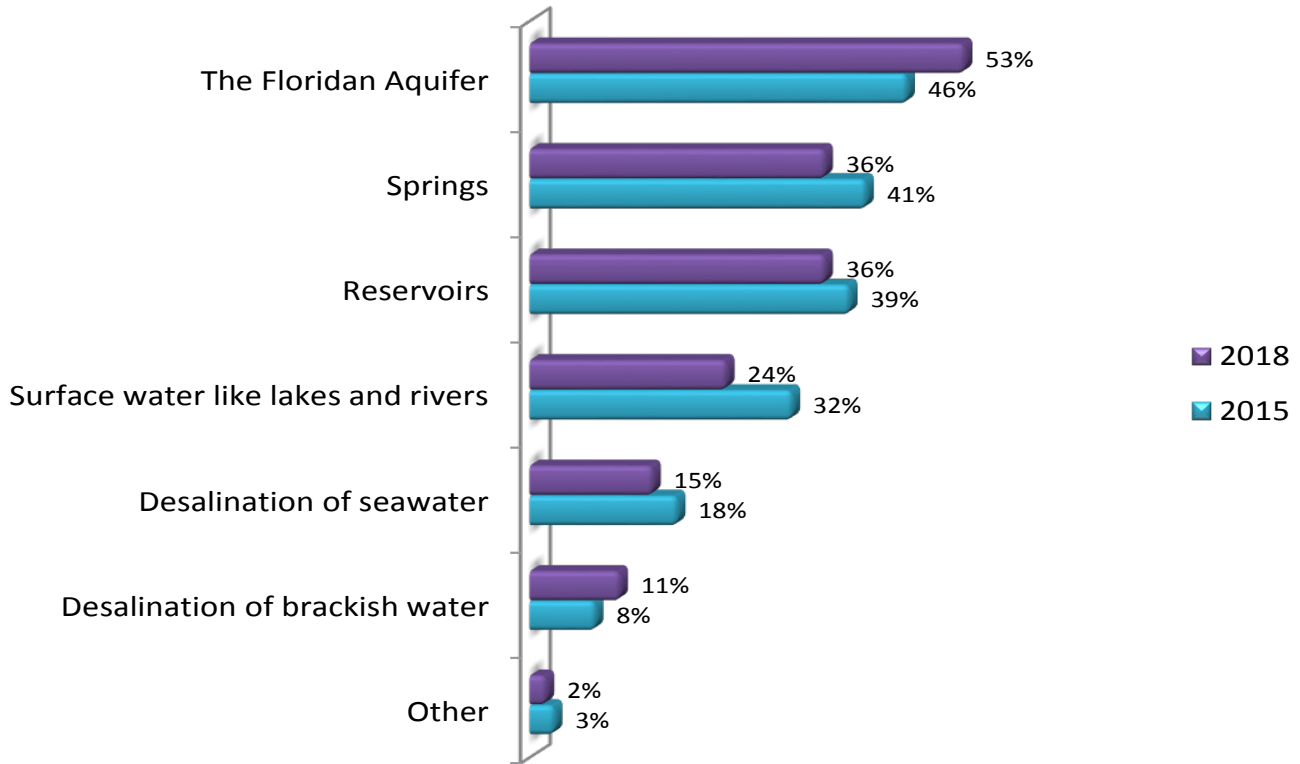
Hillsborough and Pasco County residents are slightly more likely (32%) to drink reclaimed water, while Pinellas County residents (27%) are less likely.

A plurality of residents (39%) of Tampa Bay Water's service area believe "environmental stewardship, that is whether a new water supply can be implemented without harming the environment, whether it can be permitted under existing regulations, and whether it includes conservation and/or reuse of existing resources," is the most important consideration when deciding to accept a new water supply. Environmental stewardship is most important to residents of Pasco and Hillsborough counties.

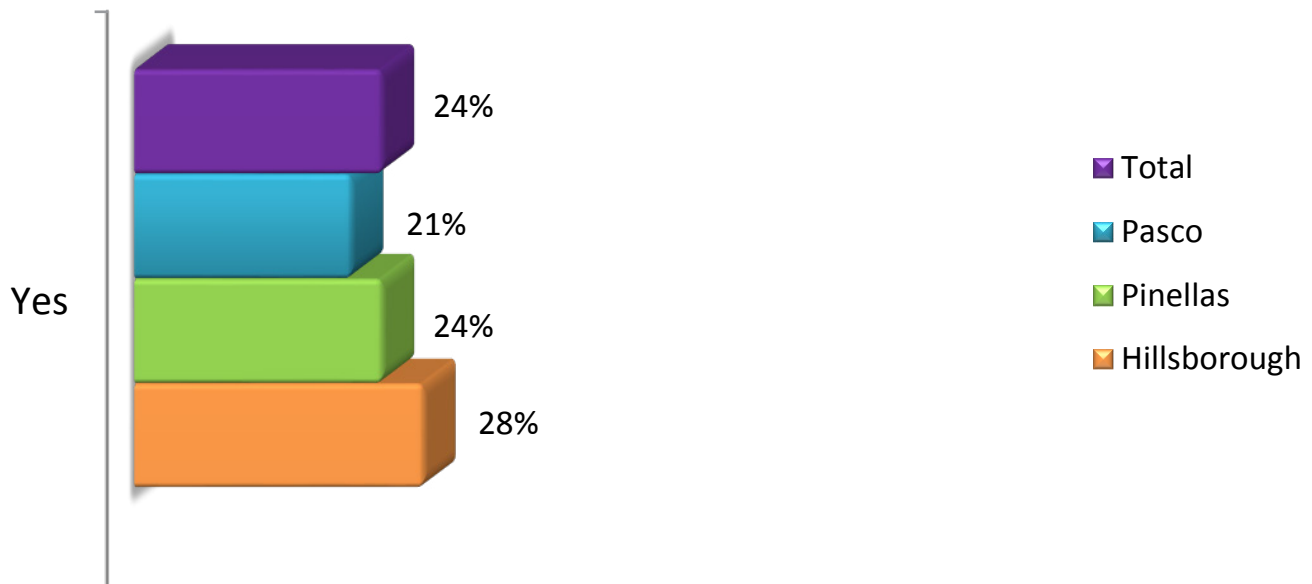
A close second in importance when deciding to accept a new water supply is reliability, that is whether the new water supply can endure drought or catastrophic failure, storm surges, and power outages – 36% of residents of the Tampa Bay Water service area selected this factor as most important. Reliability is most important to residents of Pinellas County.

Least important in deciding to accept a new water supply is project costs, that is how much it costs to build and operate a new water facility. Only 13% of residents selected this option as most important when deciding to accept a new water supply option.

Which of the following drinking water sources are currently being used to supply drinking water to the Tampa Bay region? - By year*

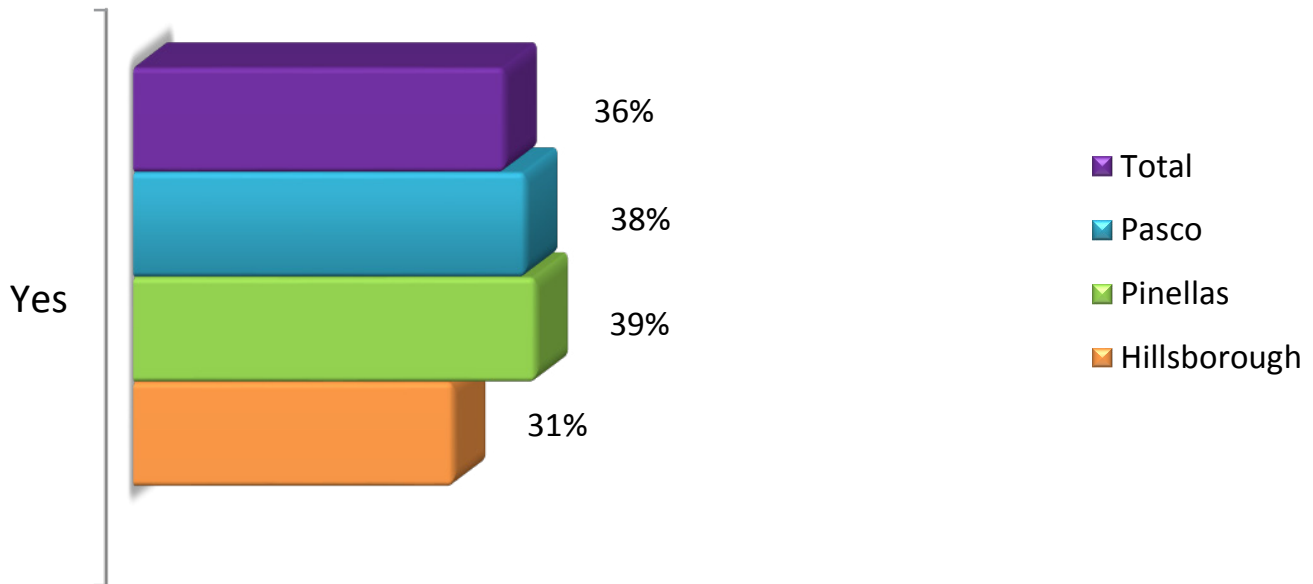


Is surface water like lakes and rivers currently being used to supply drinking water to the Tampa Bay region? - Yes

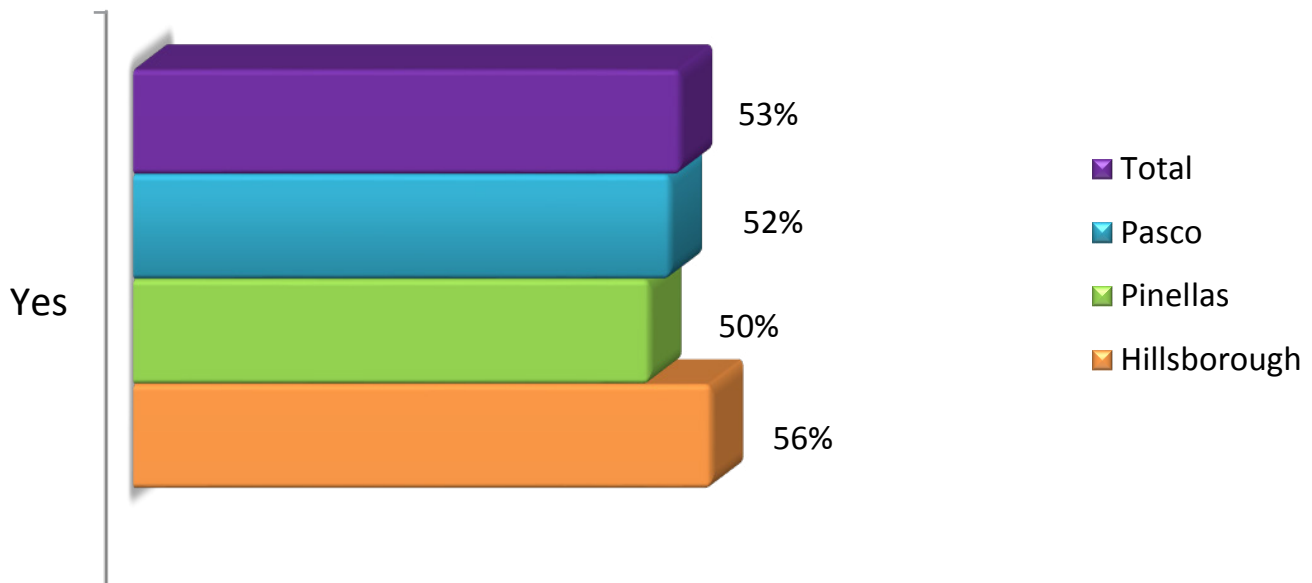


*Multiple responses permitted.

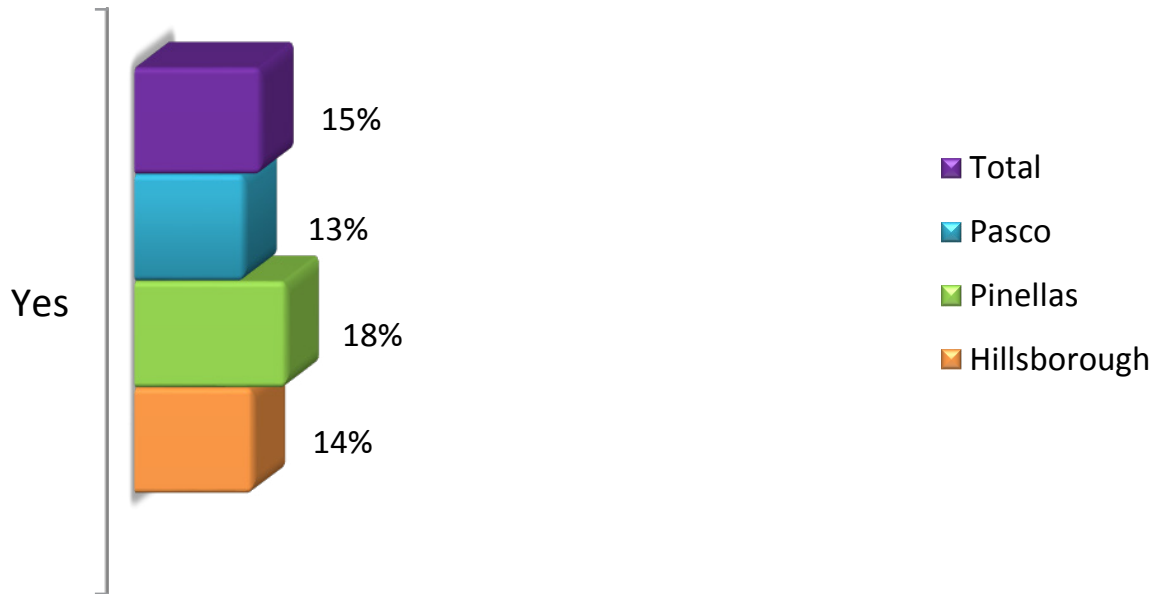
Are **springs** currently being used to supply drinking water to the Tampa Bay region? - Yes



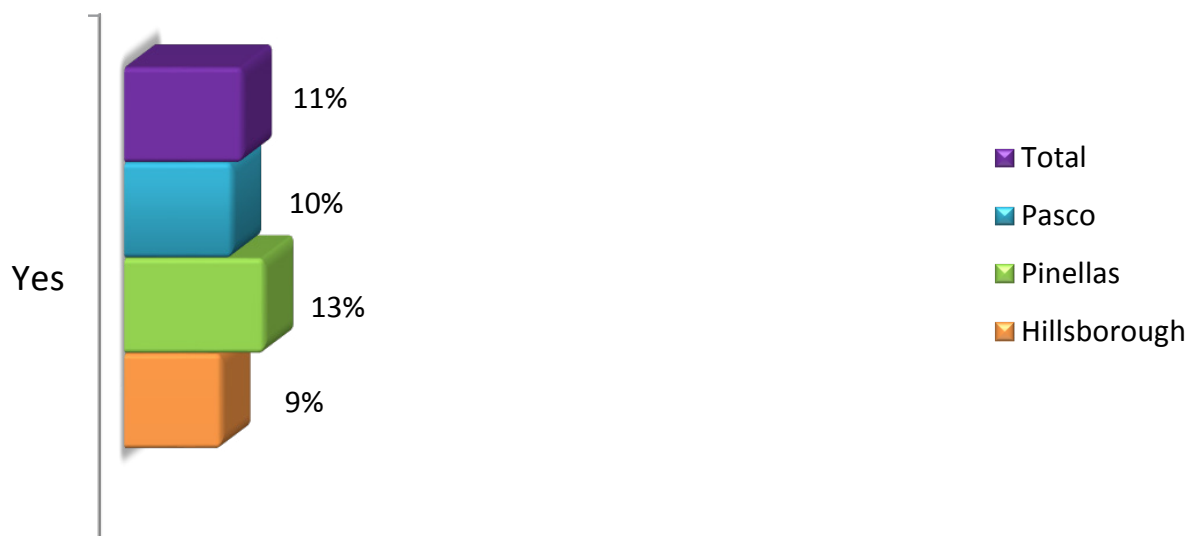
Is the **Floridan Aquifer** currently being used to supply drinking water to the Tampa Bay region? - Yes



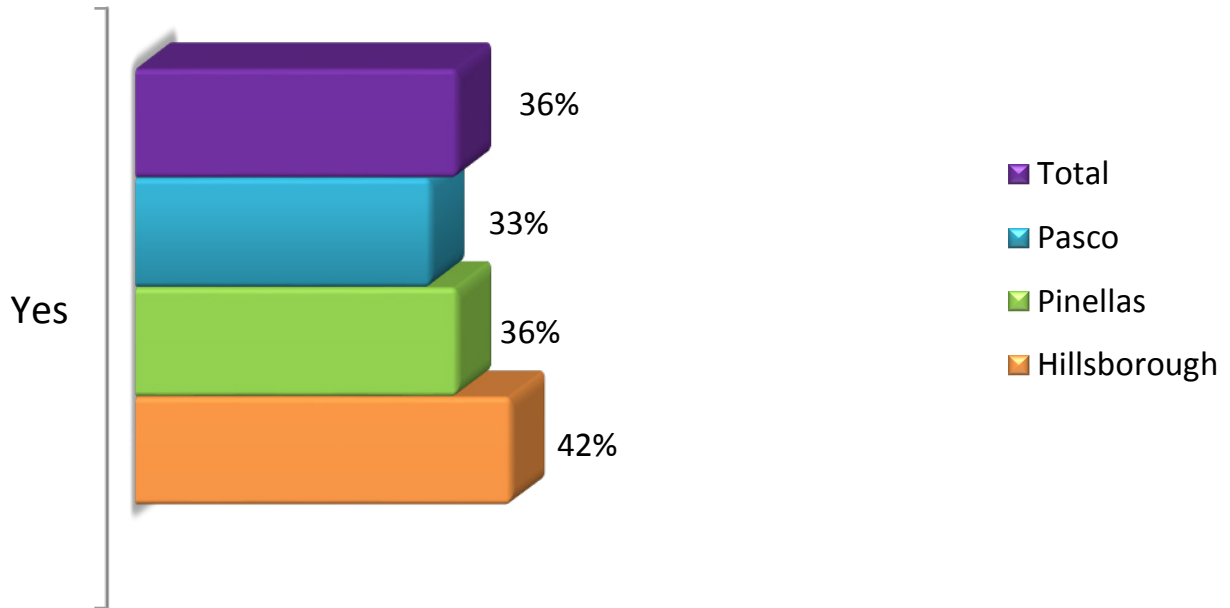
Is the **desalination of seawater** currently being used to supply drinking water to the Tampa Bay region?



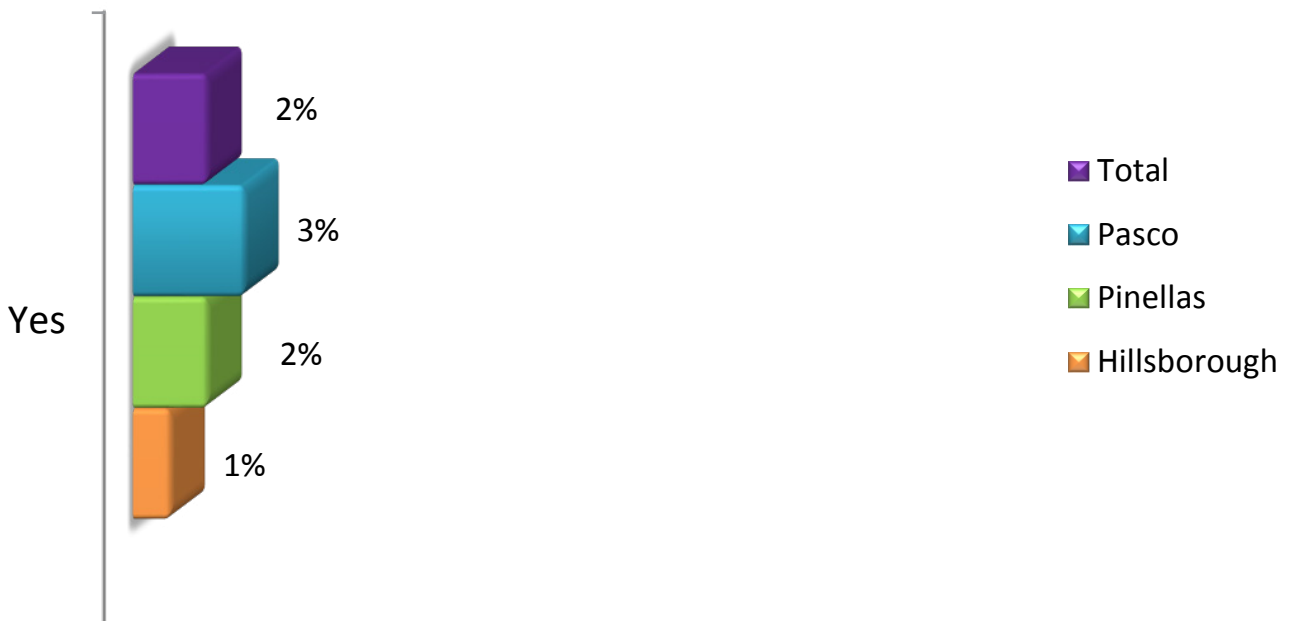
Is the **desalination of brackish water** currently being used to supply drinking water to the Tampa Bay region?



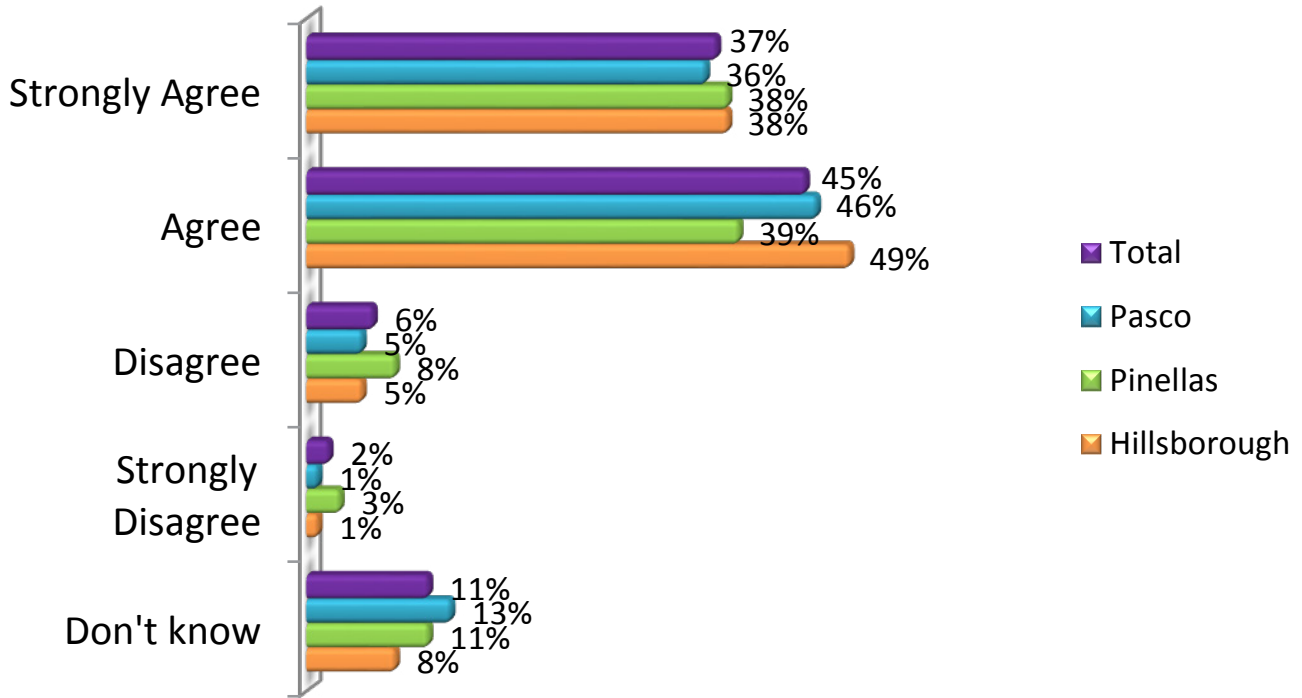
Are **reservoirs** currently being used to supply drinking water to the Tampa Bay region?



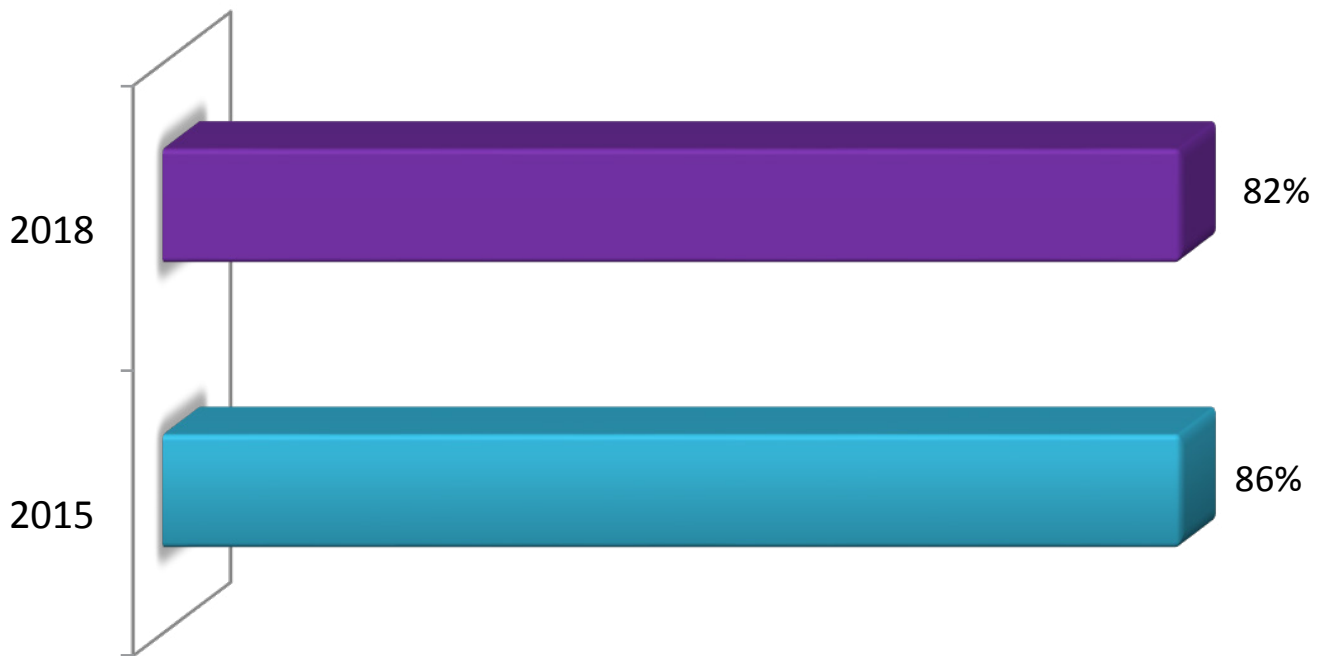
Are **other sources** being used to supply drinking water to the Tampa Bay region?



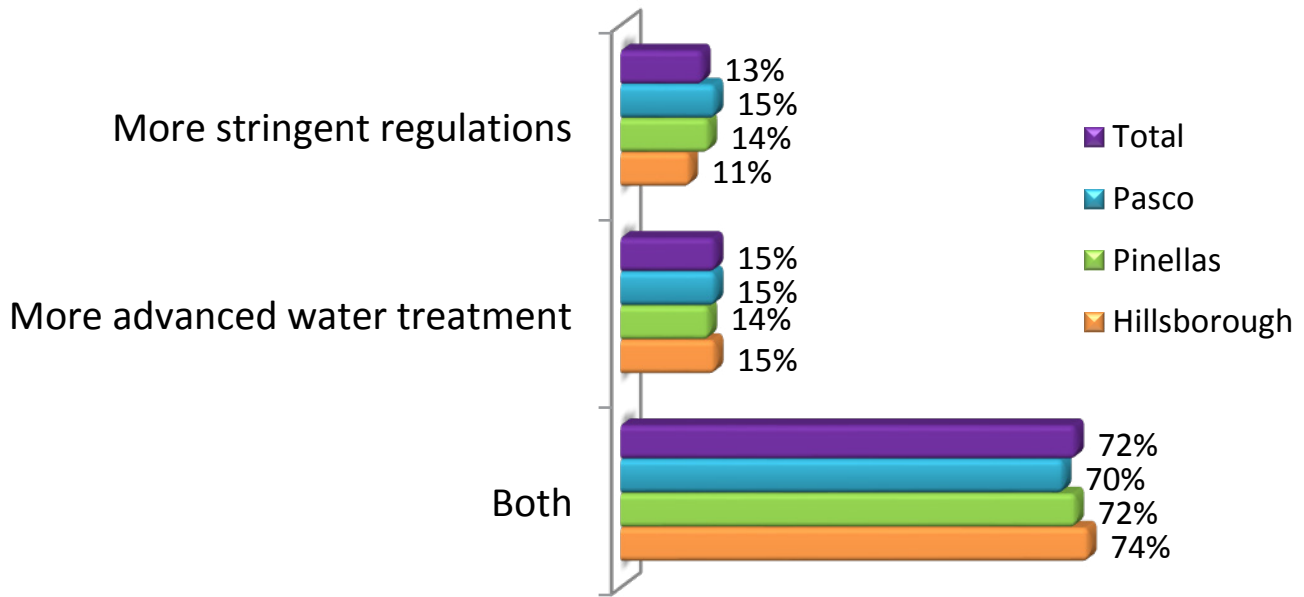
There should be more comprehensive rules and regulations to protect the region's water resources.



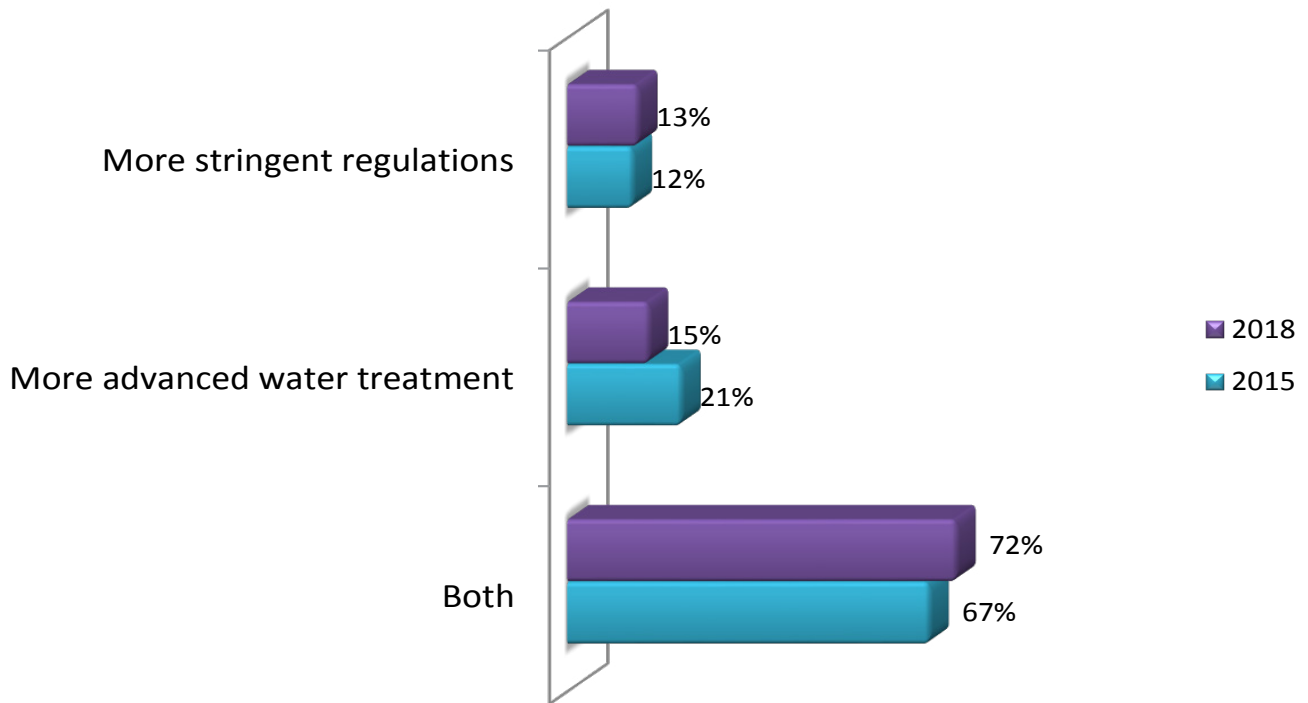
Strongly Agree + Agree by Year



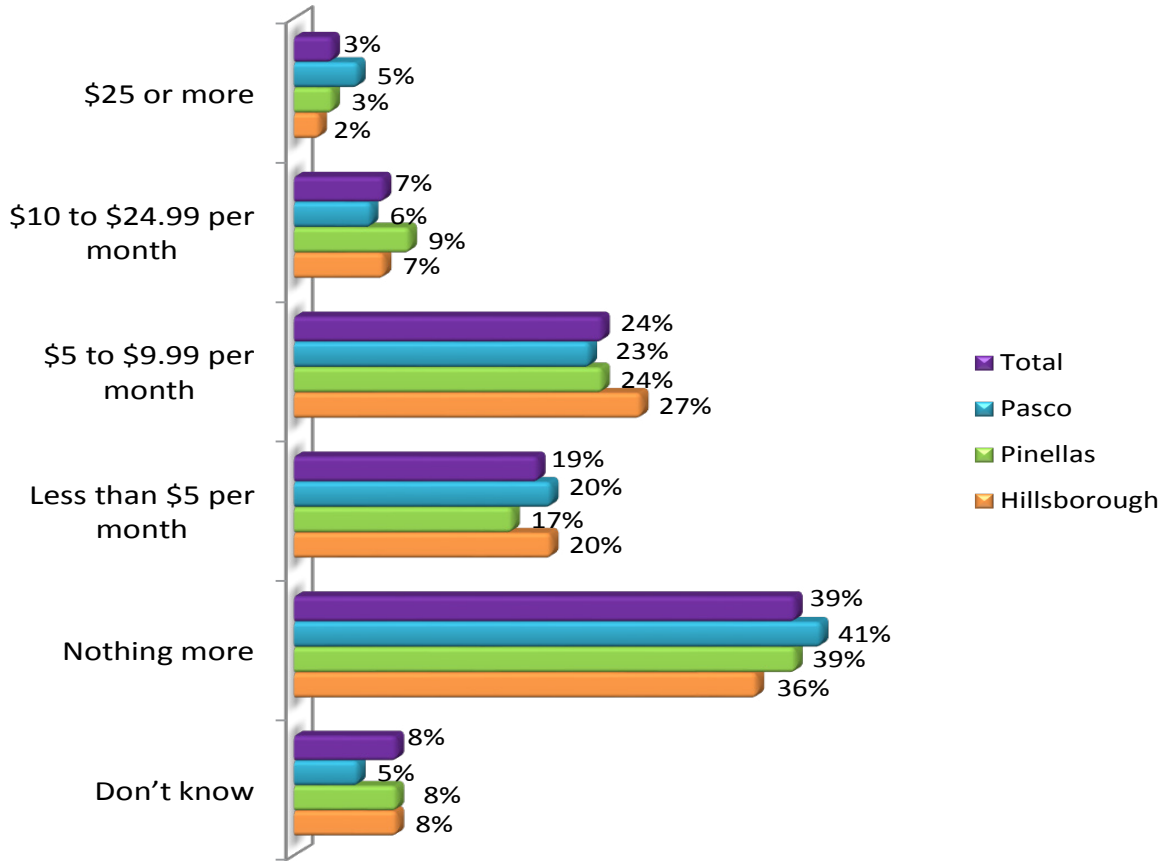
Does it make more sense to protect drinking water quality through more stringent source water protection regulations or to invest in more advanced treatment technology or both?



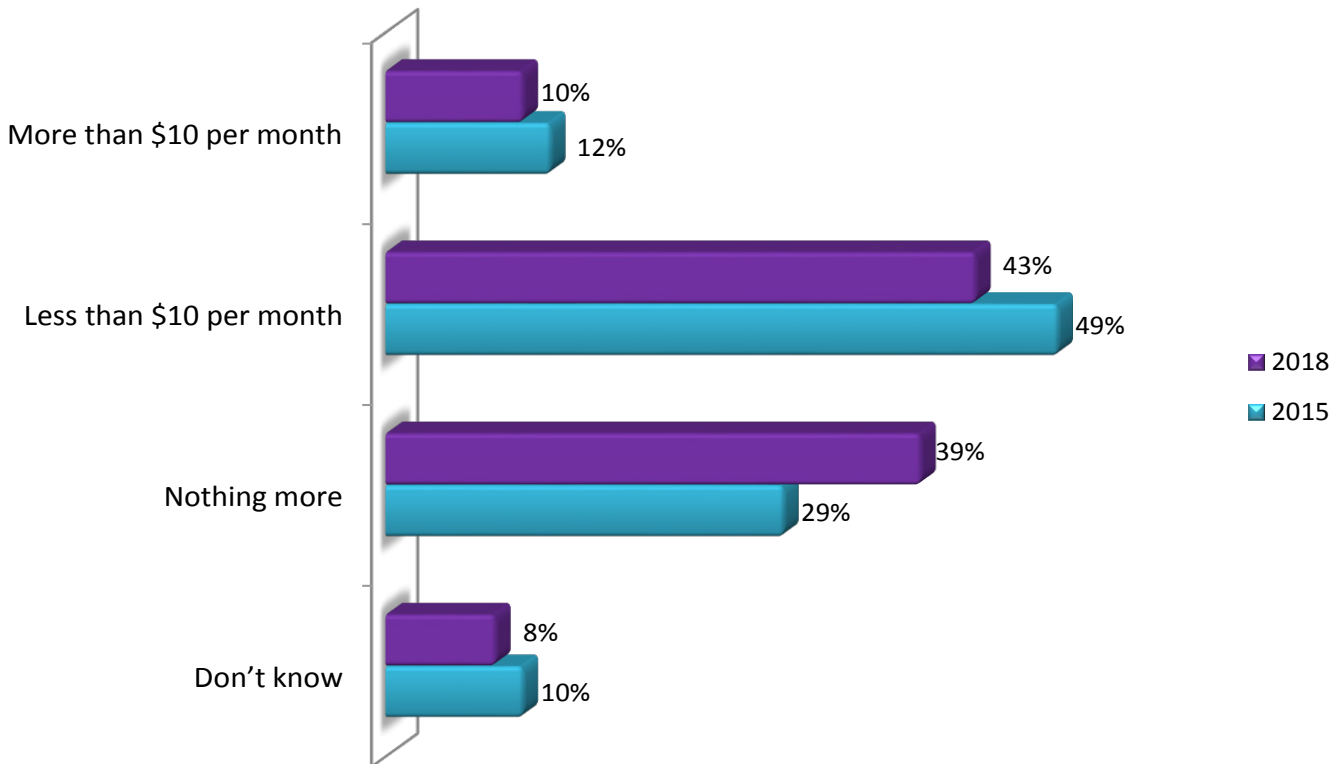
Preferred Method of Protecting Drinking Water Quality by Year



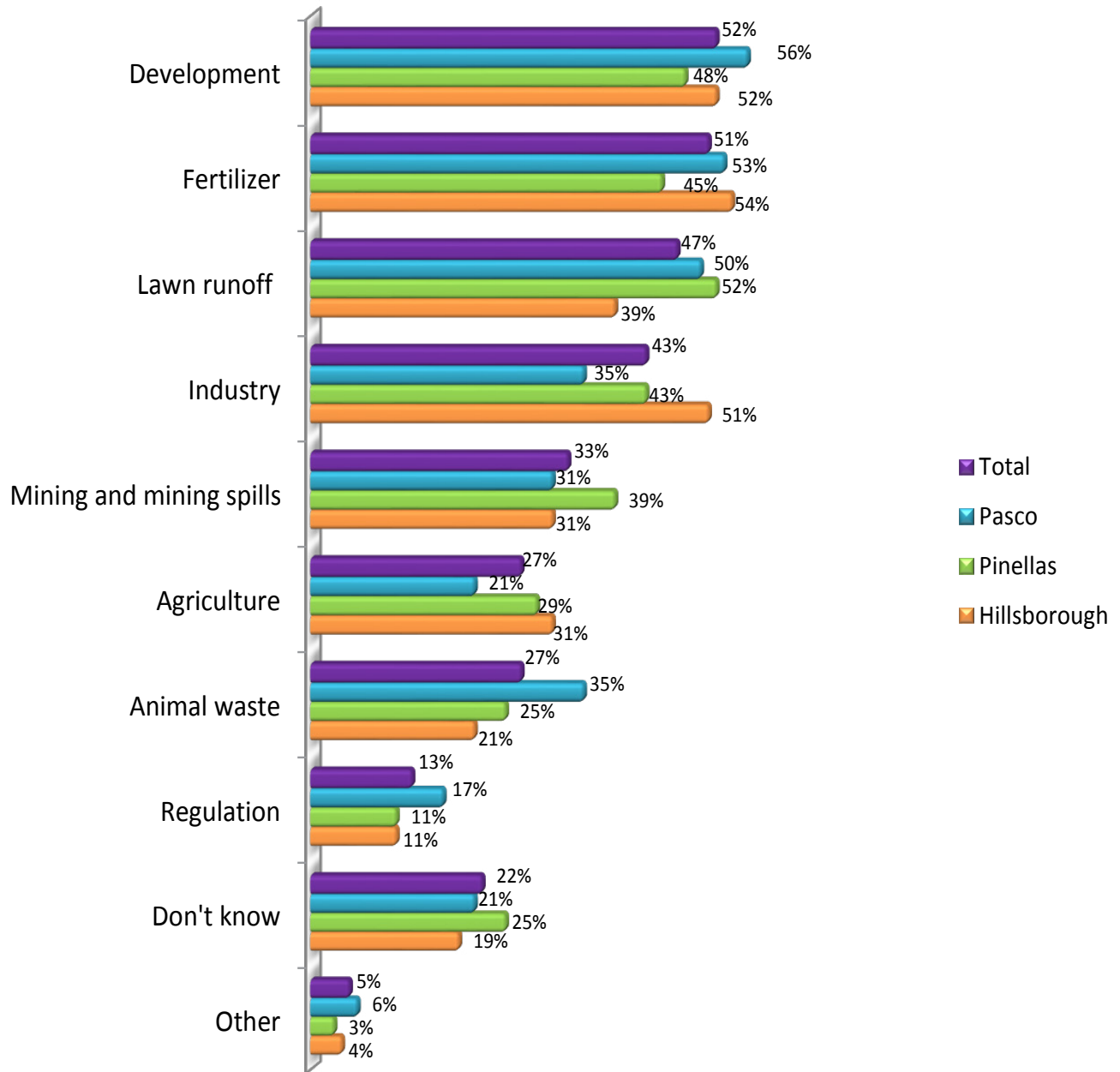
How much more would you be willing to pay each month on your water bill to use more advanced water treatment technology?



