

# Researching Public Opinions on Water Quality Issues in Colorado

2014-15 Survey and Focus Group Findings



# Overview

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⇒ Methodology

⇒ Findings

1. Perceptions of Water Quality
2. Sources of Water
3. Factors Affecting Water Quality
4. Motivations and Responsibilities
5. Taking Action to Preserve Water Quality
6. Communications and Messaging

⇒ Summary

⇒ Q & A



# Methodology

Goals • Timeline • Methods

# Research Goals

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- > Understand Colorado residents' opinions and actions towards preserving water quality
- > Compare survey results to the 2007 study to see if and how opinions changed over time
- > Provide results on statewide and regional scales

# Timeline

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⇒ 2007: Original survey completed

⇒ 2008: Focus groups

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----- *Fall 2013 Flooding*

⇒ 2014: Follow-up survey

> September - October

----- *Aug 2015 Animas River spill*

⇒ 2015: Focus groups

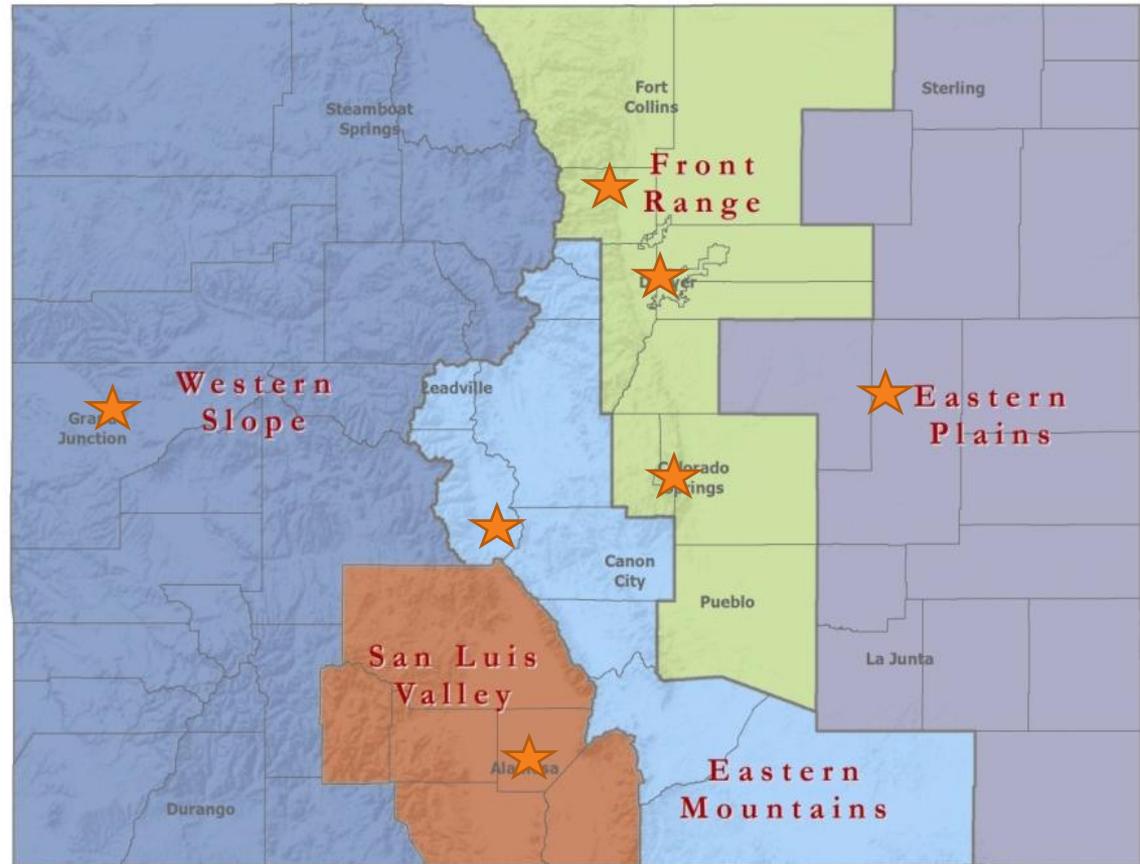
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# Research Regions

5 regions were used for sampling and segmentation.

Approximately 400 surveys were conducted per region.

A total of 129 Colorado residents participated in the focus groups (2 per City designated with ★)



# Methodologies

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## Telephone Survey

- ➔ We conducted phone surveys with more than 1,900 individuals throughout Colorado
- ➔ We called a mixture of landlines and cell phones
- ➔ We weighted the data to correct for known biases
- ➔ Margin of error was generally  $\pm 5\%$ , statewide and regionally

## Focus Groups

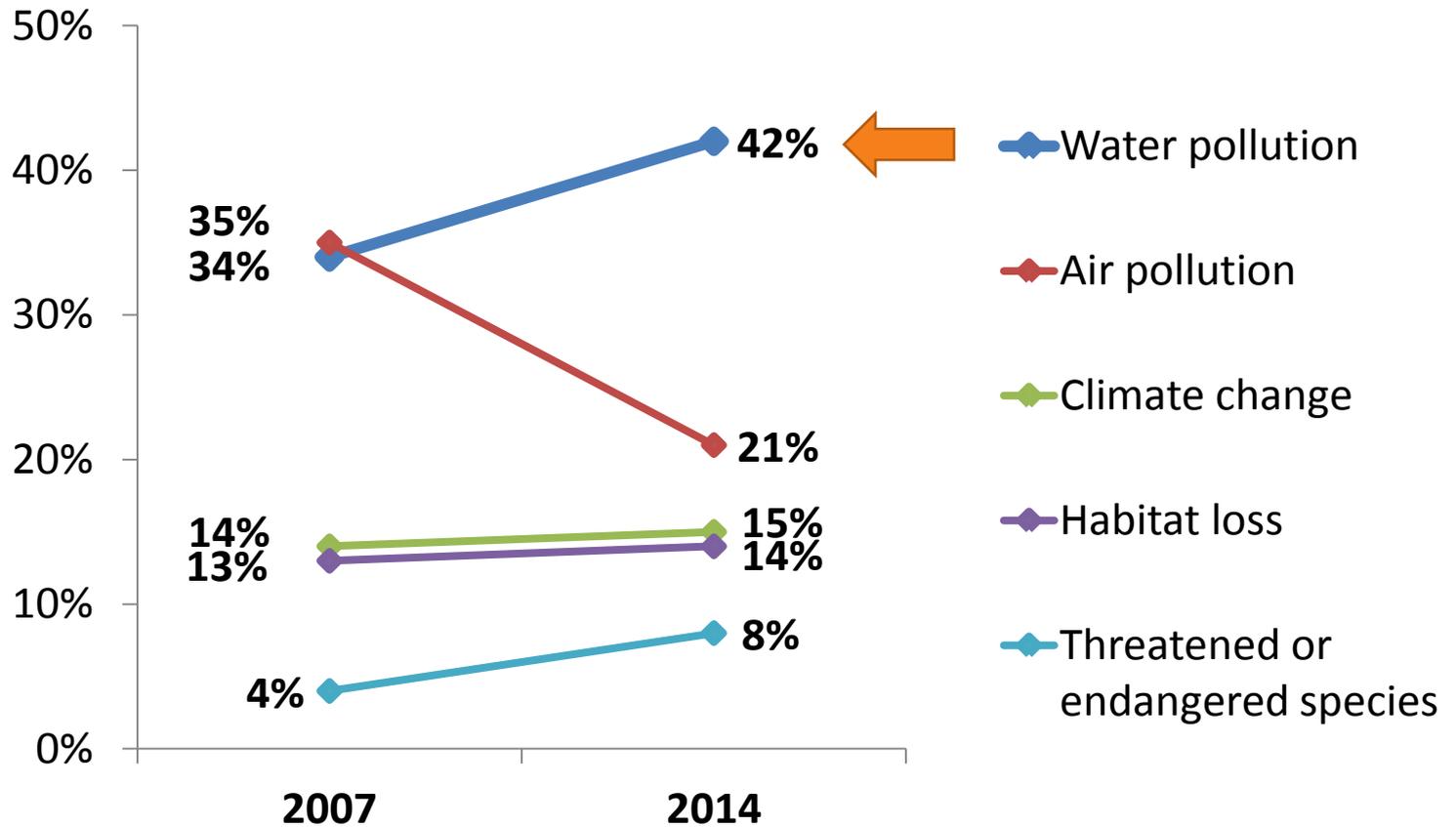
- ➔ Recruiting was done via telephone, managed by Corona Insights working with one of its partners
- ➔ Participants were recruited by each of the five regions, with a mix of ages and genders
- ➔ \$100 incentive was offered to each participant



