

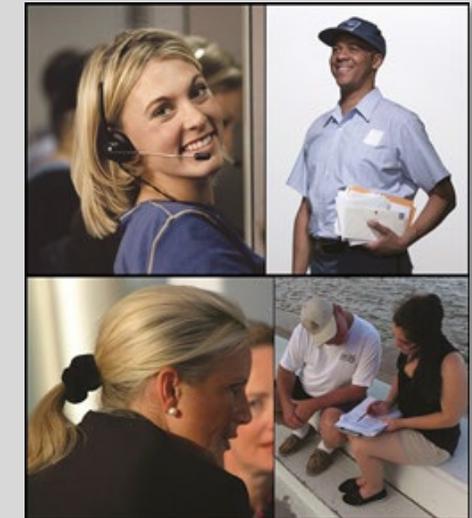
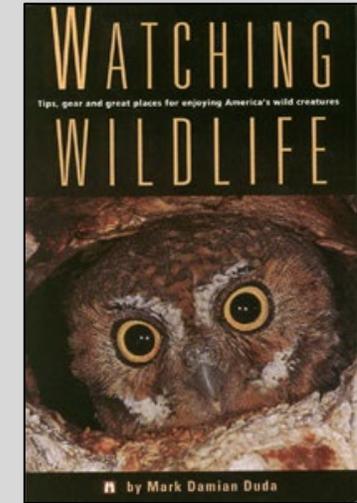
Watershed Literacy Survey of Carson River Watershed Residents

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Executive Director
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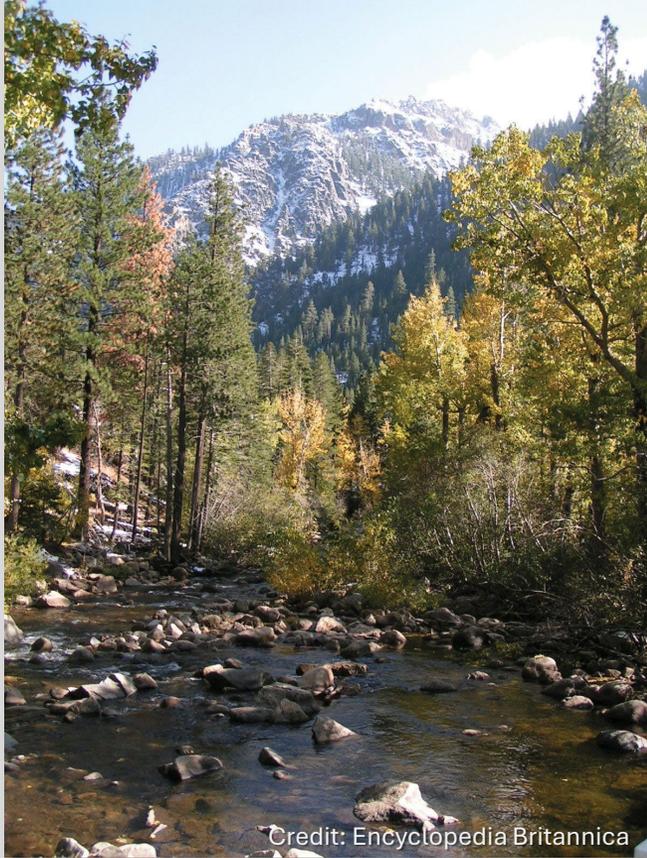


About Responsive Management

- Research firm specializing in natural resource and outdoor recreation issues
- More than 1,200 projects over 35 years
- Research in 50 states and 15 countries
- Research conducted for every state fish and wildlife agency and federal resource agency
- Research for all major NGOs, including RBFF, NSSF, ASA, ATA, Ducks Unlimited, Trout Unlimited, Sierra Club, The Nature Conservancy, and more
- Research for industry leaders, such as Winchester Ammunition, Vista Outdoor (Bushnell, Primos, Federal Premium, etc.), Trijicon, Yamaha Motor, and more
- Data collection for the nation's top universities: Auburn University, Clemson University, Colorado State University, Duke University, Michigan State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of Florida, University of Southern California, Virginia Commonwealth University, Virginia Tech, West Virginia University, Yale University, and many more