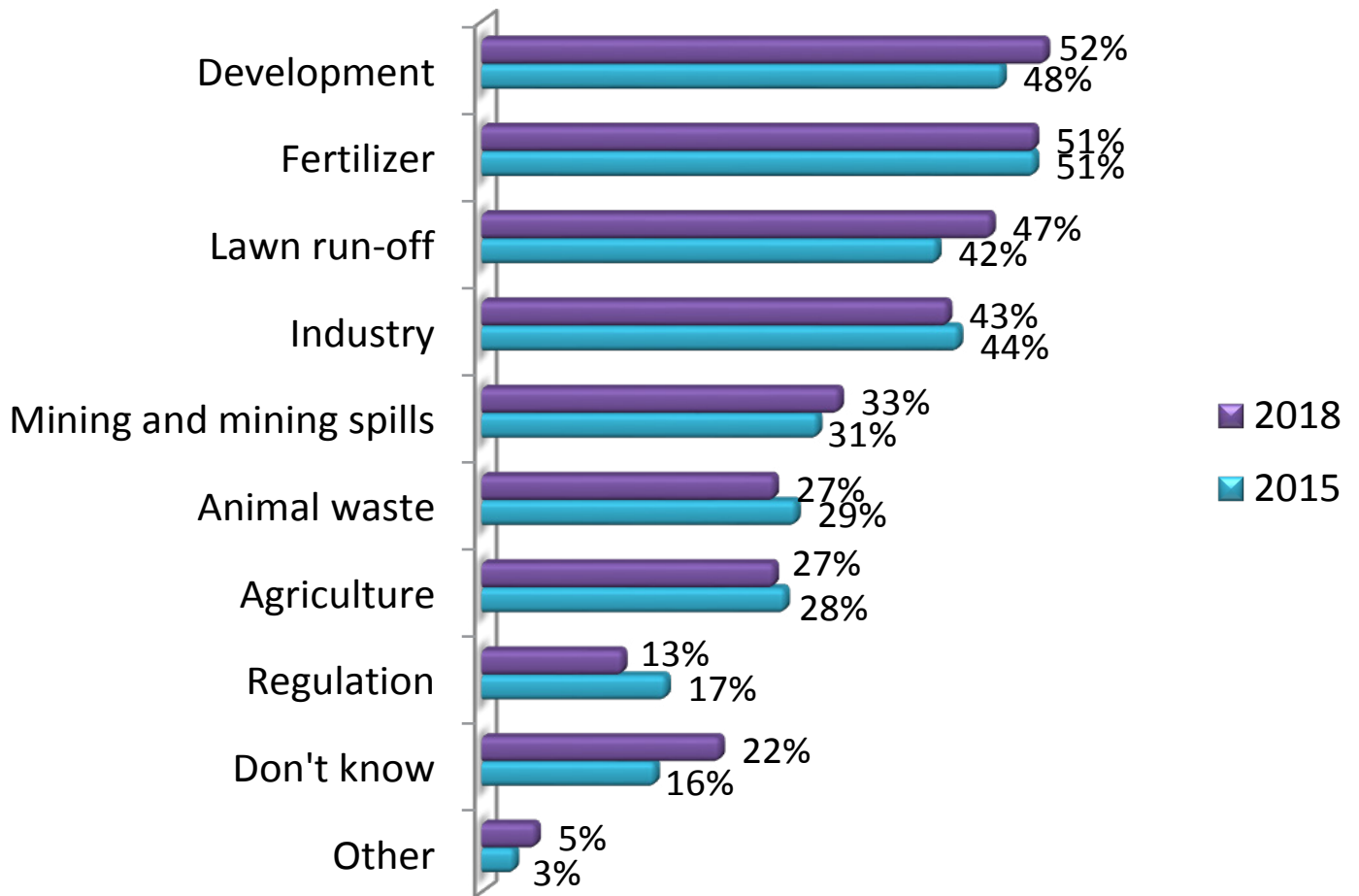
How much more would you be willing to pay each month on your water bill to use more advanced water treatment technology? - By Year



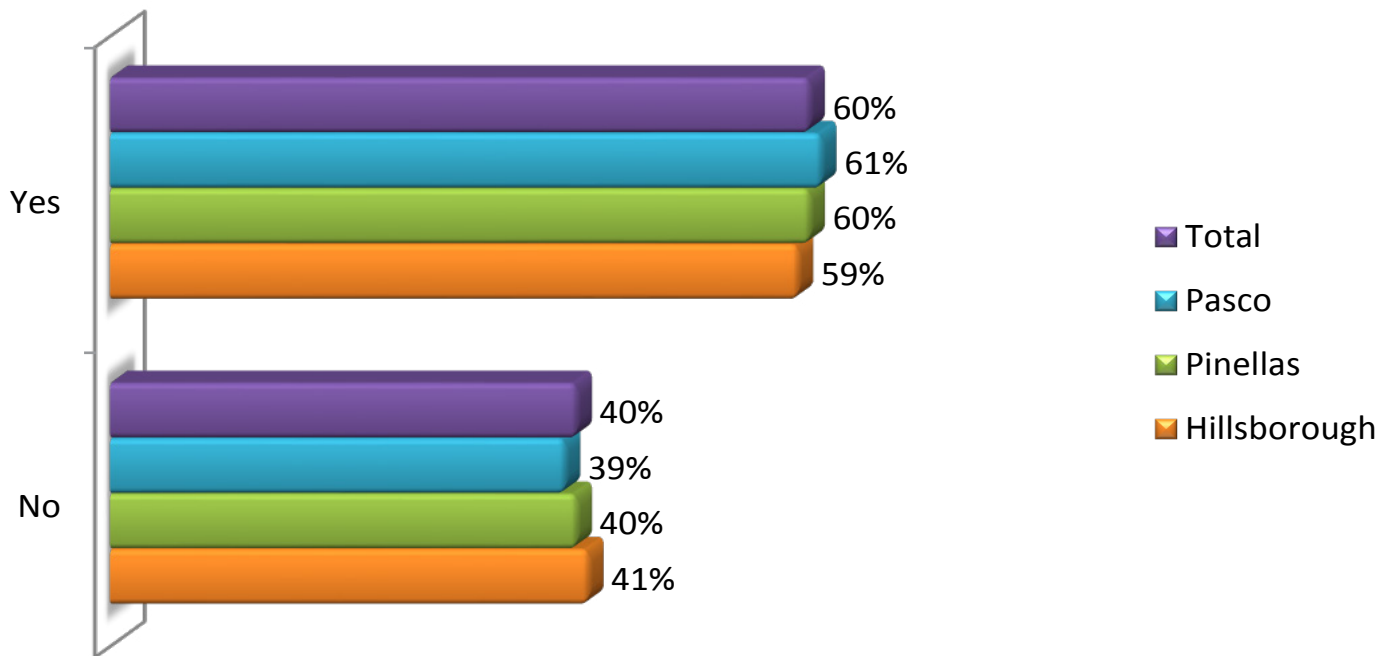
Which of the following is the greatest threat to our region's water resources?



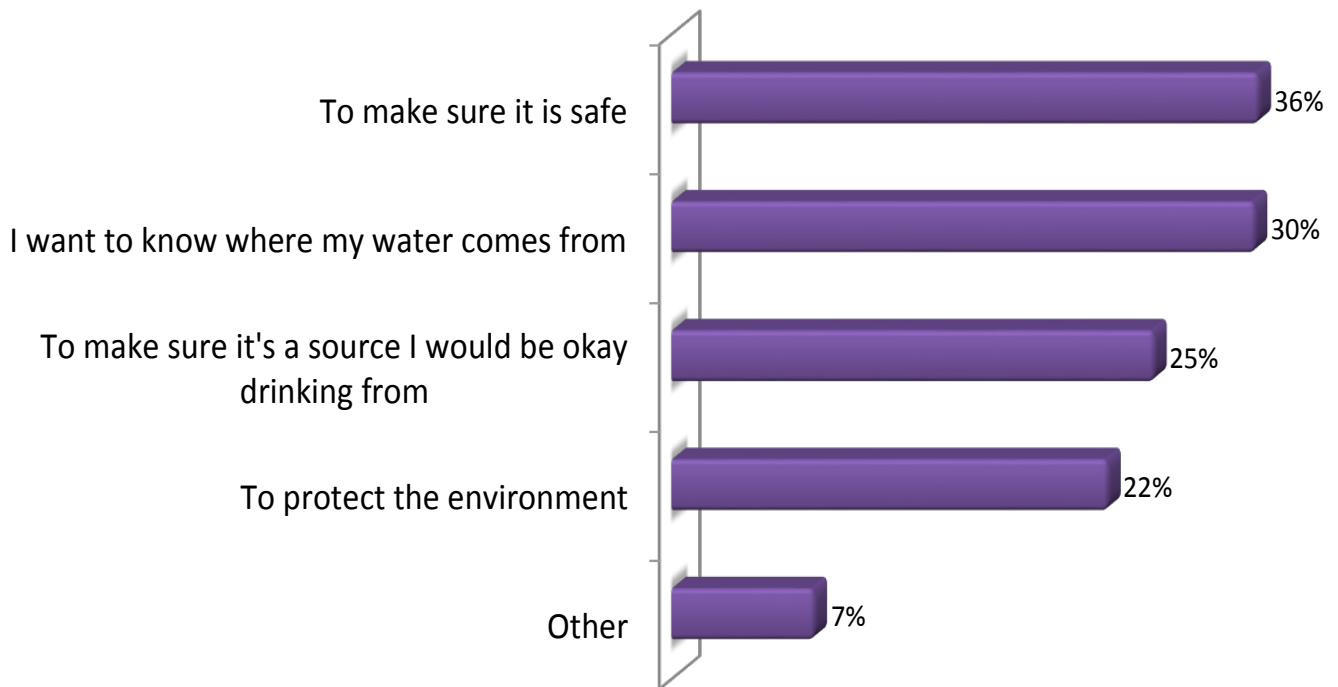
Greatest Threat to Region's Water Resources by Year



If new water supplies are added and your tap water remains the same quality or better, do you care what the source of that water would be?

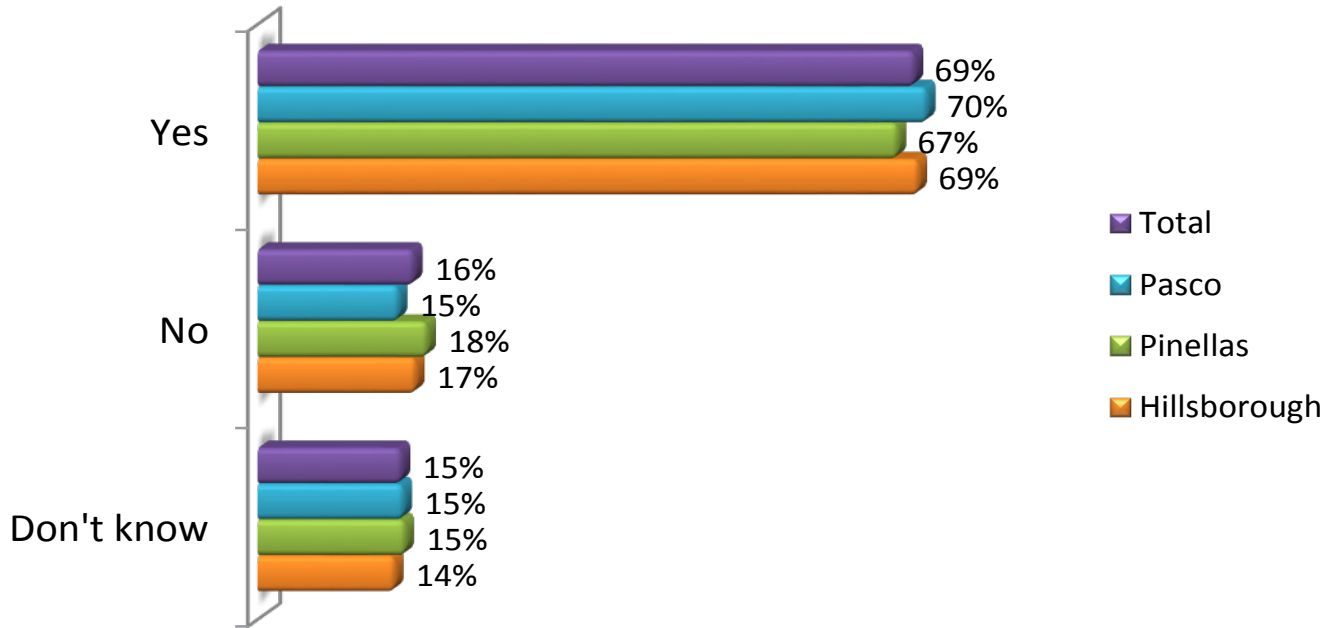


*If yes, why is the source of tap water important to you?**

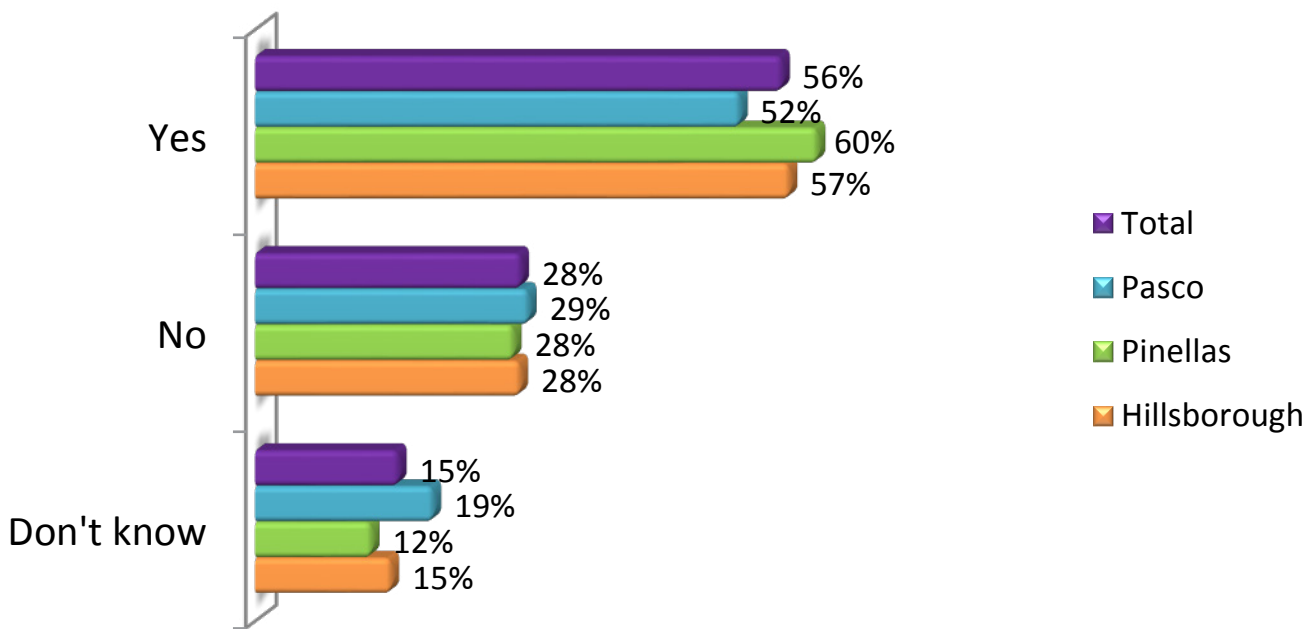


* Categorized verbatim responses.

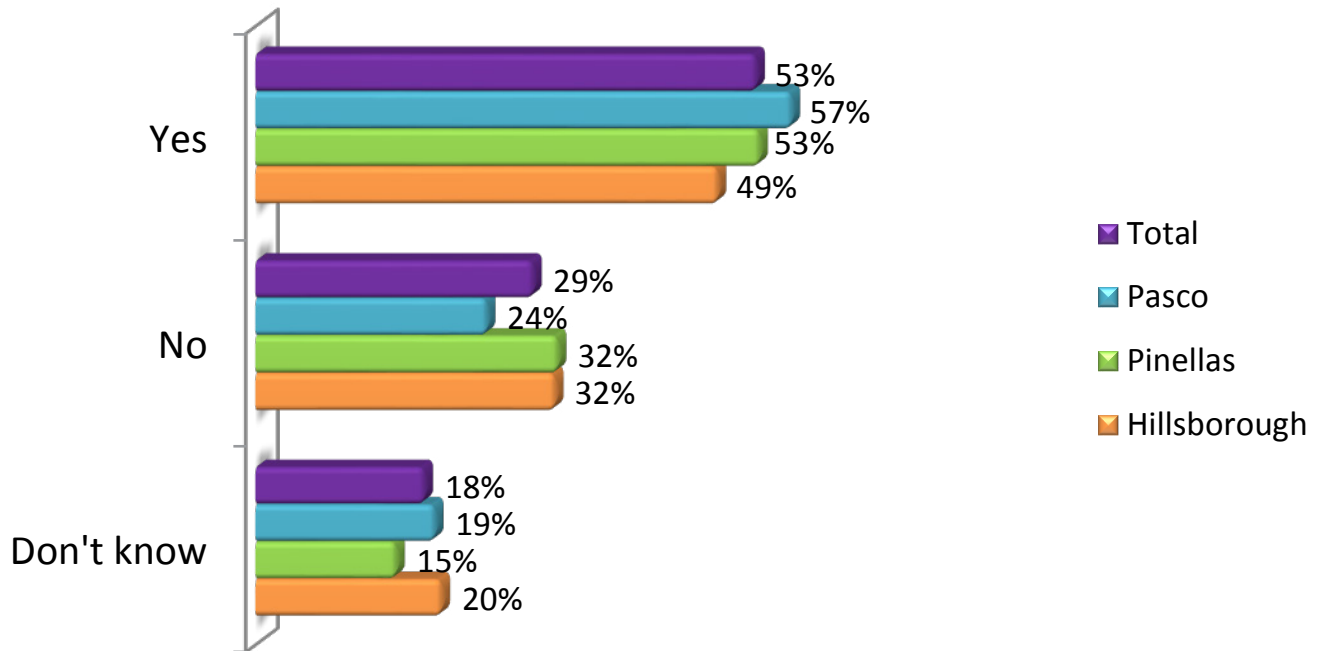
*Would you drink tap water that came from **groundwater from the Floridan Aquifer?***



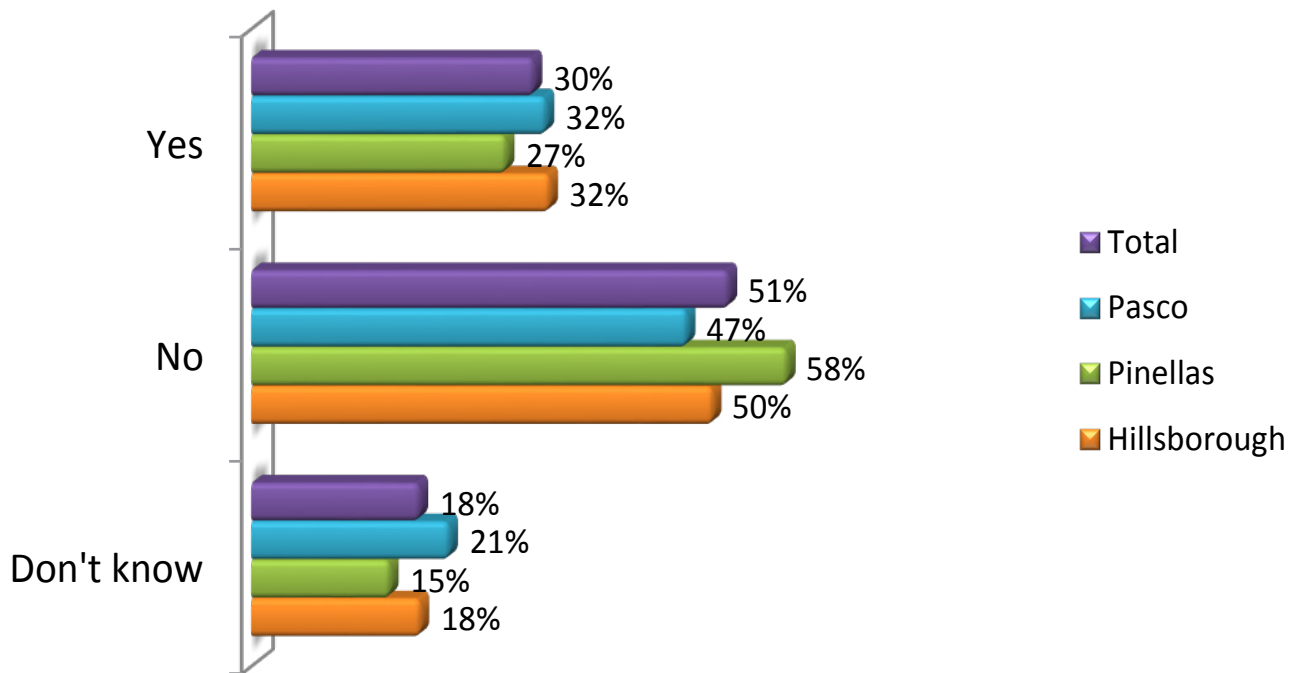
*Would you drink tap water that came from **river water?***



*Would you drink tap water that came from **seawater from Tampa Bay or the Gulf of Mexico?***

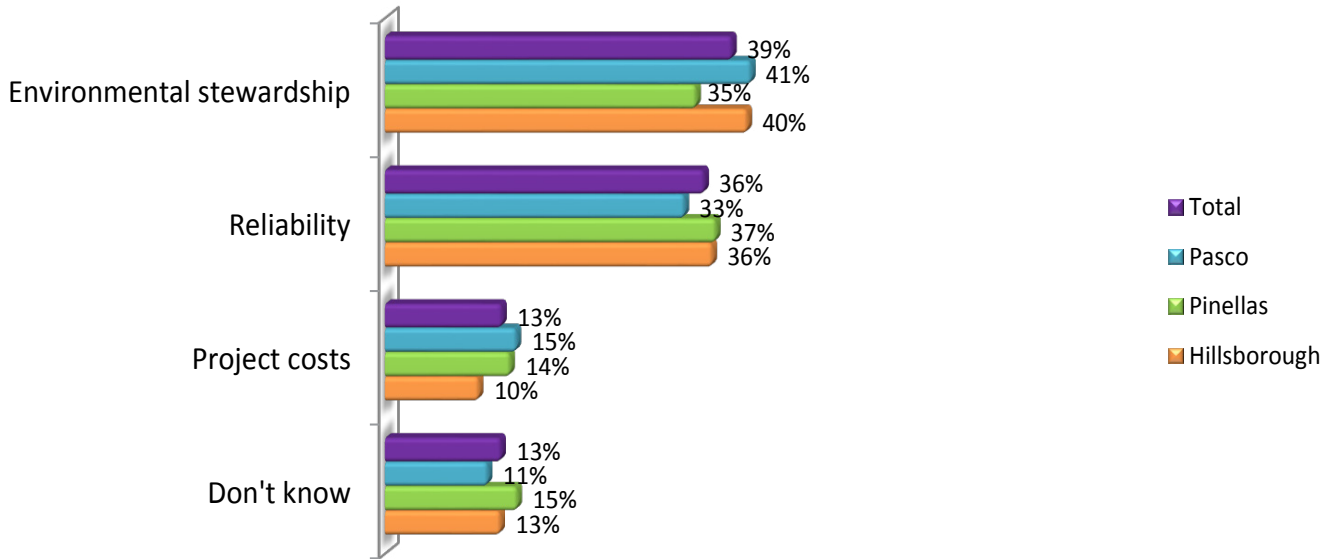


*Would you drink tap water that came from **reclaimed water?****

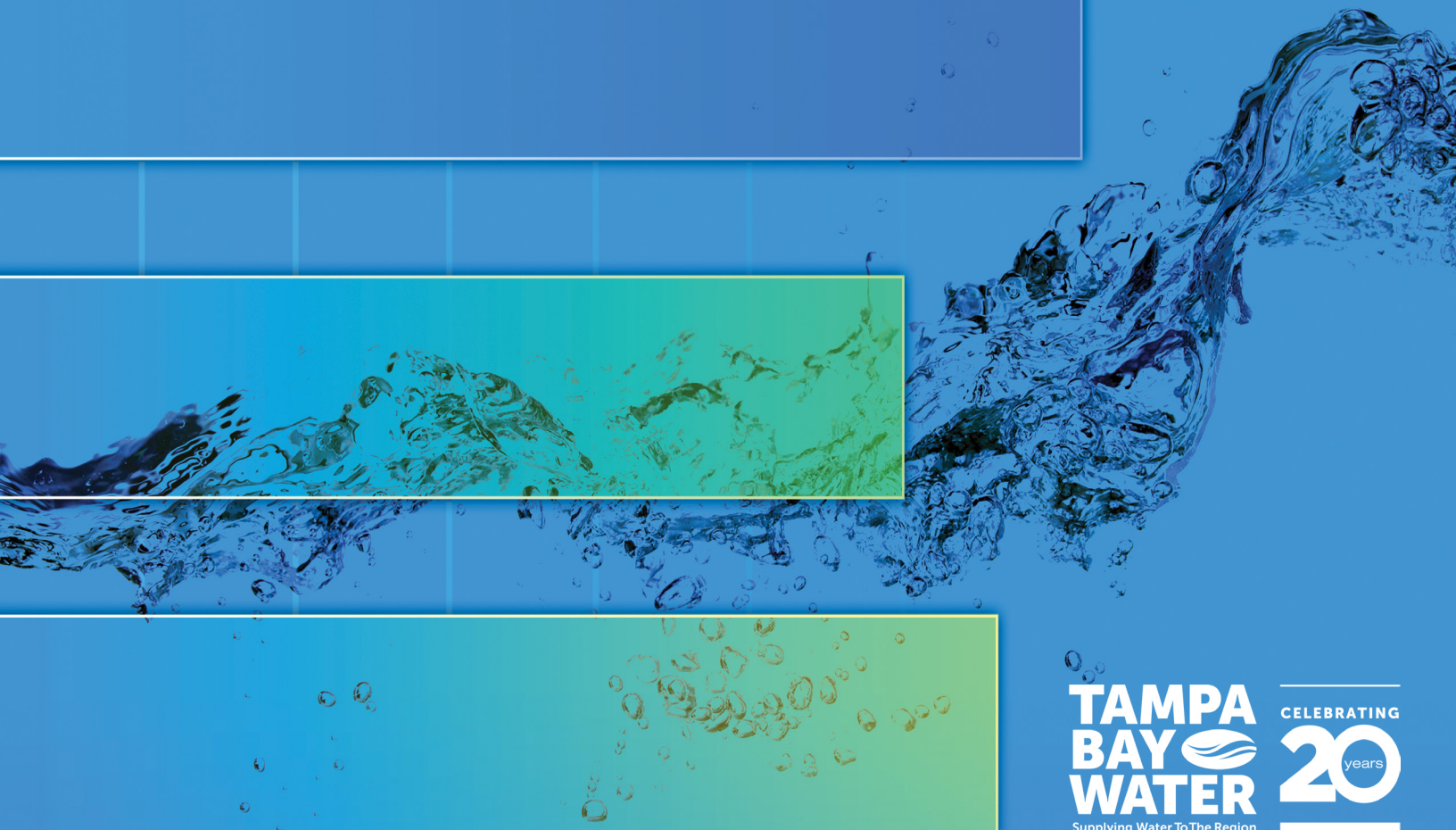


*Reclaimed water that would go through extensive cleaning, testing, and monitoring to ensure that it was safe to drink before it reached their homes and businesses. Further they were told reclaimed water would meet or surpass USEPA's Safe Drinking Water Act Standards, and that it would be tested in laboratories certified by the Department of Health.

Which one is most important to you in deciding whether to accept a new water supply?



Reclaimed Water



Reclaimed Water

About two in five residents of the Tampa Bay Water service area will drink reclaimed water **IF** it has been treated to drinking water standards first, then put back into groundwater, rivers, and reservoirs; treated again; then sent to them. Willingness to drink reclaimed water decreases slightly for the other three treatment processes.

Treatment Process	2015	2018
Clean reclaimed water to drinking water standards; put it back in groundwater, reservoirs or rivers; withdraw it and treat it again to drinking water standards; then send it to homes and businesses	43%	39%
Put reclaimed water back in groundwater, reservoirs, or rivers; withdraw it and treat it to drinking water standards; then send it to homes and businesses	36%	36%
Put it in the salty or non-drinking water drinking zone of the Floridan Aquifer to increase groundwater levels; withdraw ground water at another location; treat it to drinking water standards; then send to homes and businesses.	NA	34%
Clean reclaimed water to drinking water standards; blend it with other drinking water; then send it to homes and businesses.	NA	33%

Willingness to drink reclaimed water ranges from 33% (clean, blend, and send) to 39% (clean, redeposit, withdraw, treat, and send) depending on the treatment process. This narrow range of results suggest that people think all treatment methods are similar in terms of effectiveness or people do not really understand treatment processes and how they affect the quality of drinking water.

Willingness to drink reclaimed water is slightly lower in 2018 compared to 2015 for all treatment processes except placing reclaimed water in groundwater; withdrawing it and treating it to drinking water standards; then sending it to homes and businesses.

Reasons for Drinking Reclaimed Water

Key reasons people give for being willing to drink reclaimed water (33% to 39% of all citizens depending on the treatment process) are:

- It is safe to drink it
- It meets drinking water standards
- It has been treated or purified

It should be noted that citizens' reasons for being willing to drink reclaimed water were open ended responses that were categorized so it is not possible to make a precise comparison of responses across the four treatment processes, but after reading hundreds of open-ended responses, it is clear that people's willingness to drink treated water is essentially the same regardless of the treatment process. That is, people either trust the technology and the professionals/ organizations doing the treatment or they do not.

Reasons for Not Drinking Reclaimed Water

Reasons people give for **not** being willing to drink reclaimed water were also open-ended and categorized, thus making comparisons across the four treatment processes less than precise. Nonetheless, the key reasons for not being willing to drink treated water are:

- Lack of trust in the technology or processes
- Uncertainty about the purity of the treated water
- Concern about health and safety

It is interesting to note that taste, smell, and appearance are not the major reasons for not drinking reclaimed water.

Concerns about Reclaimed Water

Feelings about reclaimed water changed somewhat over the past three years. One percent more residents are concerned that reclaimed water may include contaminants, but 3% more think it may not meet drinking water standards. Taste is more a concern in 2018 as 5% points more residents think reclaimed water may taste bad. Concern about reclaimed water containing pharmaceutical byproducts dropped 3% points.

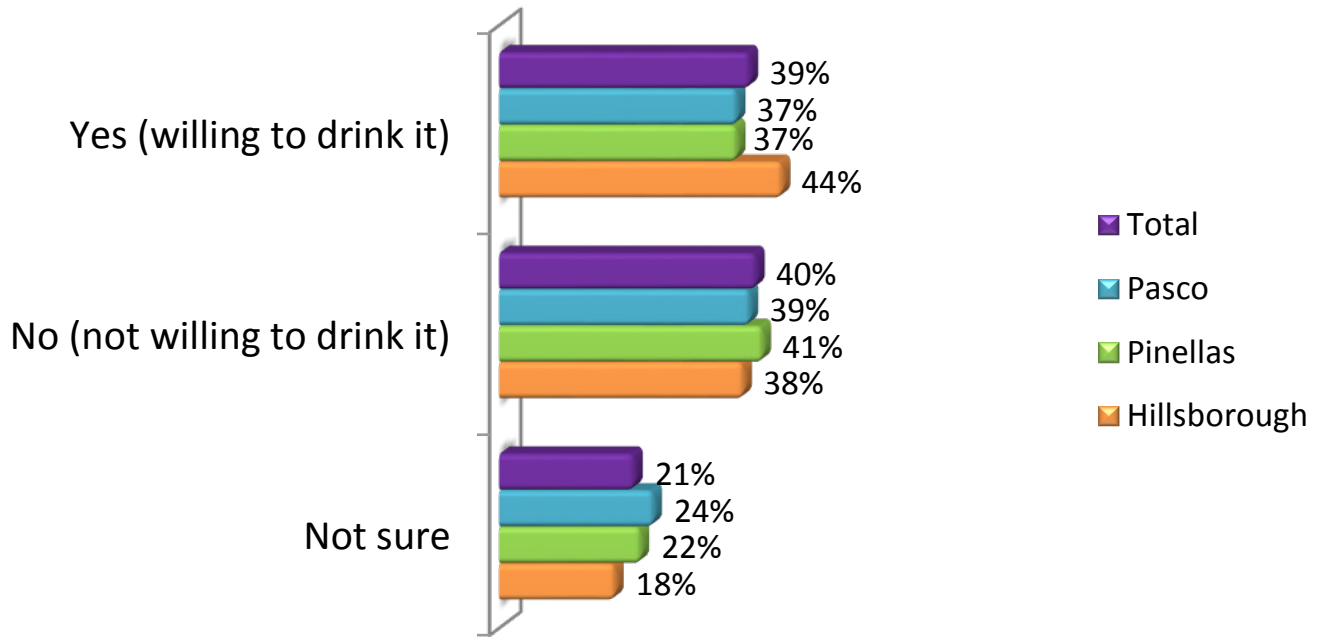
Reclaimed Water Statement	2015	2018
Cleaned & treated reclaimed water may include contaminants	70%	71%
Cleaned & treated reclaimed water may fail to meet drinking water standards	66%	69%
Cleaned & treated reclaimed water may taste bad	60%	65%
Cleaned & treated reclaimed water may contain pharmaceutical by-products	68%	65%
The concept of cleaned & treated reclaimed water just makes me uncomfortable	63%	64%
Using cleaned & treated reclaimed water may cost more	67%	58%

Acceptable Uses of Reclaimed Water

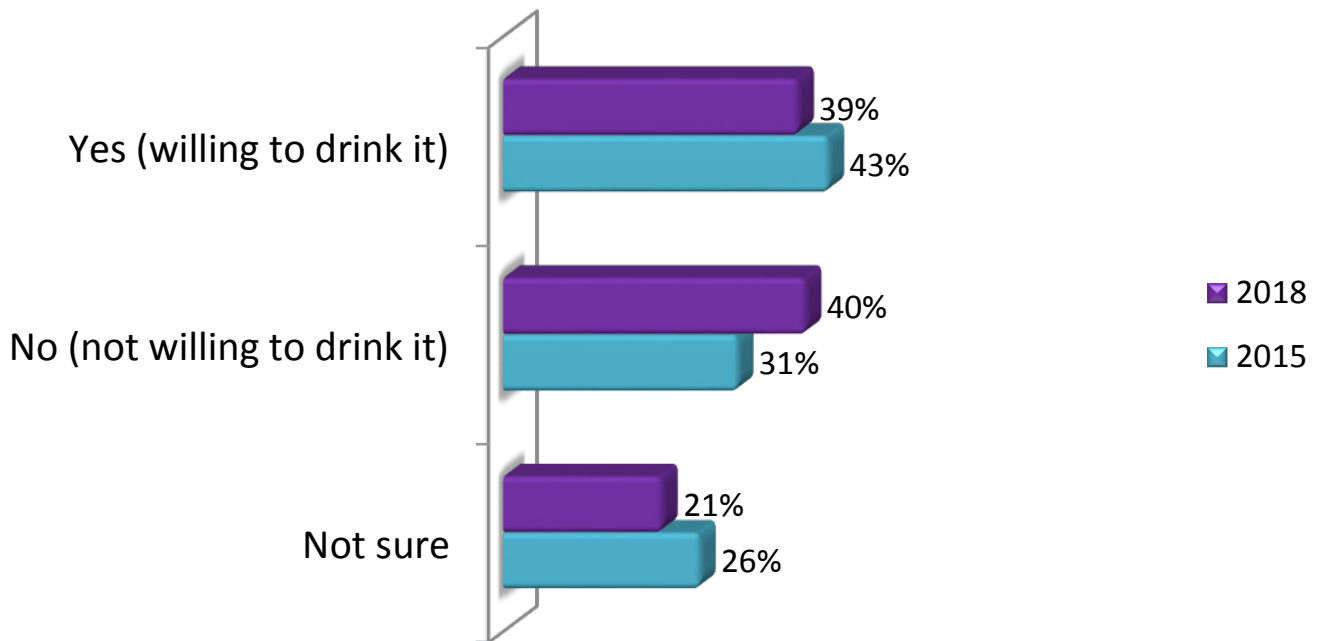
As uses of reclaimed water become more personal, willingness to completely accept these uses declines precipitously. While six in ten citizens of Tampa Bay Water’s service area will completely accept reclaimed water in a gardening and landscaping context, only one in six is willing to drink reclaimed water without reservations. It may be surprising to some that more citizens are willing to completely accept reclaimed water for use around their homes (gardening, irrigation) than are willing to completely accept it for industrial uses. When factoring in those who are somewhat willing to accept reclaimed water for various uses, over eight out of ten citizens in the service area are willing to accept reclaimed water for gardening and irrigation. For all uses of reclaimed water, Hillsborough County residents are more willing to accept it and Pinellas County residents are least willing to accept it.

Uses of Reclaimed Water	Completely Acceptable	Somewhat + Completely Acceptable
Gardening & landscaping	60%	85%
Irrigation	56%	81%
Industrial use	49%	74%
Laundry, showers, dishwasher	29%	57%
Drinking water	17%	37%

One way to reuse reclaimed water is to: clean it to drinking water standards, then put it back in groundwater, reservoirs or rivers, then withdraw it and treat it again to drinking water standards before sending it to homes and businesses. If water were treated in this manner, would you be willing to drink it?

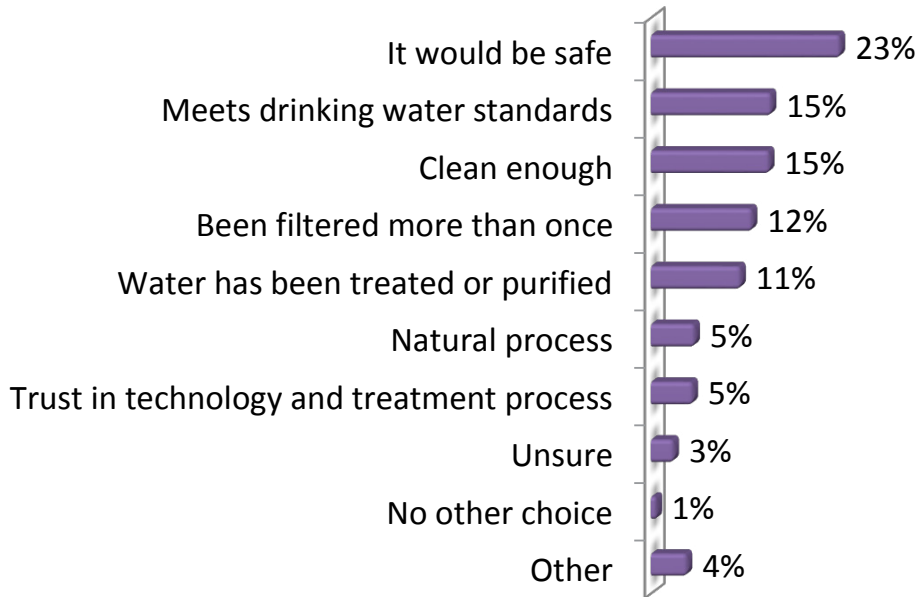


*Willingness to drink by year**

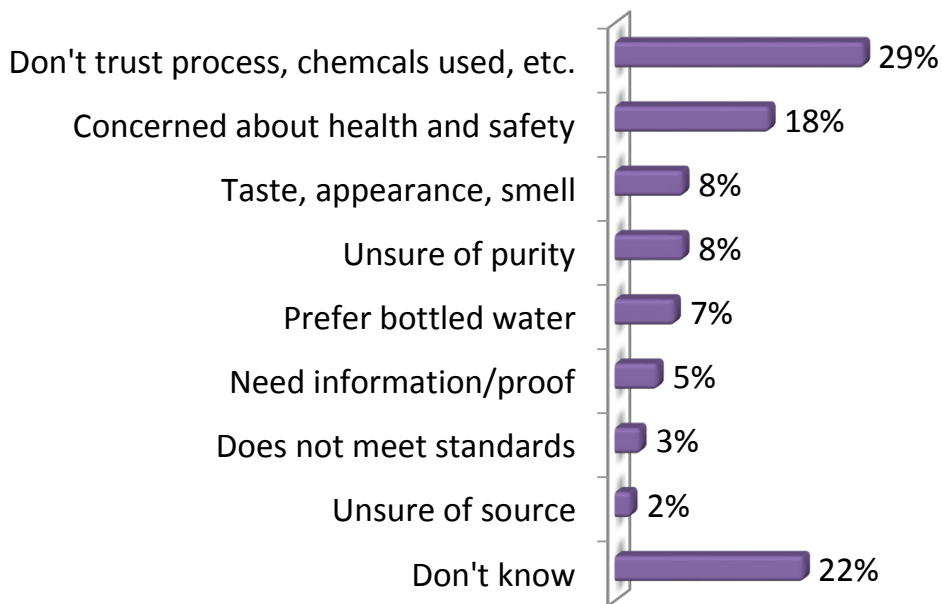


*In 2015, this question asked residents about “reusing wastewater” instead of “using reclaimed water”.