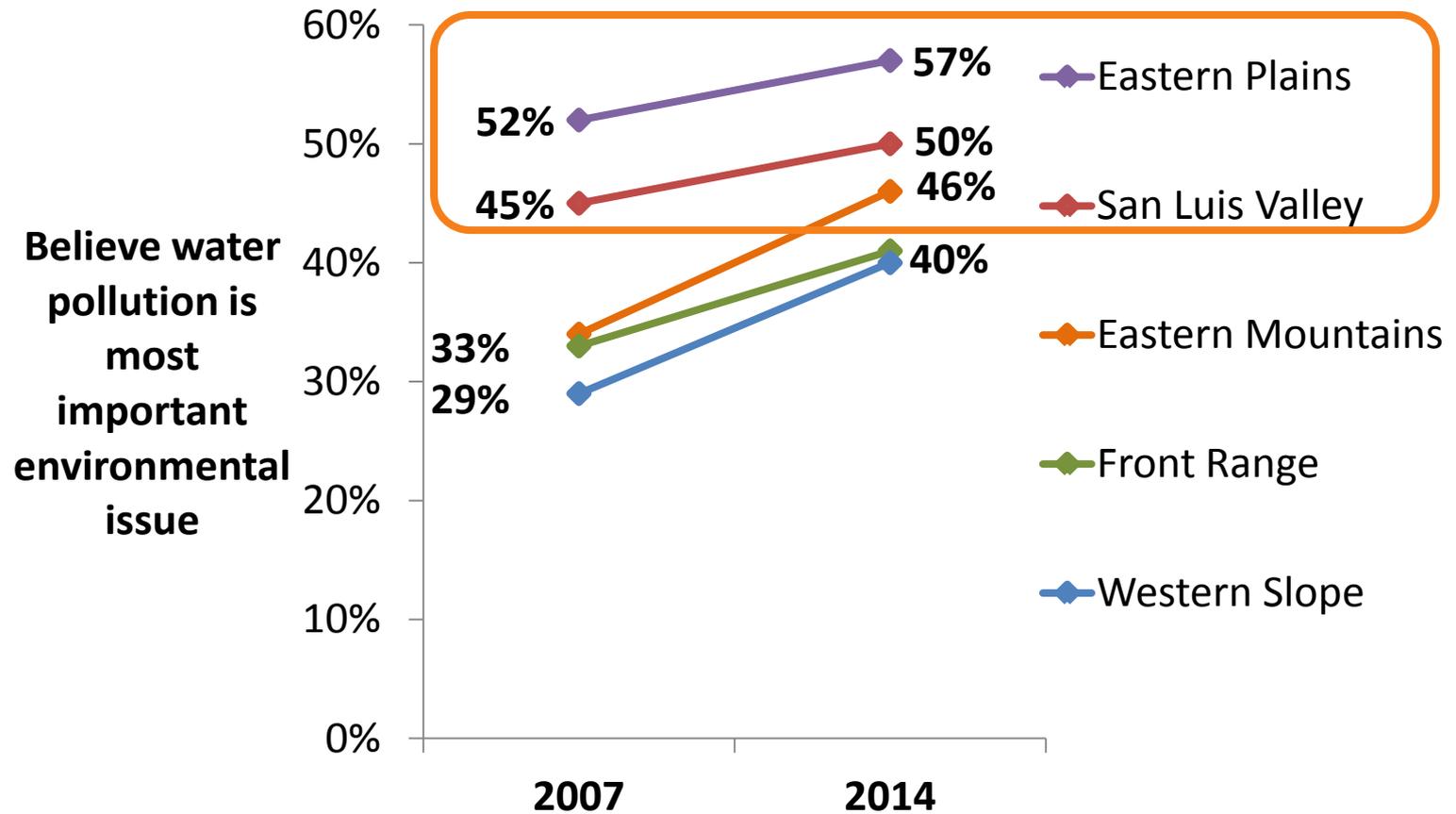
# Perceptions of Water Quality

## Section 1

# Water pollution was the most important environmental issue we tested



# Importance of water pollution was highest in the Eastern Plains and San Luis Valley



# Recent events may have caused this increase in concern

- ➔ For example, Front Range residents, particularly in the northern Front Range, were concerned about the effects of **recent flooding**
- ➔ For all regions, recent news about **the mining spill into the Animas River** caused concern
- ➔ Hot topic issues, such as **fracking** and **adding fluoride** to water was also a cause for increase in concern for many
- ➔ Energy development, air quality and fires were also concerns for some

“

When that flood came through a couple of years ago, I mean, it almost got my house, and I'm in a pretty safe area. And there was all this stuff coming down the canyon, which isn't anybody's fault, it's a flood. There was all this stuff, and then the Animas gets dumped in and it's just...it's definitely more on my radar than it has been previously.

*-Front Range Resident*

# Water quality concerns = drinking water

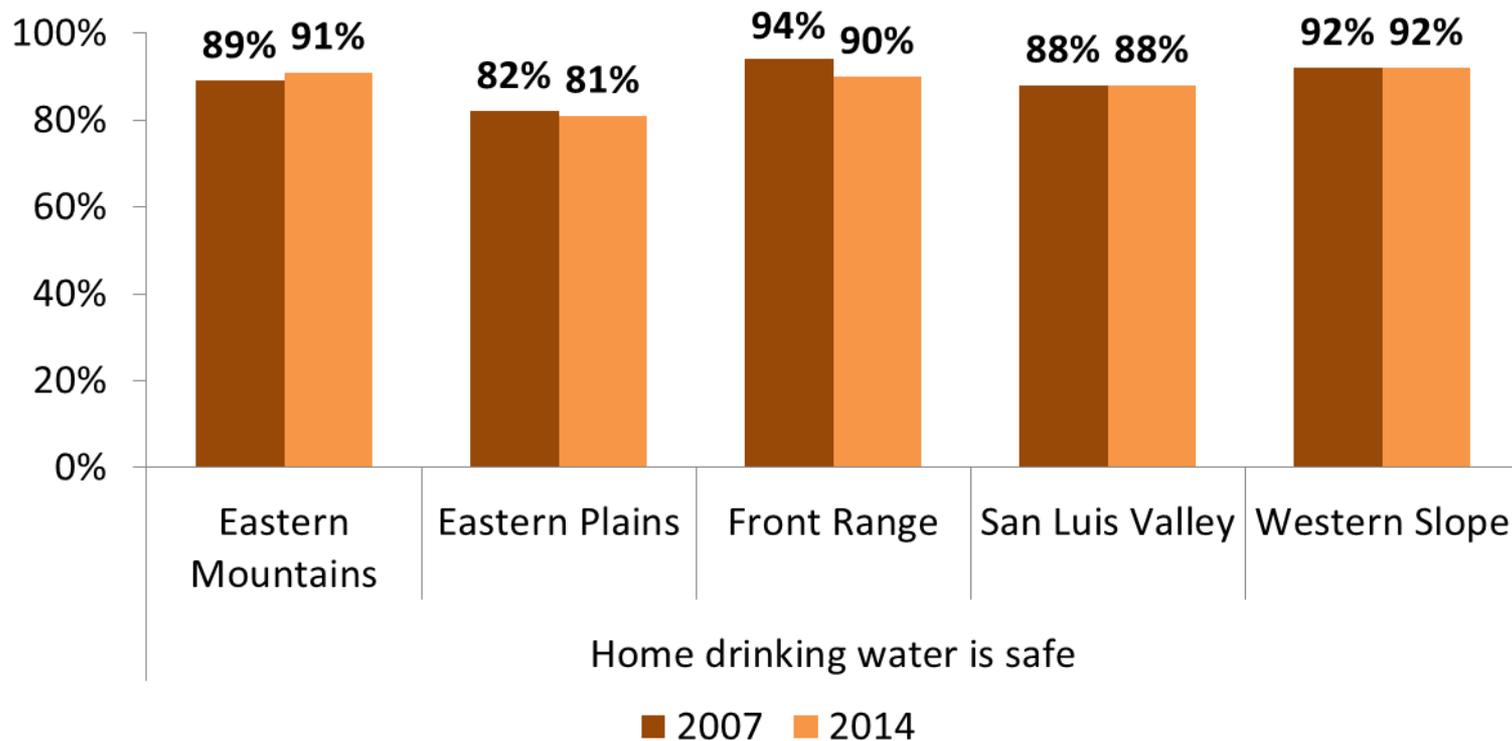
- ➔ Most were mainly concerned with the taste of their water, and how the water they were drinking could potentially impact their health
- ➔ Top of mind by region:
  - > Front Range: fracking and overall pollution
  - > Eastern Mountains: mining
  - > Eastern Plains and the San Luis Valley: agriculture



There are times that our water, I'm on city water, and it is just overly chlorinated. It tastes horrible and it's that bad and you can just smell it. When that happens, I get more concerned and worried about it.