Presentation Outline

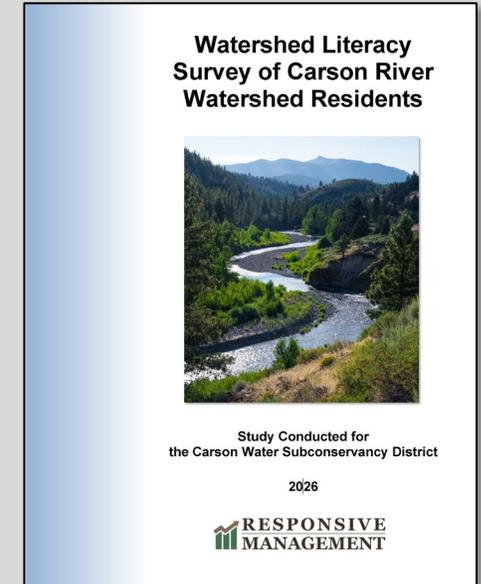


- ✓ Study Methodology
- ✓ Knowledge of Watersheds
- ✓ Health of the Carson River Watershed
- ✓ Factors Affecting the Health of the Carson River Watershed
- ✓ Activities That Contribute to Water Health
- ✓ Awareness of Conservation Messages and Ads
- ✓ Actions That Residents Are Taking to Improve the Carson River Watershed's Environment
- ✓ Trends and Grading