*Why would you be willing to drink it?**

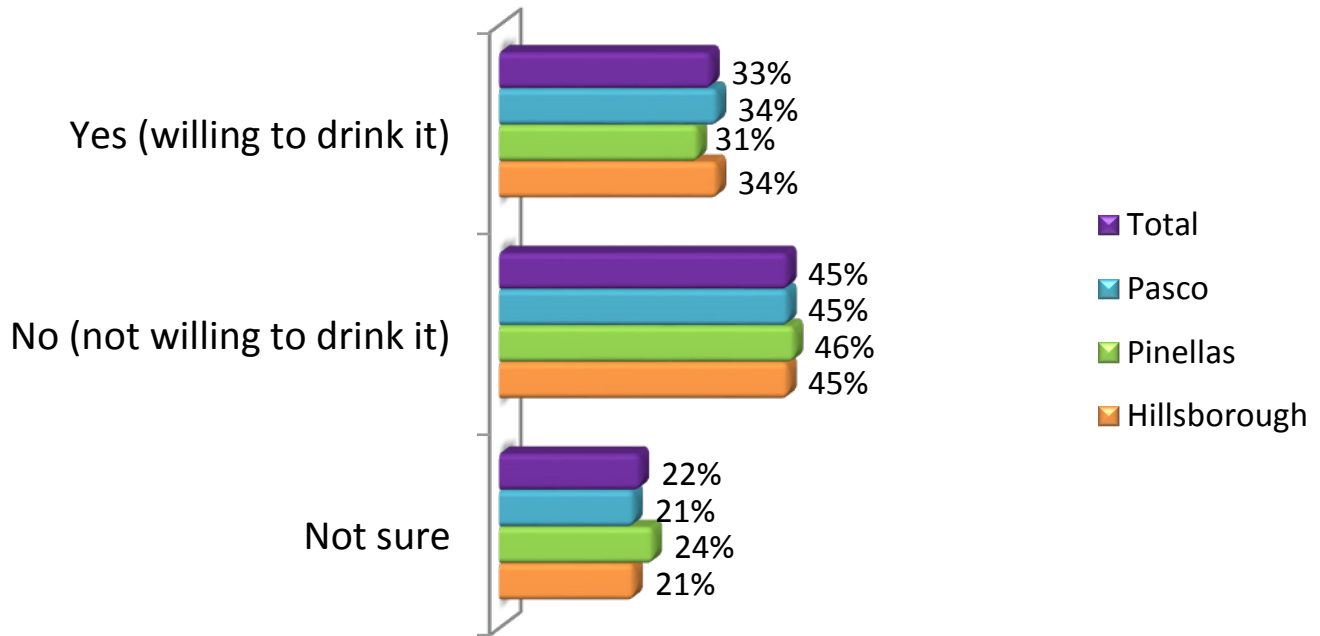


*Why would you be unwilling to drink it?**

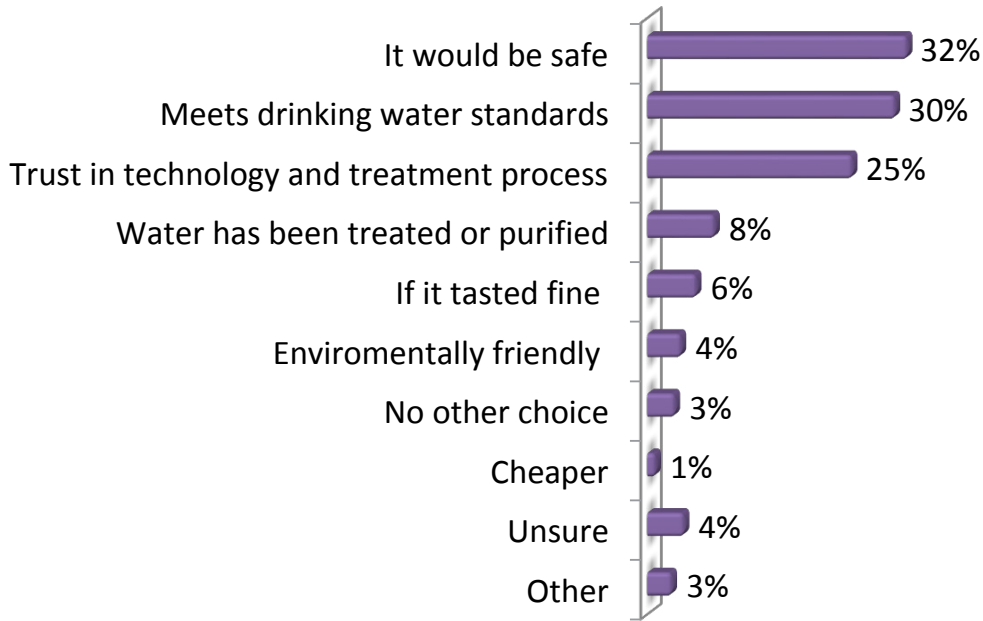


* Categorized verbatim responses.

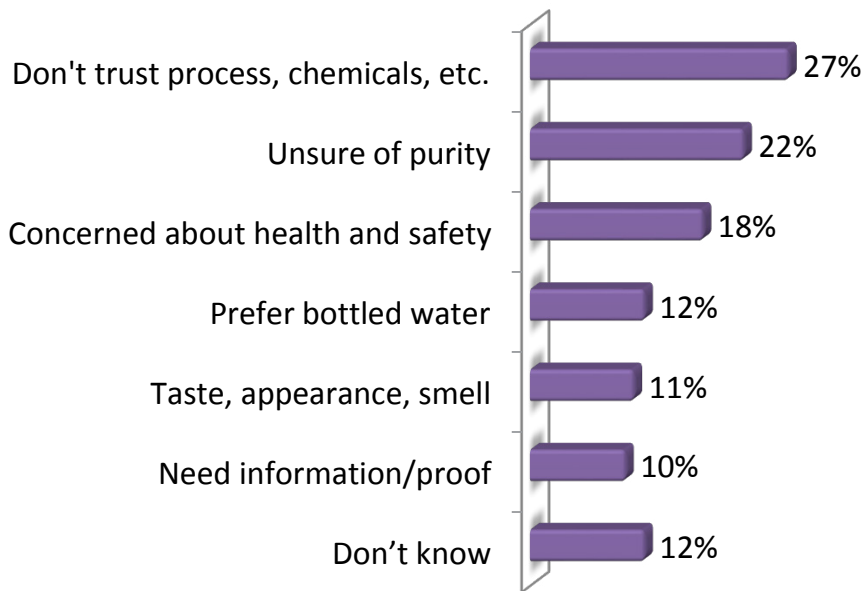
One way to reuse reclaimed water is to: clean it to drinking water standards, blend it with other drinking water, then send it to homes and businesses. If water were treated in this manner, would you be willing to drink it?



*Why would you be willing to drink it?**

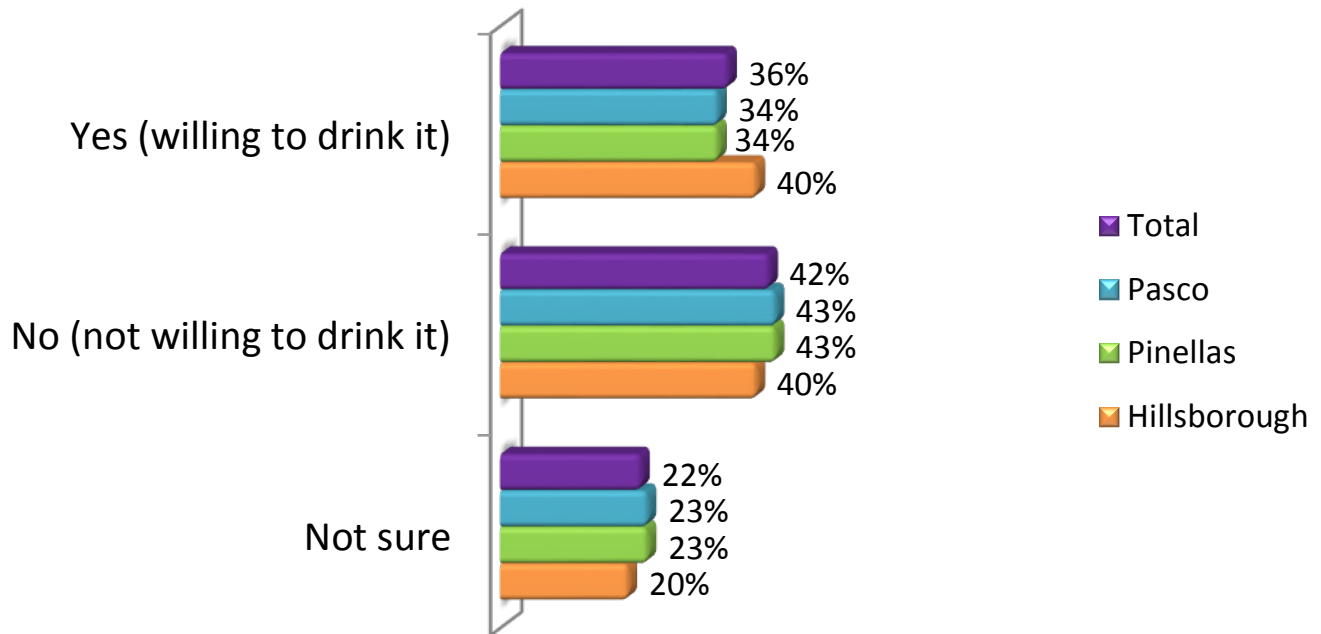


*Why would you be unwilling to drink it?**

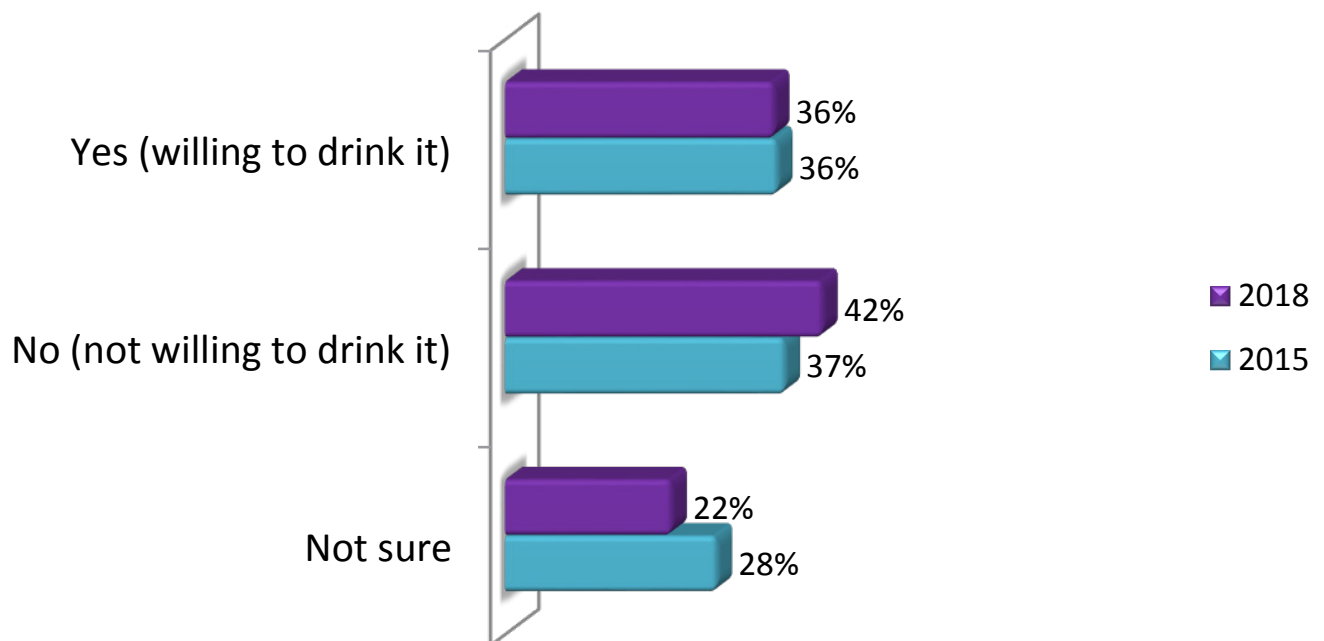


* Categorized verbatim responses.

One way to use reclaimed water is to put it back in groundwater, reservoirs or rivers then withdraw it and treat it to drinking water standards, then send it to homes and businesses. If water were treated in this manner, would you be willing to drink it?

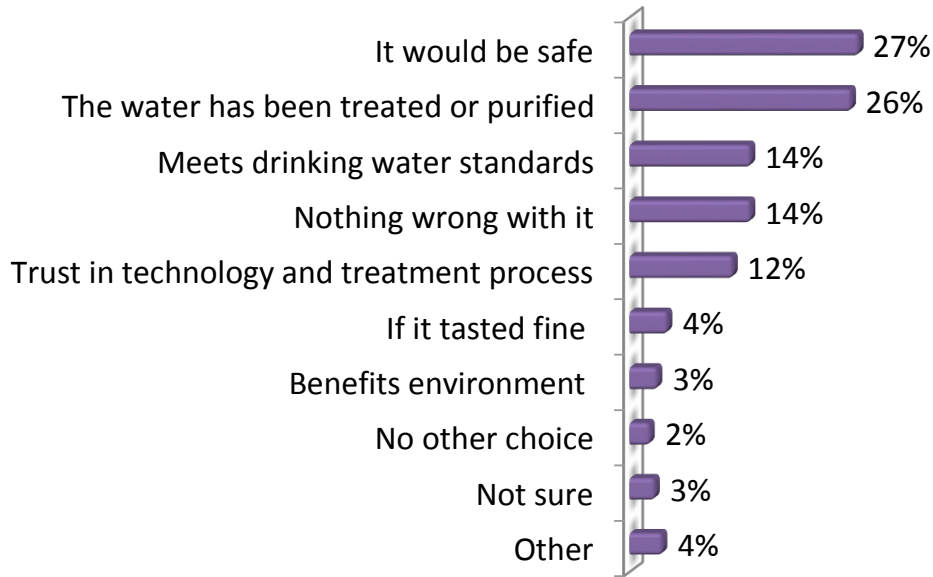


*Willingness to drink by year**

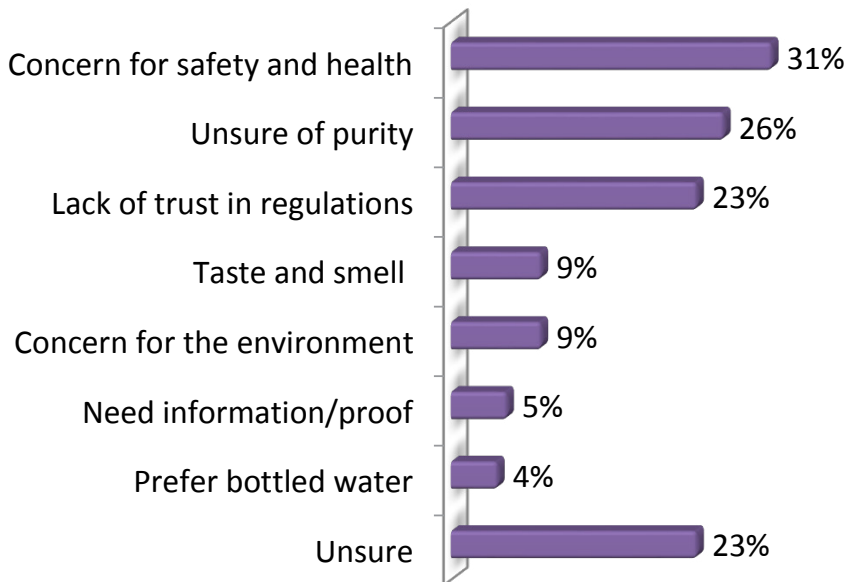


*In 2015, this question asked residents about “reusing wastewater” instead of “using reclaimed water”.

*Why would you be willing to drink it?**

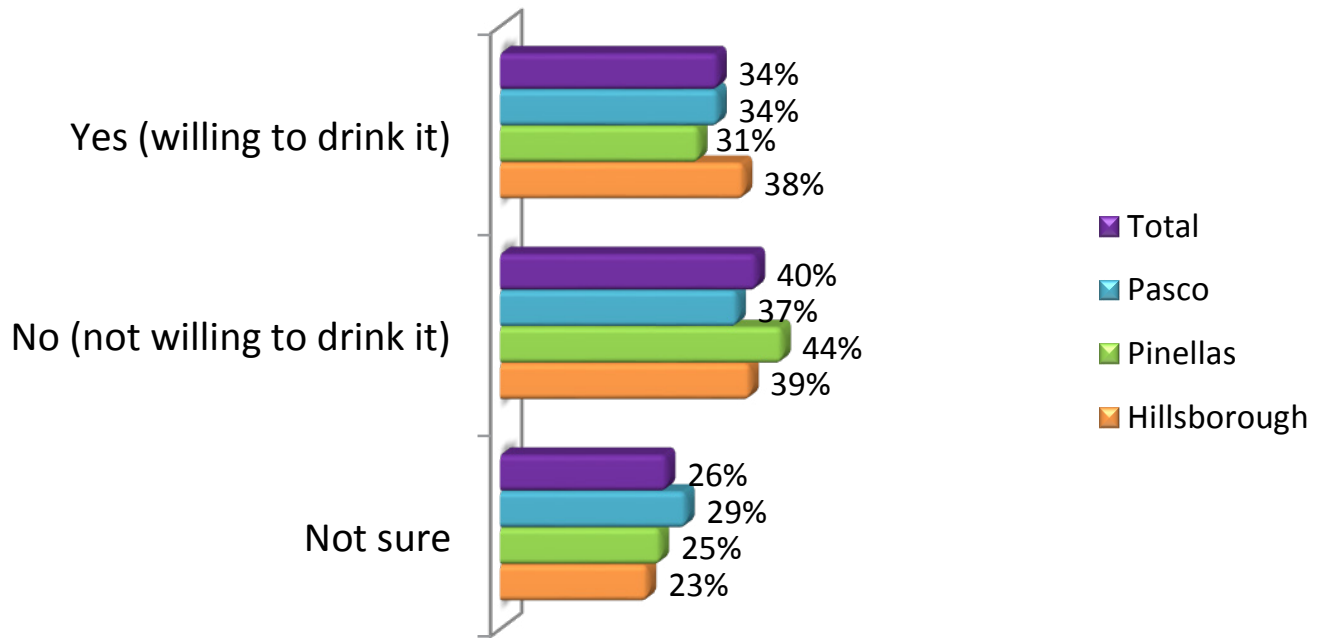


*Why would you be unwilling to drink it?**

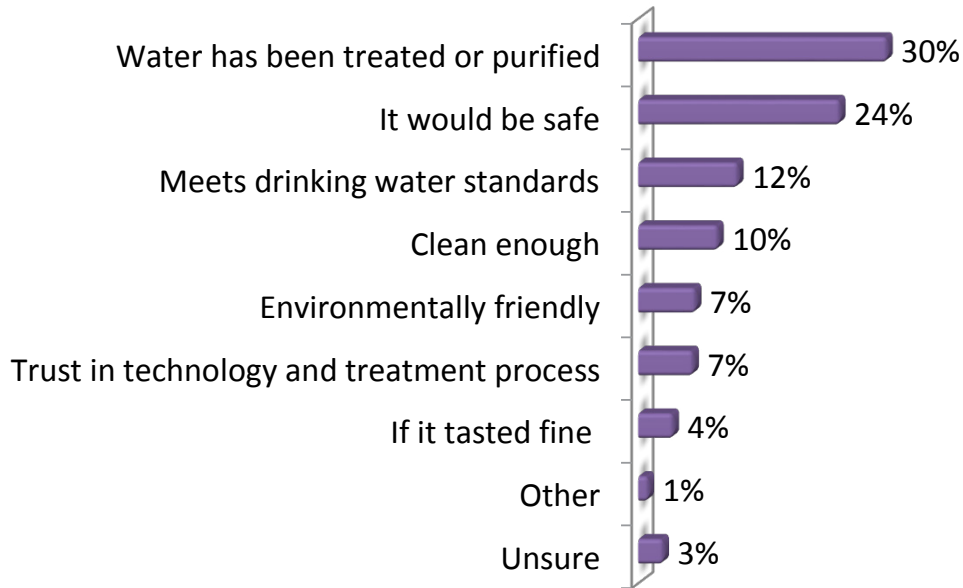


* Categorized verbatim responses.

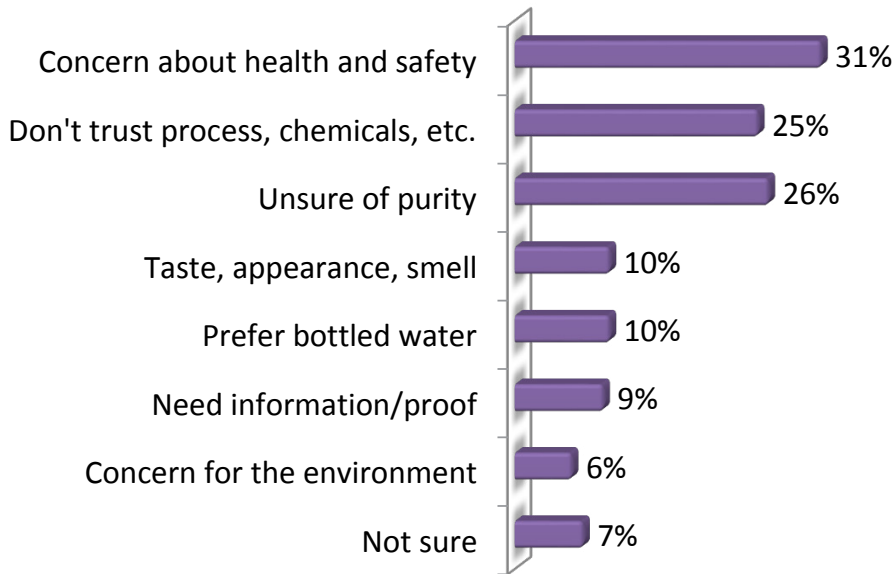
One way to use reclaimed water is to put it in a salty or non-drinking water zone of the aquifer to increase groundwater levels. This would result in a credit that can be used to withdraw groundwater at a different location, treat it to drinking water standards, then send to homes and businesses. If water were treated in this manner, would you be willing to drink it?



*Why would you be willing to drink it?**

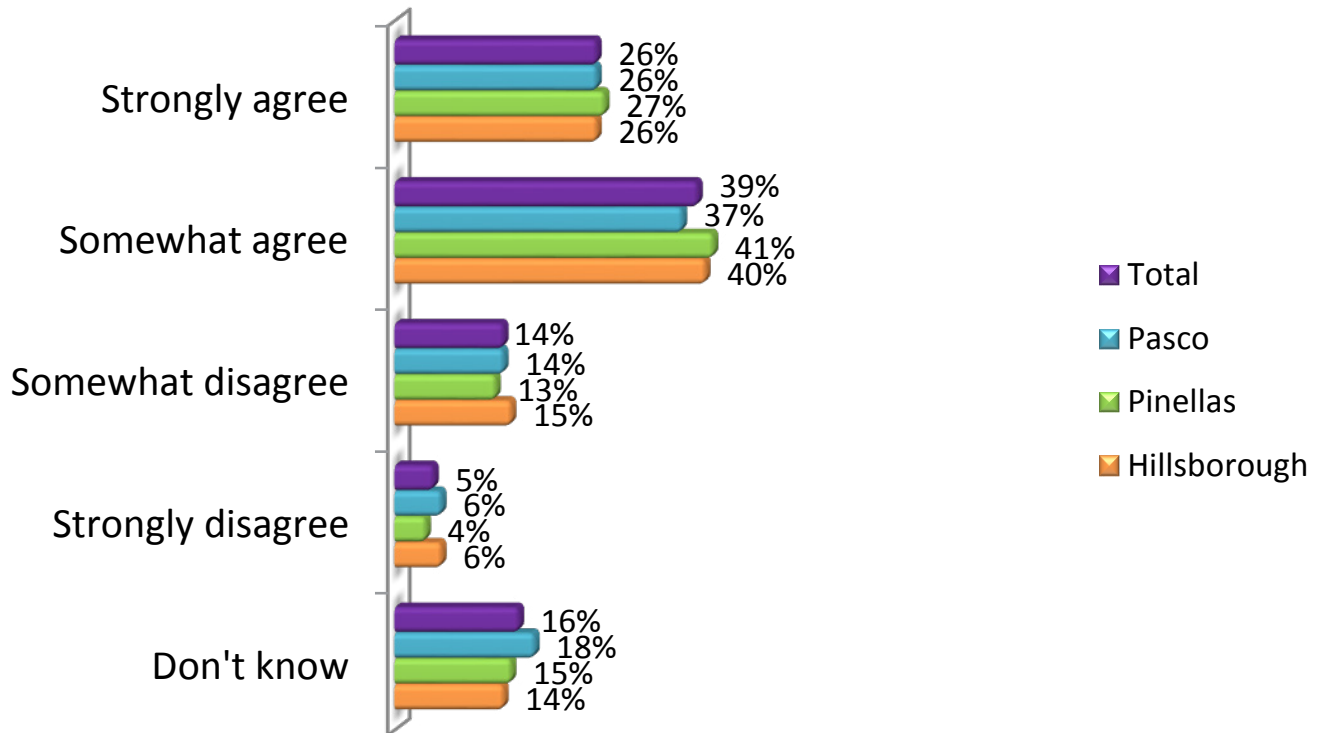


*Why would you be unwilling to drink it?**

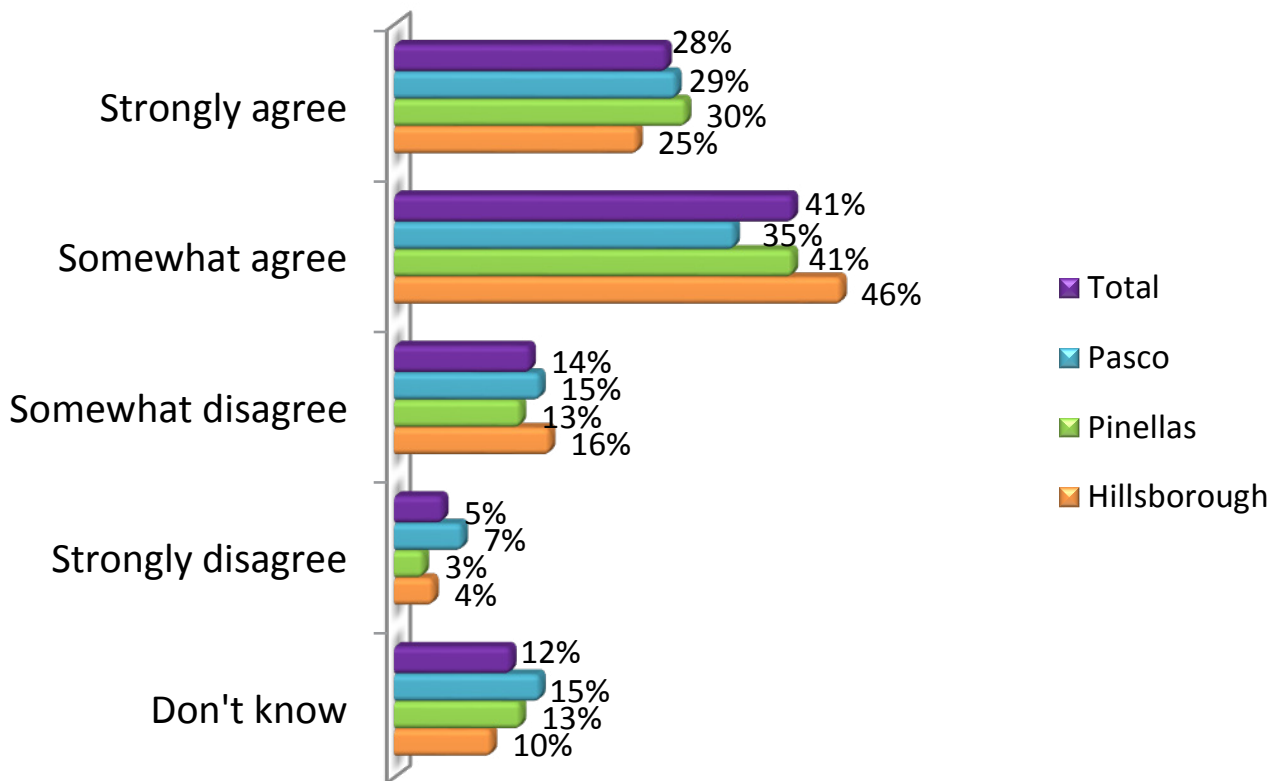


* Categorized verbatim responses.

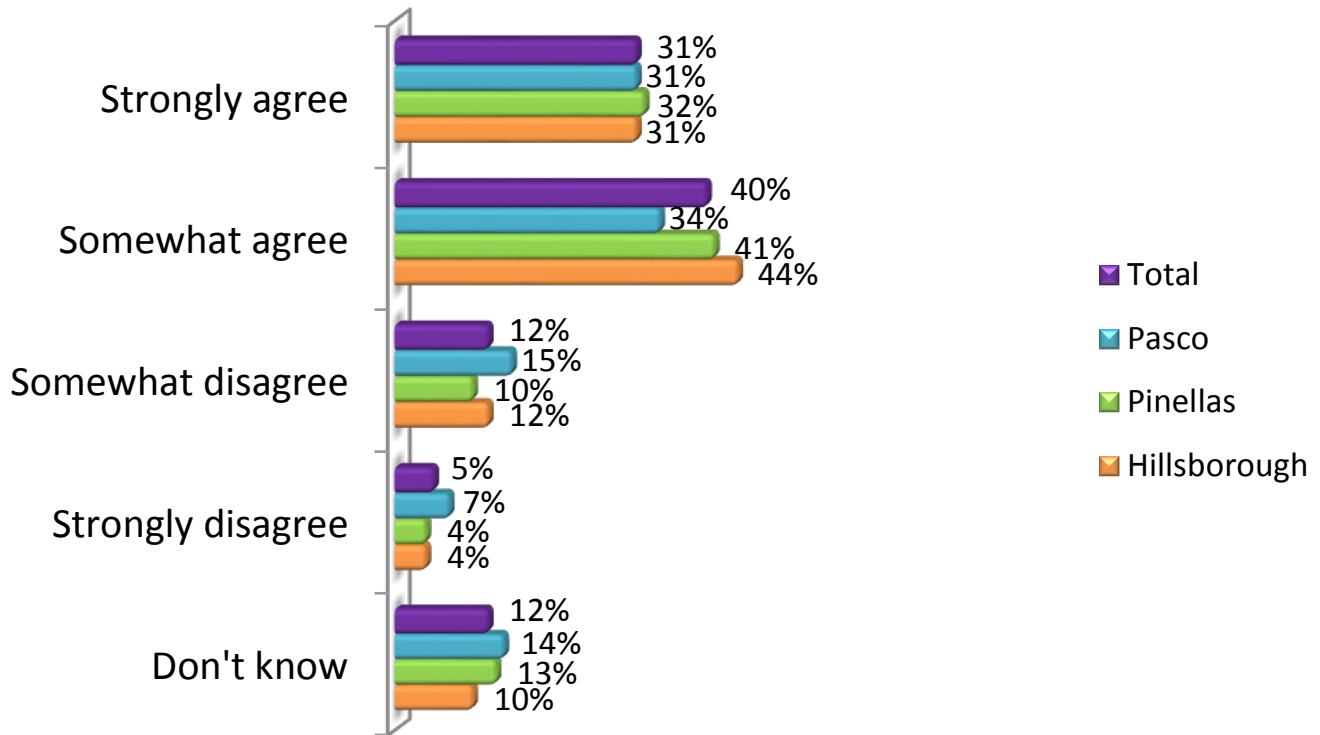
Cleaned and treated reclaimed water may taste bad.



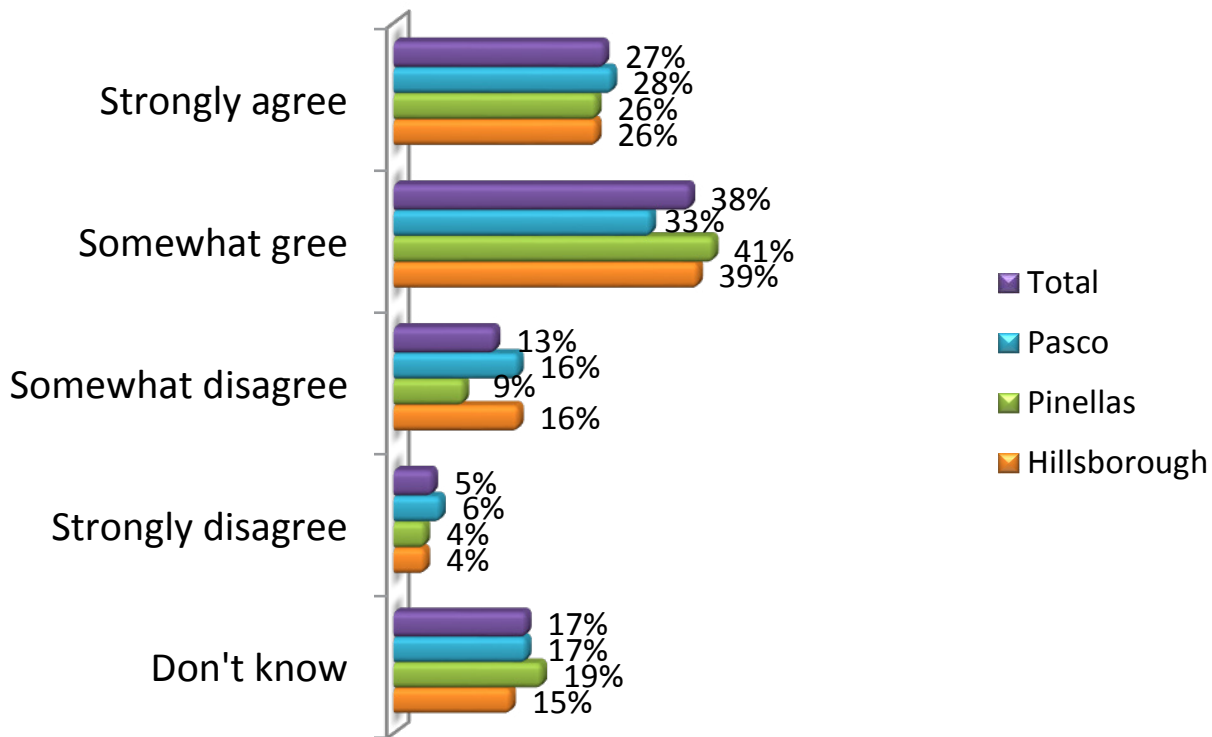
Cleaned and treated reclaimed water may fail to meet drinking water safety standards.



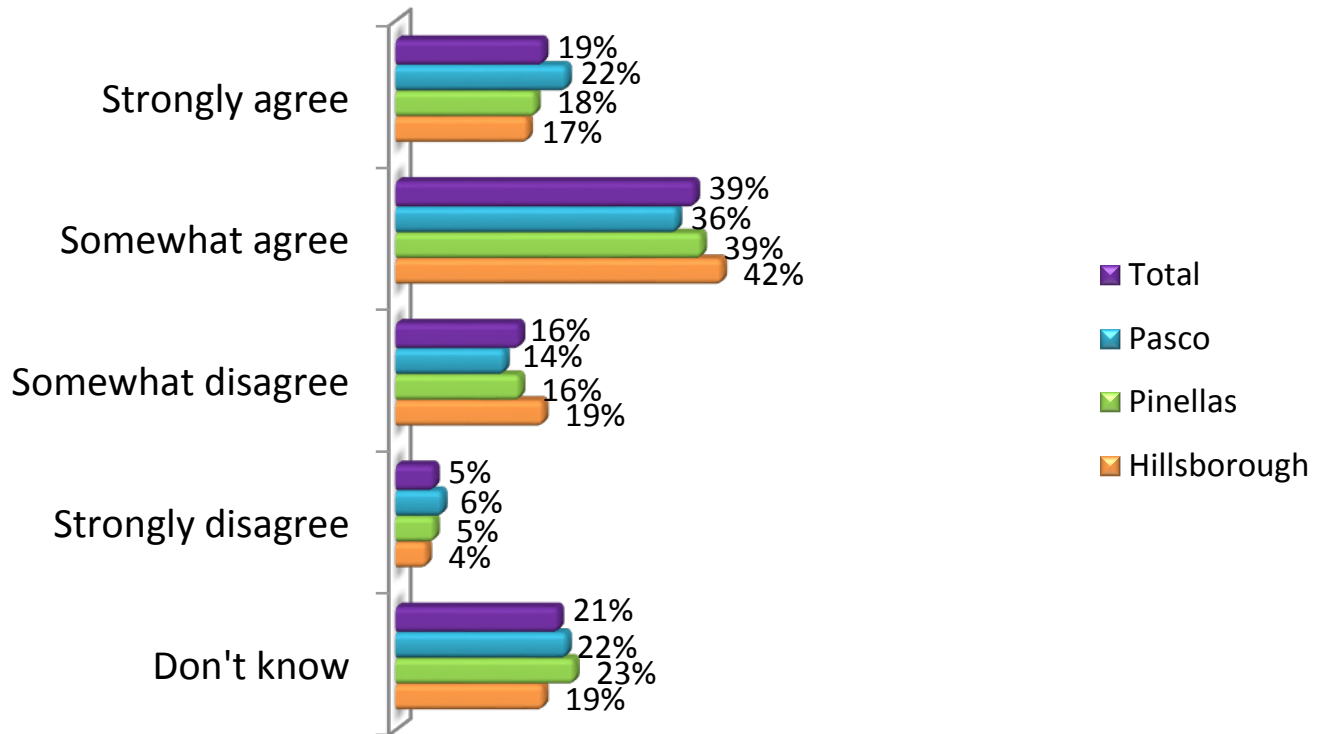
Cleaned and treated reclaimed water may include contaminants.



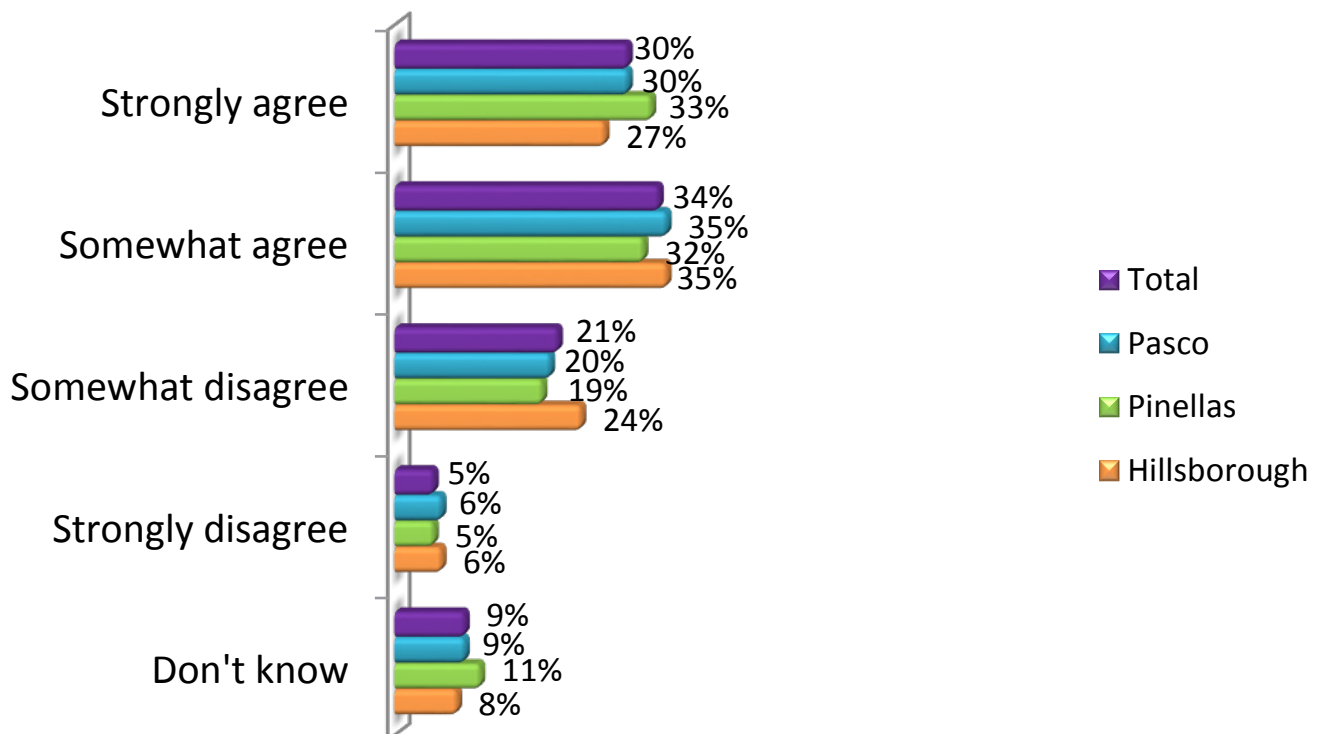
Cleaned and treated reclaimed water may contain pharmaceutical byproducts.