*–Eastern Mountains Resident*

# Most residents believe home drinking water is safe

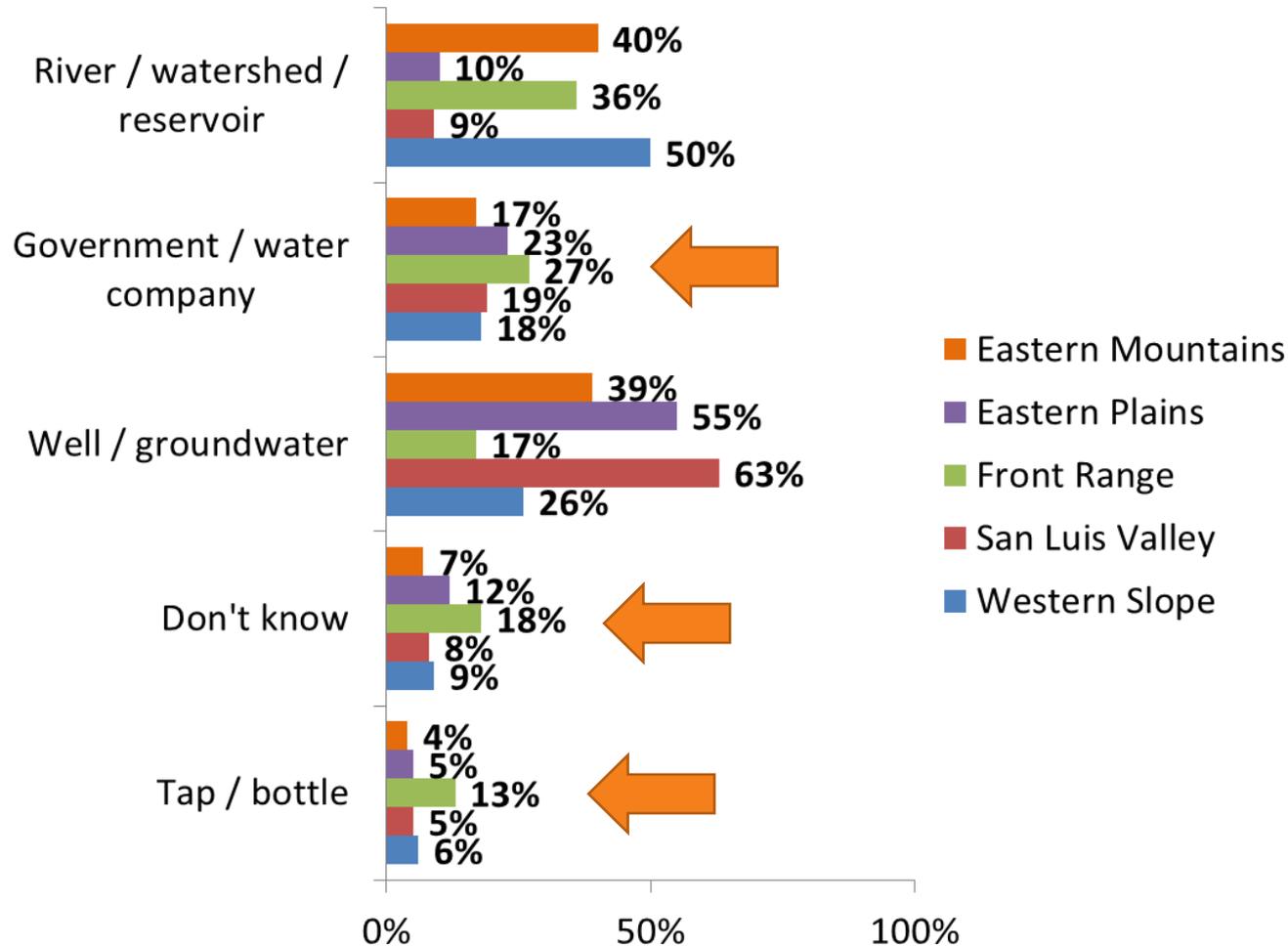




# Sources of Water

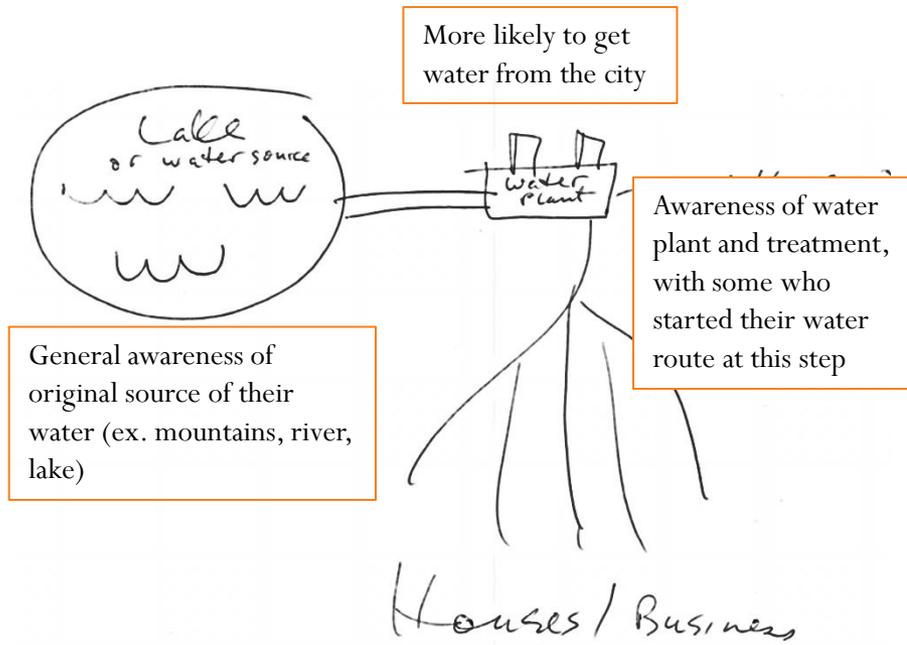
## Section 2

# Front Range residents more likely to say water comes from govt., tap, or don't know



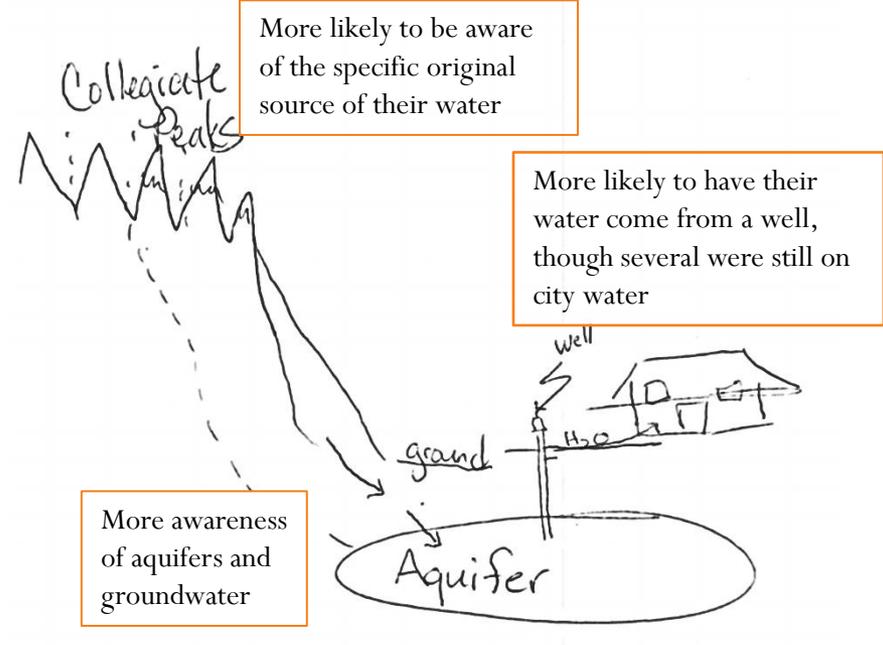
# Exercise: Route of Water

## Typical Water Route for Urban Participants



*Drawn by Front Range Resident*

## Typical Water Route for Rural Participants



*Drawn by Eastern Mountains Resident*

# There is a lack of awareness of location of pollution along water routes

- ➔ Many were concerned about runoff and pollution generally, but were not aware of the exact point that this would affect their water
  - > General understanding that pollution impacts those downstream
- ➔ More concern in urban areas about individuals polluting water
- ➔ More concern in rural areas, about farming runoff
  - > More concern about groundwater also

“ I worry about all the stuff that we dump into our water. The fertilizer runoff, the outdated medications people flush down their toilet, all that kind of stuff.  
–*Front Range Resident* ”

“ There’s a lot of farming out there where I’m at, and I don’t know what they’re putting on those crops. I do know I see crop dusters floating around [...] and yeah, that concerns me.  
–*San Luis Valley Resident* ”

# Most common concern was at the water treatment step

- ➔ Some were concerned about what chemicals were being added at the water treatment plant, and how this may affect their health, particularly in the Front Range
- ➔ Also concern about how water could be contaminated between the treatment plant and the faucet

“

I wish I had more access to the knowledge of what exactly was in our water, what additives were being added to our water, like fluoride or other things, chlorine. I wish I could just have the resources to access this is how much is in there, and the knowledge to be like, “Okay, this is what that means.”