Study Methodology

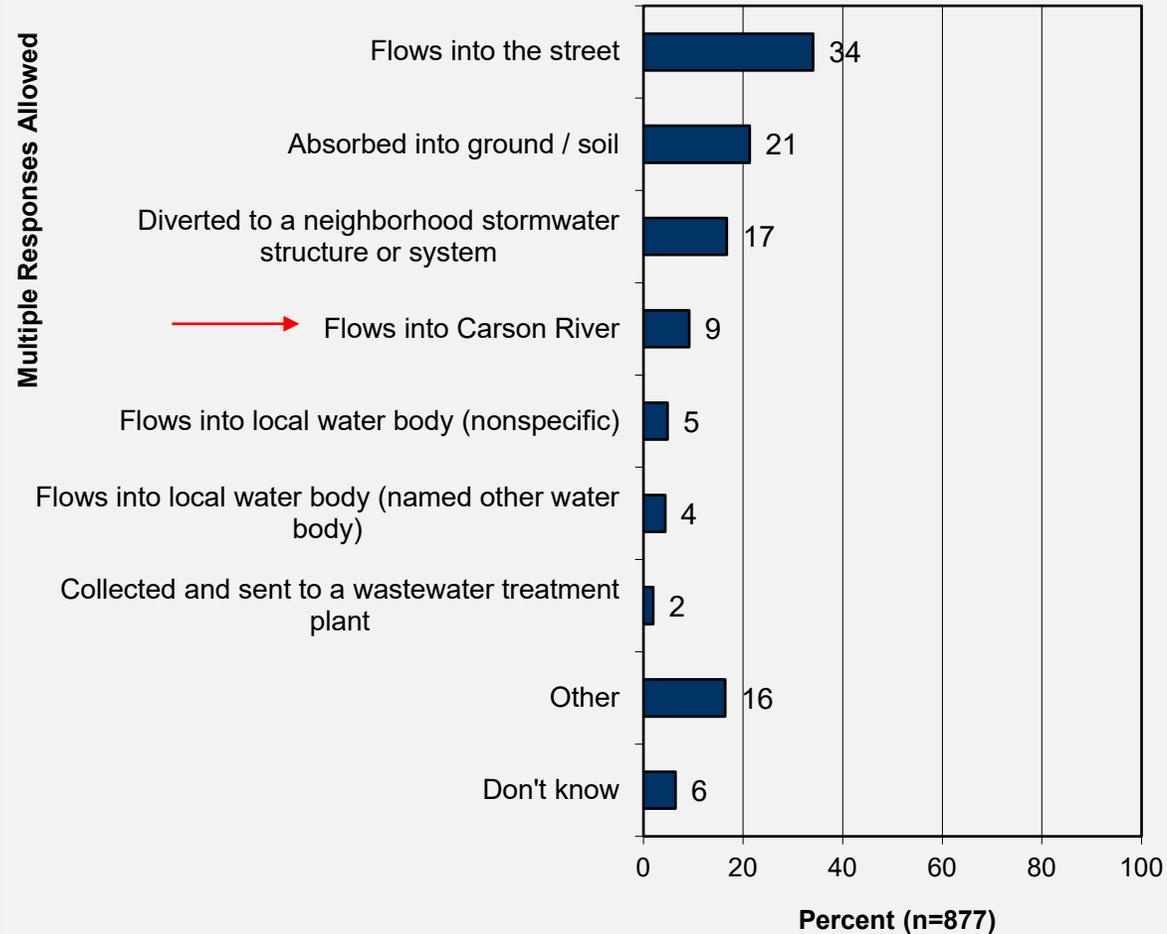
Study Methodology

- Trend study conducted for the Carson Water Subconservancy District (CWSD) to evaluate literacy about the Carson River Watershed, concern about watershed health, participation in activities that may impact the watershed's environment, and awareness of marketing efforts to encourage responsible stewardship
- Analysis included trends examination based on 2015 survey for CWSD
- Project entailed scientific, probability-based telephone survey of residents of the Carson River Watershed in Nevada and California, ages 18 and older