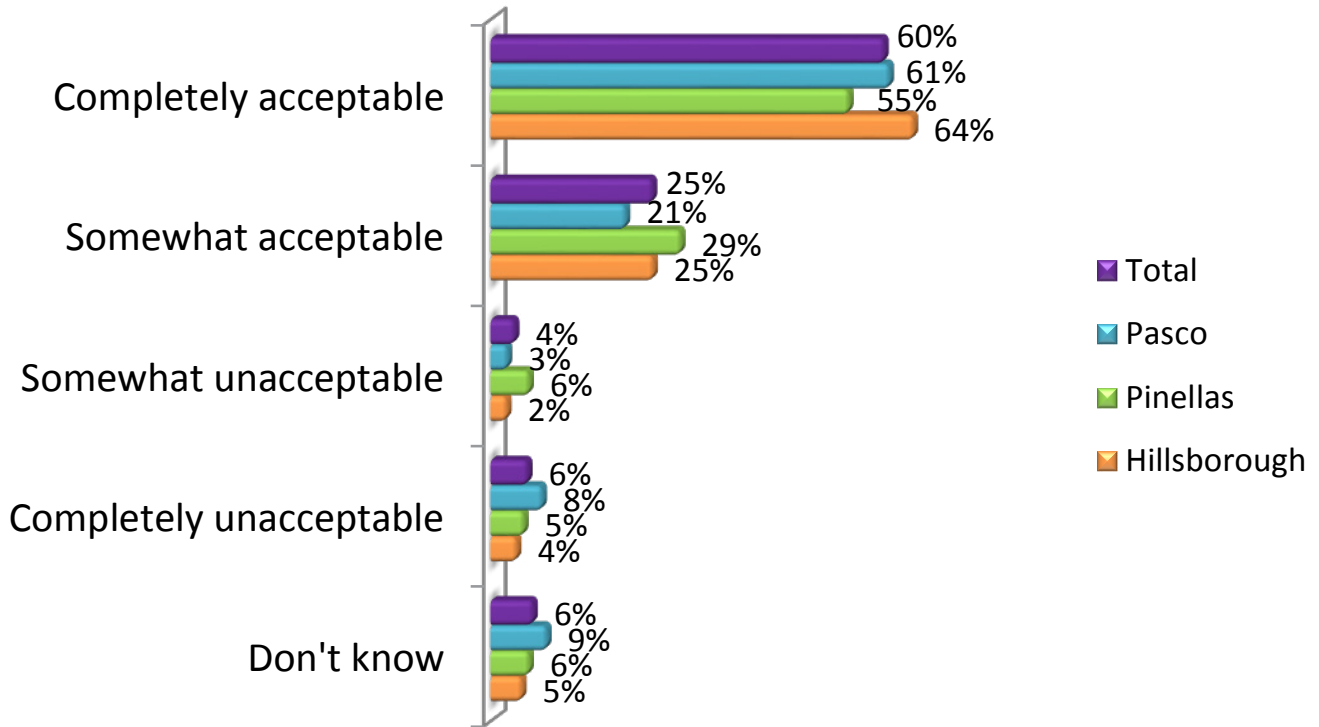
Using cleaned and treated reclaimed water may cost more.



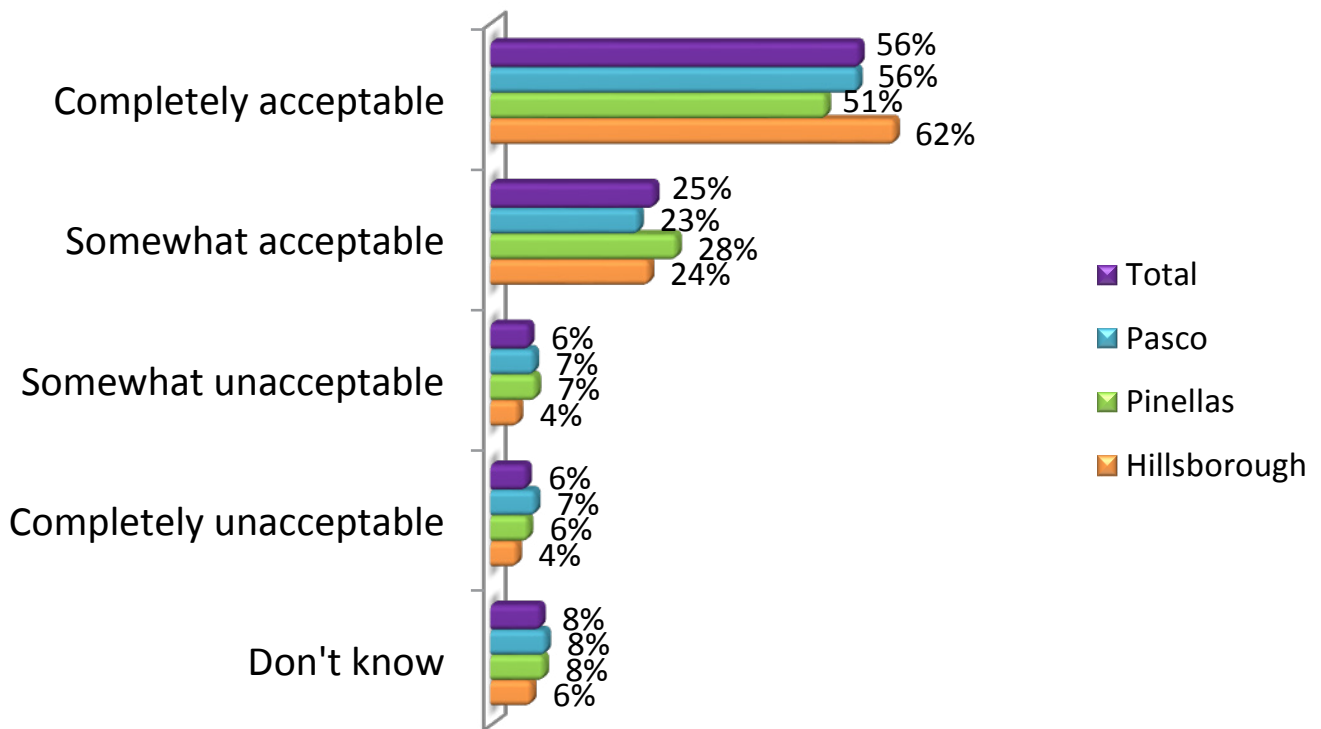
The concept of cleaned and treated reclaimed water just makes me uncomfortable.



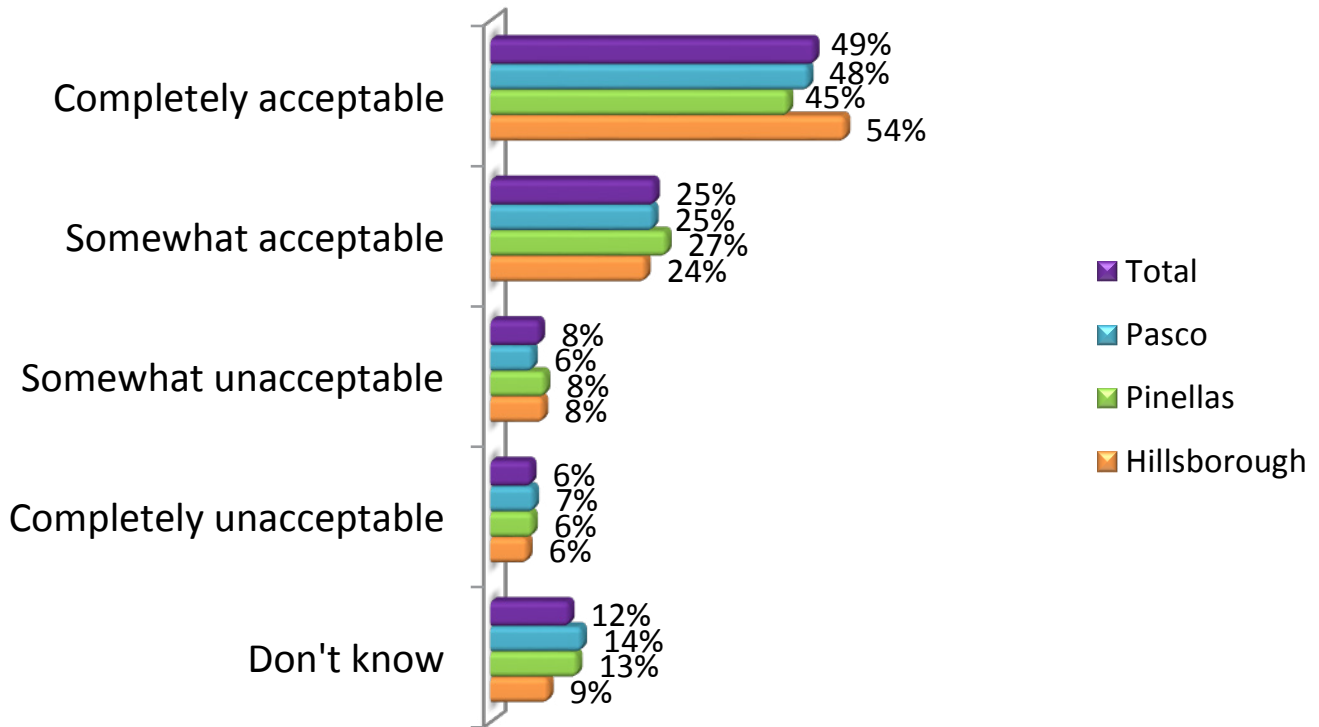
Is gardening and landscaping an acceptable use of reclaimed water?



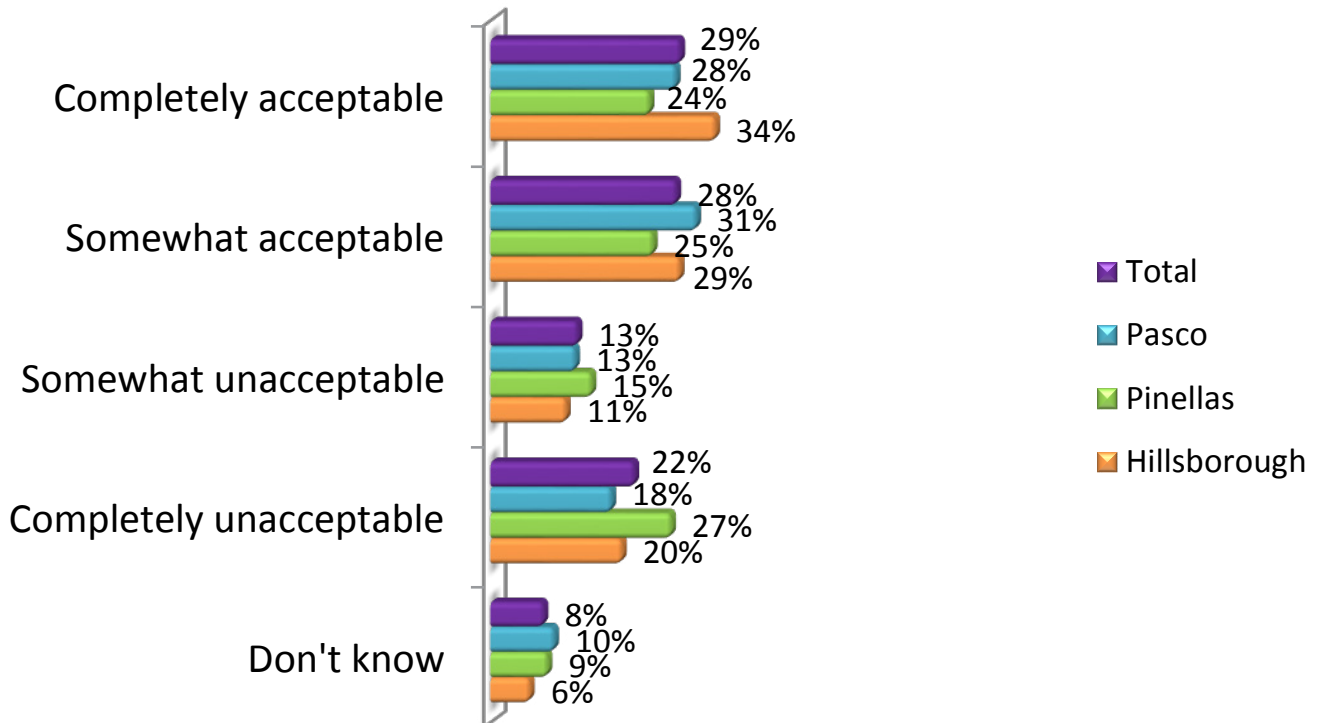
Is irrigation an acceptable use of reclaimed water?



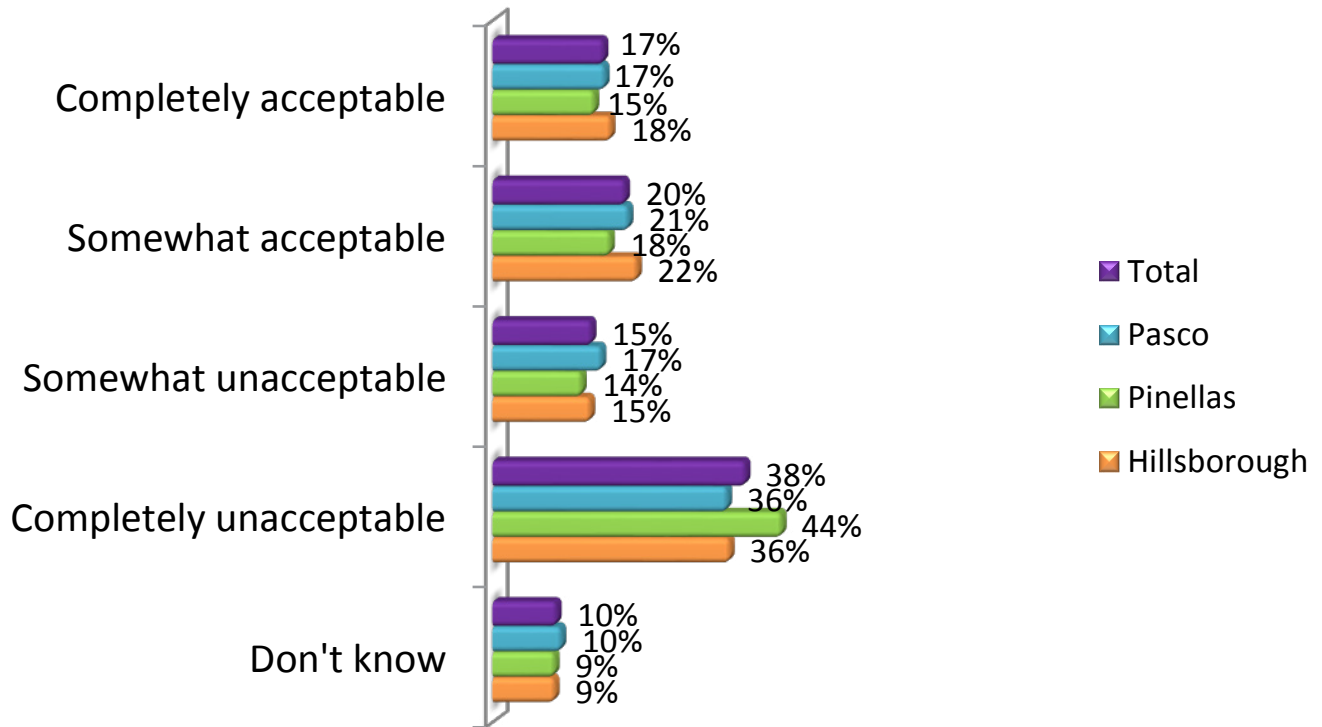
Is industrial use an acceptable use of reclaimed water?



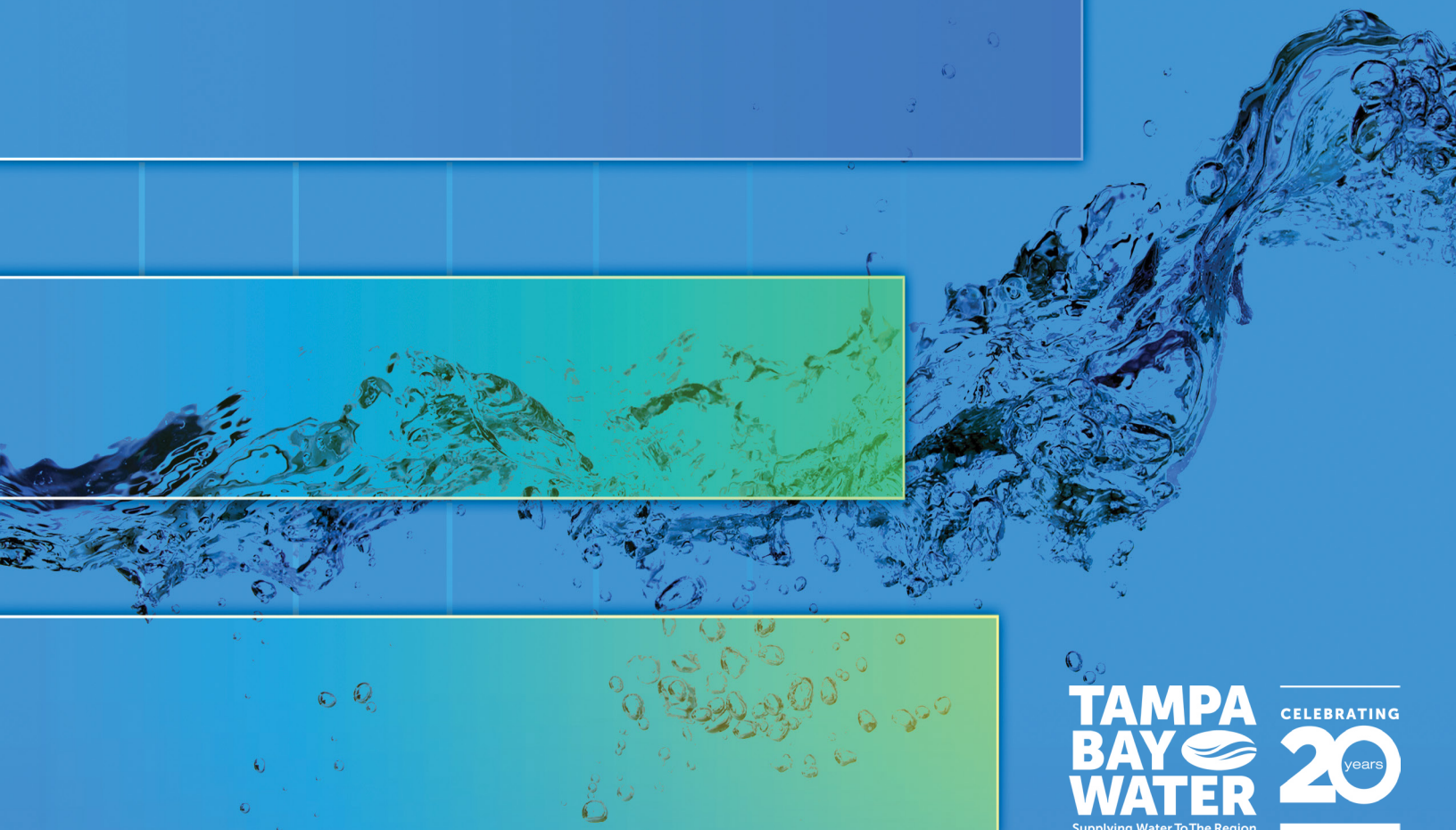
Is household use such as laundry, showers, and dishwashers an acceptable use of reclaimed water?



Is drinking water an acceptable use of reclaimed water?



Conservation Programs



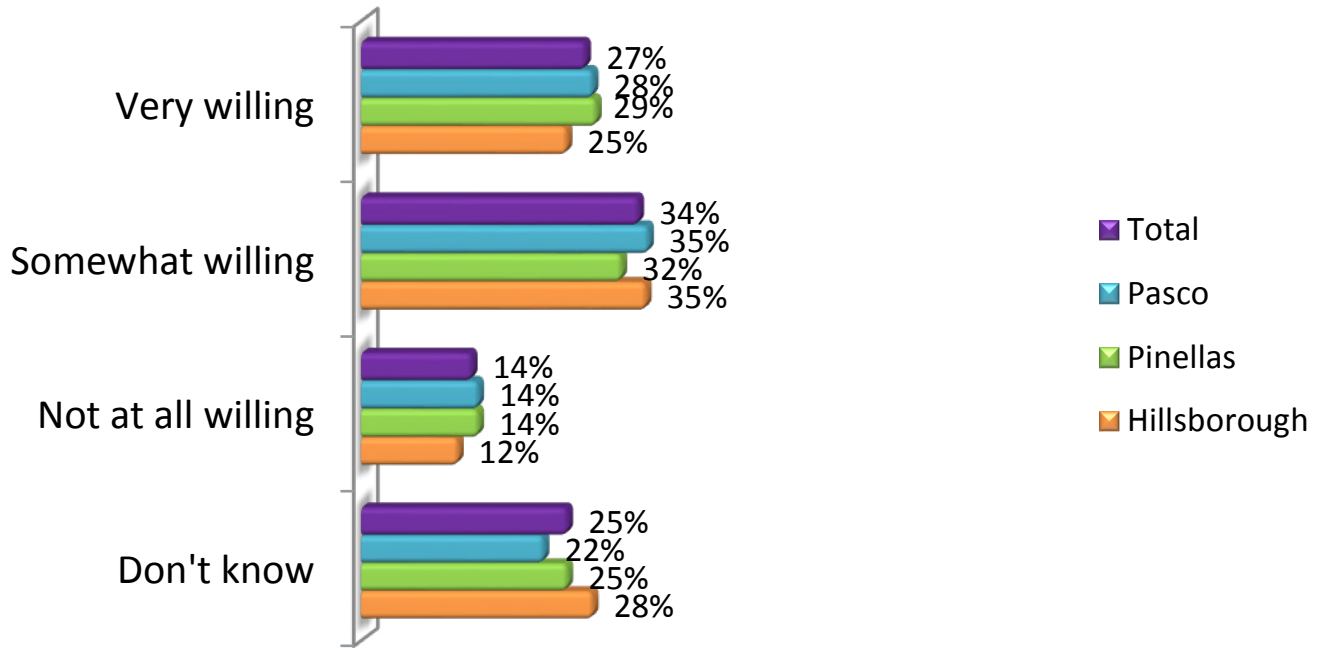
Conservation Programs

The conservation program that gained the most traction with residents of Tampa Bay Water's service area is using reclaimed water for lawn irrigation as 44% are very willing and 74% are at least somewhat willing to try this form of conservation. Various cash/financial incentives are acceptable to about a third of residents with cash/financial incentives for replacing toilets with more efficient ones heading the list. The one exception to residents' willingness to accept conservation programs sweetened by cash/financial incentives is replacing existing irrigation with shallow irrigation wells. Reactions to this option beg the question as to whether residents understand it.

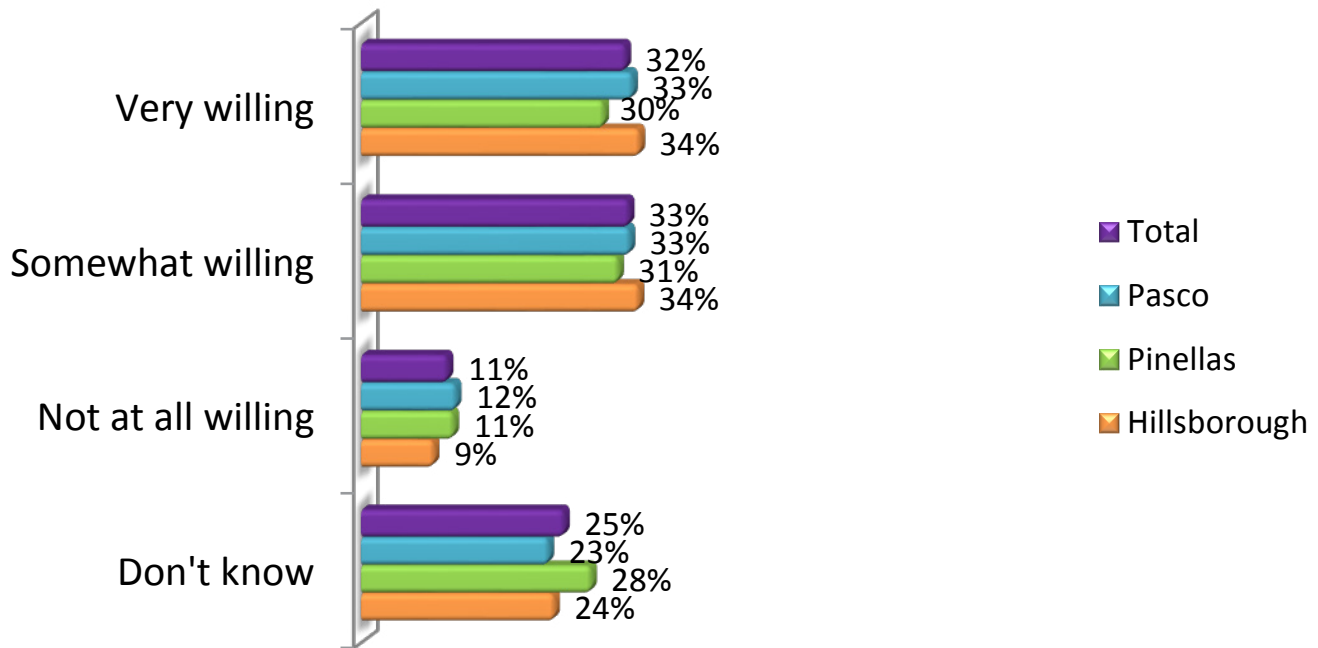
Conservation Program	Very Willing	Very + Somewhat Willing
Reclaimed water for sprinkling/water irrigation	44%	74%
Cash/financial incentives for replacing toilets with low-flow or water efficient toilets	37%	69%
Cash/financial incentives for replacing clothes washers with high-efficiency clothes washers	34%	68%
Cash/financial incentives for installing irrigation control devices, such as rain or soil moisture sensors	33%	65%
Landscape/Florida-friendly landscaping evaluations	32%	65%
Technical assistance for improving the efficiency of your existing irrigation system or practices	28%	64%
Landscape education and design courses	27%	61%
Cash/financial incentives for putting in shallow irrigation wells to replace tap water irrigation	26%	57%

Residents of Hillsborough County are slightly more likely to try conservation programs, while residents of Pinellas County are slightly less willing.

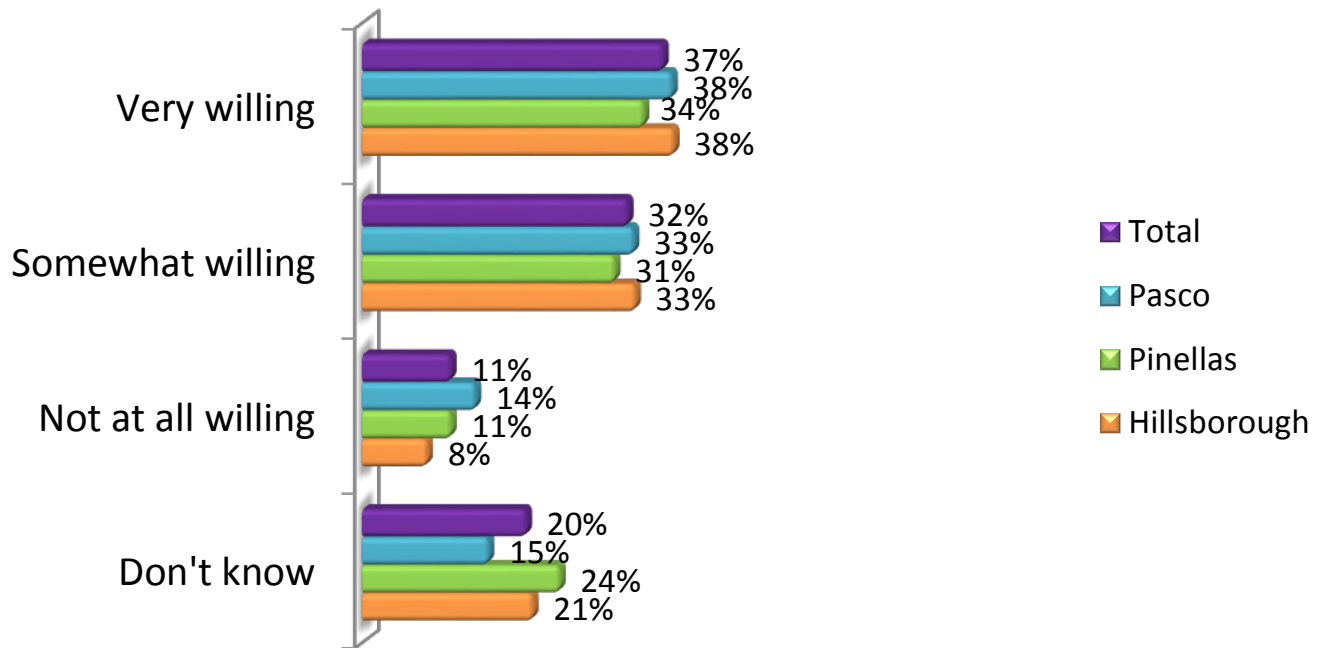
Are you willing to participate in the following conservation programs? - Landscape education and design courses



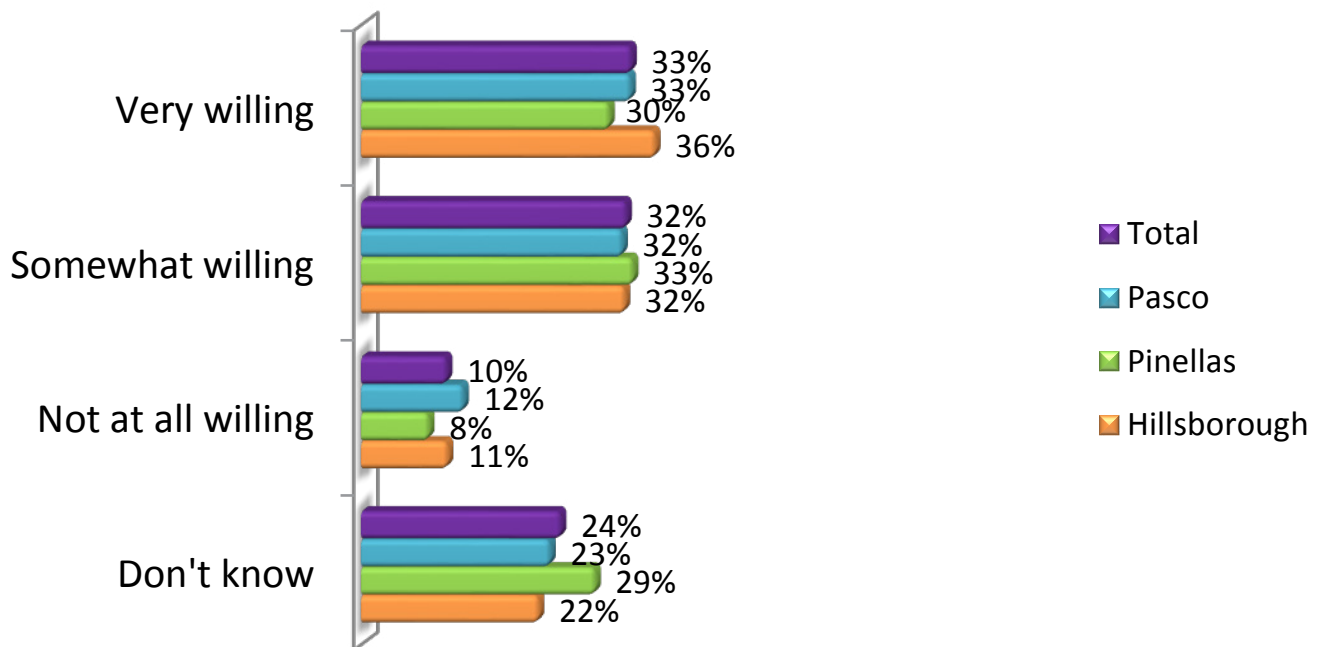
Are you willing to participate in the following conservation programs? - Landscape/ Florida-friendly landscaping evaluations



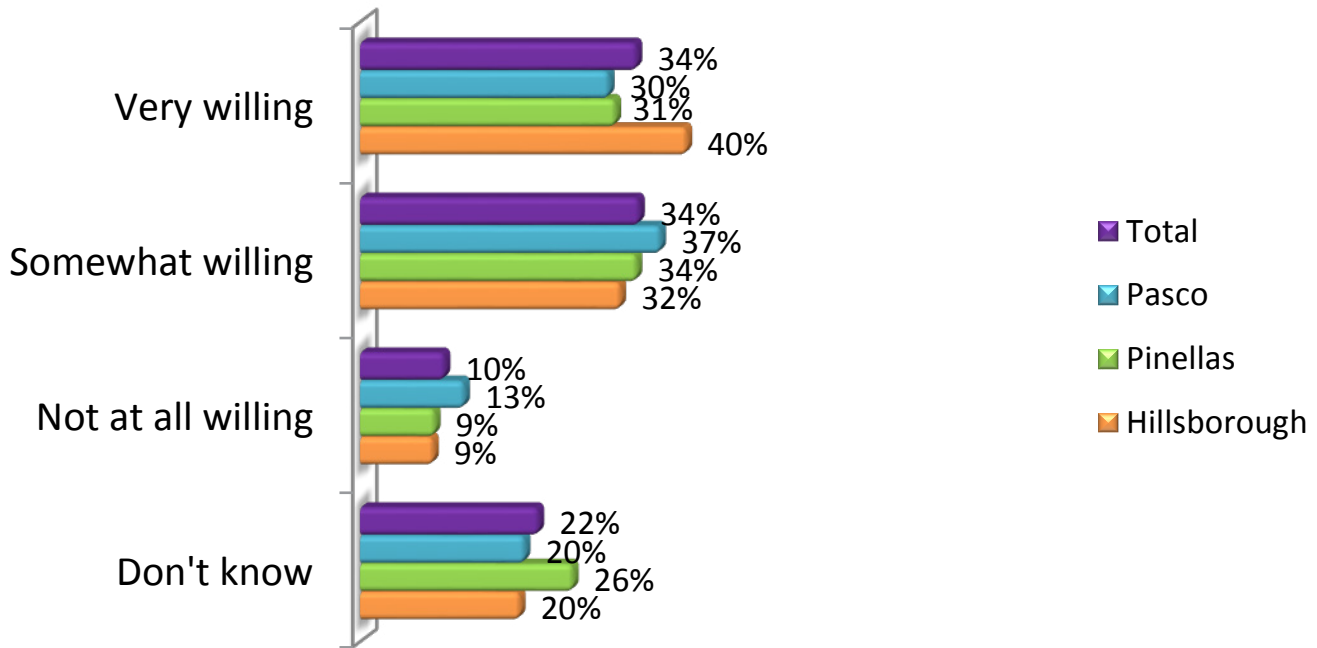
Are you willing to participate in the following conservation programs? - Cash or financial incentives for replacing toilets with low-flow or water efficient toilets



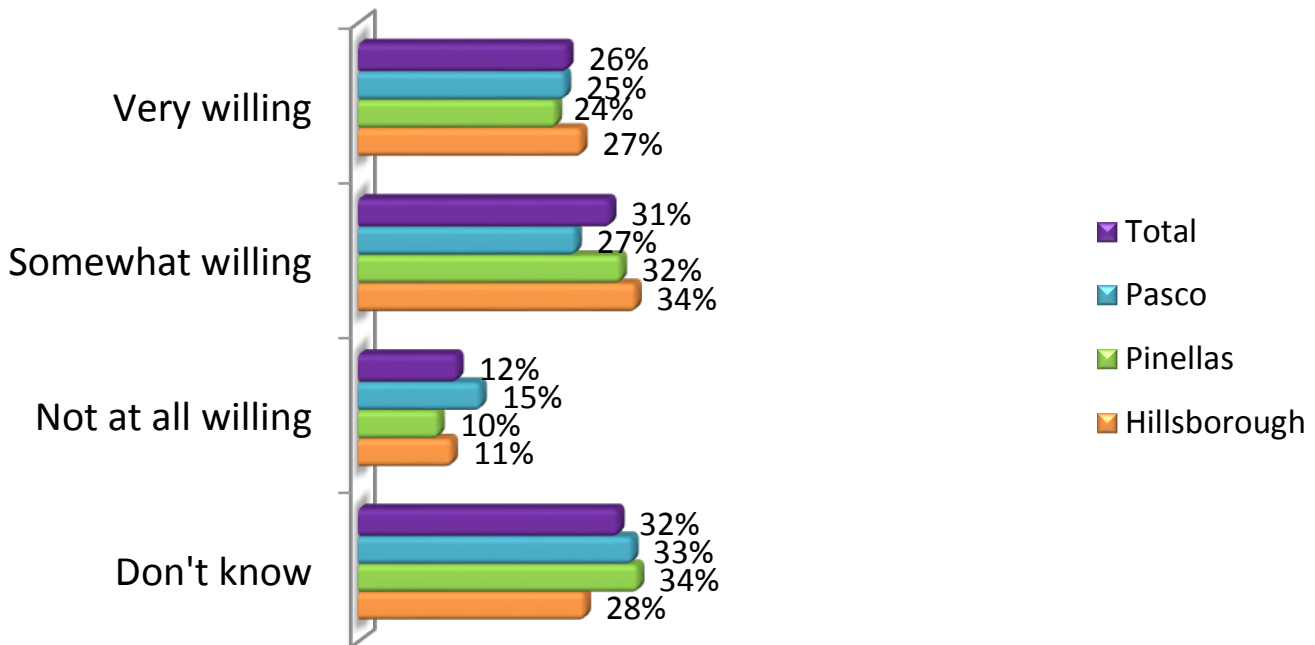
Are you willing to participate in the following conservation programs? - Cash or financial incentives for installing irrigation control devices, such as rain or soil moisture sensors



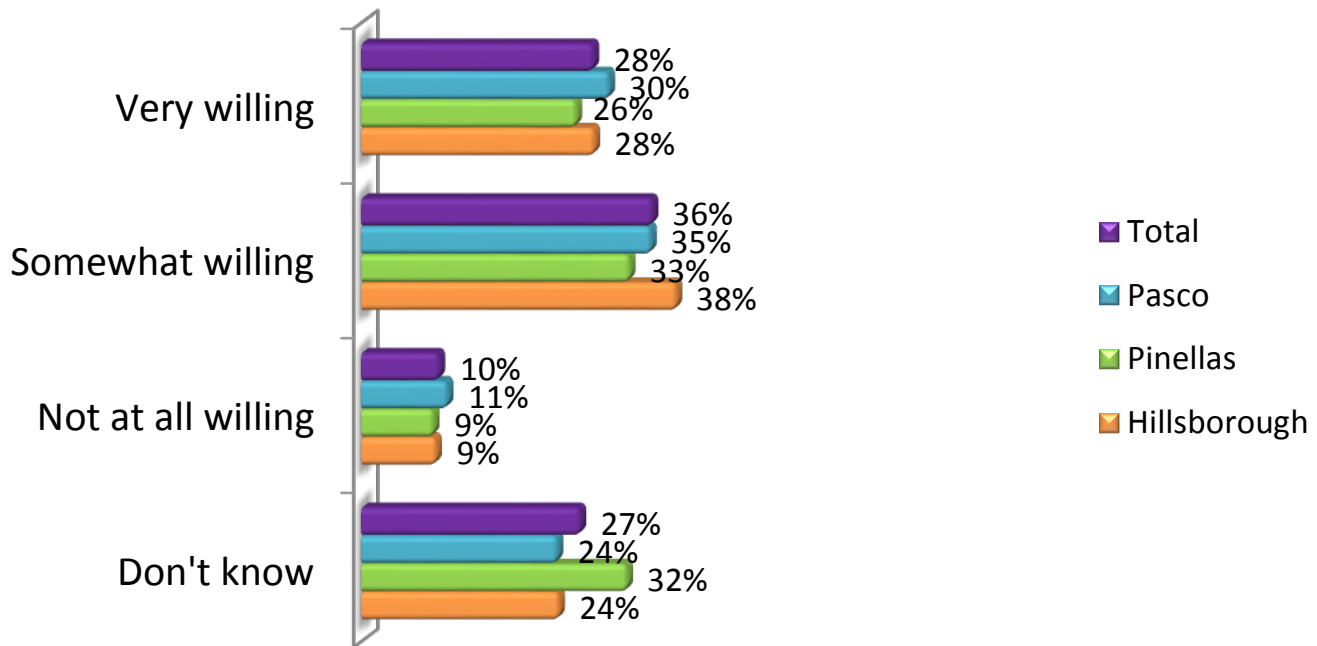
Are you willing to participate in the following conservation programs? - Cash or financial incentives for replacing clothes washers for high-efficiency clothes washers



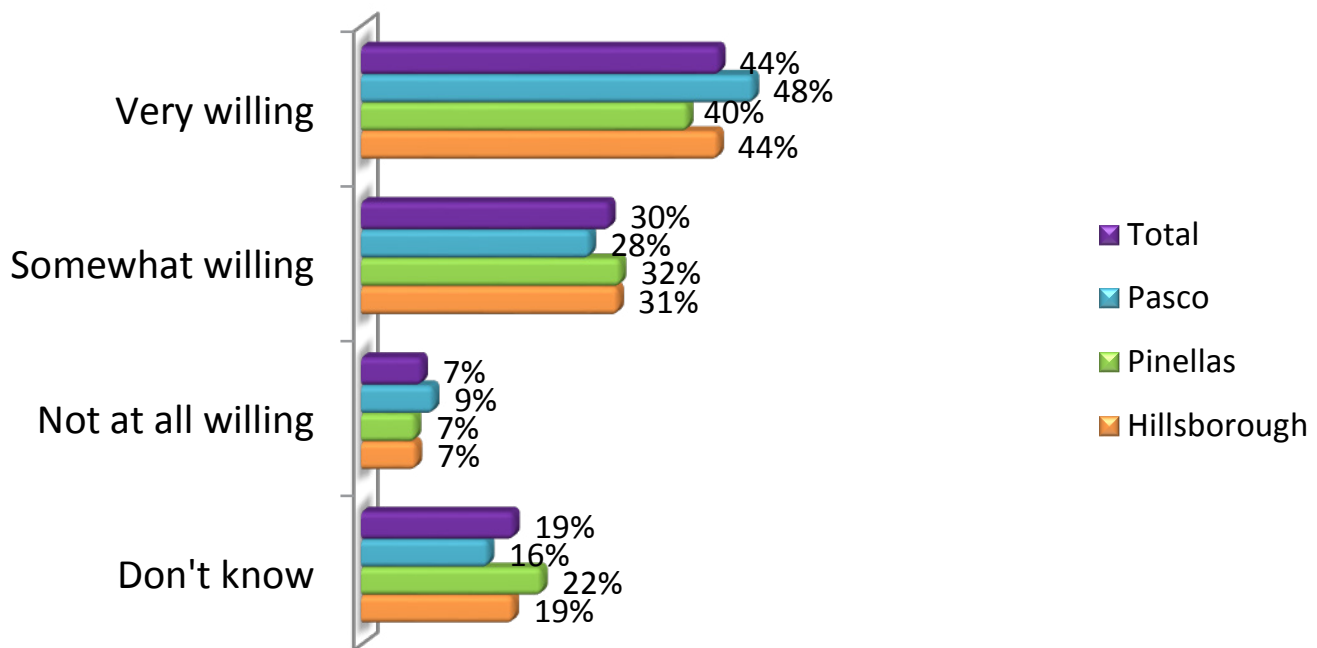
Are you willing to participate in the following conservation programs? - Cash or financial incentives for putting in shallow irrigation wells to replace tap water for irrigation



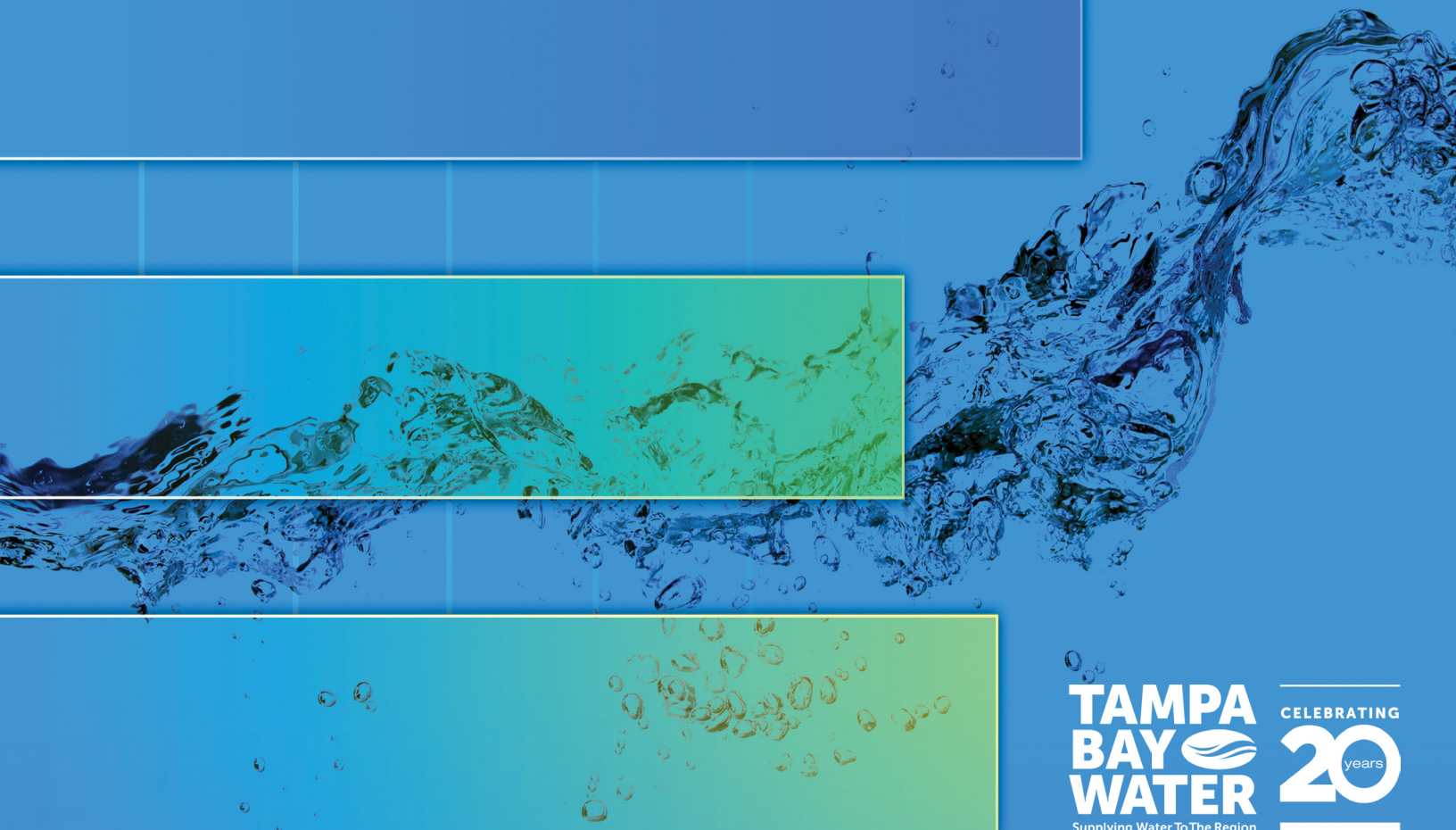
Are you willing to participate in the following conservation programs? - Technical assistance for improving the efficiency of your existing irrigation system or practices



Are you willing to participate in the following conservation programs? - Reclaimed water for sprinkling/lawn watering



Water Quality



Water Quality

The percentage of residents who say they drink tap water is down from 60% in 2015 to 56% in 2018. It should be noted that this percentage has vacillated between 59% and 61% since 2007, so 56% in 2018 is the lowest recorded figure in a decade.