*–Front Range Resident*



# Factors Affecting Water Quality

## Section 3

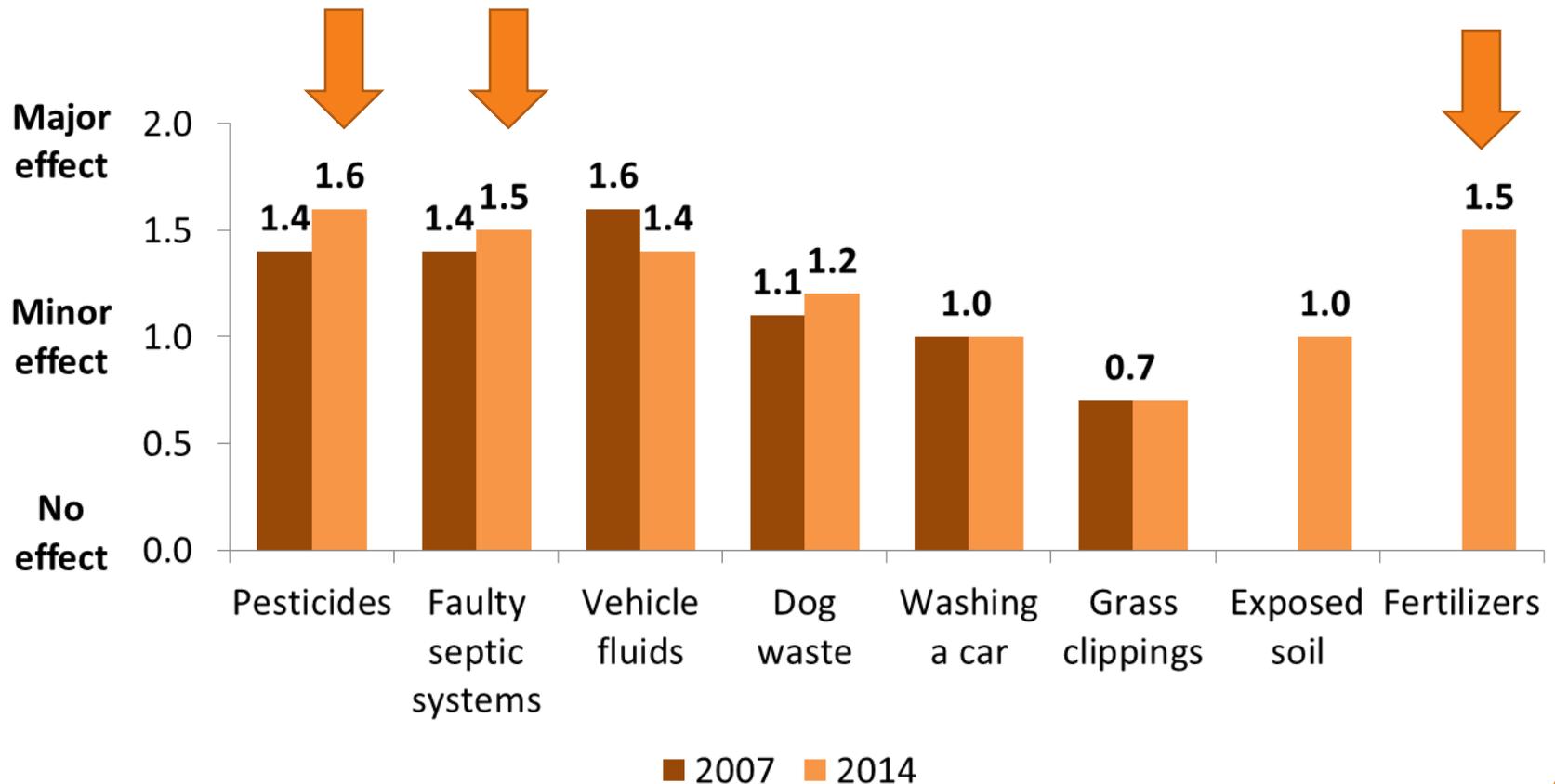
# Ways individuals can negatively impact water quality is not top of mind

- ➔ Using fertilizers or pesticides on lawns, dumping household chemicals or medication, leaking oil, and dumping trash were most commonly mentioned
- ➔ However, many participants mentioned that they were generally not even thinking about water quality if and when they did these things, and believed the same of other residents

“ It really comes down to ignorance. People who aren't aware how much damage it can do. Not maintaining your septic system, to dump your oil, to not clean up after your pets. It's not necessarily ignorance is bliss, but maybe they just don't know.  
–*Eastern Plains Resident*

# Pesticides, fertilizers, and septic systems are seen as having the greatest effect

➔ Front Range residents were most likely to say each pollution source had an effect on water quality



# Beliefs about factors most negatively impacting water quality vary by region

➔ **All regions except Front Range:** Most likely to believe that fertilizers and pesticides from agriculture had the most negative impact on water quality

- > However, several also believed that farmers acted responsibly with their fertilizer and pesticide application

➔ **Front Range:** Most likely to believe that urban runoff had the most negative impact on water quality

- > Concern related to population density
- > Lack of regulation and awareness contributes to concern

“

With all the ranches and stuff around and the pesticides and everything they do use. With as much rain as we've had this year, all the runoff, everything just flows into the water

–*Eastern Mountains Resident*

“

I think that for me it's because we're in an urban area, and there are a lot of people that are not really thinking about their environment when they are dripping cars or changing oil or whatever. We don't think about that as much as other things.

–*Front Range Resident*

# Concern about mining and energy development also vary by region

- ➔ In areas with a lot of mining, such as the Eastern Mountains, participants were more worried about it impacting their water quality than areas without mining, such as the Eastern Plains
- ➔ Energy development was ranked high as negatively impacting water quality in the Front Range, Western Slope and Eastern Plains, but not in the San Luis Valley or Eastern Mountains



The whole fracking issue could affect the aquifer and the entire front range. Chemicals in fracking, which they won't tell you what they are, but certainly there's been a lot of evidence that they have a lot of messed up water in other places. There's only a matter of time if they continue up here.