- Watershed residents sampled in proportion to the populations of the counties
- Data collected by landline and cellphone; text messages used to further engage cellphone respondents
- Survey developed cooperatively by CWSD and Responsive Management
- Survey questionnaire made available in English and Spanish
- Sample size $n=877$; 95% confidence interval; ± 3.30 percentage points
- Survey fielded December 2025 - January 2026



Knowledge of Watersheds

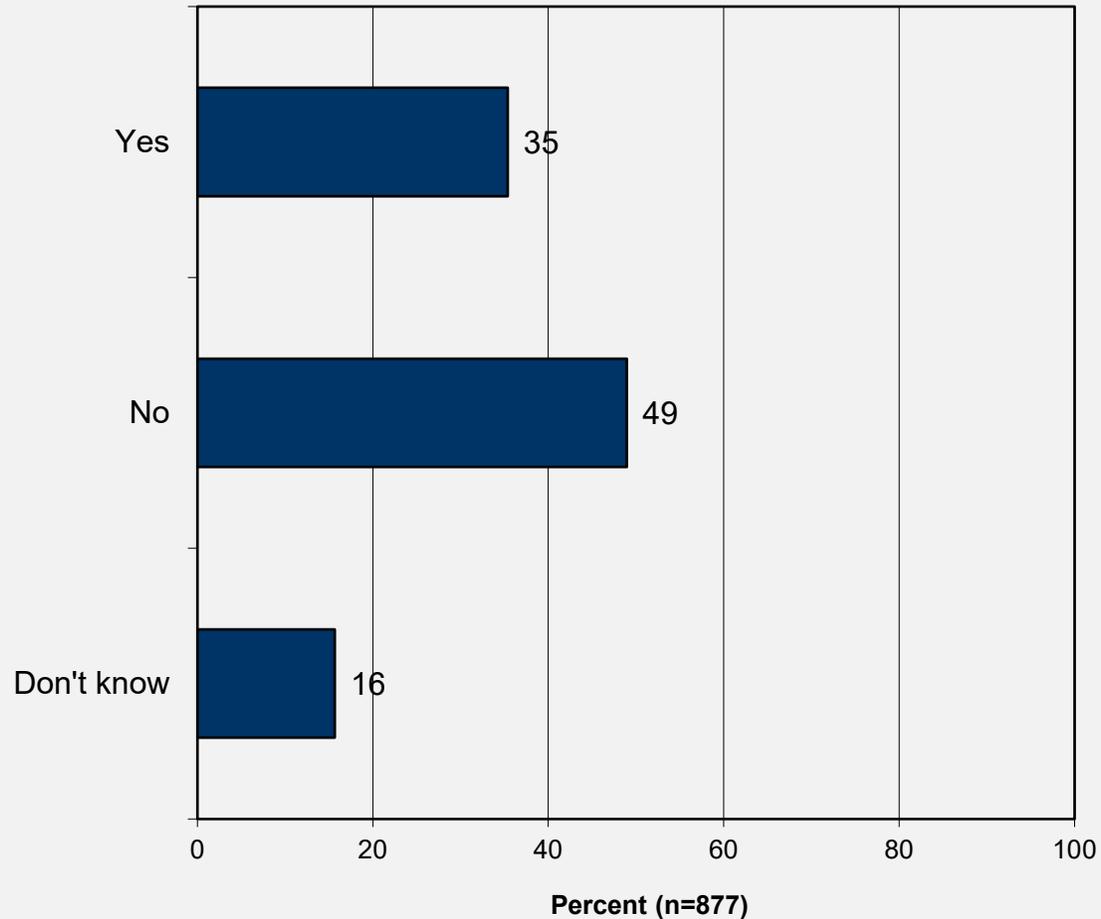
When water is draining or flowing from your property, where does it ultimately drain or flow to?