Reasons for Not Drinking Tap Water

Taste is the number one reason why people do not drink tap water, yet the percentage listing this reason is down 6% points since 2015. When factoring in the taste of bottled water, slightly fewer residents in 2018 selected this reason for not drinking tap water.

Reasons for Not Drinking Tap Water	2015	2018
Taste	52%	46%
Bottled water is better quality	32%	36%
Bottled water tastes better	39%	33%
Unsafe or poor quality	27%	26%
Smell	25%	20%
Particles in it	23%	17%
Bottled water is more convenient	15%	15%
It's milky	6%	7%

Fewer people in 2018 compared to 2015 say they do not drink tap water because it is unsafe or poor quality, because it smells offensive, and because it has particles in it.

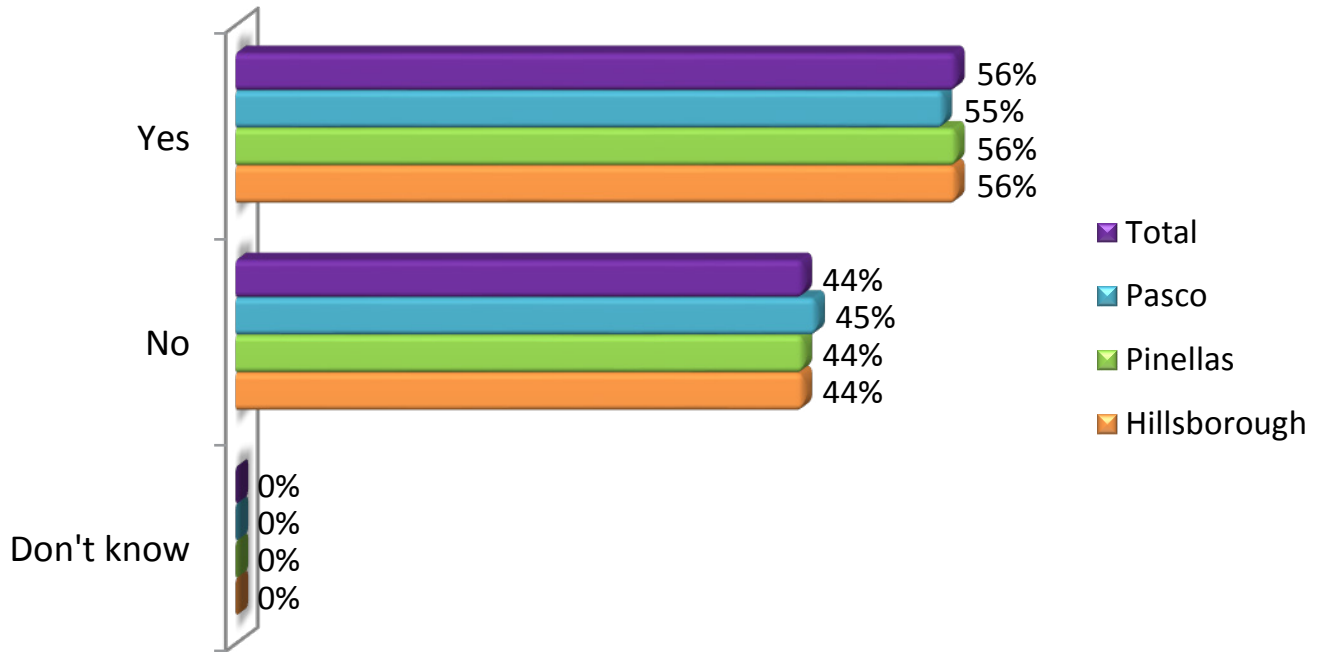
Ratings of Tap Water

The table below shows residents' average ratings for tap water (on a 5-point scale) on six dimensions. Scores went up for taste, but down for odor and appearance. In general, scores in 2018 are very close to 2015 scores.

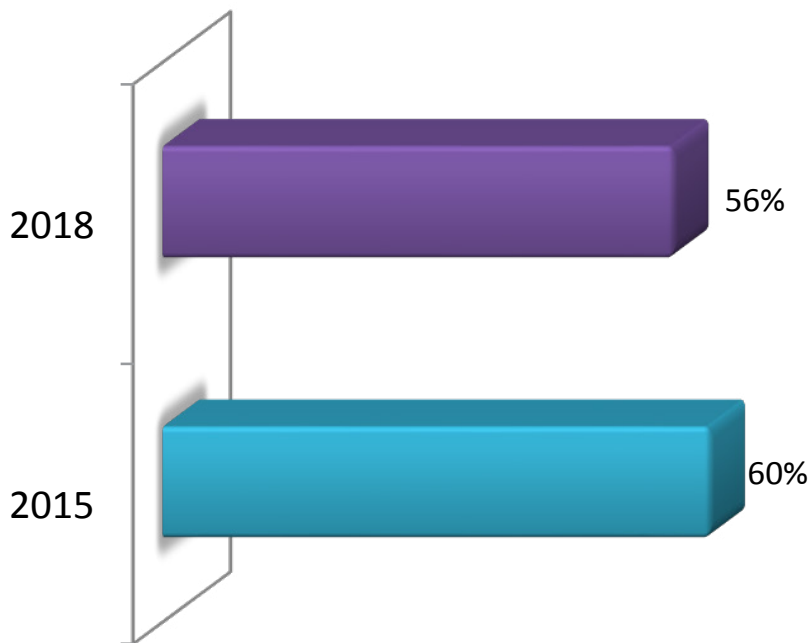
Water attributes	2015	2018
Taste	3.1	3.2
Odor	3.6	3.5
Appearance	3.8	3.7
Safety	3.5	3.5
Purity	3.3	3.3
Cost	3.3	3.3

Just over half of residents (53%) think bottled water is safer than tap water, up from 49% who believed this in 2015. Hillsborough County residents (55%) are more likely to think bottled water is safer, while Pasco County residents (50%) are least likely.

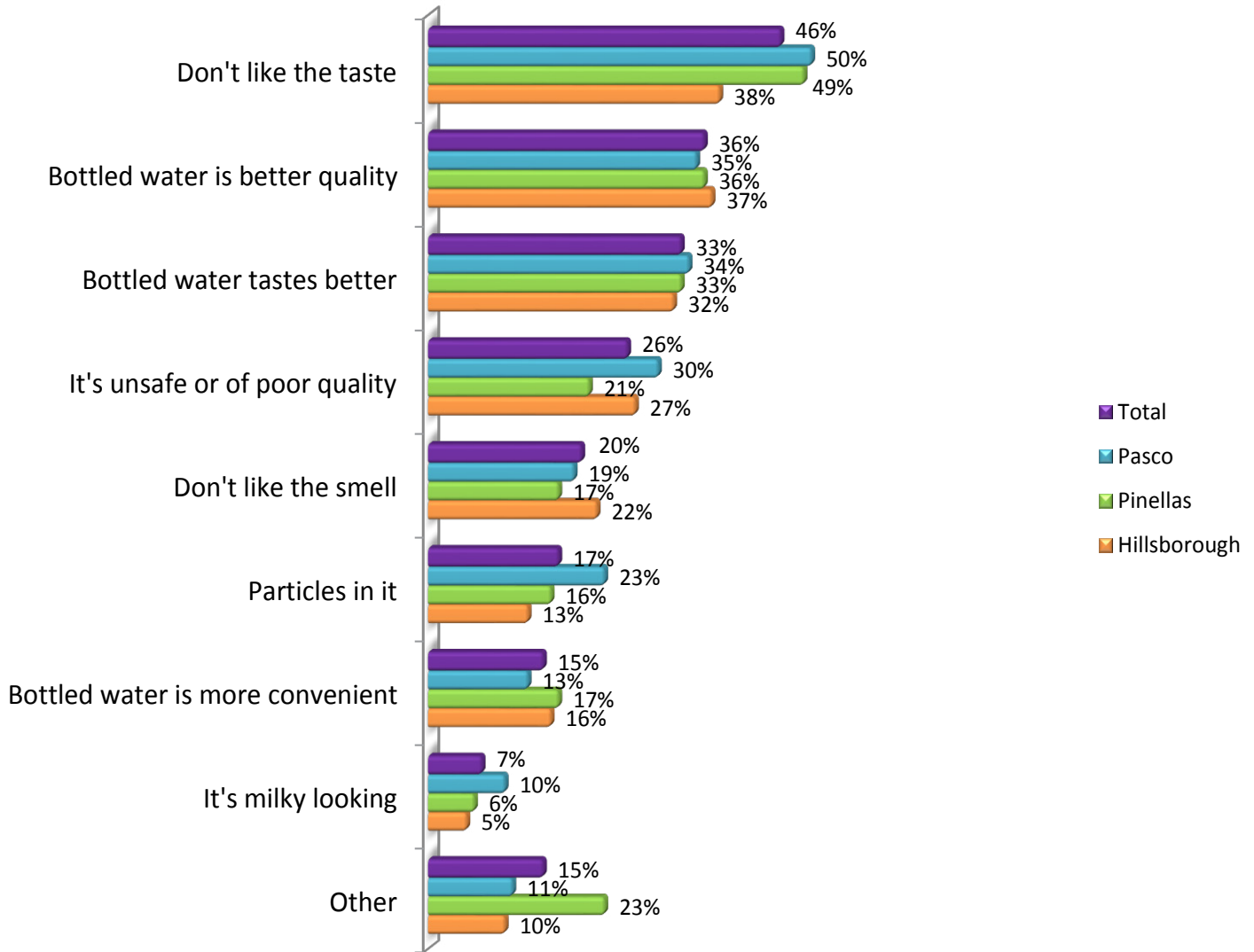
Do you drink household tap water?



Tap Water Drinking by Year

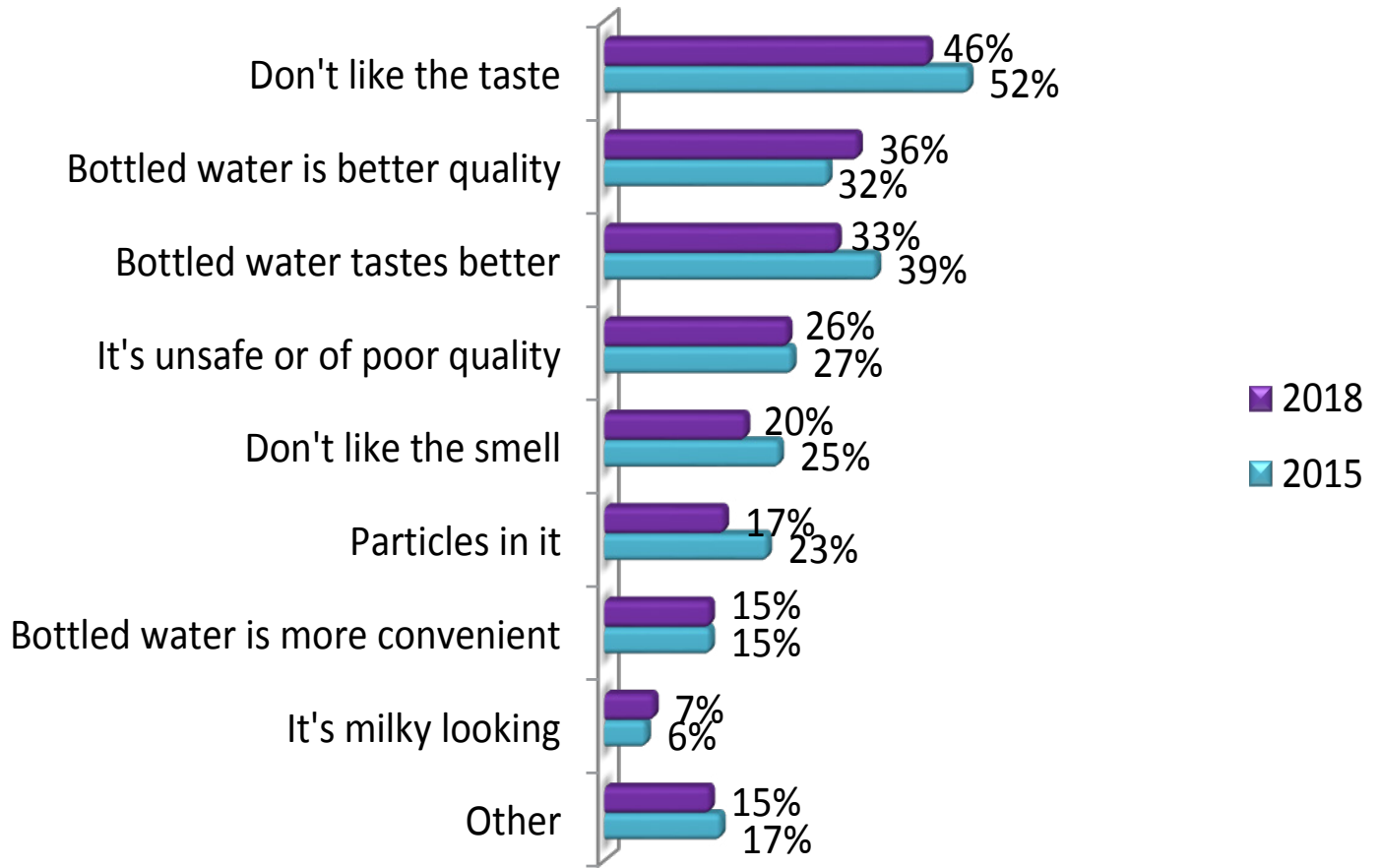


Why don't you drink your tap water?*

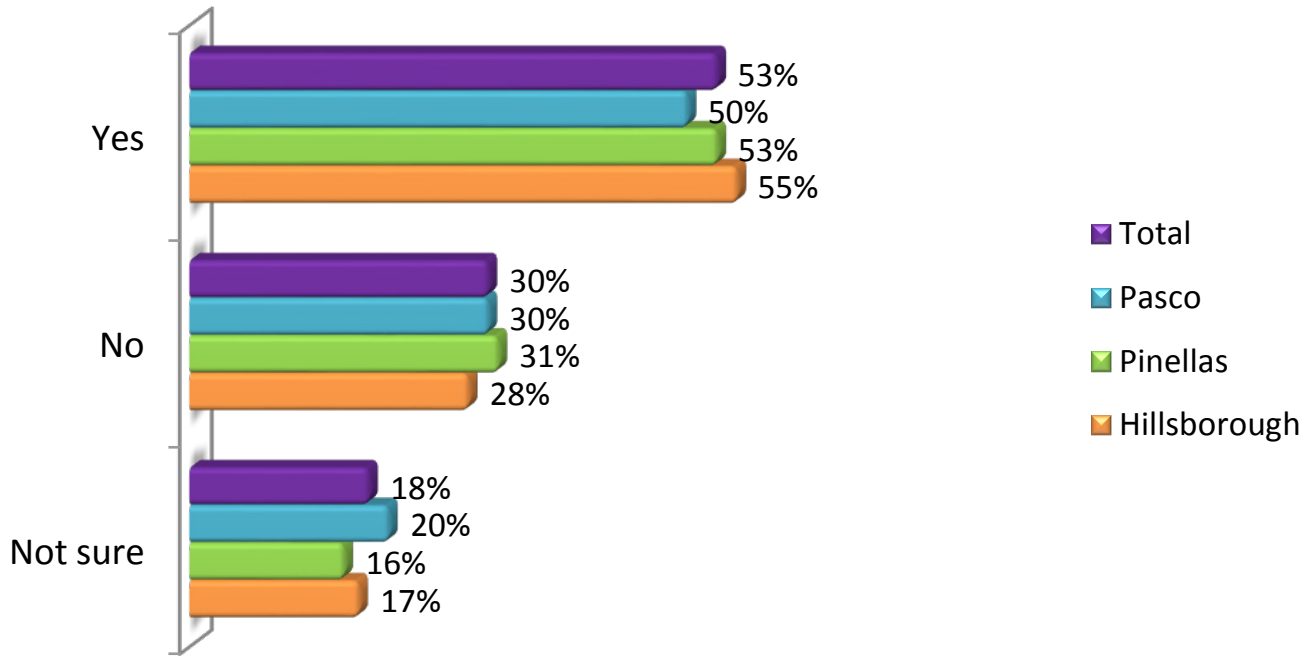


* Only asked to residents who answered "No" to the previous question.

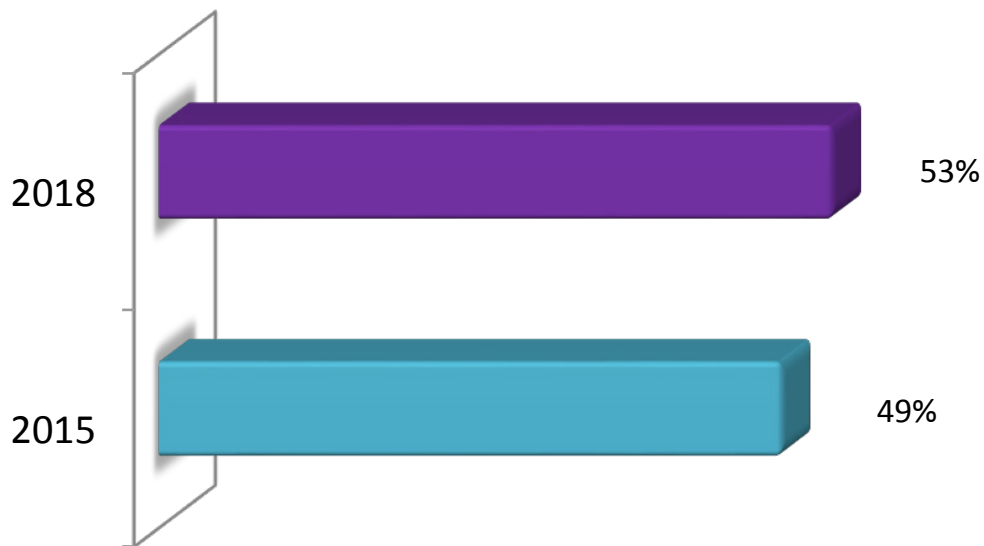
Reasons for not Drinking Tap Water by Year



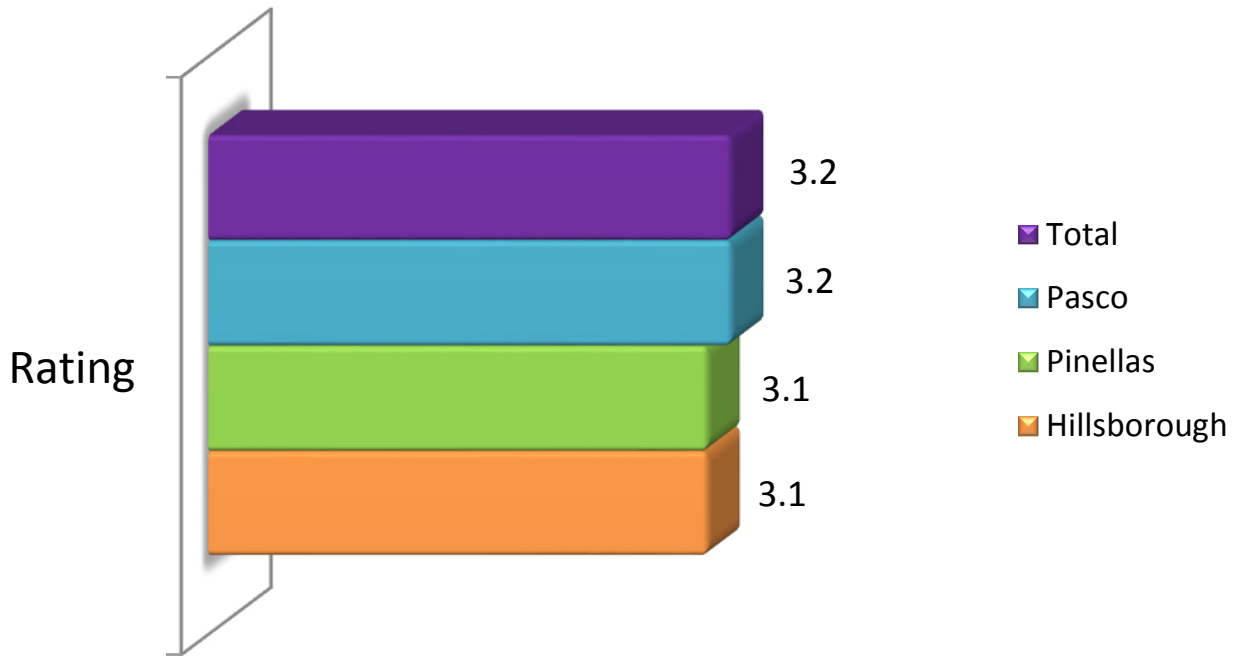
Do you think bottled water is safer than tap water?



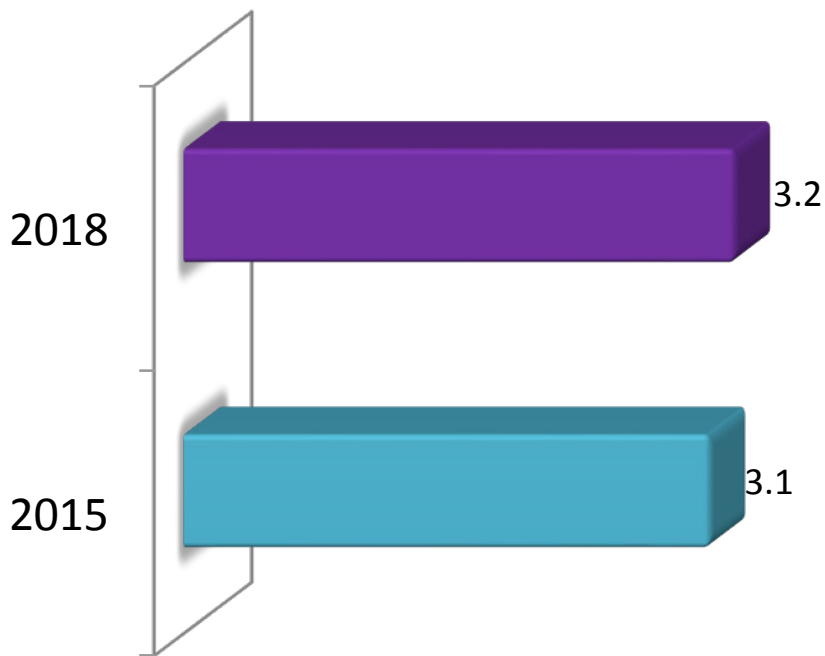
Believe Bottled Water is Safer than Tap Water by Year



How satisfied are you with the taste of your tap water.*

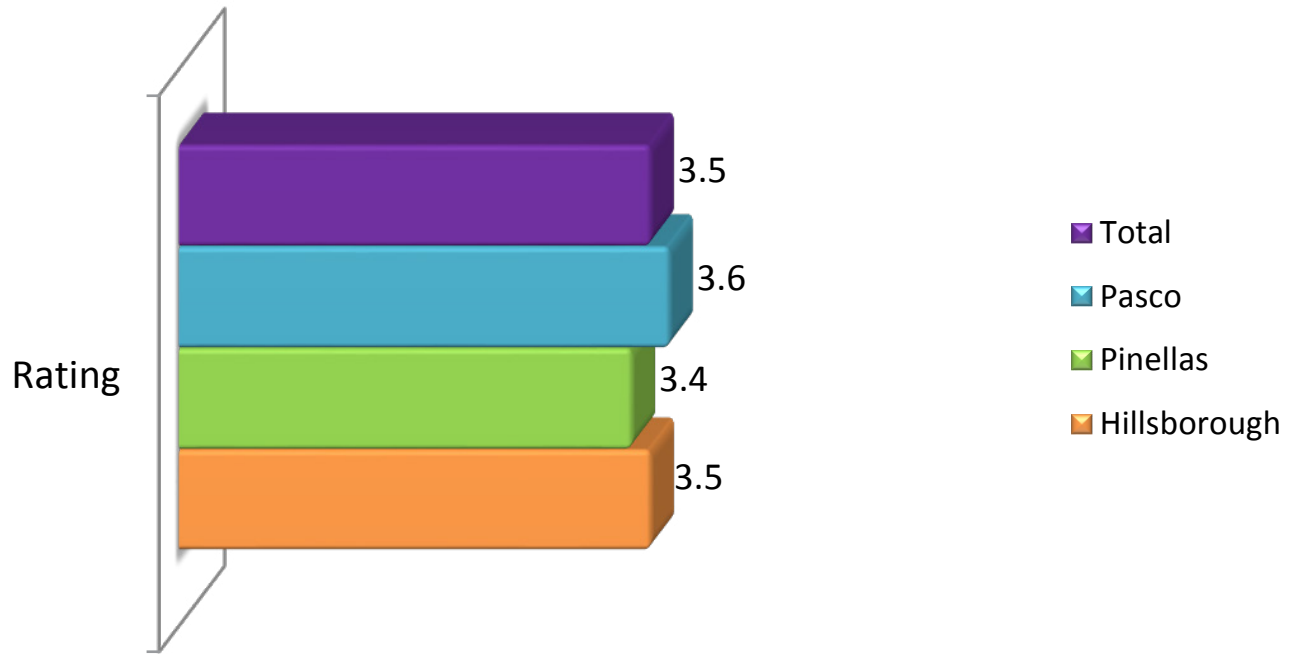


Taste Rating by Year

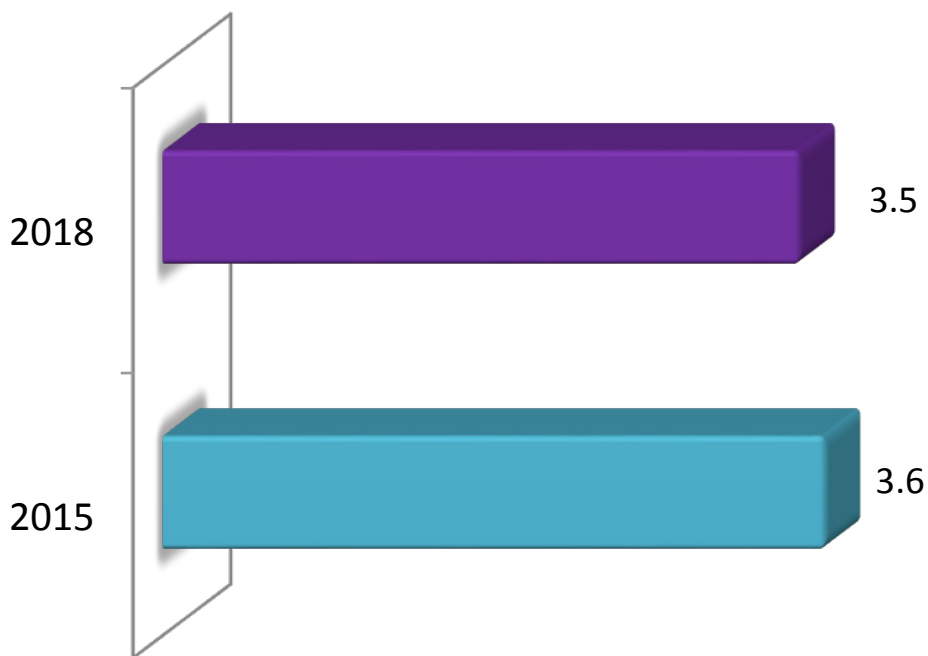


* Using a 5-point scale where 1 means very poor and 5 means excellent.

*How satisfied are you with the odor of your tap water.**

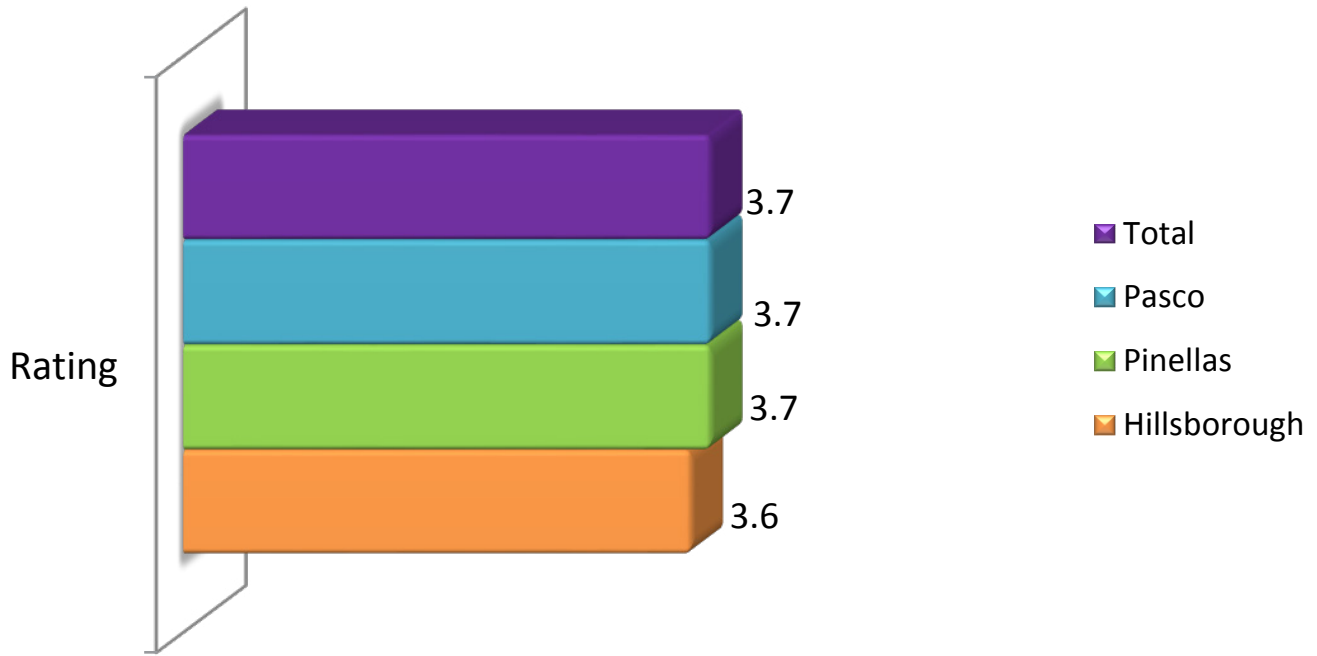


Odor Rating by Year

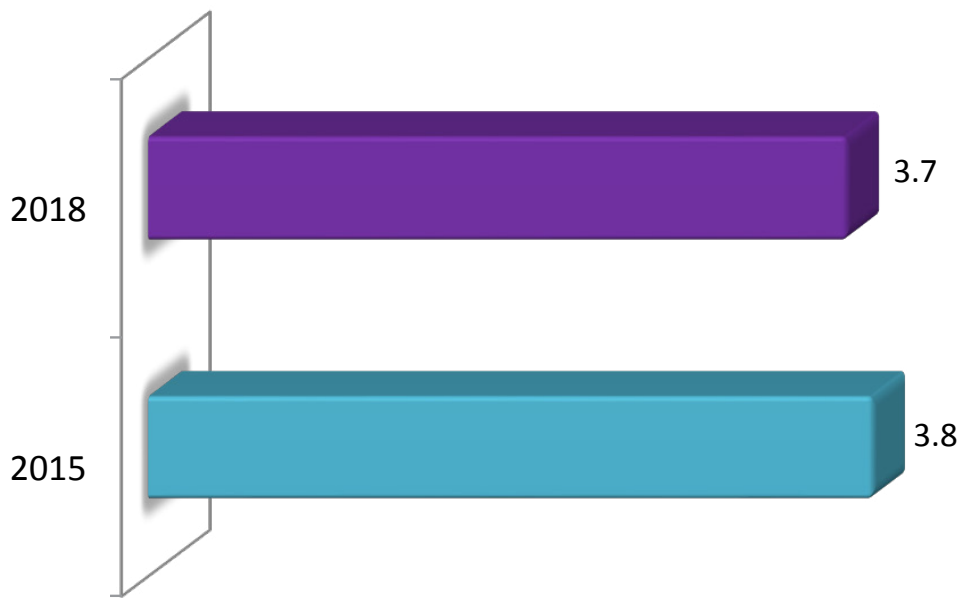


* Using a 5-point scale where 1 means very poor and 5 means excellent.

*How satisfied are you with the appearance of your tap water.**

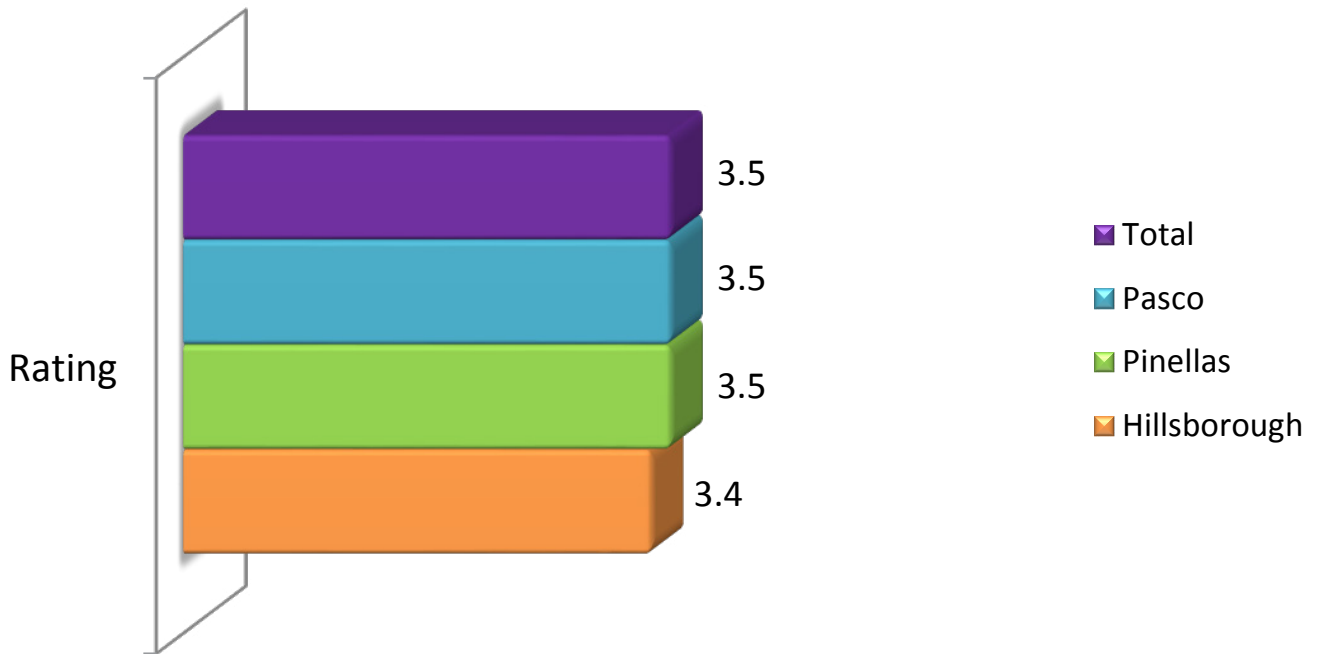


Appearance Rating by Year

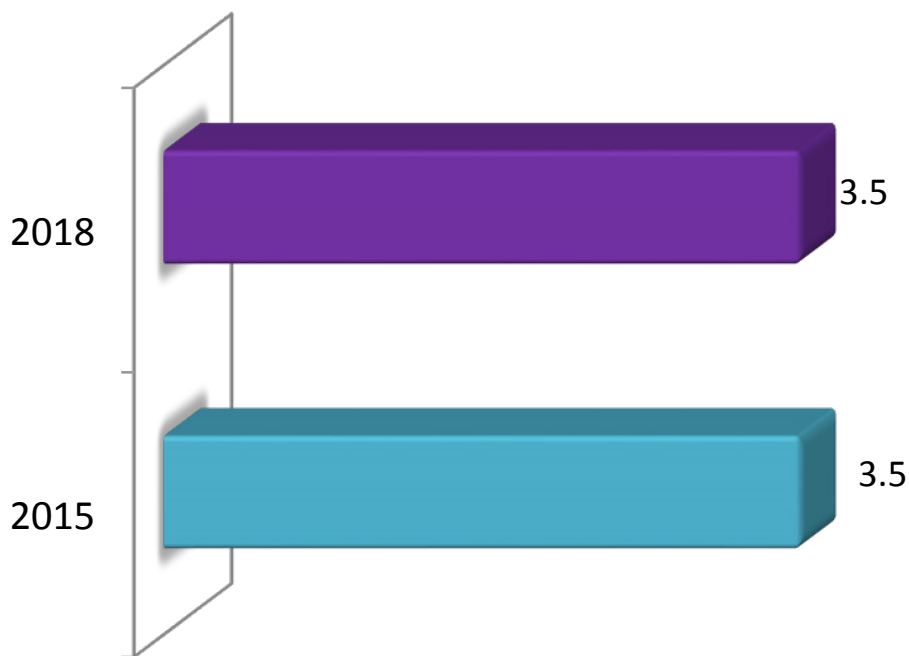


* In 2007, residents rated the “Clarity” of the water using a 5-point scale where 1 means very poor and 5 means excellent.