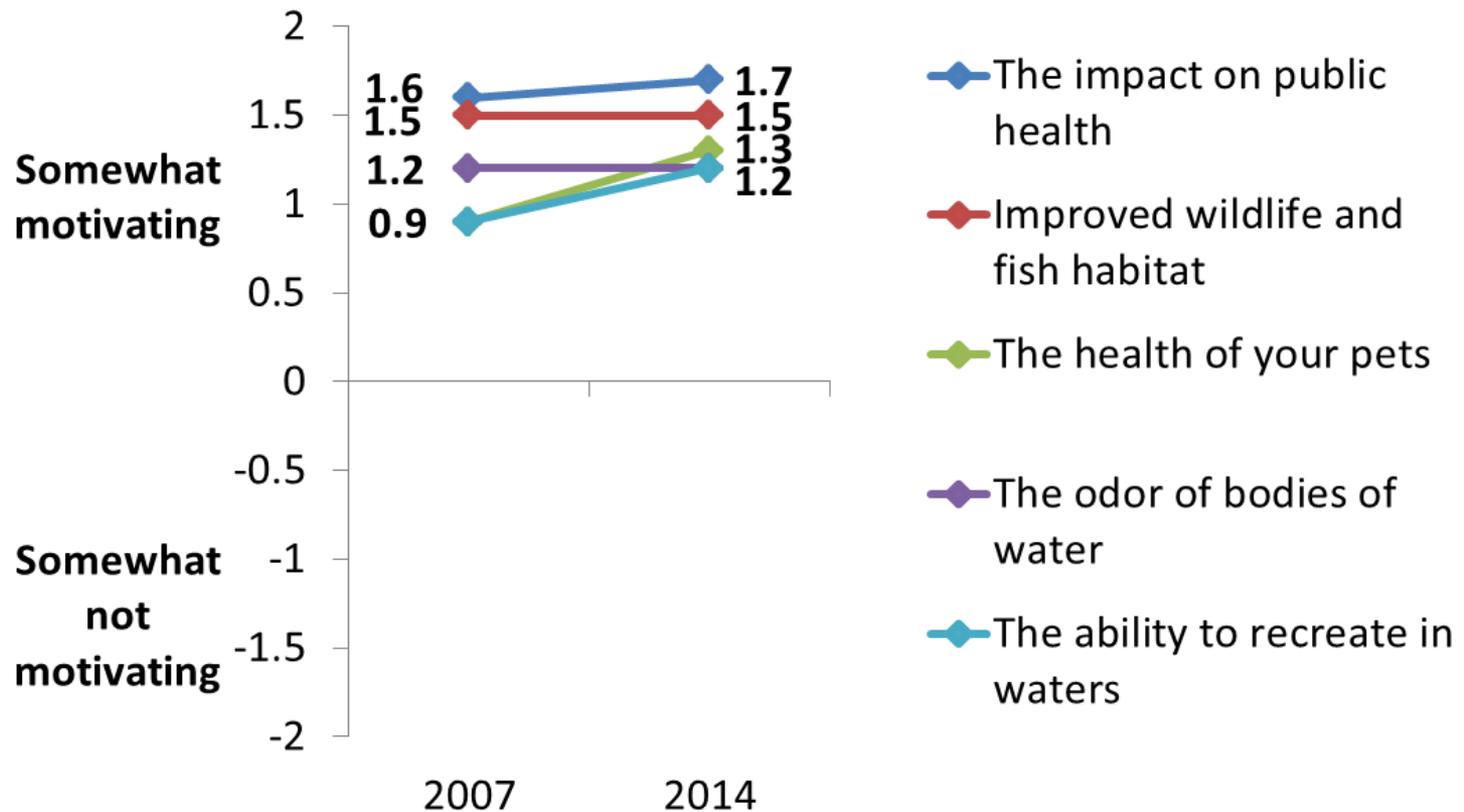
*–Front Range Resident*



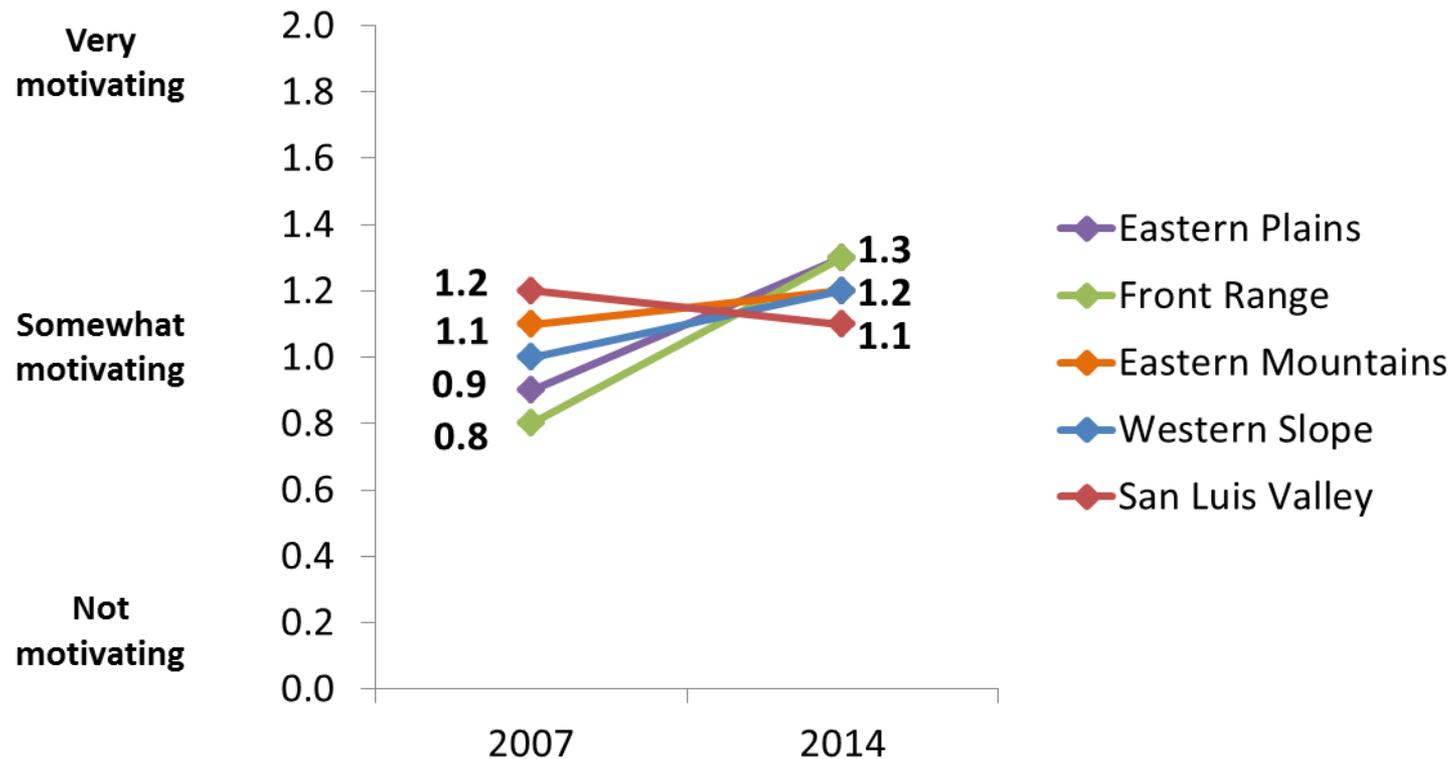
# Motivations and Responsibilities

Section 4

# For the “impact on public health” is most motivating to improve water quality



# Motivated by pet health increasing quickly in Eastern Plains and Front Range



# Residents have a hard time thinking of individual actions that could help water quality

- ➔ Many participants mentioned actions being taken to preserve water quantity, but were unable to shift their focus to water quality
- ➔ Several participants also discussed ways they were helping the water quality in their own households
- ➔ Some participants were able to come up with a few actions, such as:
  - > Not dumping chemicals
  - > Recycling
  - > Limiting fertilizer

“ I think education’s a big part of the quality aspect of it. Because for so many years it’s been ingrained on conserving water and using it properly. But we haven’t really been educated as a society on how to take care of our water so that we’re not contaminating it for downriver.  
–*Western Slope Resident*

# A combination of individuals + government entities should be responsible for water quality

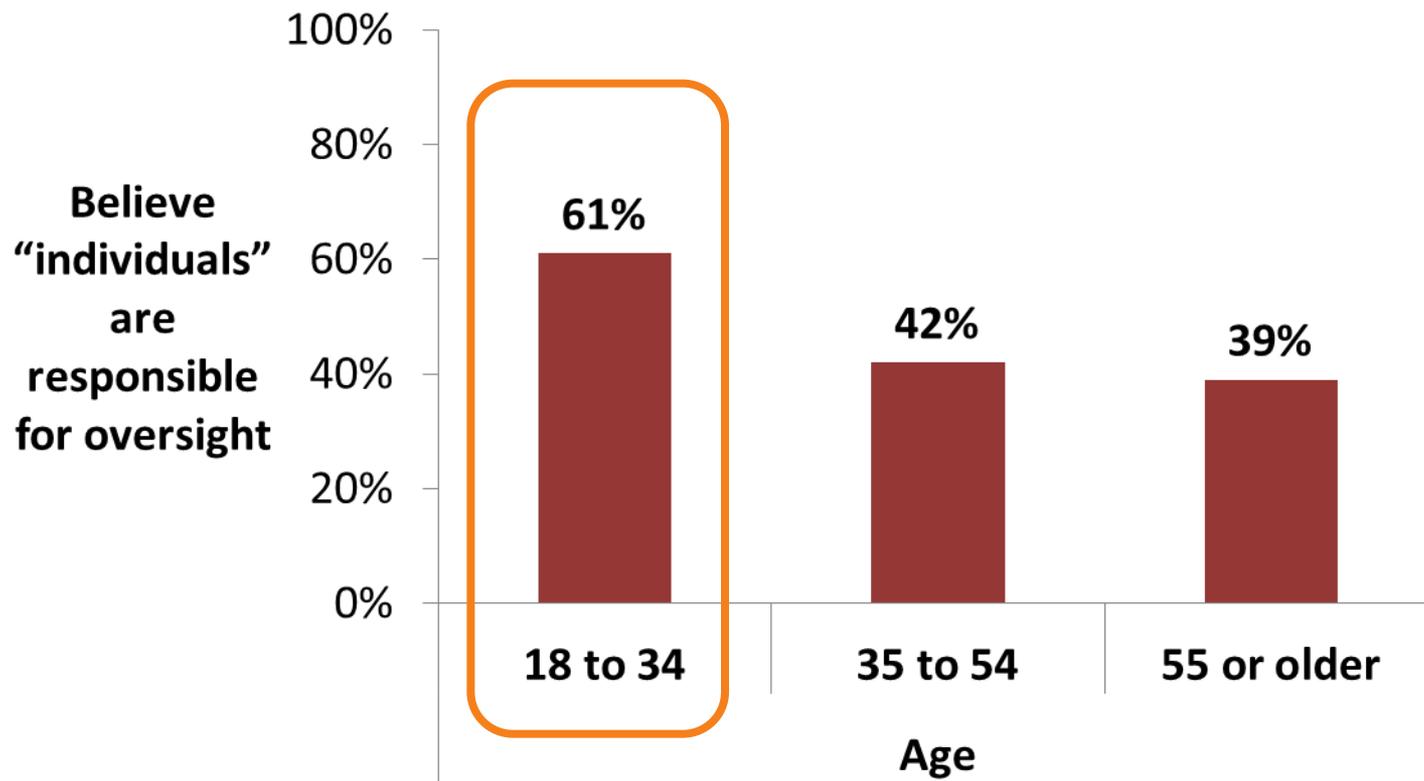
- ➔ Most believed that individuals needed to do more to take action, but that there needed to be some agency overseeing regulation and education.

“ The government will set the standards, but each individual has to abide by those standards the government sets. *–Western Slope Resident* ”

- ➔ Many believed that in order for individuals to take more action, they would need to be educated on what kind of action to take

“ I think it's up to the government or the powers that be to make sure the public is better educated about what they need to do to make sure the water is safe. And I think people need to be more aware than they have been. *–Front Range Resident* ”

# Younger residents are most likely to believe “individuals” are responsible for water quality



# Participants: Local government would be the best agency for regulating water quality

- ➔ This was particularly true in more rural areas, such as the San Luis Valley and the Eastern Plains
- ➔ There was a great deal of distrust for the EPA and federal agencies, largely because of the recent mining spill into the Animas River

“ What works someplace else doesn't always work for everybody. So local makes the most sense because they know what works here and what our systems are like.

“ And you get more accountability for everyone involved the closer you are. The regulators are held accountable more easily locally and those people who are being regulated are more easily accountable locally.