Challenge: Getting more people to understand that water from their property ultimately drains or flows into the Carson River.

Just 9% stated this in the survey.

Do you currently live in a watershed?

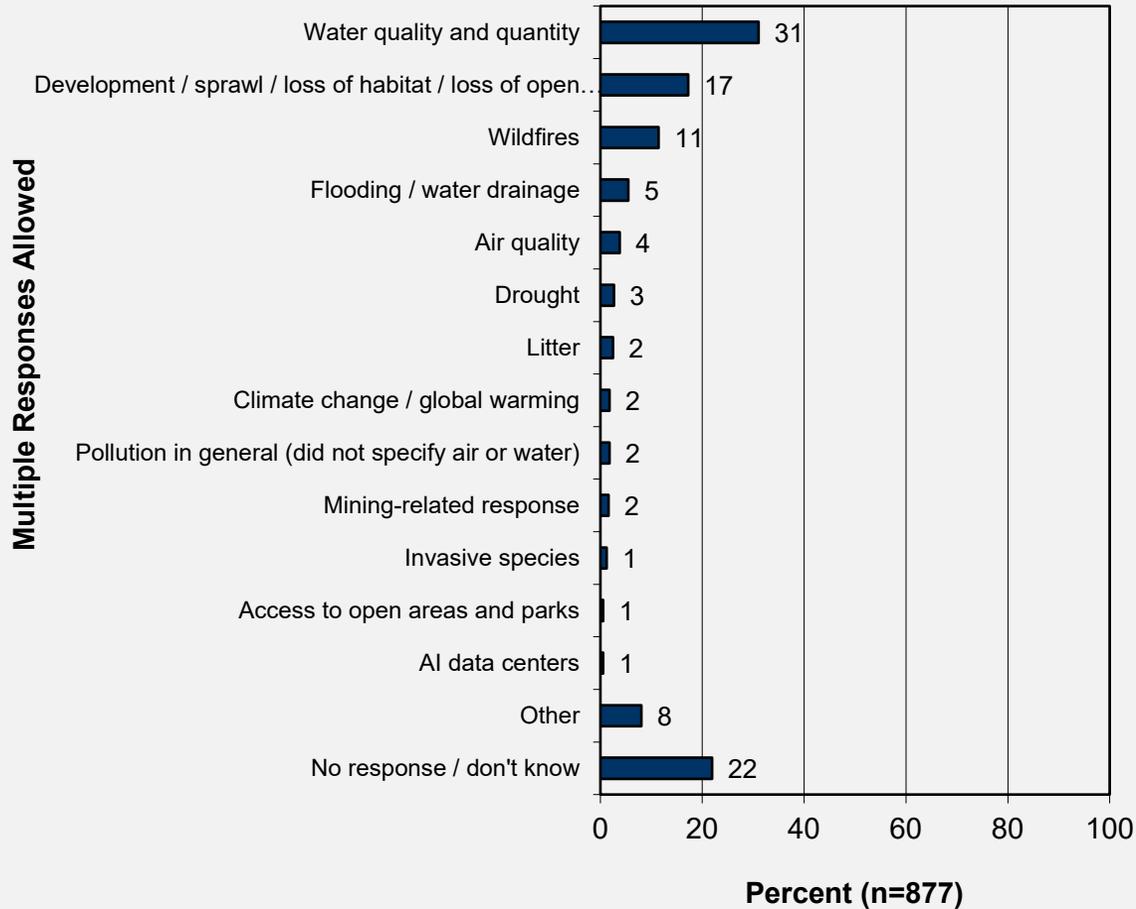


Challenge: Getting more people to realize that they live in a watershed.

Just over a third of residents knew this in the survey.

Health of the Carson River Watershed

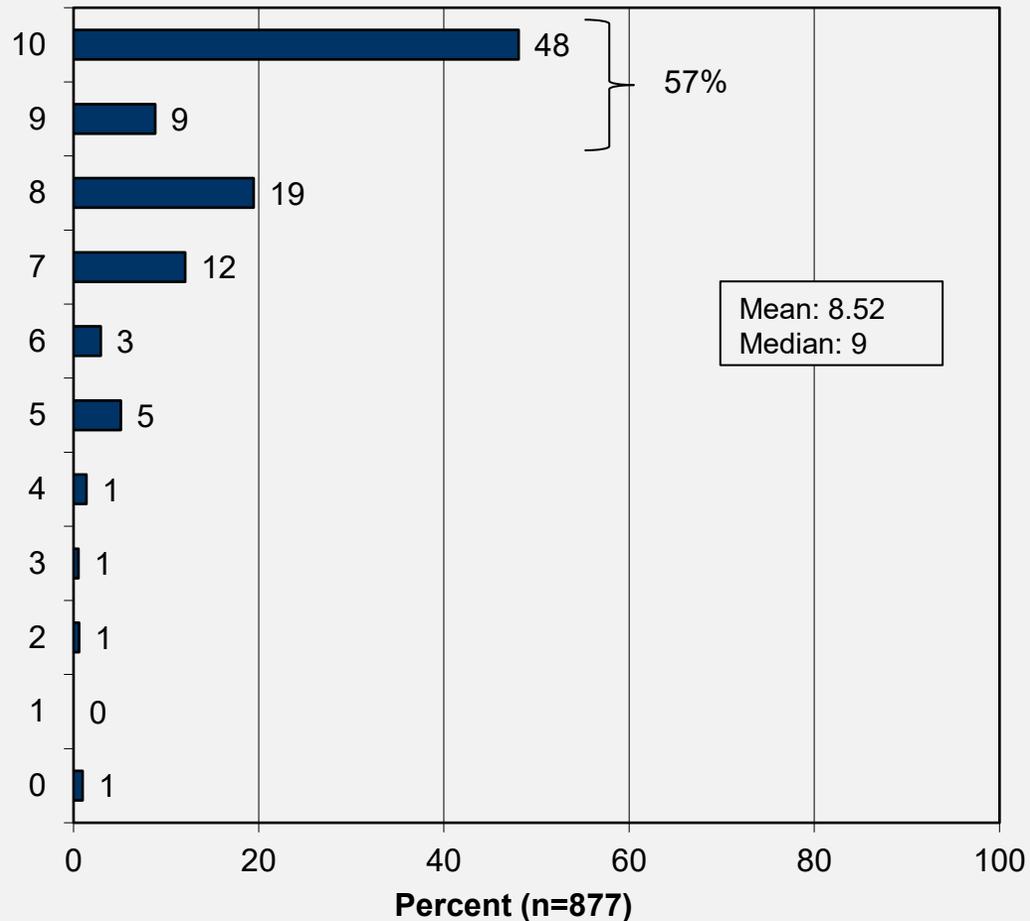
Thinking about the general area you live in, in your opinion, what is the most important environmental issue facing the area?



Water is a top-of-mind issue.

Water issues strongly resonate with watershed residents and provide an important component of messaging.