*How satisfied are you with the safety of your tap water.**

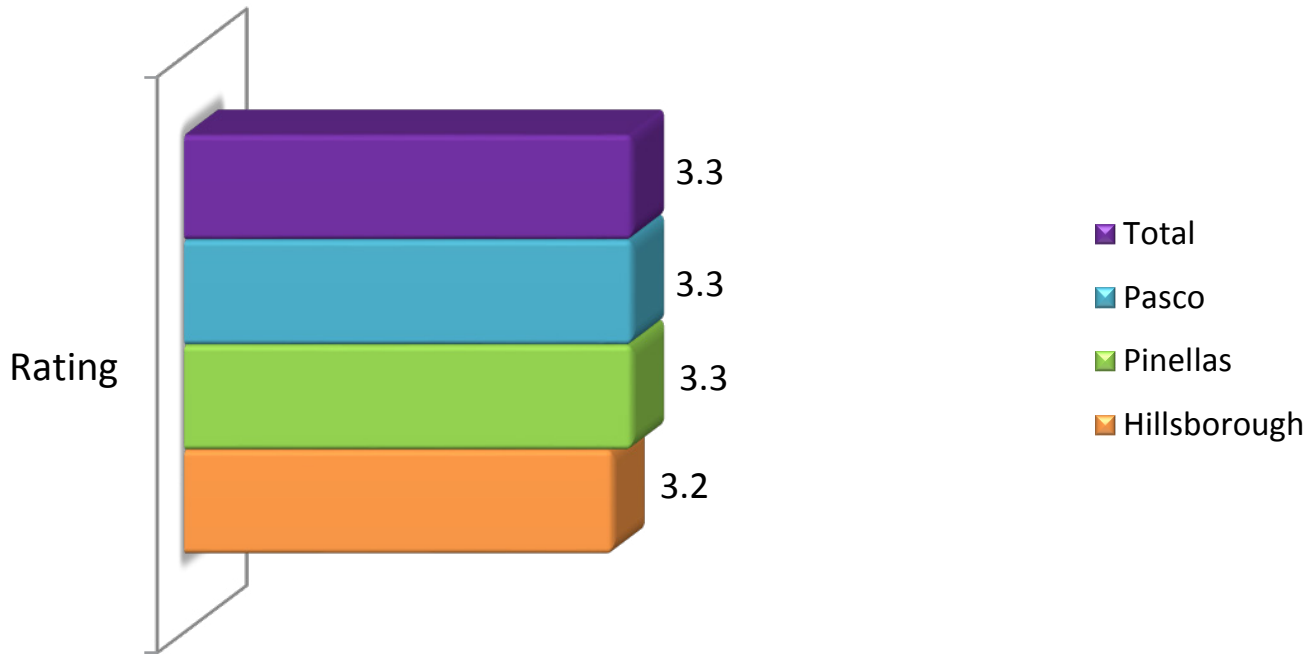


Safety Rating by Year

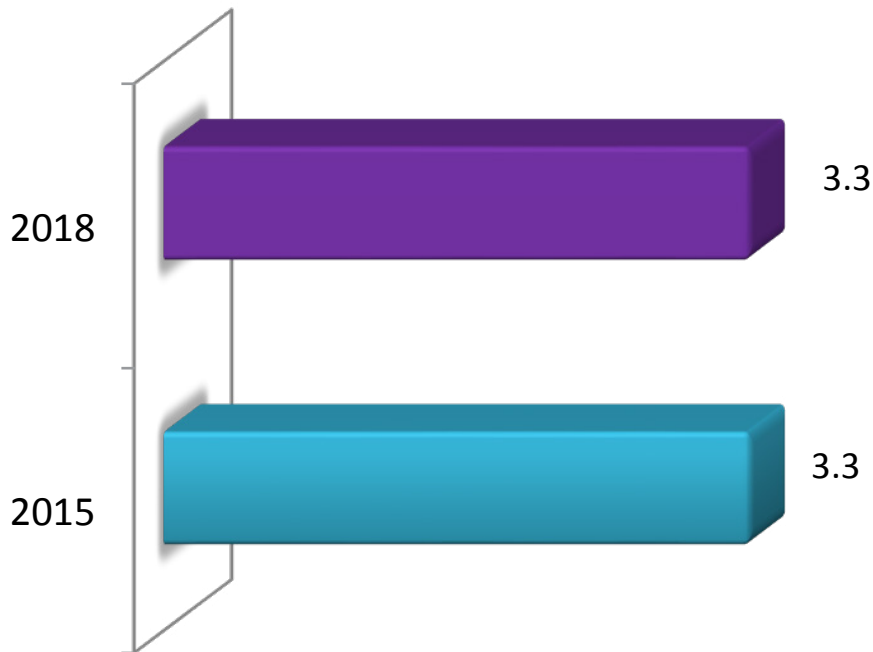


* Using a 5-point scale where 1 means very poor and 5 means excellent.

*How satisfied are you with the purity of your tap water.**

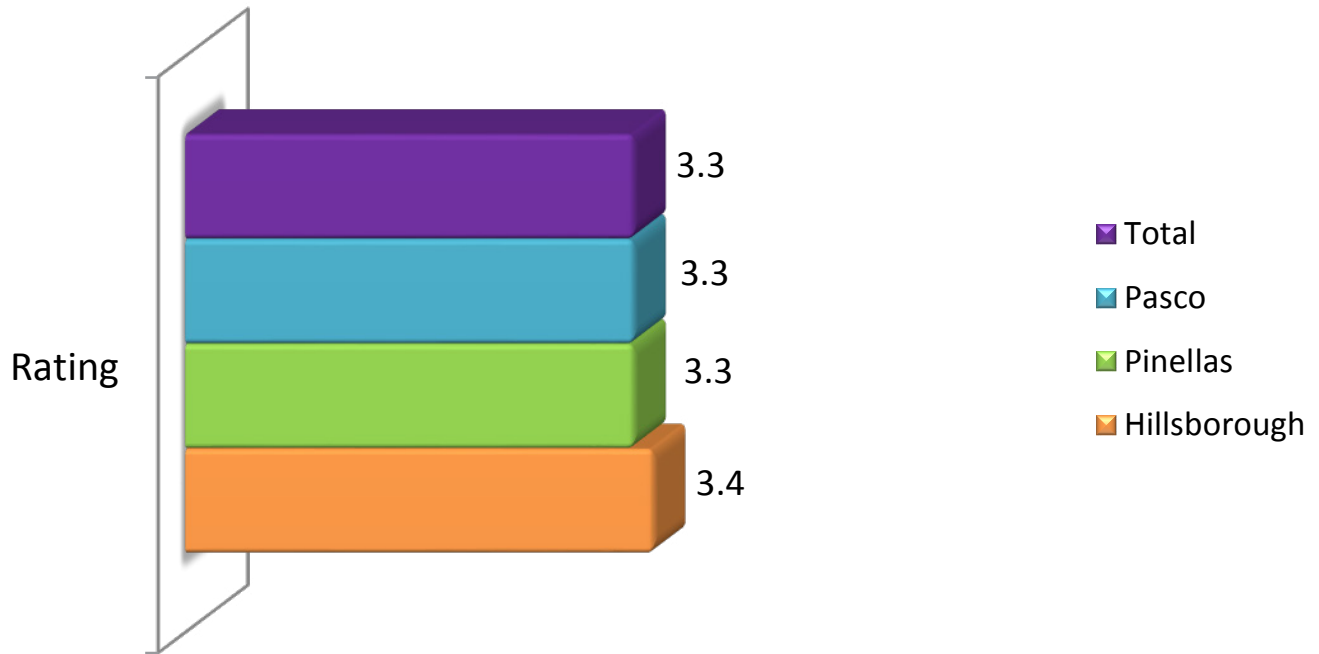


Purity Rating by Year

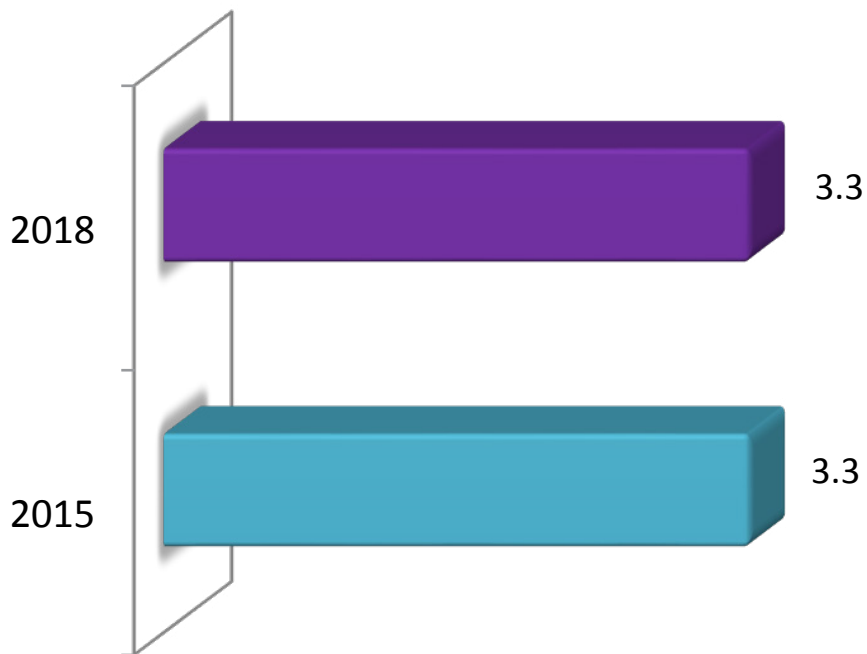


* Using a 5-point scale where 1 means very poor and 5 means excellent.

*How satisfied are you with the cost of your tap water.**

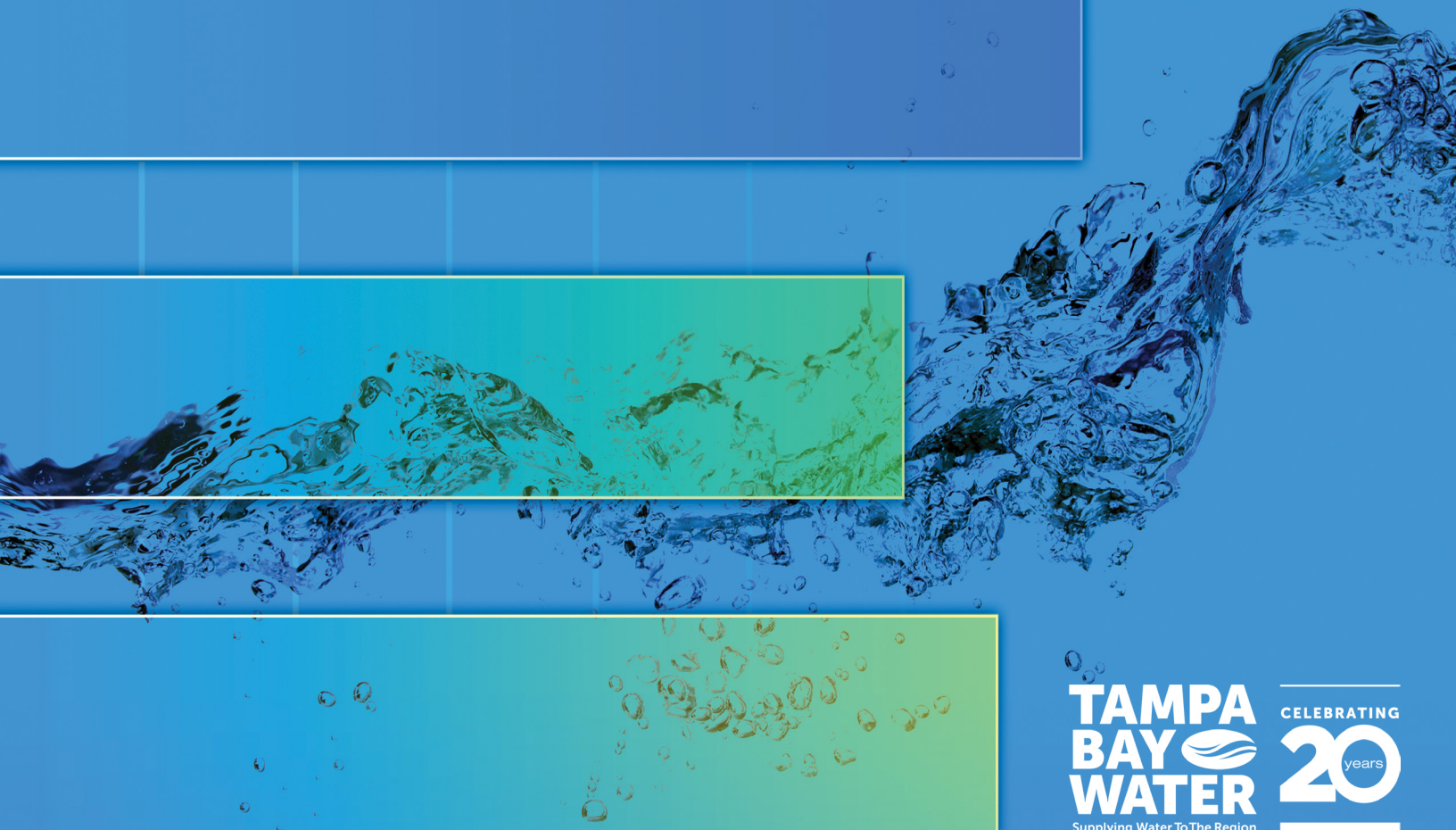


Cost Rating by Year



* Using a 5-point scale where 1 means very poor and 5 means excellent.

Water Cost

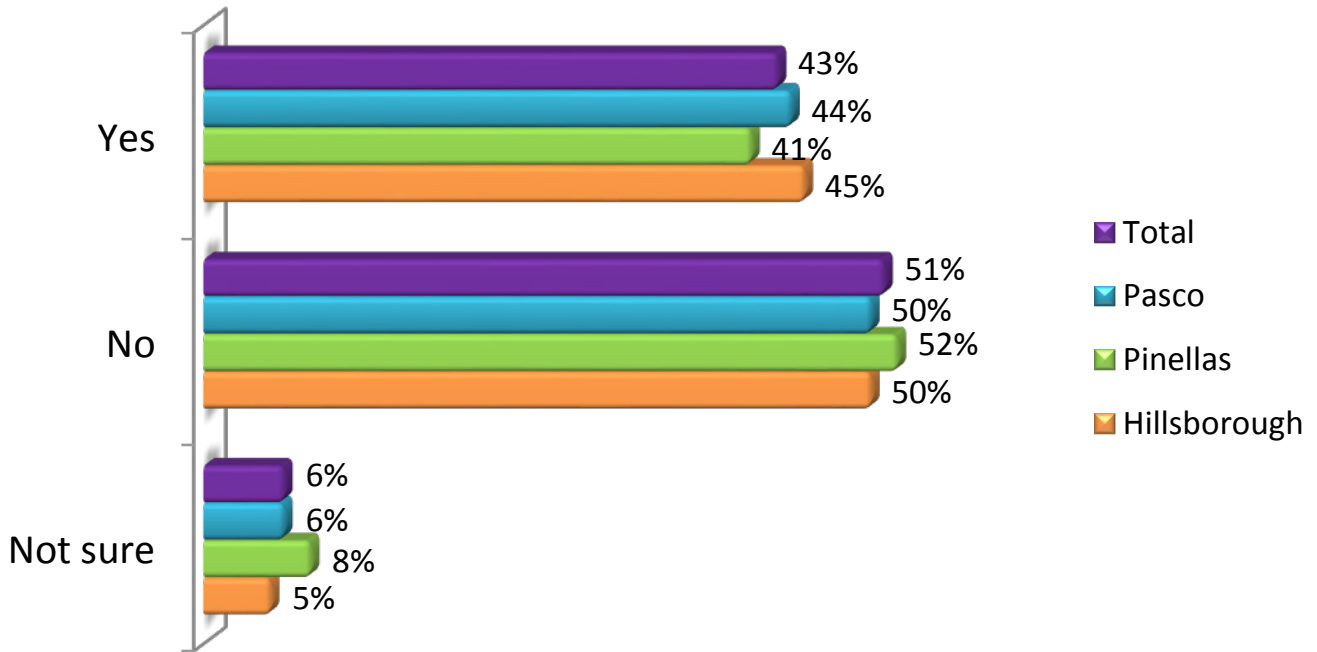


Water Cost

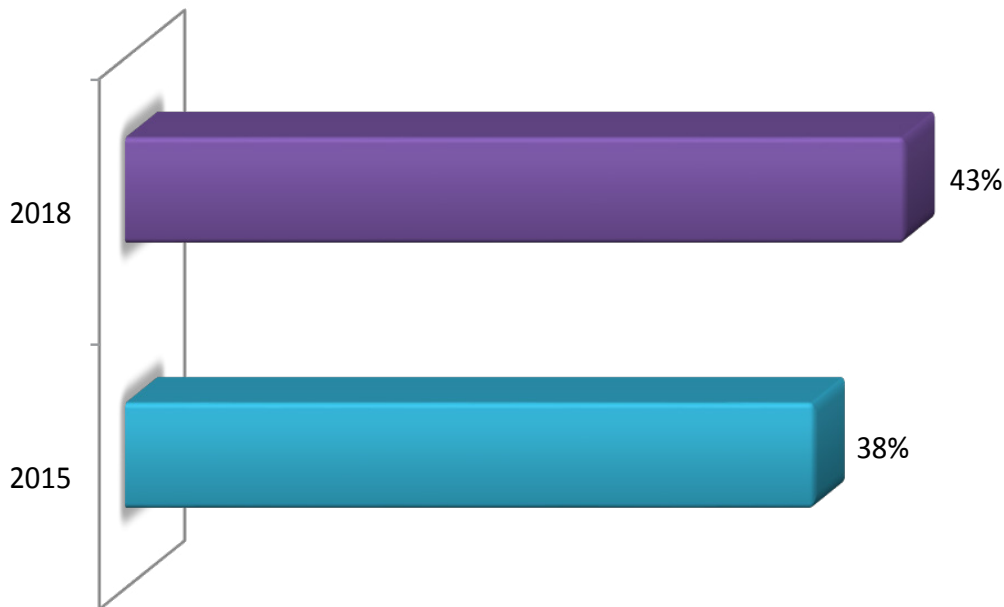
Just over two out of five residents (43%) maintain that their water bill affects the way they use tap water. This is most true for Hillsborough County residents (45%) and least true for Pinellas County residents (41%).

Based on what they pay, two out of five residents (42%) of Tampa Bay Water's service area feel tap water prices are too high. This feeling is up 3% points since 2015. Pasco County residents (45%) are more likely to think the price of tap water is too high, while Hillsborough County residents (38%) are least likely to feel this way.

Does the amount of your water bill affect the way you use tap water?

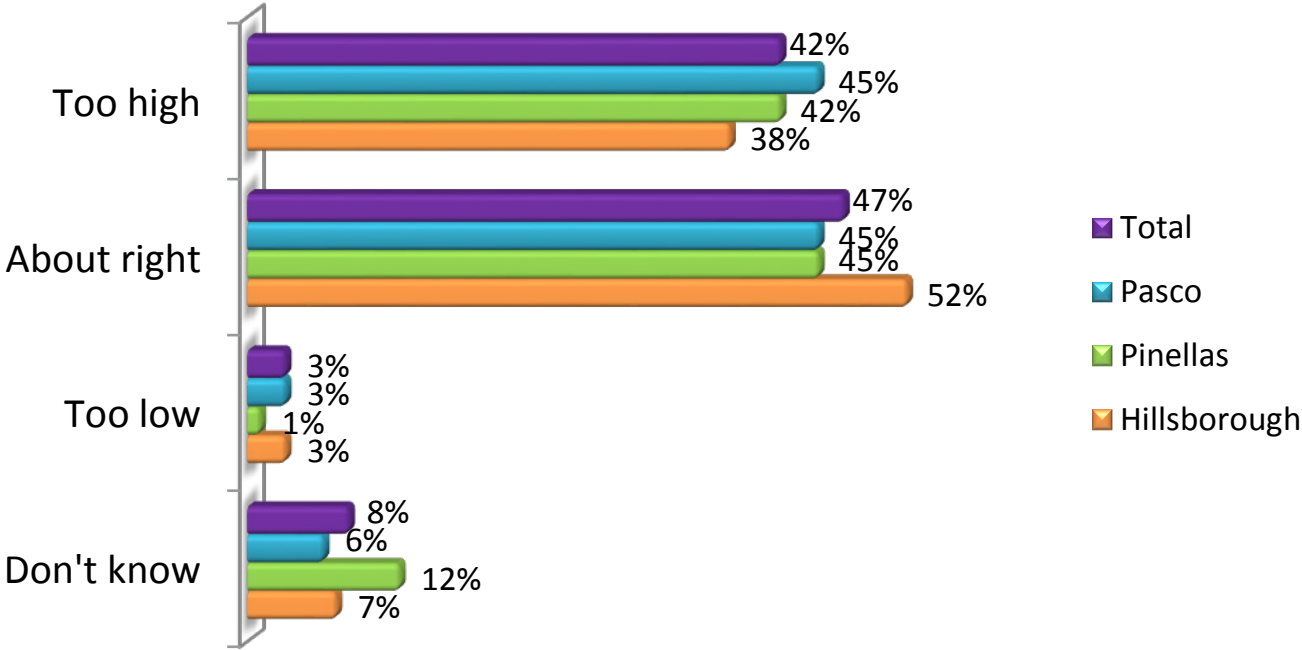


*Water Bill Costs affect on Tap water Use by Year**

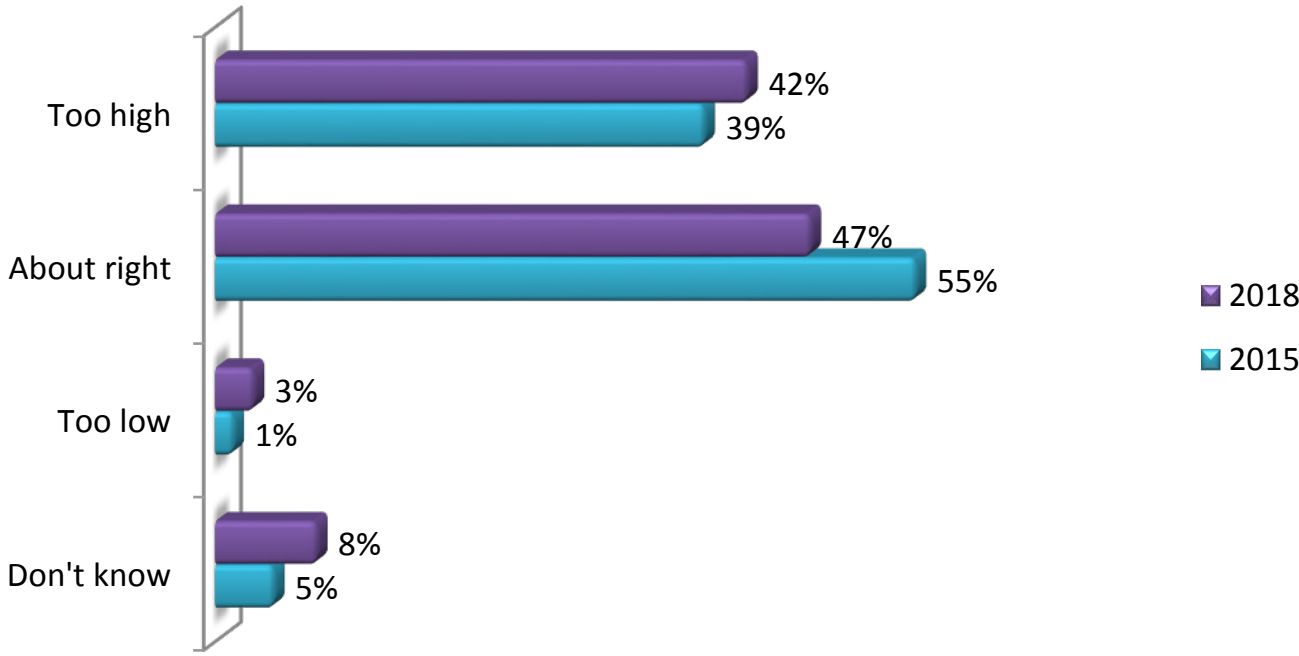


* Percent of "Yes" responses

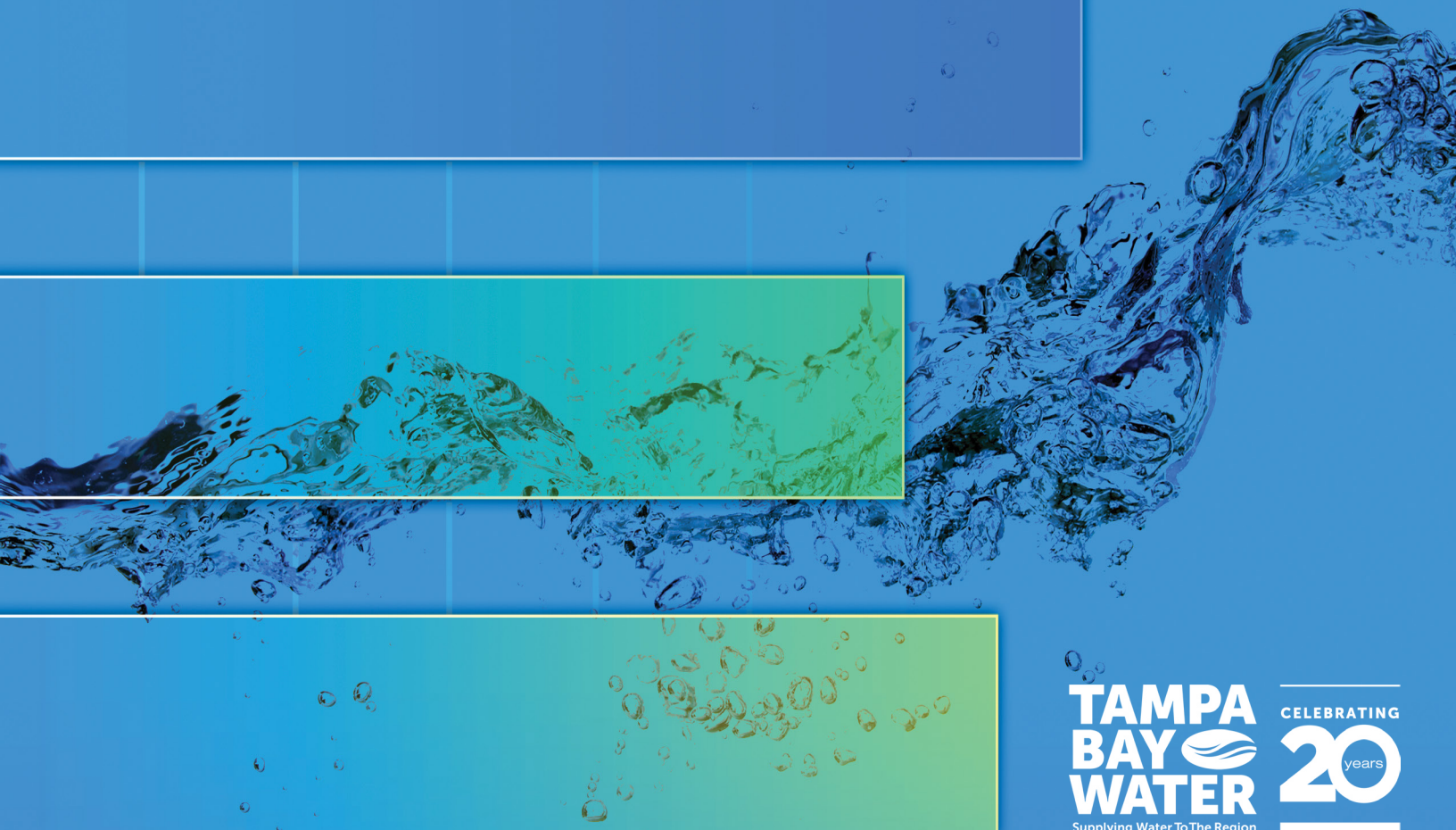
Given what you pay and what you receive, would you say the cost of your tap water is too high, about right, or lower than you expect?



Water Cost Expectation by Year



Information Sources

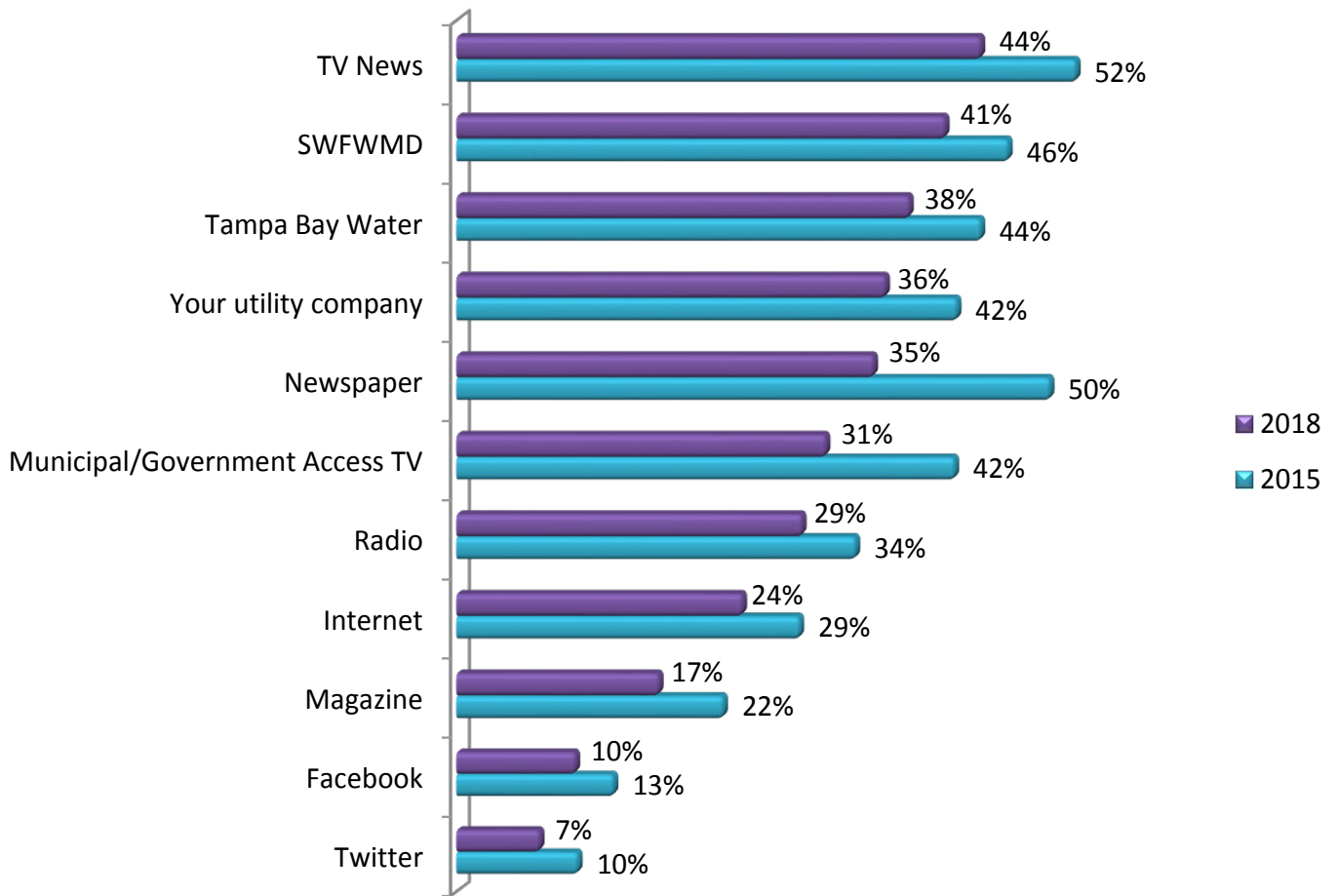


Information Sources

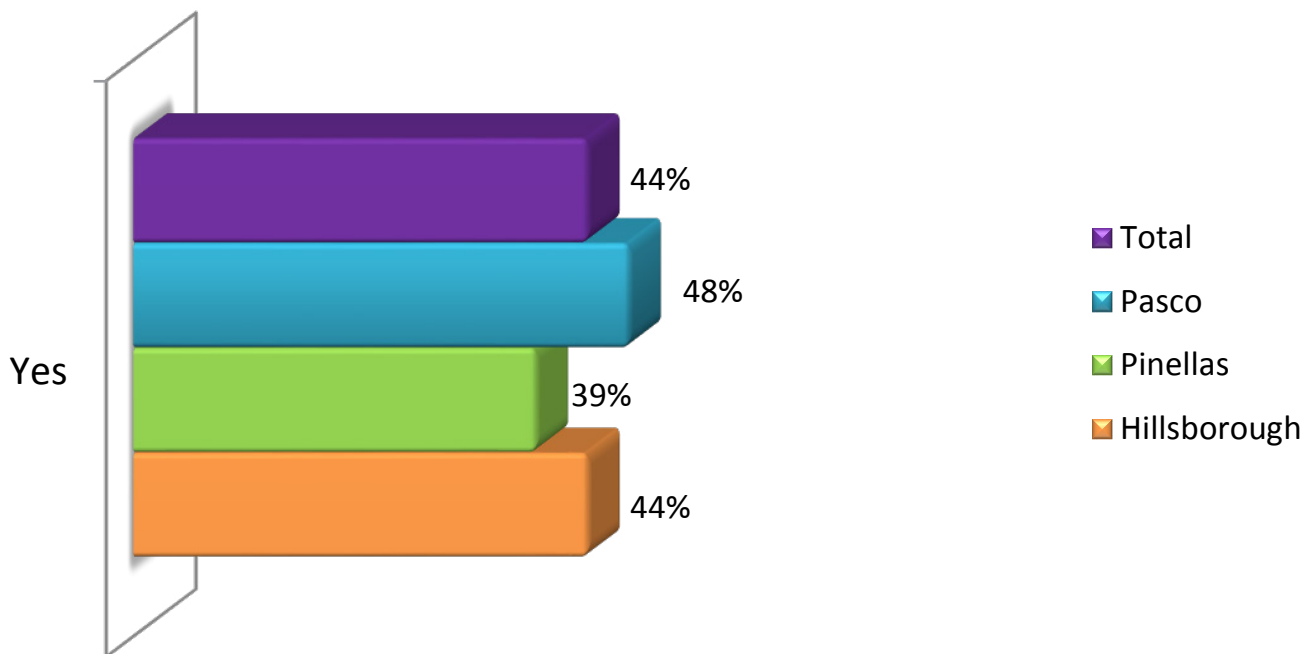
Television, Southwest Florida Water Management District, and Tampa Bay Water are the three most trusted sources of information on water issues. Newspapers, which were the second most trusted source in 2015, fell to fifth spot. Trust in sources of information dropped across the board, for example 52% listed television news in 2015, but only 44% did so in 2018. Tampa Bay Water was listed by 44% in 2015, but by only 38% in 2018. Social media sources fared poorly as only 10% listed Facebook and 7% listed Twitter as trusted sources for water issues.

Television, direct mail, and daily newspapers are the preferred methods for receiving information about water issues. Traditional media dominated as internet was listed fifth, Facebook ninth, and Twitter last as preferred methods for receiving news about water issues.

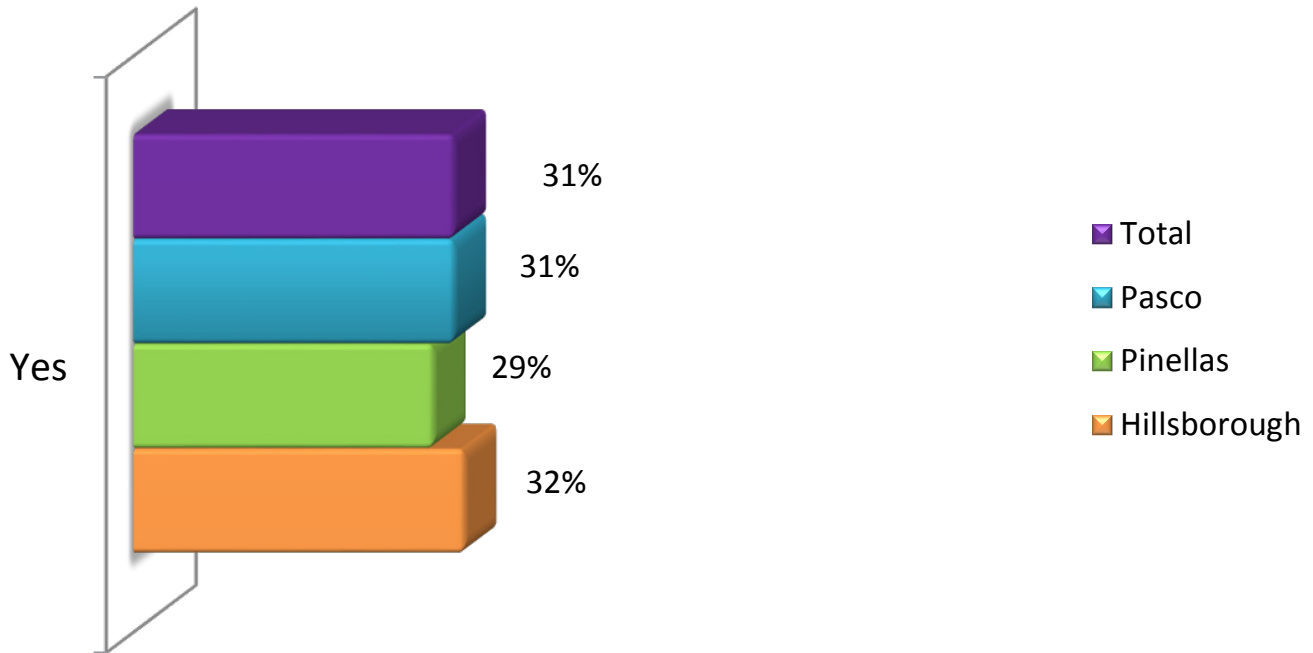
*Trustworthy Sources when Reporting on Water Issues by Year**



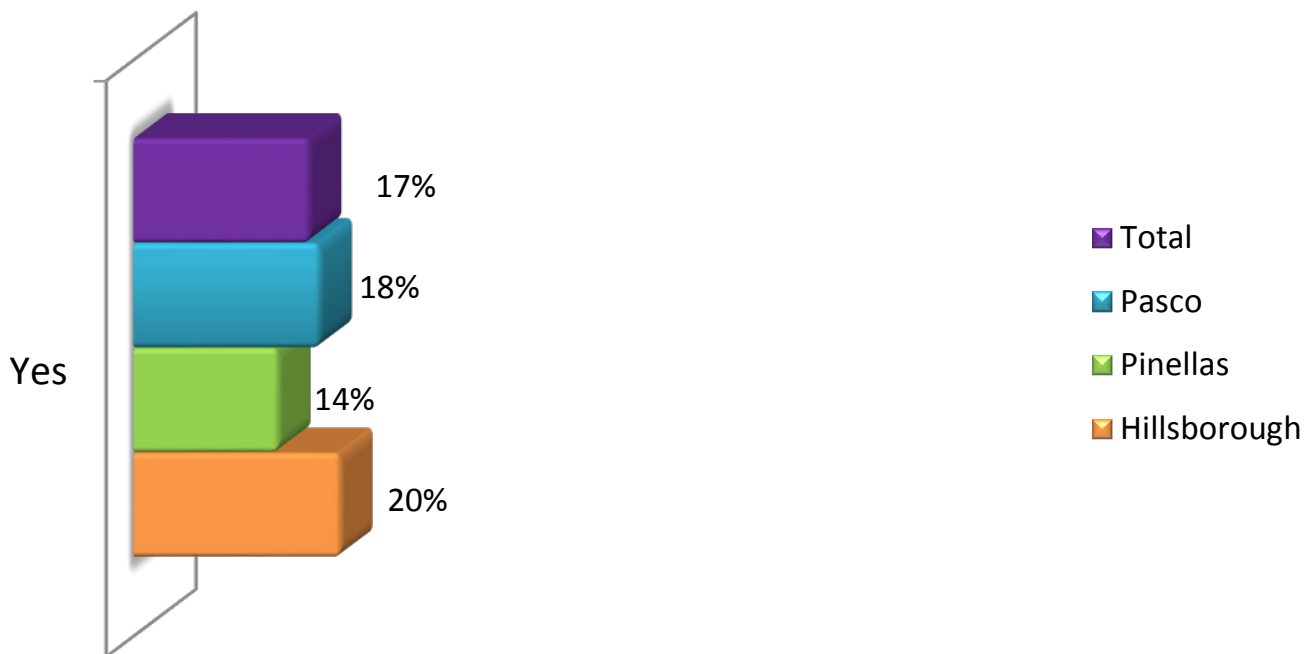
Is TV news trustworthy when reporting on water issues?