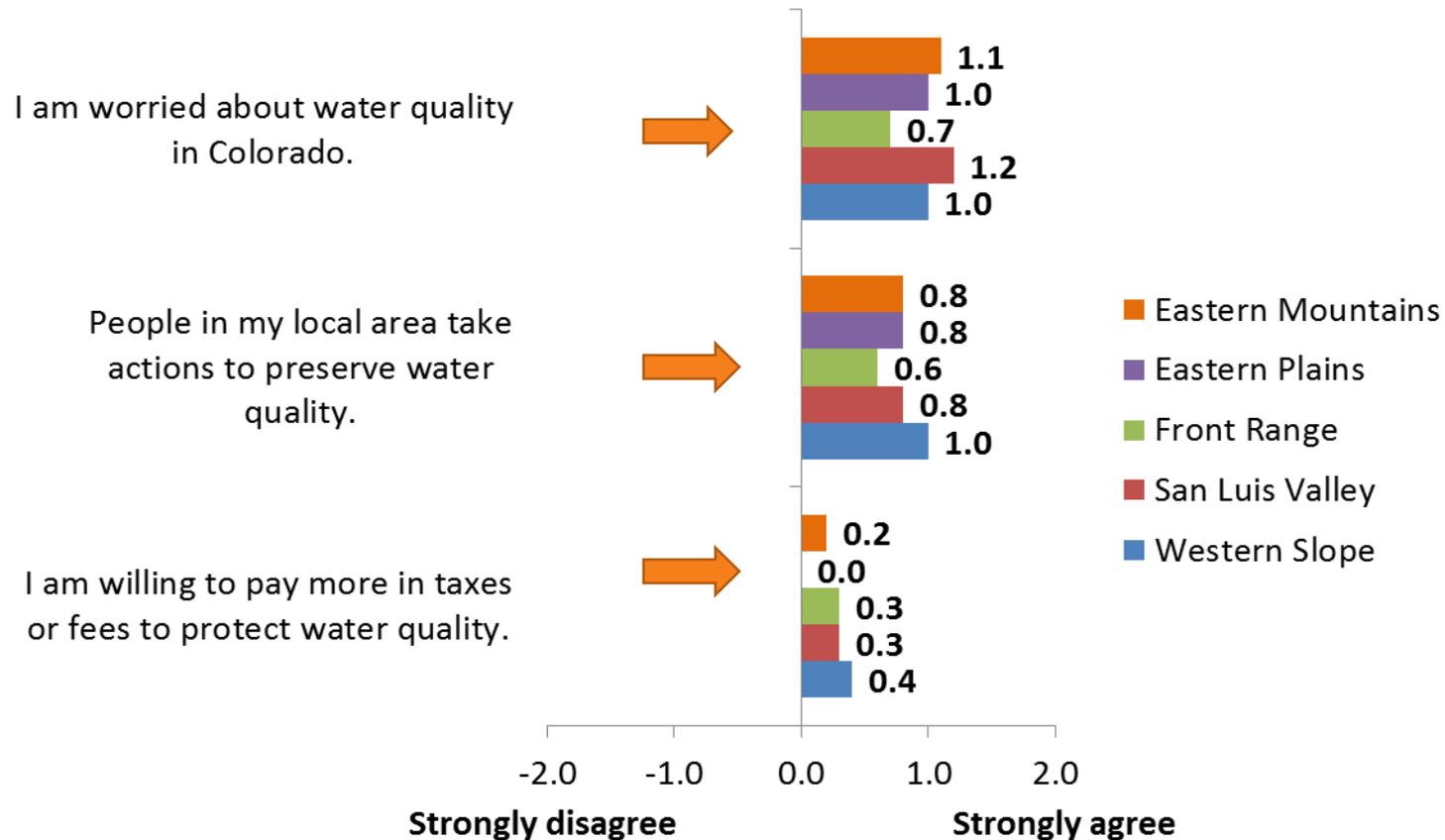
*-San Luis Valley Residents*



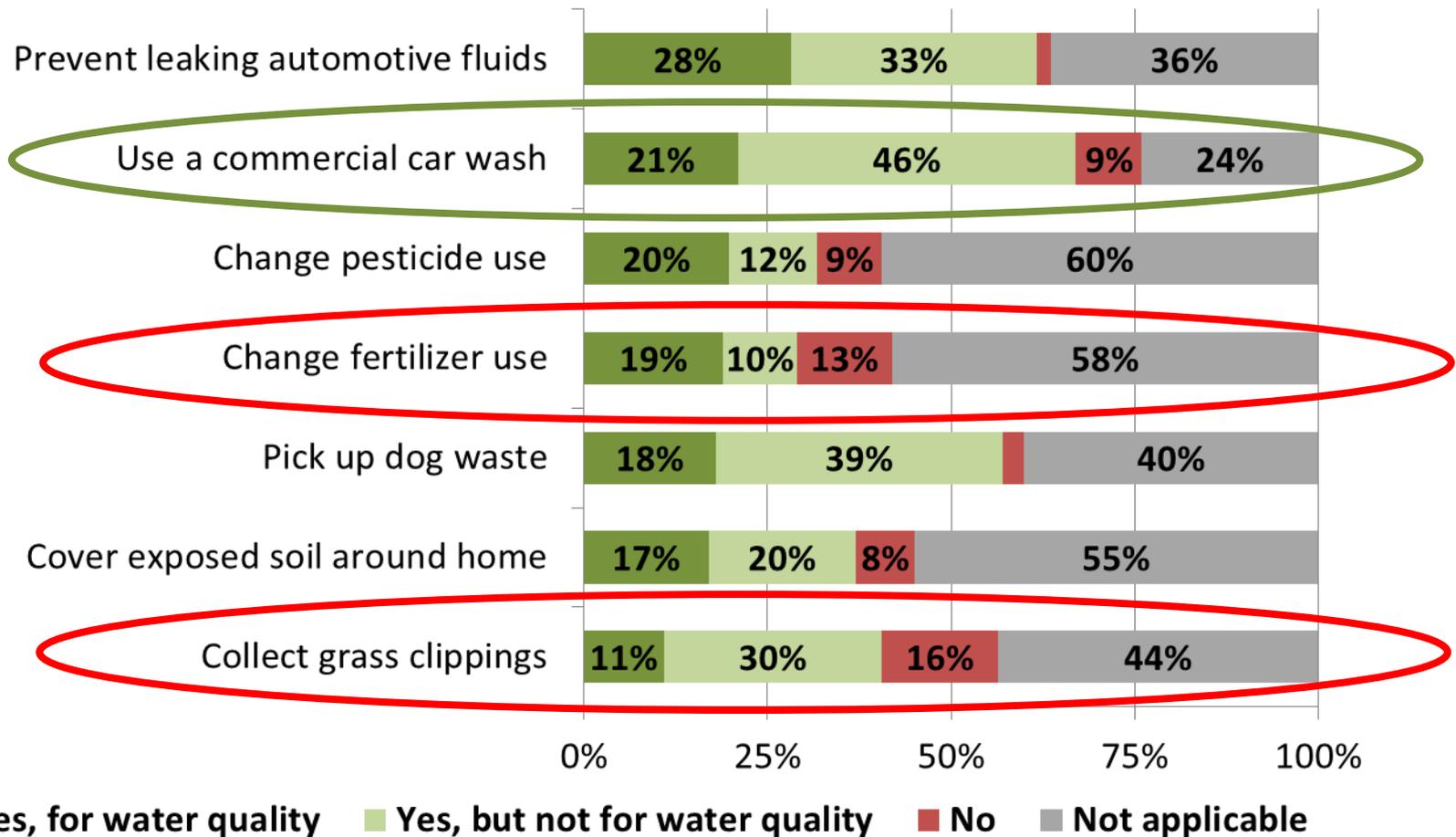
# Taking Action to Preserve Water Quality