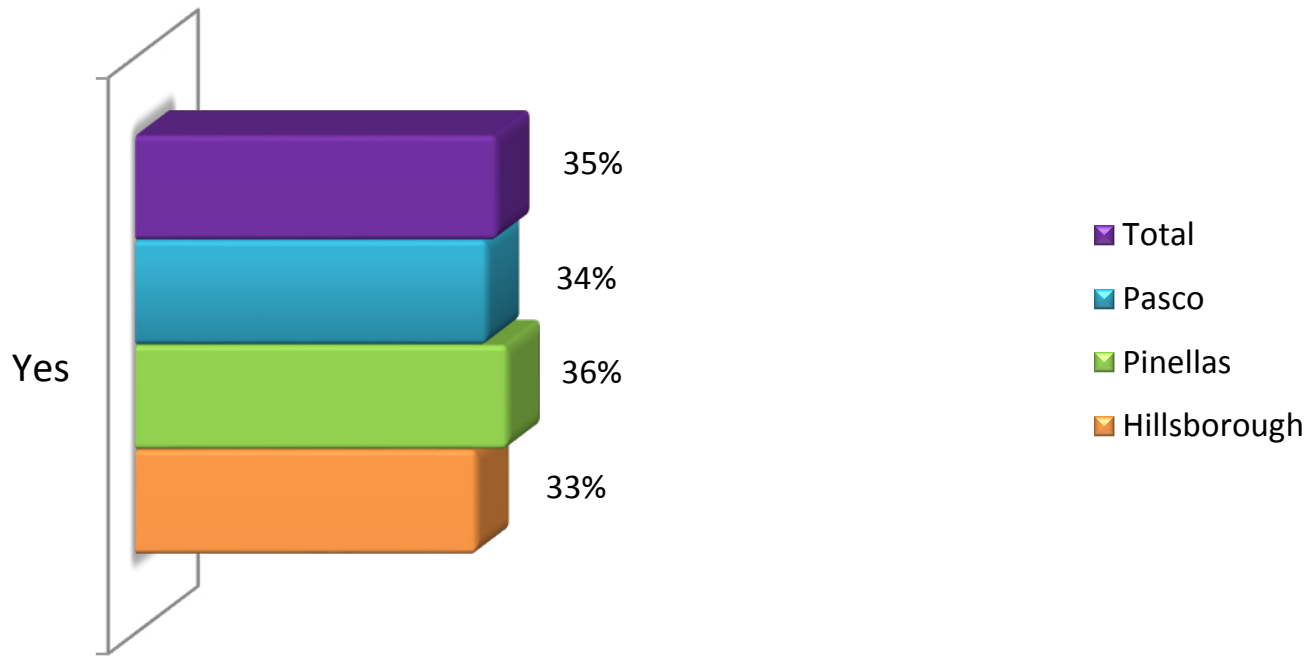
Is Municipal/Government Access TV trustworthy when reporting on water issues?



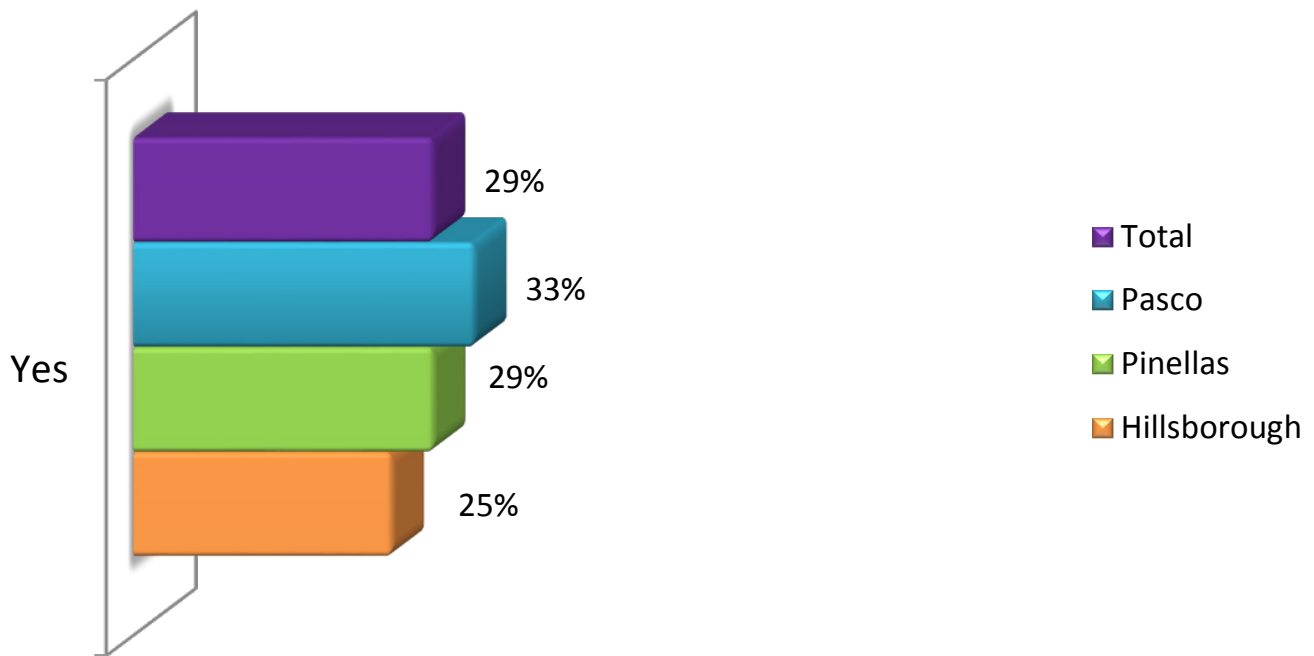
Are magazines trustworthy when reporting on water issues?



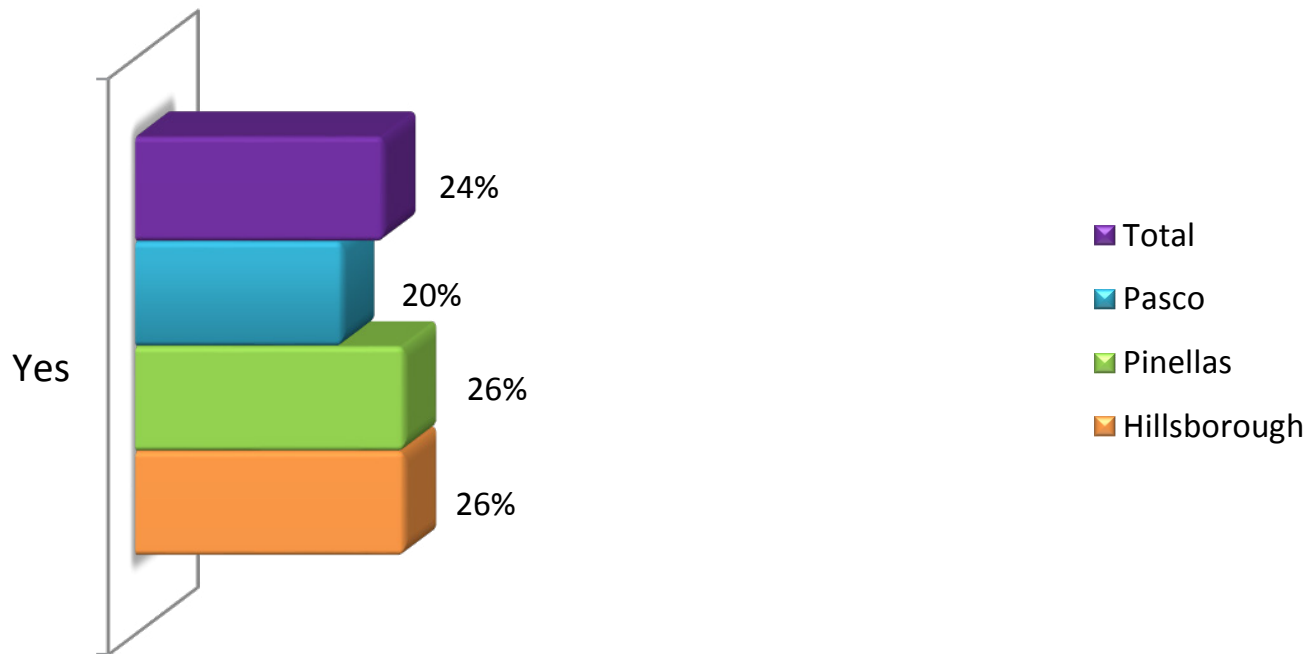
Are newspapers trustworthy when reporting on water issues?



Is radio trustworthy when reporting on water issues?



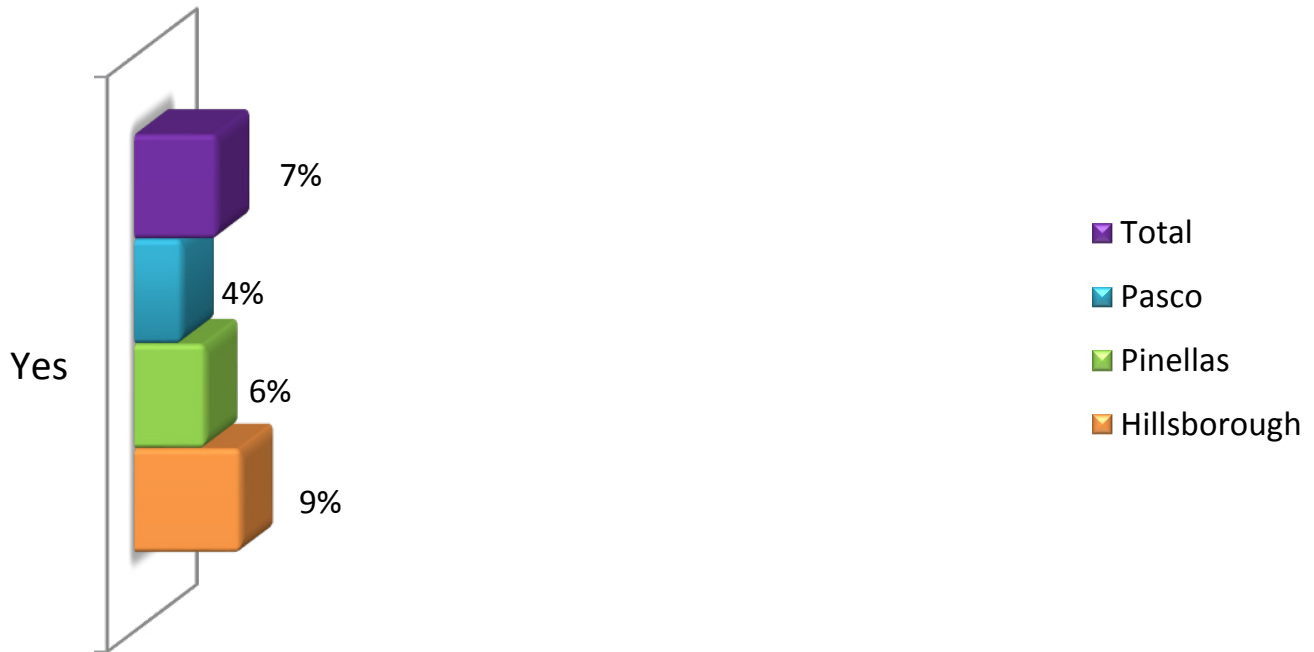
Is the Internet trustworthy when reporting on water issues?



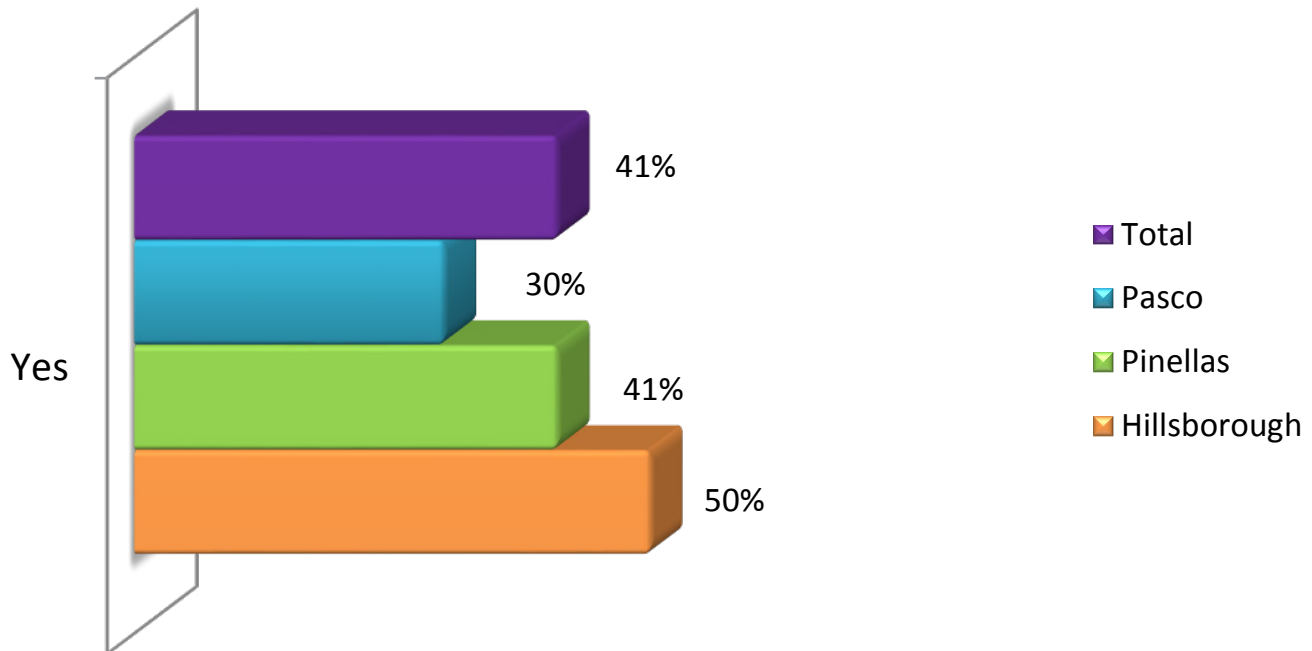
Is Facebook trustworthy when reporting on water issues?



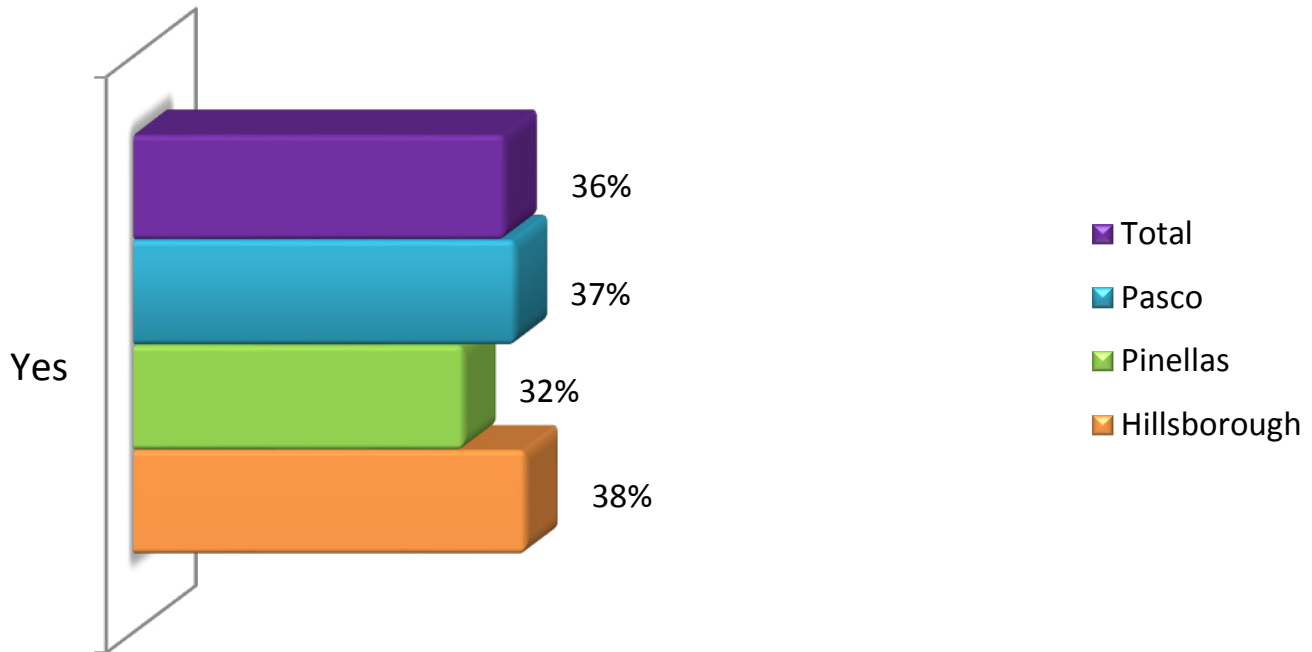
Is Twitter trustworthy when reporting on water issues?



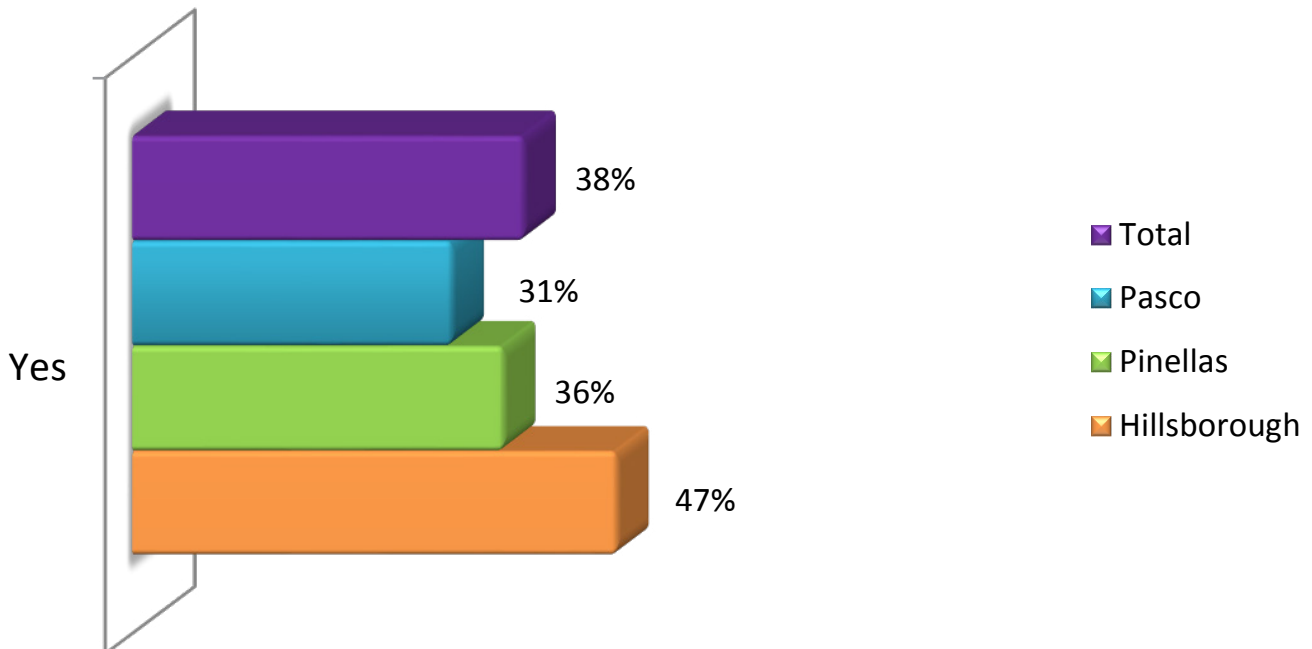
Is the Southwest Florida Water Management District trustworthy when reporting on water issues?



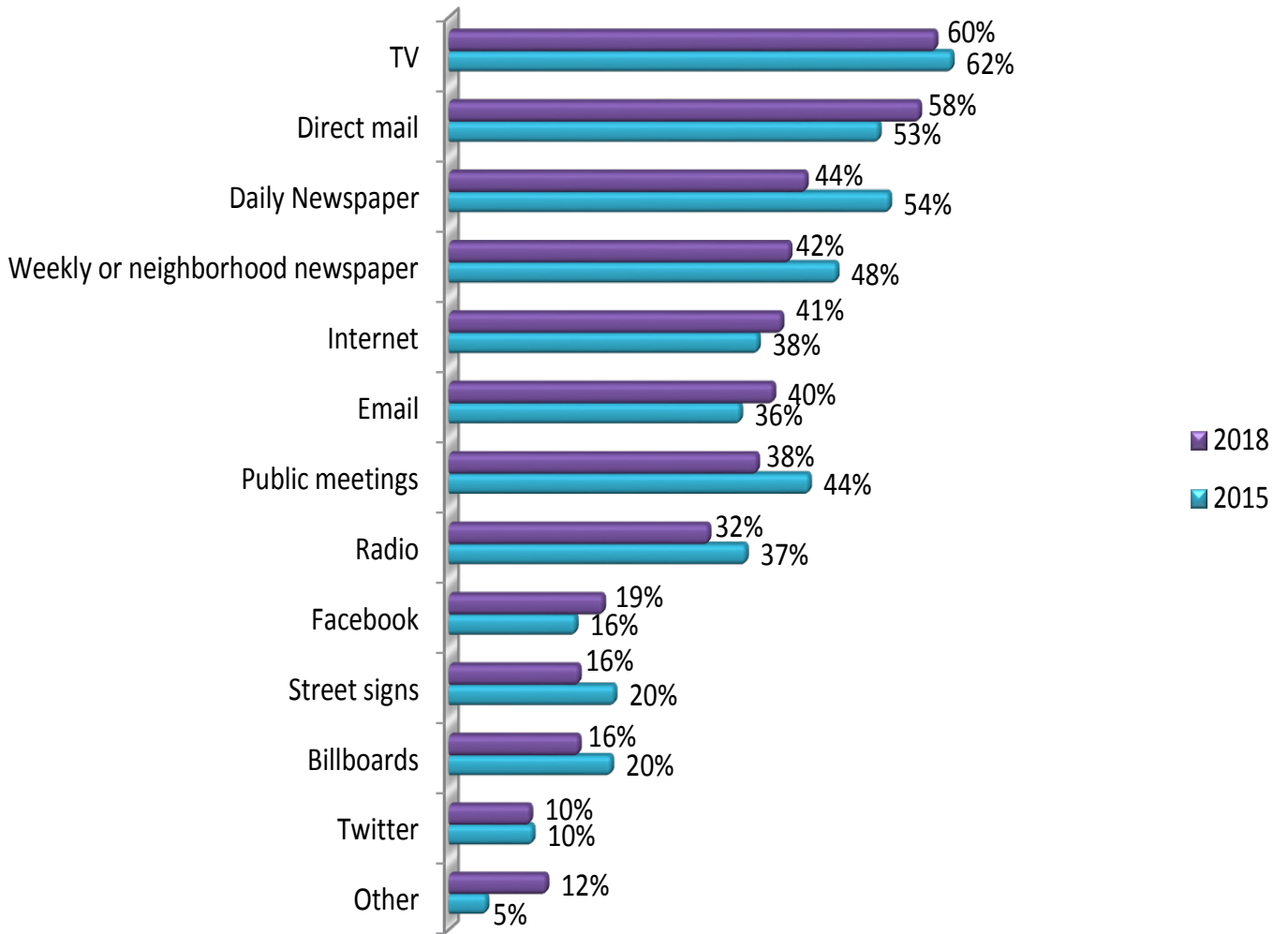
Is your utility company trustworthy when reporting on water issues?



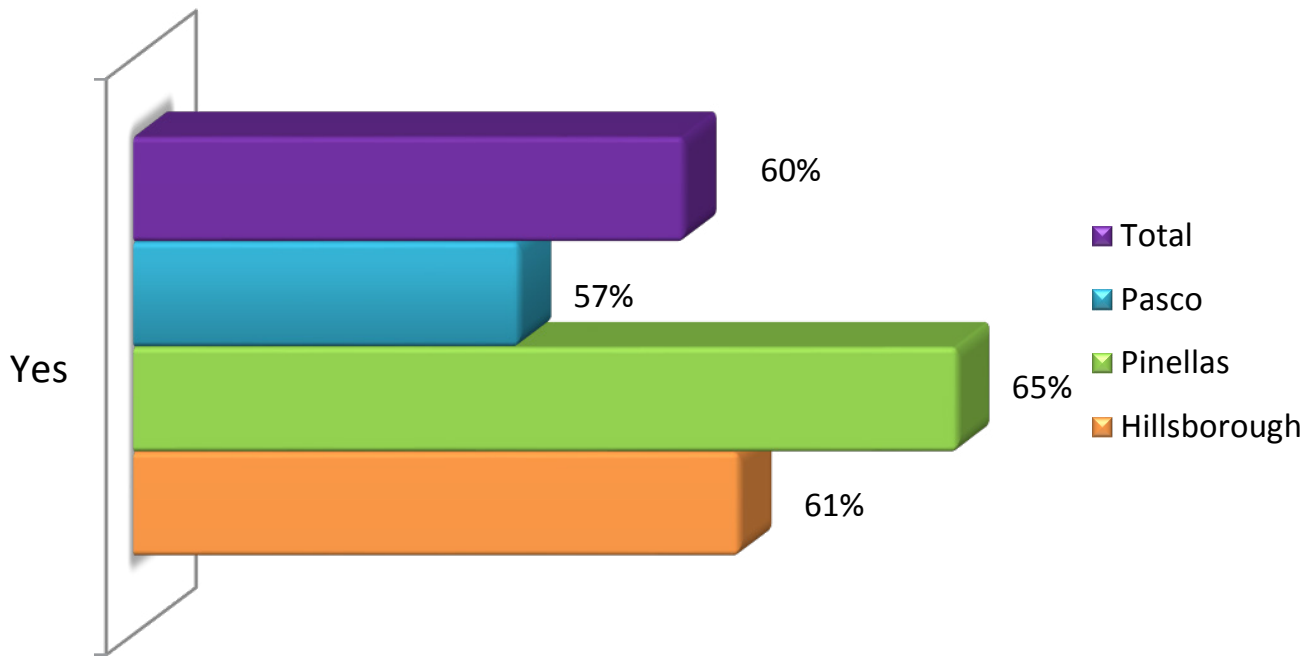
Is Tampa Bay Water trustworthy when reporting on water issues?



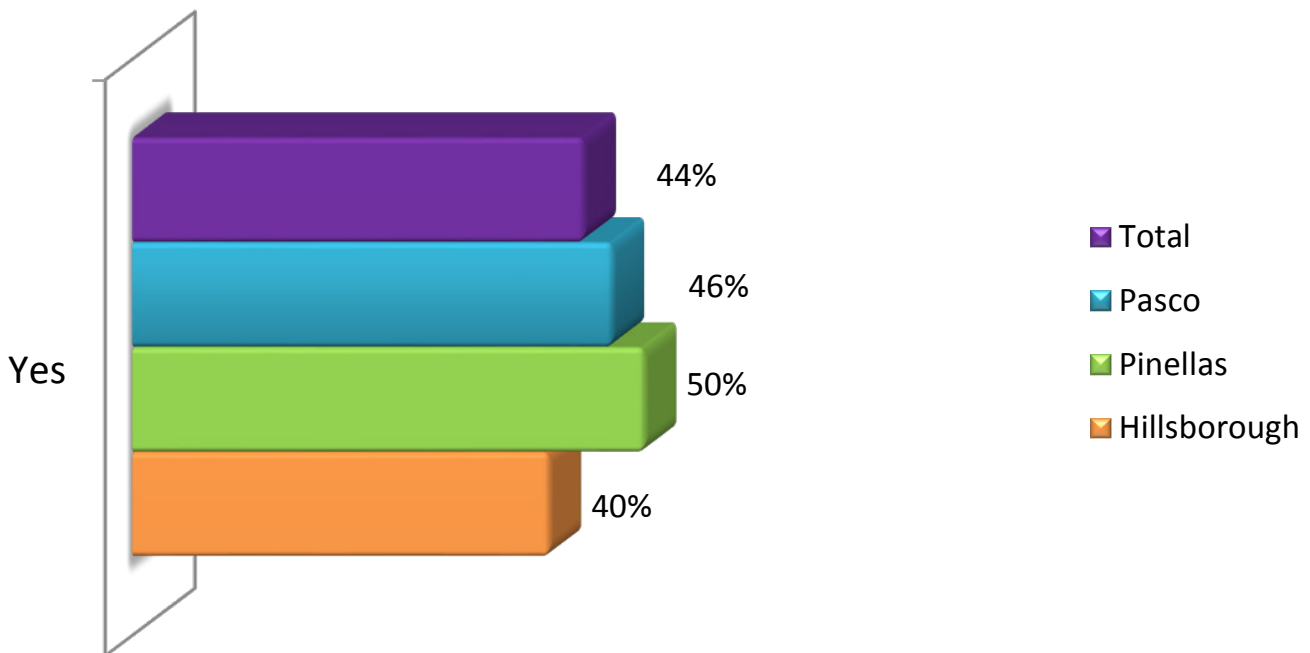
*Preference for Receiving Information about Water Resource Issues by Year**



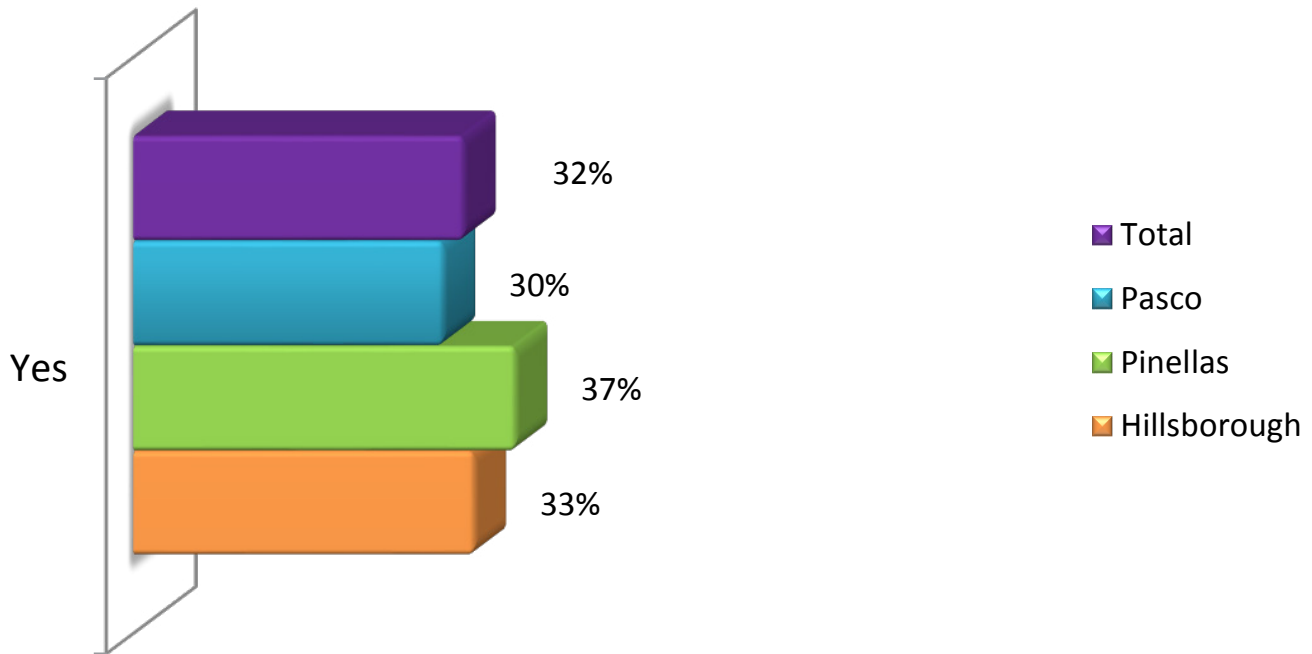
How do you prefer to receive information about water resource issues and projects - TV



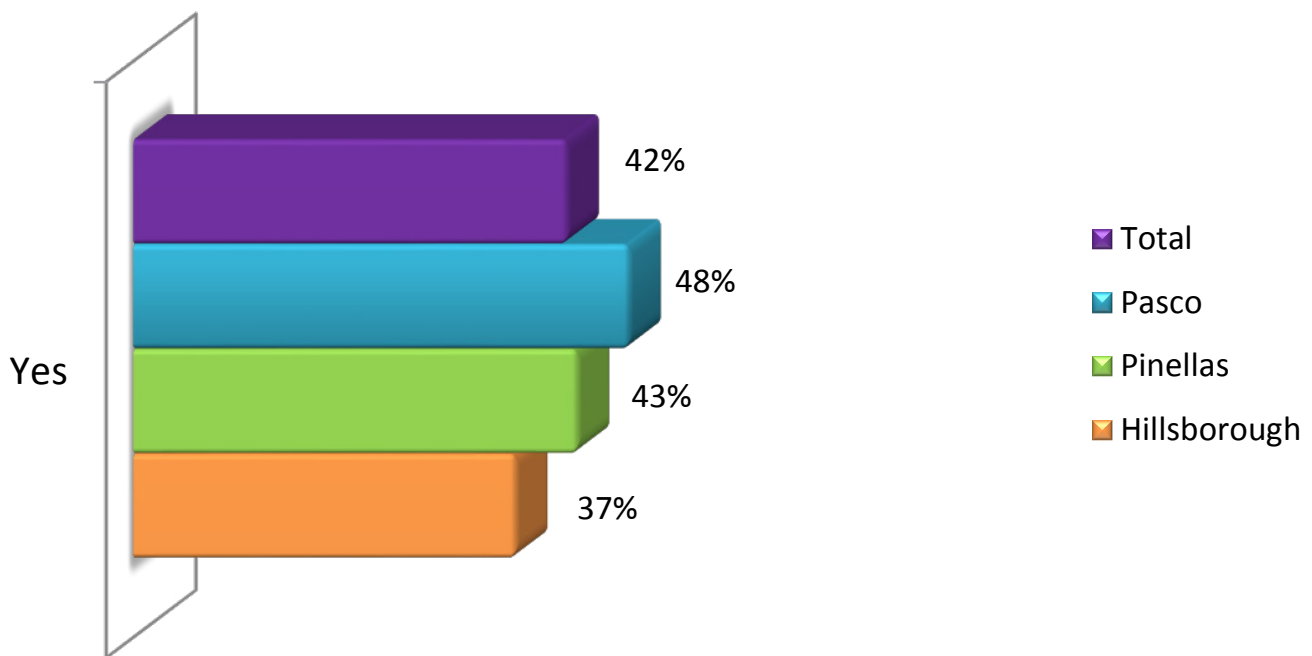
How do you prefer to receive information about water resource issues and projects - Daily newspaper



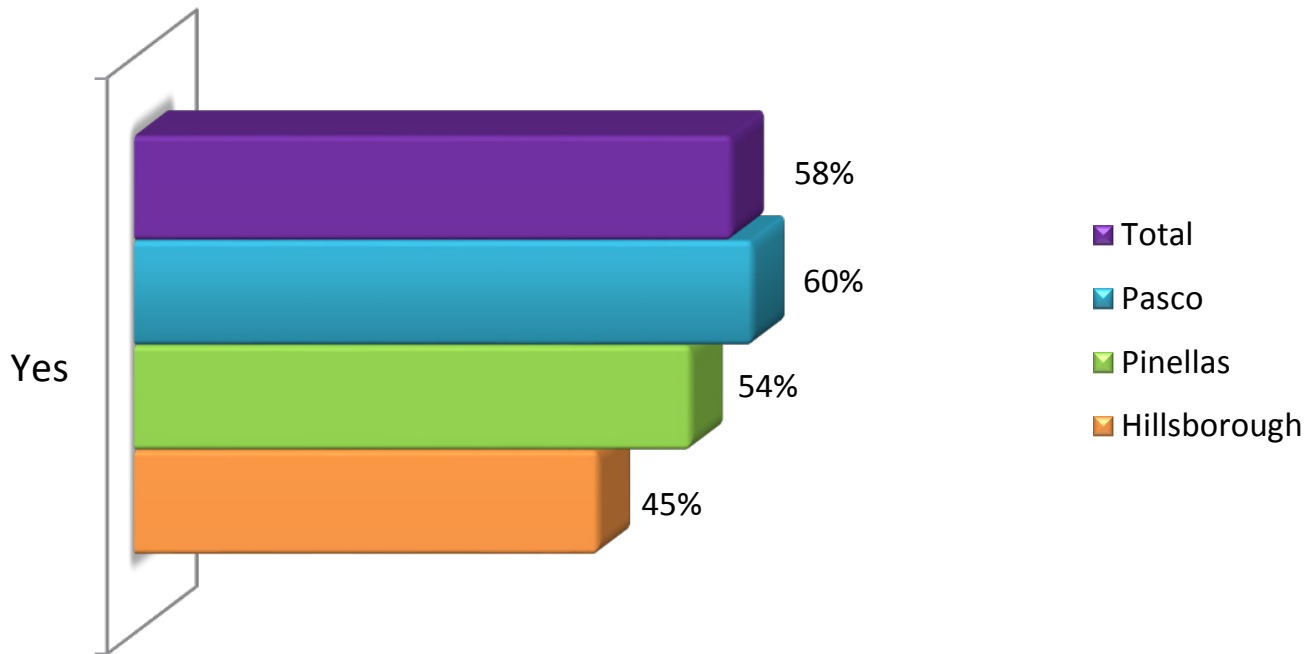
How do you prefer to receive information about water resource issues and projects - Radio



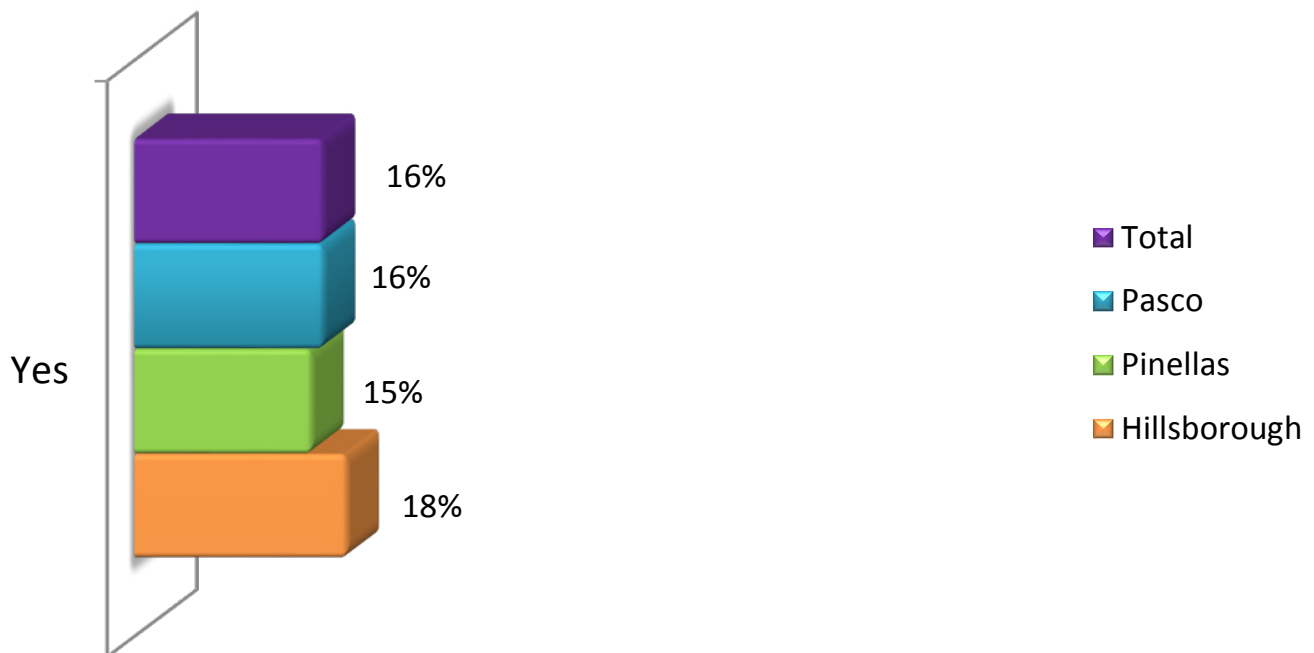
How do you prefer to receive information about water resource issues and projects - Weekly or neighborhood newspaper



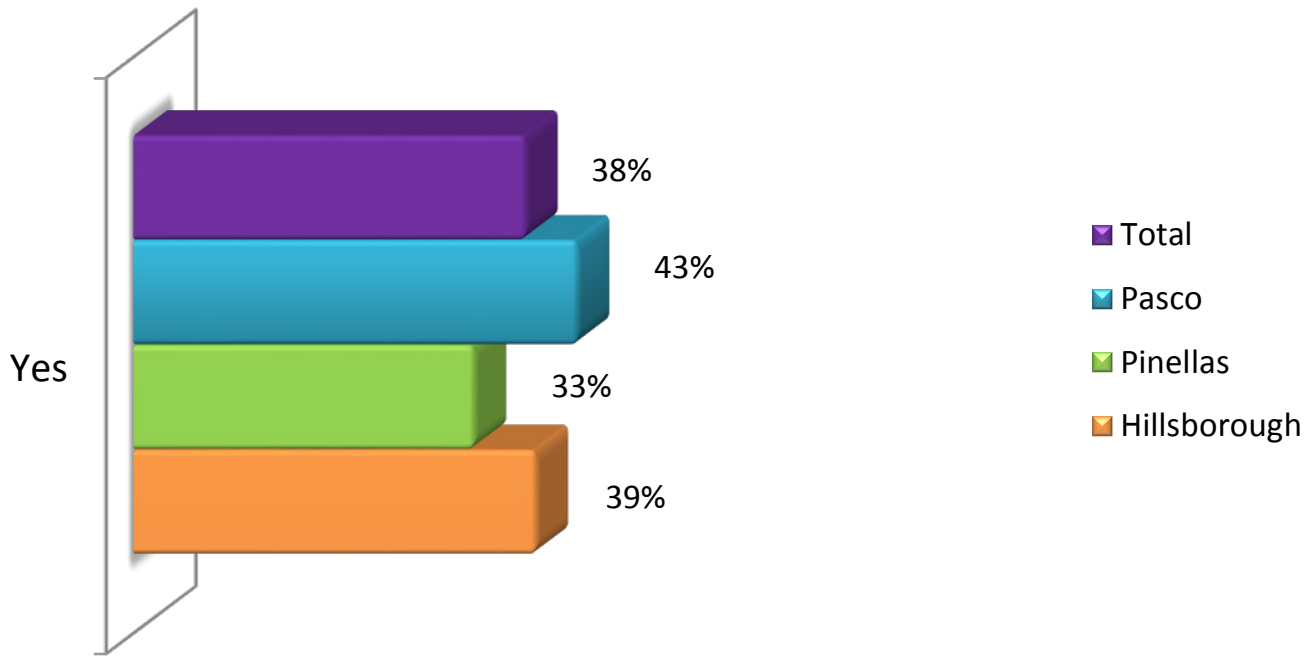
How do you prefer to receive information about water resource issues and projects - Direct mail



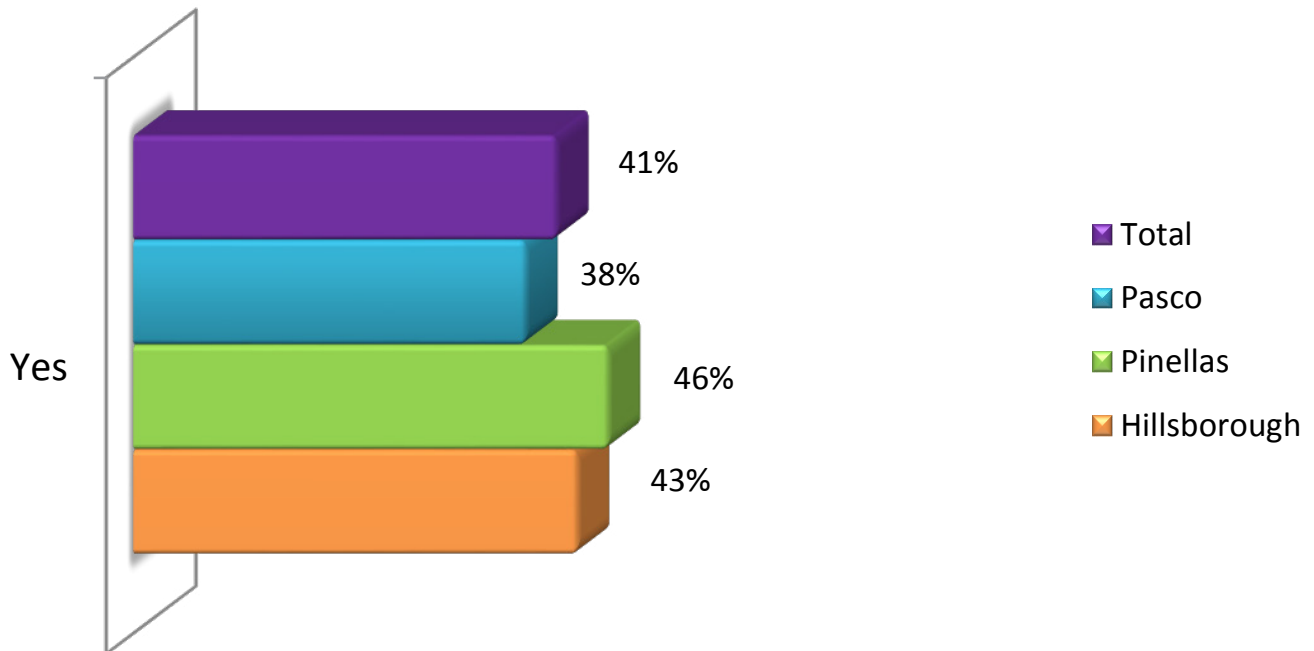
How do you prefer to receive information about water resource issues and projects - Street signs



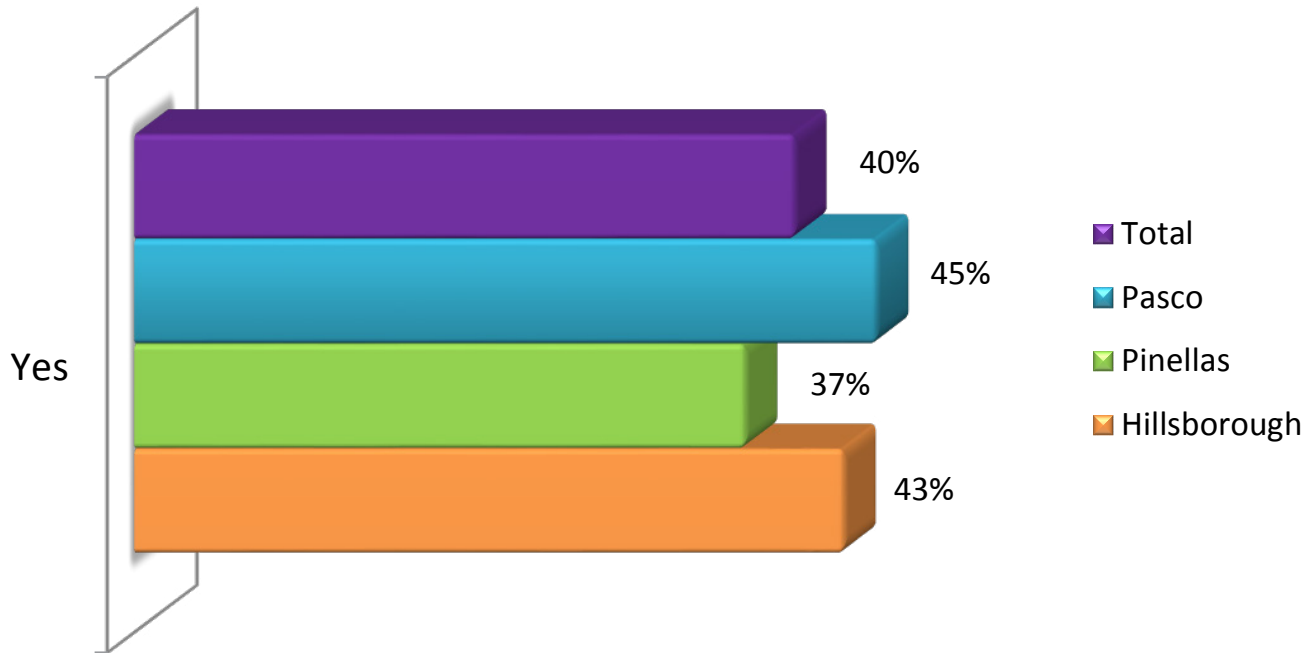
How do you prefer to receive information about water resource issues and projects - Public meetings



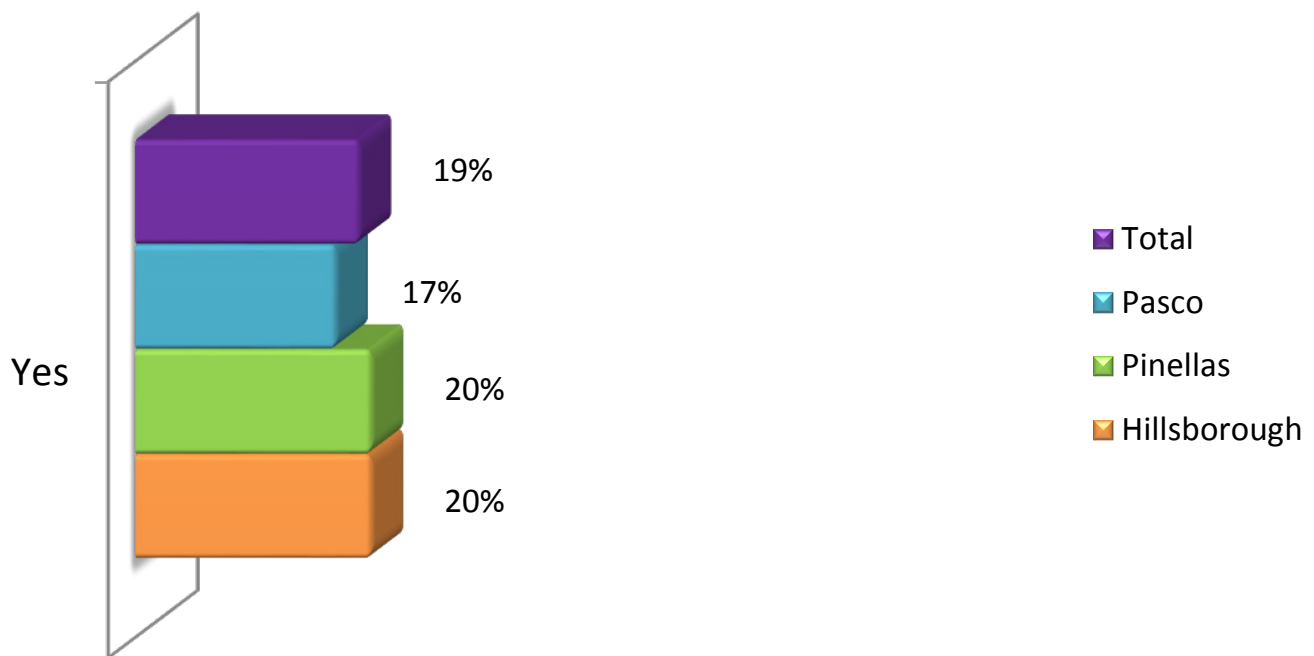
How do you prefer to receive information about water resource issues and projects - Internet



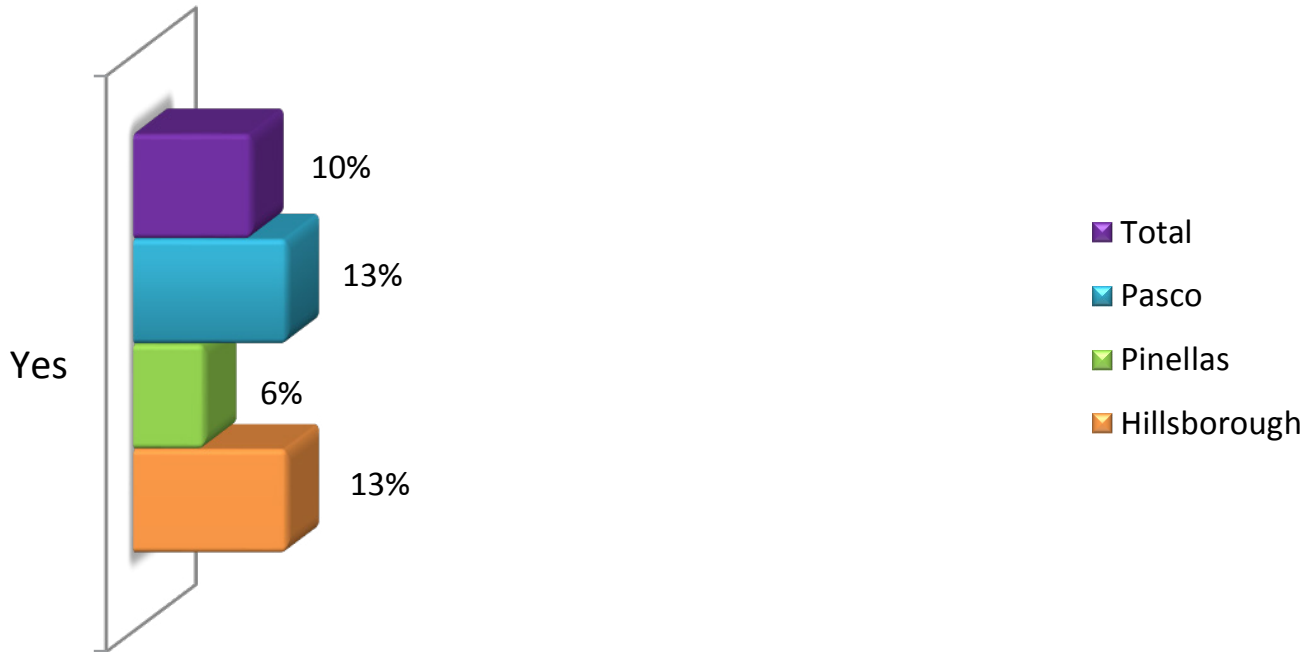
How do you prefer to receive information about water resource issues and projects - Email



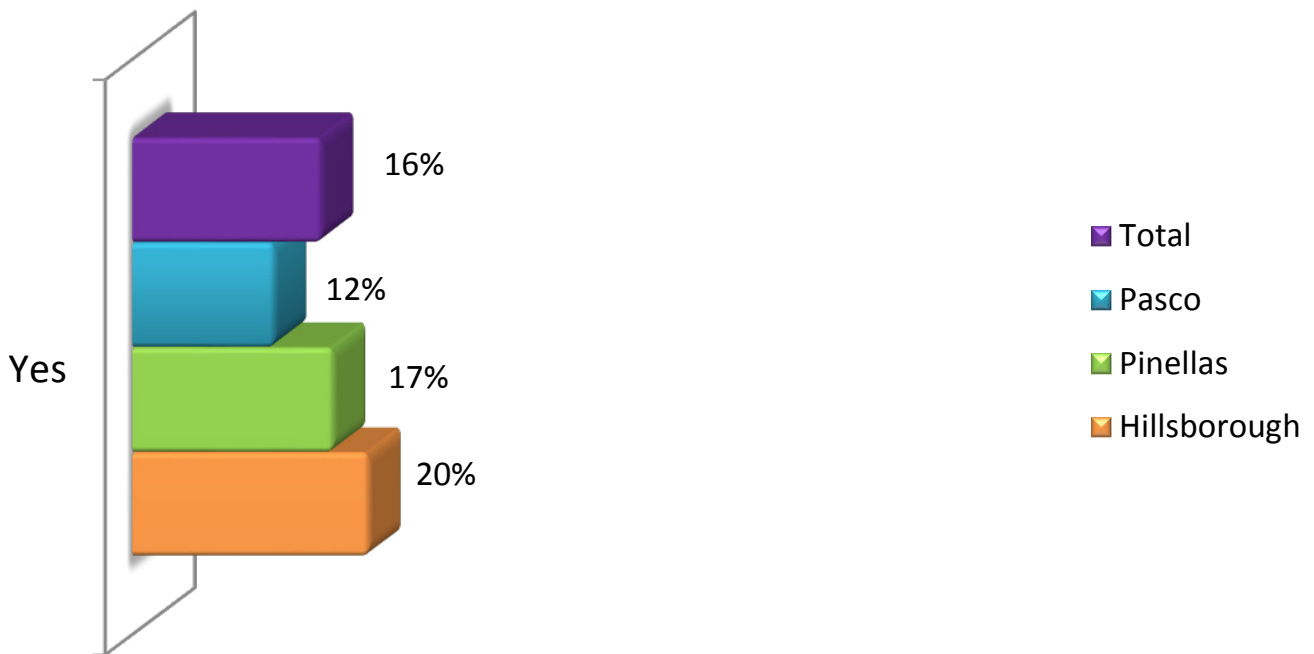
How do you prefer to receive information about water resource issues and projects - Facebook



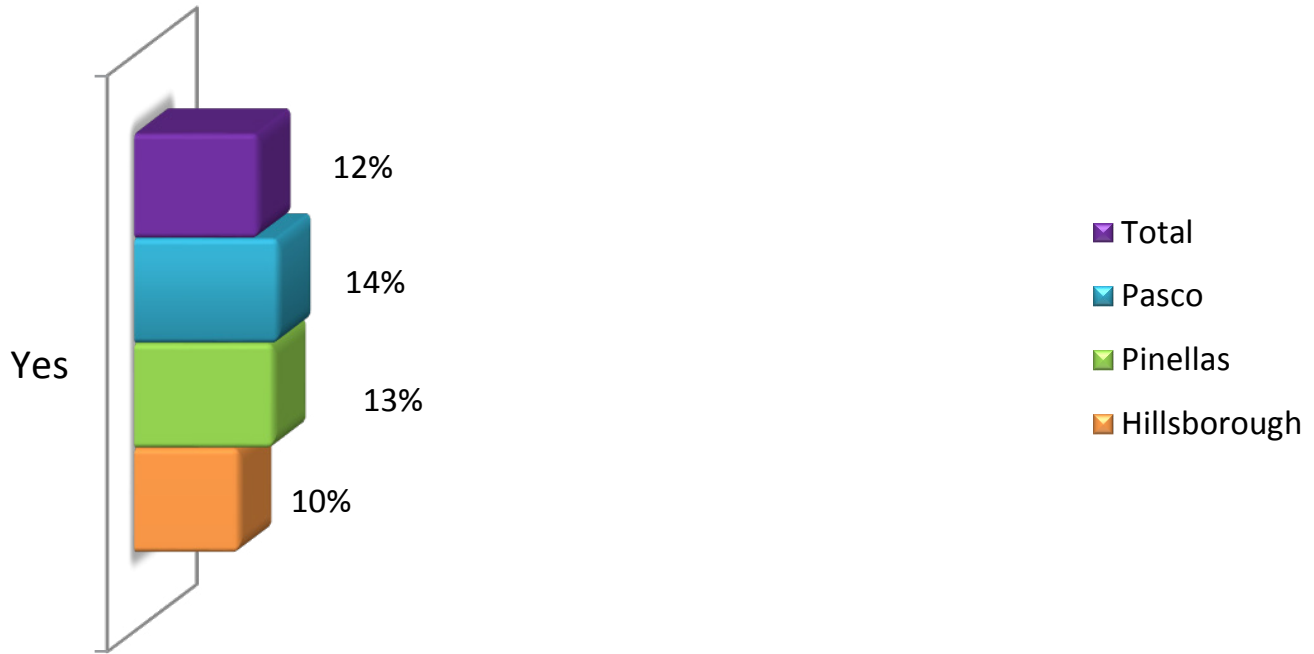
How do you prefer to receive information about water resource issues and projects - Twitter



How do you prefer to receive information about water resource issues and projects - Billboards



How do you prefer to receive information about water resource issues and projects - Other



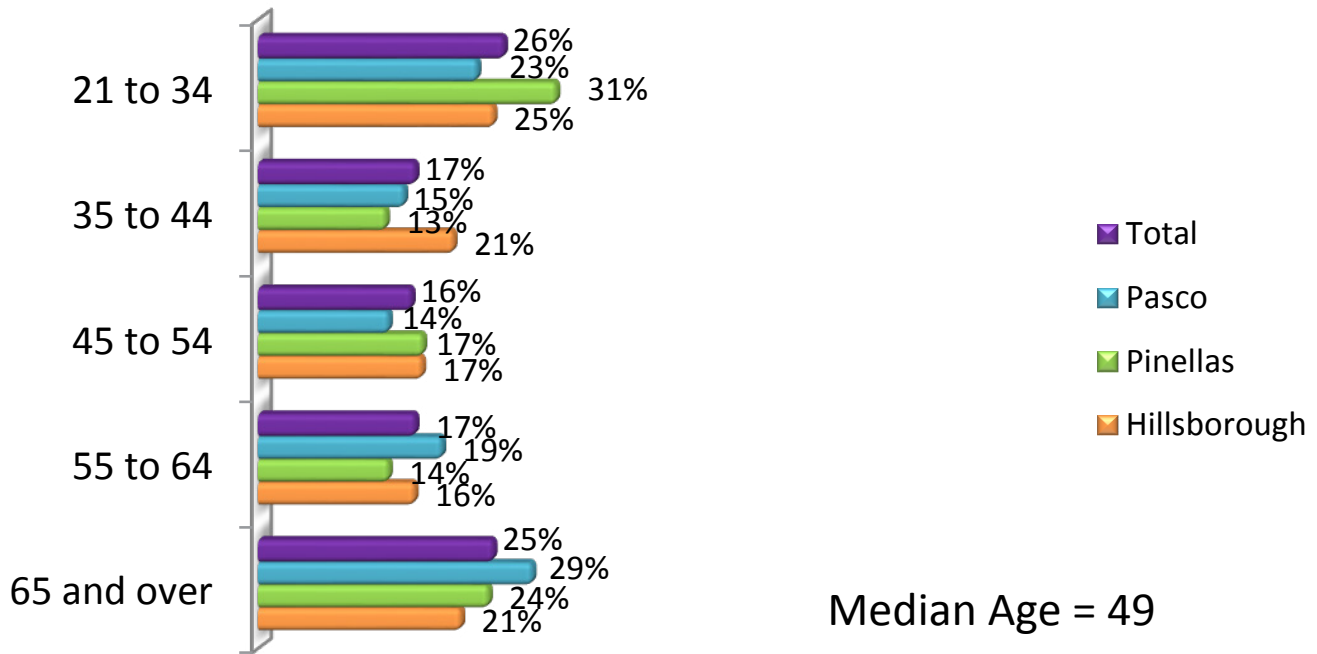
Demographics

Demographics

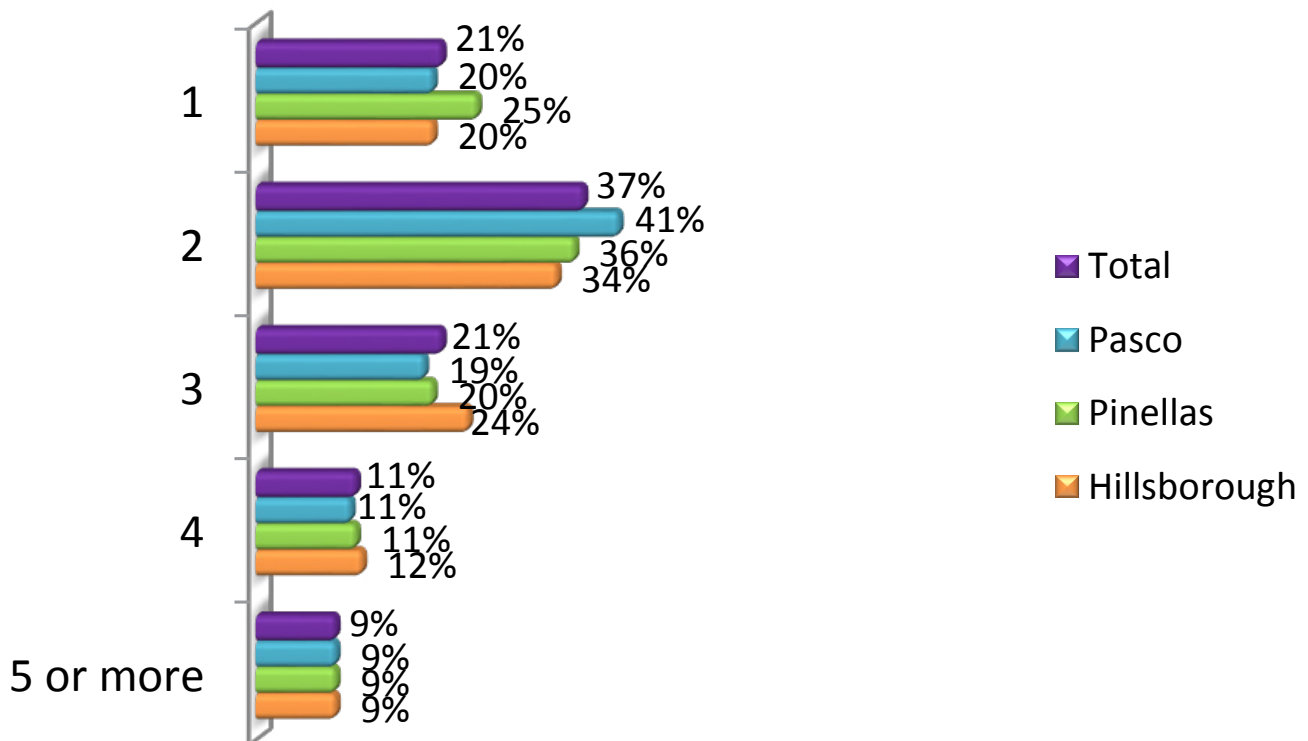
The typical resident who participated in this study is:

- 49 years of age
- Registered to vote (87%)
- Owns their own home (69%)
- Income of \$47,900
- Female (52%)

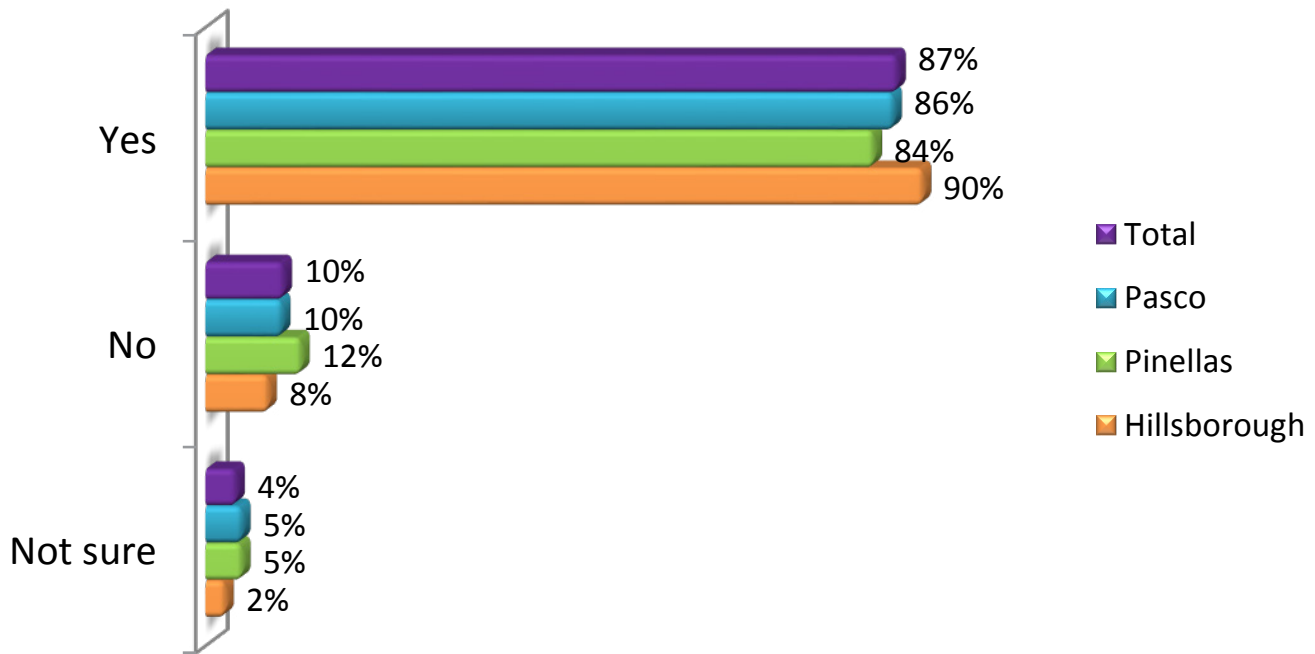
What is your approximate age?



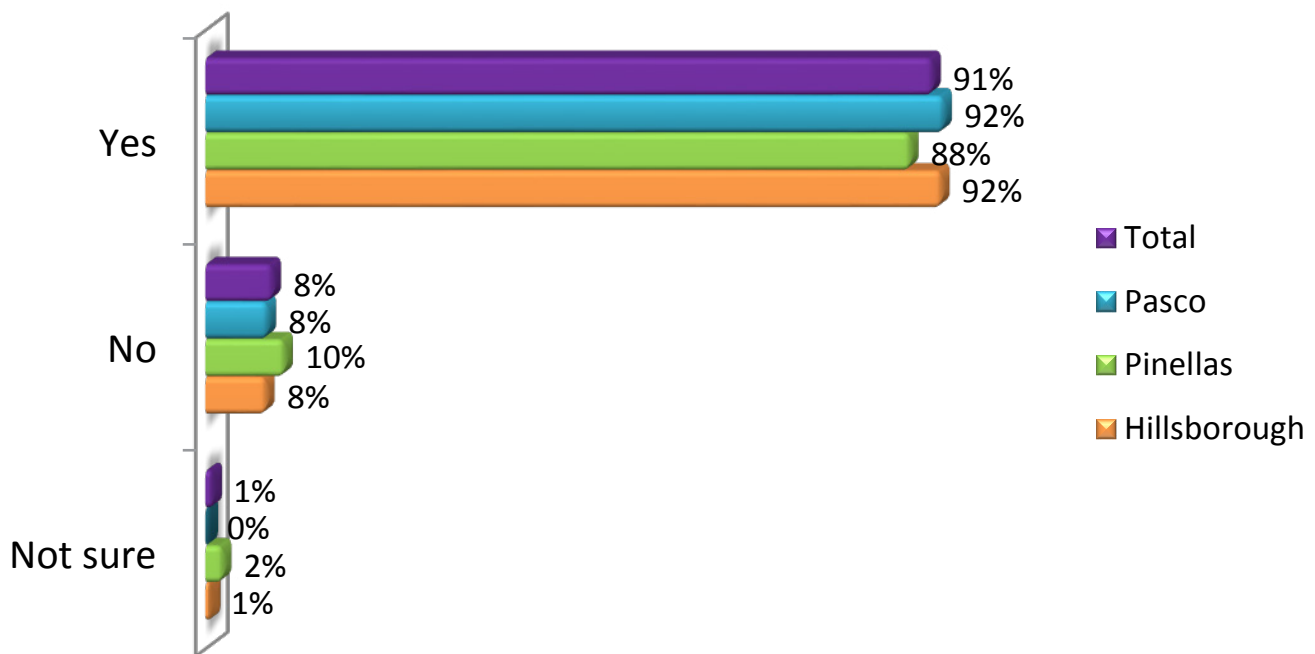
Including yourself, how many people live in your household?



Are you registered to vote in your county?

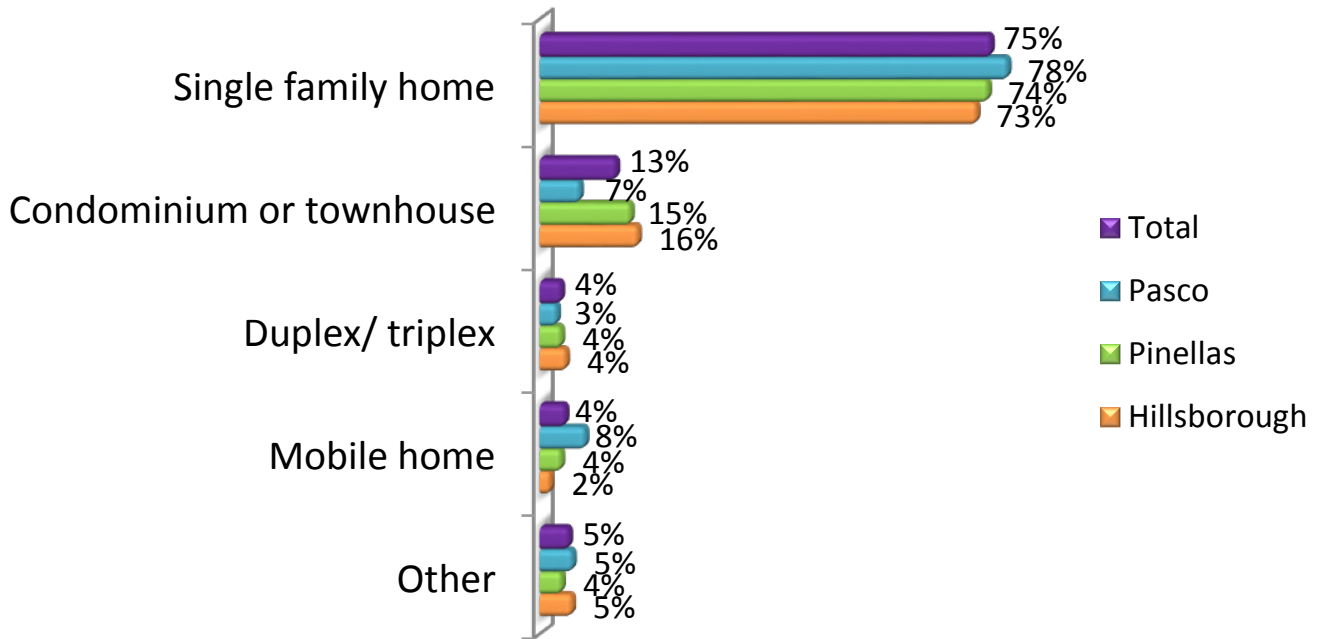


*Have you voted in at least one local or national election in the past two years?**

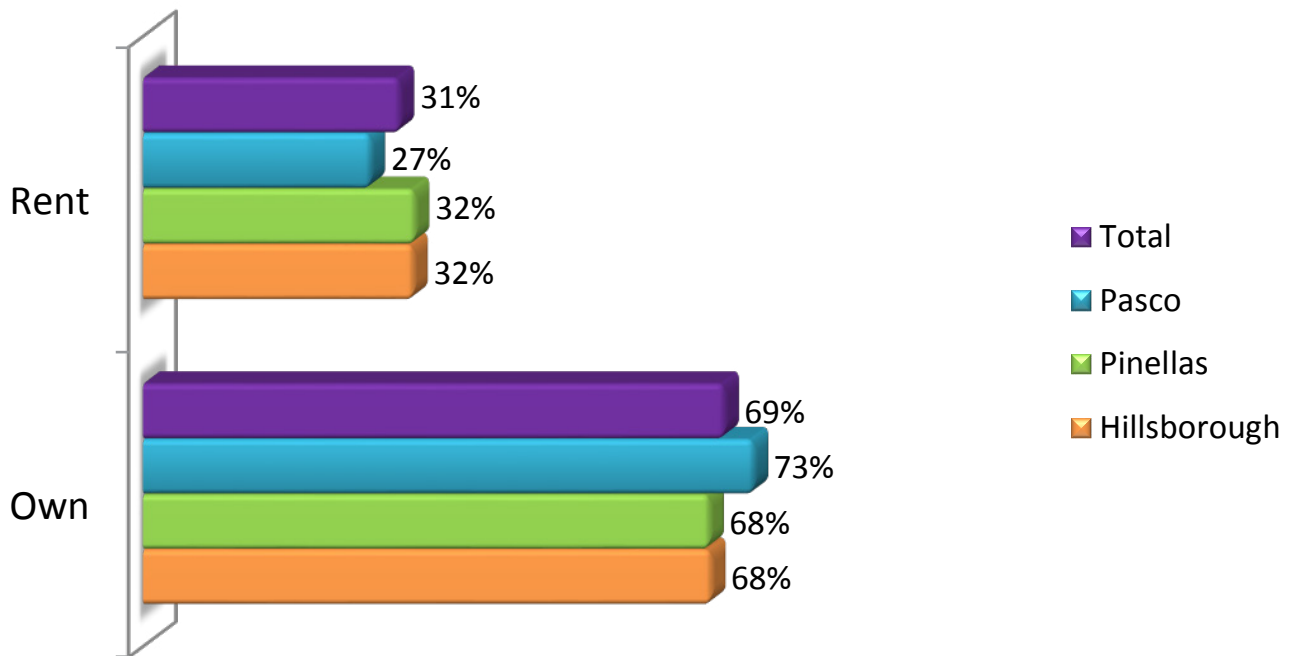


* Only asked to residents who answered "Yes" to the previous question.

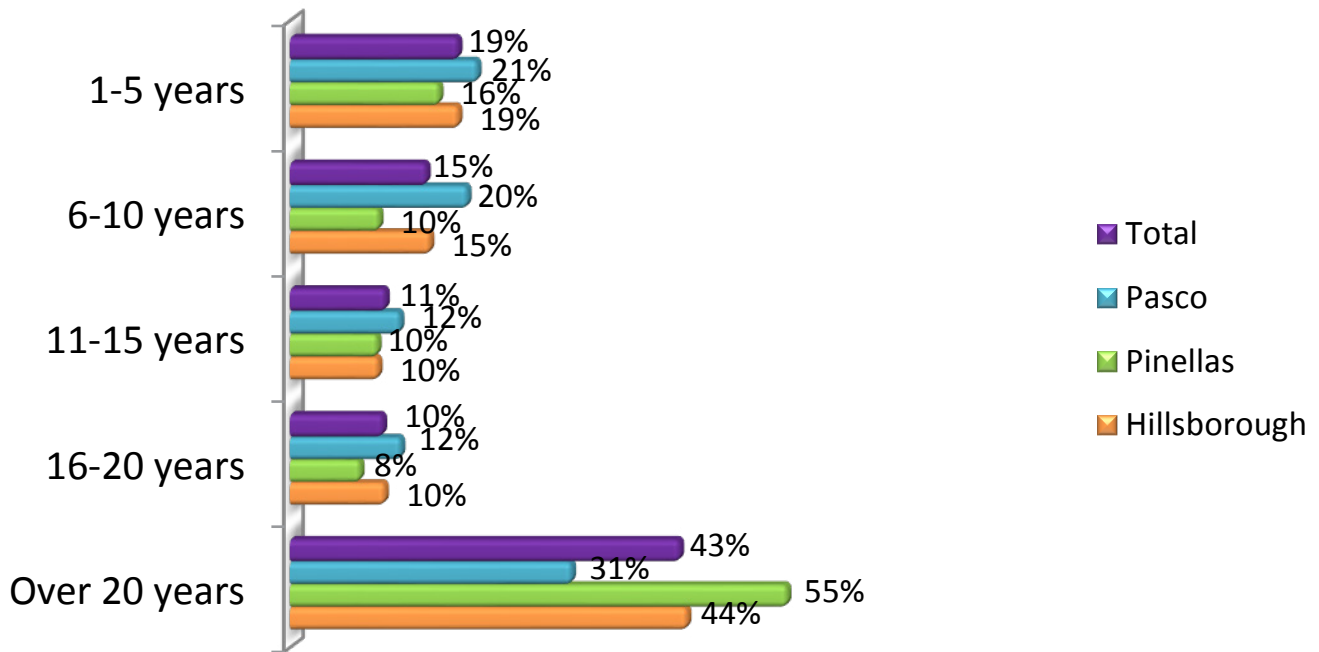
What type of home do you live in?



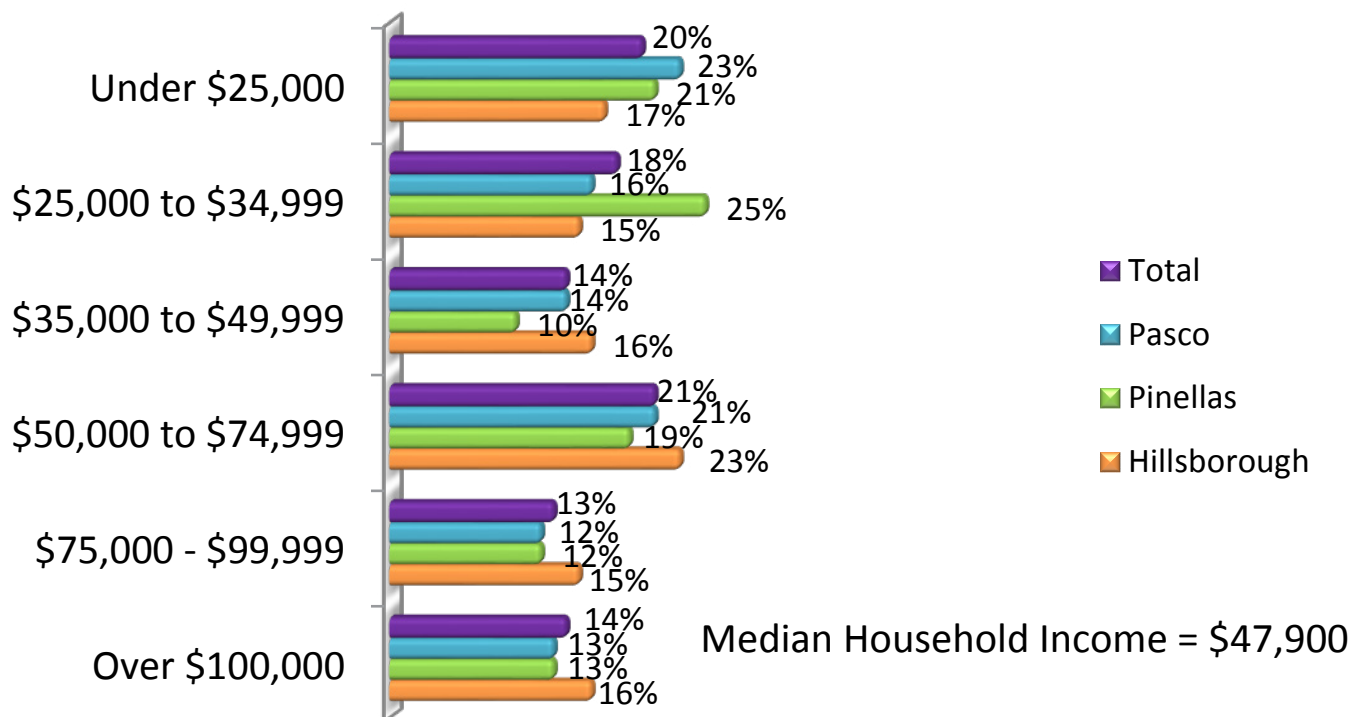
Do you rent or own your home?



How long have you lived in the Hillsborough-Pasco-Pinellas County region?



Which category best describes your total household income for 2017?



What is your gender?