Section 5

# Worry about water quality is lowest in the Front Range – highest in San Luis Valley

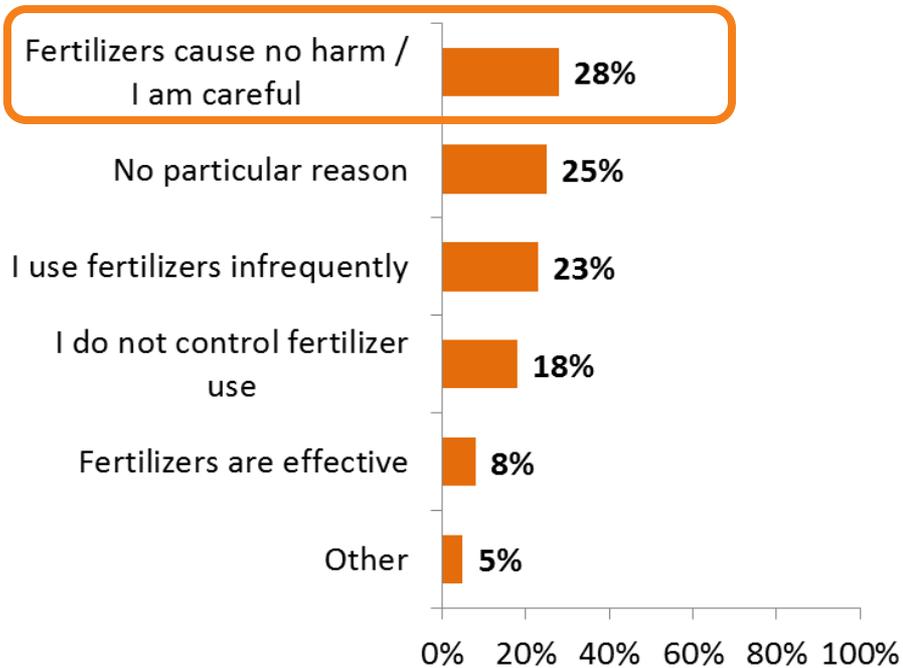


# People are most likely to use commercial car wash, and least likely to collect clippings

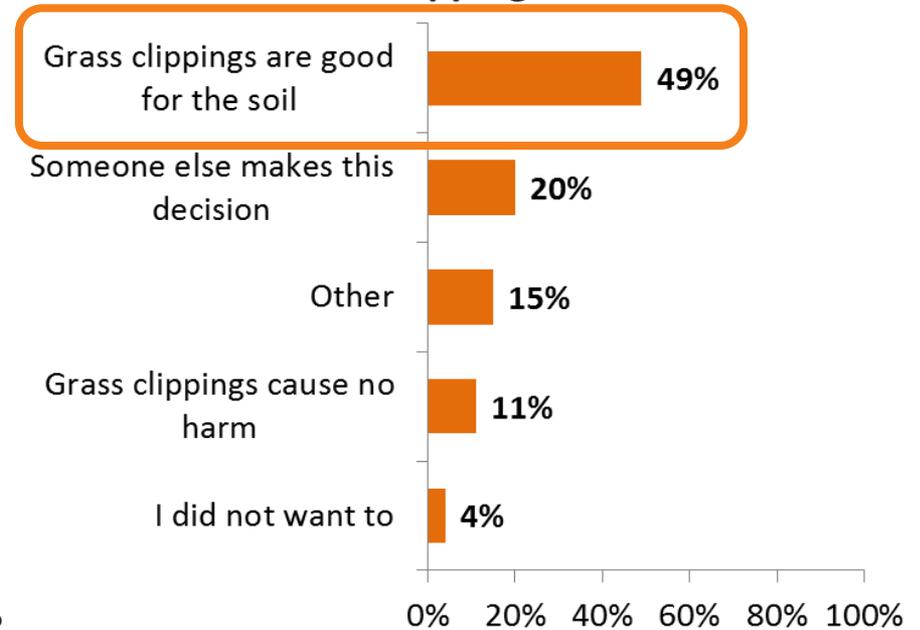


# Many residents did not believe actions would help or were necessary

## Reason(s) for not changing fertilizer use



## Reason(s) for not removing grass clippings



# Very few respondents are taking action because of water quality specifically

- ➔ The following reasons were the most common reasons that participants were taking action:
- > Health of themselves or their family/pets
  - > Helping the environment and generally thinking it was the right thing to do
  - > Saving money
  - > Common courtesy/common sense
  - > Habit

“

It's being responsible is most of them. As far as the performing maintenance without leaking on automotive fluids, it helps the environment, but there's also definite...cause you're just taking care of your problems before it makes a huge mess. [...] Commercial car wash, it's a lot easier to clean up. My dog waste, I'd like to be in my backyard without stepping into the waste. I think a lot of these things most of the time when I'm doing it. What it's doing to the water isn't really coming to mind. It's just kind of being a responsible citizen and just taking care of your problems.

*–Front Range Resident*

# Most participants who did not take action were not doing so with ill intent

- ➔ Most noted lack of awareness, lack of control, not believing that the action actually impacts water quality, the action not applying to them, cost and time
- ➔ Several mentioned that they just had never thought about how their actions were impacting water quality
- ➔ Generally, participants in more rural areas, such as the San Luis Valley and Eastern Plains were less likely to feel that individuals taking these actions in their area would improve water quality

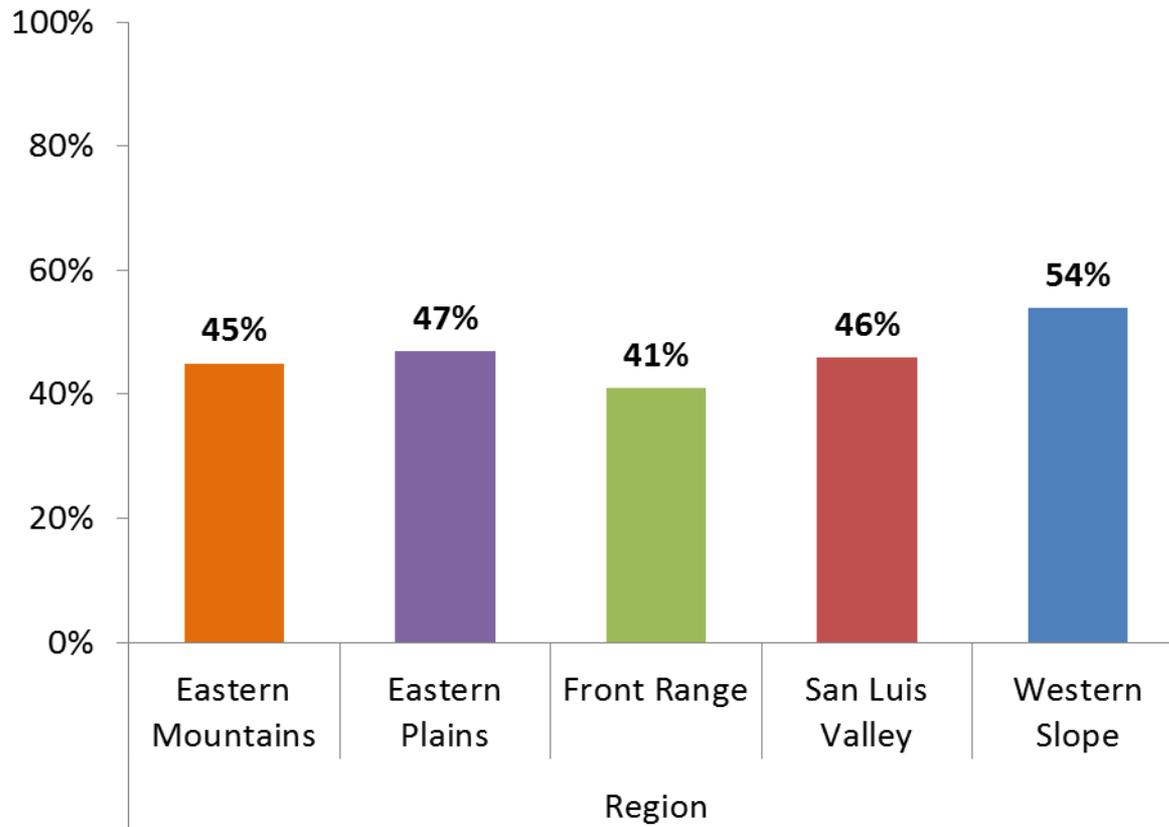
“ What does dog waste have to do with water quality? It could be smelly, it may attract flies, but in the grand scheme of it, how does that contaminate your water?  
–*Eastern Plains Resident*



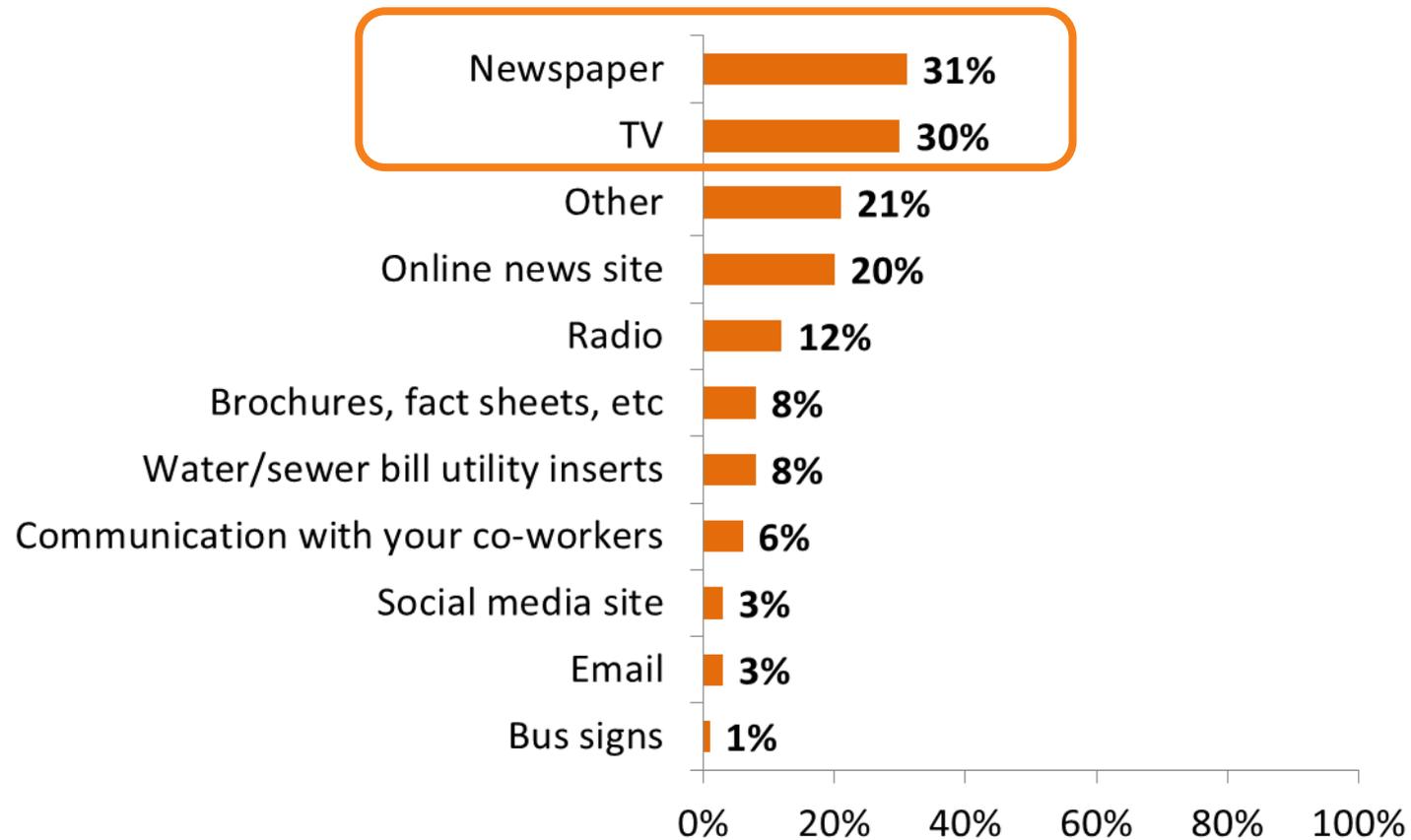
# Communication and Messaging

Section 6

# Western Slope residents were most likely to have read, seen, or heard a water quality message



# Residents were most likely to hear messages from the newspaper and TV



# Very few participants recalled seeing any messaging about water quality issues

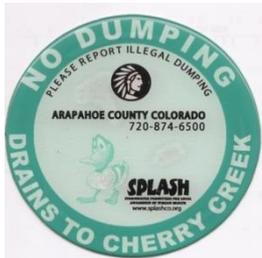
- ➔ Many, however, had seen a lot of messaging and communications about water quantity

“ Even the stuff I saw growing up was more about quantity. I remember growing up and seeing it on Sesame Street. About not wasting water [...] But it was all quantity not quality. *–San Luis Valley Resident* ”

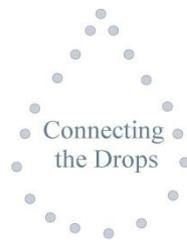
- ➔ Some remembered messages surrounding either recent events (such as the Animas River spill) or fracking
- ➔ Some received a report with their water bill, but many could not interpret what this meant on their own

# Ad and Message Testing

Most recognized



Virtually No Awareness

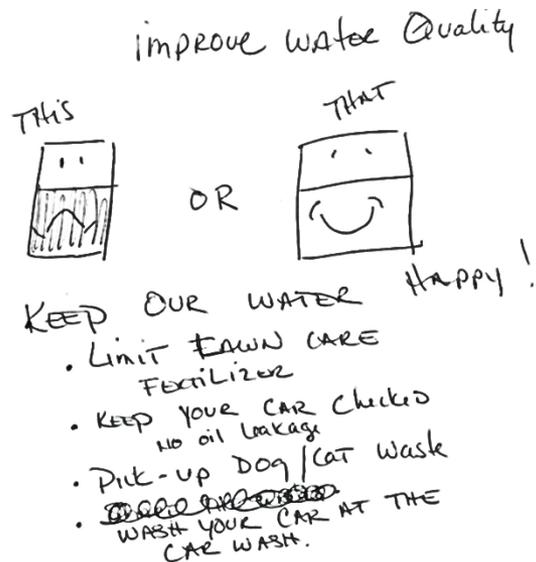


Our creeks, rivers & lakes depend on you.



# Exercise: Design an Ad

- ➔ In the Front Range, created ads showed direct impacts on how individual pollution was affecting their drinking water.
- ➔ They felt that people need for it to feel personal for them to take action



*Drawn by Front Range Resident*

- ➔ In the more rural areas, many participants created messaging about water belonging to everyone and encouraging residents to protect the water and beautiful environment for future generations



*Drawn by Eastern Plains Resident*

# There was very little awareness among participants of Colorado's Water Plan

- ➔ Participants were most aware of the plan in the Eastern Mountains and the San Luis Valley, but this was still just a handful of participants
- ➔ While there was very little awareness of the plan, nearly all participants believed it was important for Colorado to have a water plan
- ➔ However, the reasons they thought it was important to have a plan were almost all centered around water quantity and water rights issues, and not water quality



If Colorado had a good water plan, we could manage how much water we actually kept in state. It's a little hard to fight drought with a limited water supply, but at least have enough for the population will be served even though we might have to reduce water in the towns. But the water plan is always good...just a disaster plan.

*–Eastern Plains Resident*

In Summary...

# Summary: General Awareness

- Water quality is the most important environmental issue we tested; this has increased since 2007
- However, water quality is not top-of-mind for most residents; they are much more likely to be concerned about water quantity than water quality
- When it is top-of-mind, it is mainly focused around drinking water
  - This itself may be a barrier as most people consider their drinking water to be good
- Major events can raise awareness temporarily; this may explain, at least in part, the raise in concern since 2007

# Summary: Sources of Pollution

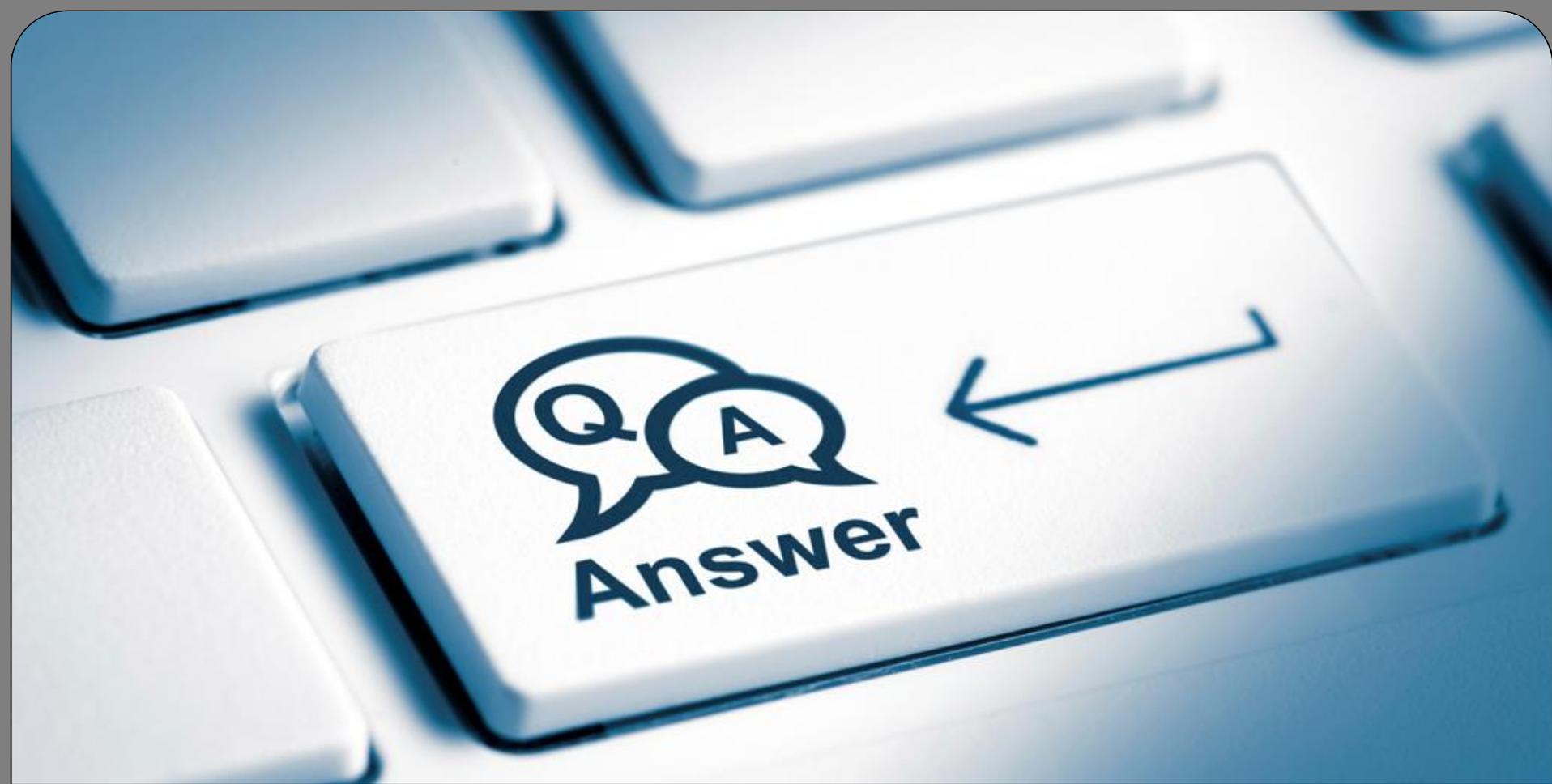
- There are differences between urban and rural residents in their knowledge and beliefs
  - Front Range residents know the least specific details about where their water is coming from
  - Front Range residents are more likely to feel that individuals have a larger negative impact on water
  - Residents in other areas of the state are more likely to believe that businesses and agriculture are more negatively impacting water quality
- While residents generally have ideas for how their water is being polluted, they are not always sure at what point their water is being contaminated

# Summary: Improving Water Quality

- Many residents do not know how they can impact water quality
- And many are already taking actions that preserve water quality, but most do not realize they are doing so.
- Similarly, residents not taking actions to preserve water quality are not doing so with ill intent
- Residents felt water quality was the responsibility of individuals and (local) government

# Summary: Communications

- Awareness of outreach is low
- Future messages should focus on personal benefits, as well as broader environmental benefits
  - Public health is the greatest motivator; quality of drinking water is likely the biggest consideration
  - Health of pets is growing as a motivator
  - Preserving Colorado's outdoors and environment
- Residents have a wide range of preferences for how they want to receive communications about water quality



Questions?

# About Corona Insights

Our founder named the company Corona because the word means “light.” It’s the knowledge that surrounds and illuminates an issue; exactly what we do. Our firm’s mission is to provide accurate and unbiased information and counsel to decision makers. We provide market research, evaluation, and strategic consulting for organizations both small and large.

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