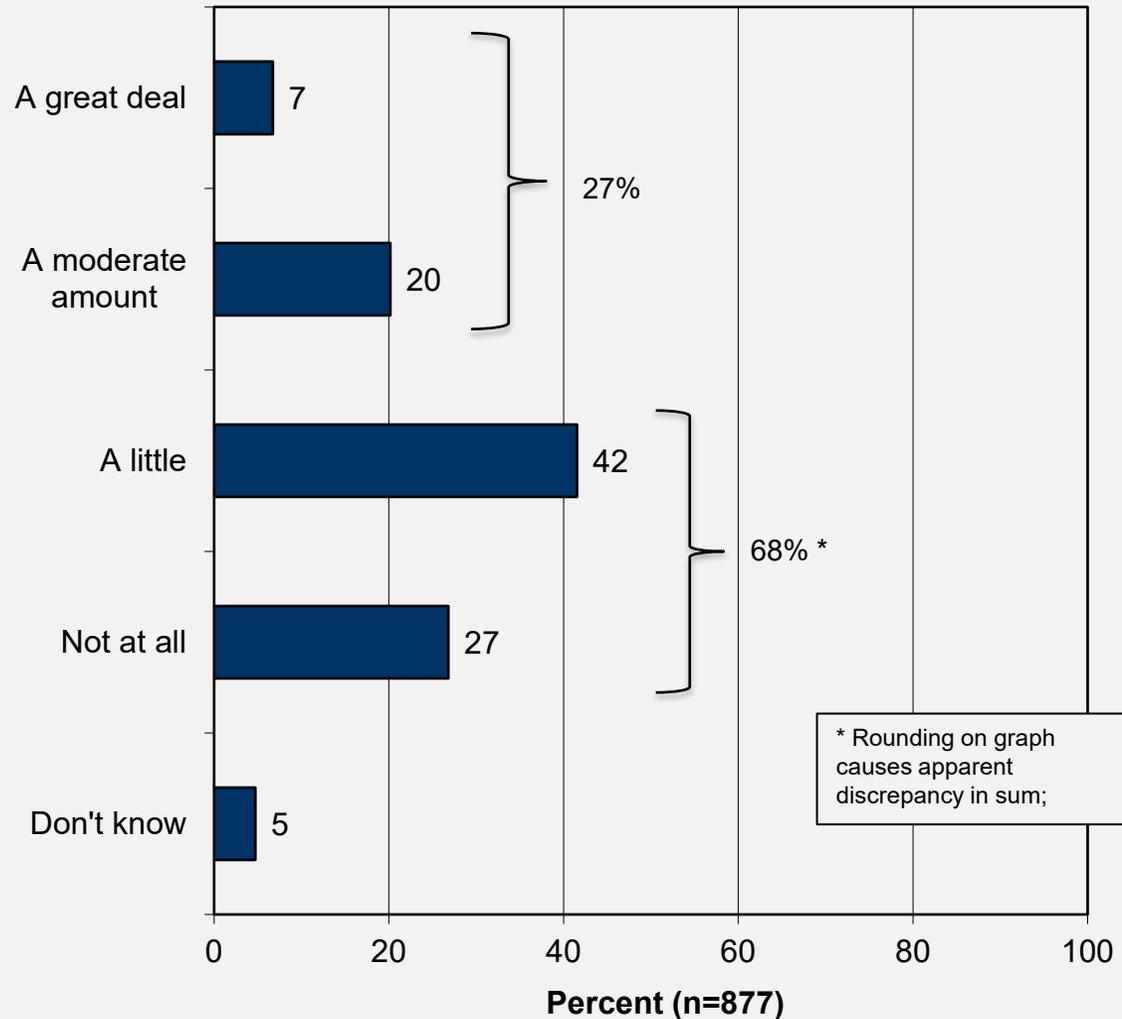
How important to you, personally, is the health of the Carson River Watershed's environment, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important?



Residents consider the health of the Carson River Watershed environment to be highly important.

Win: The group most likely to give a high rating to the importance of the health of the watershed are those who recall seeing/hearing "Your Actions Matter" messages.

How much would you say you affect the health of the Carson River Watershed's environment?



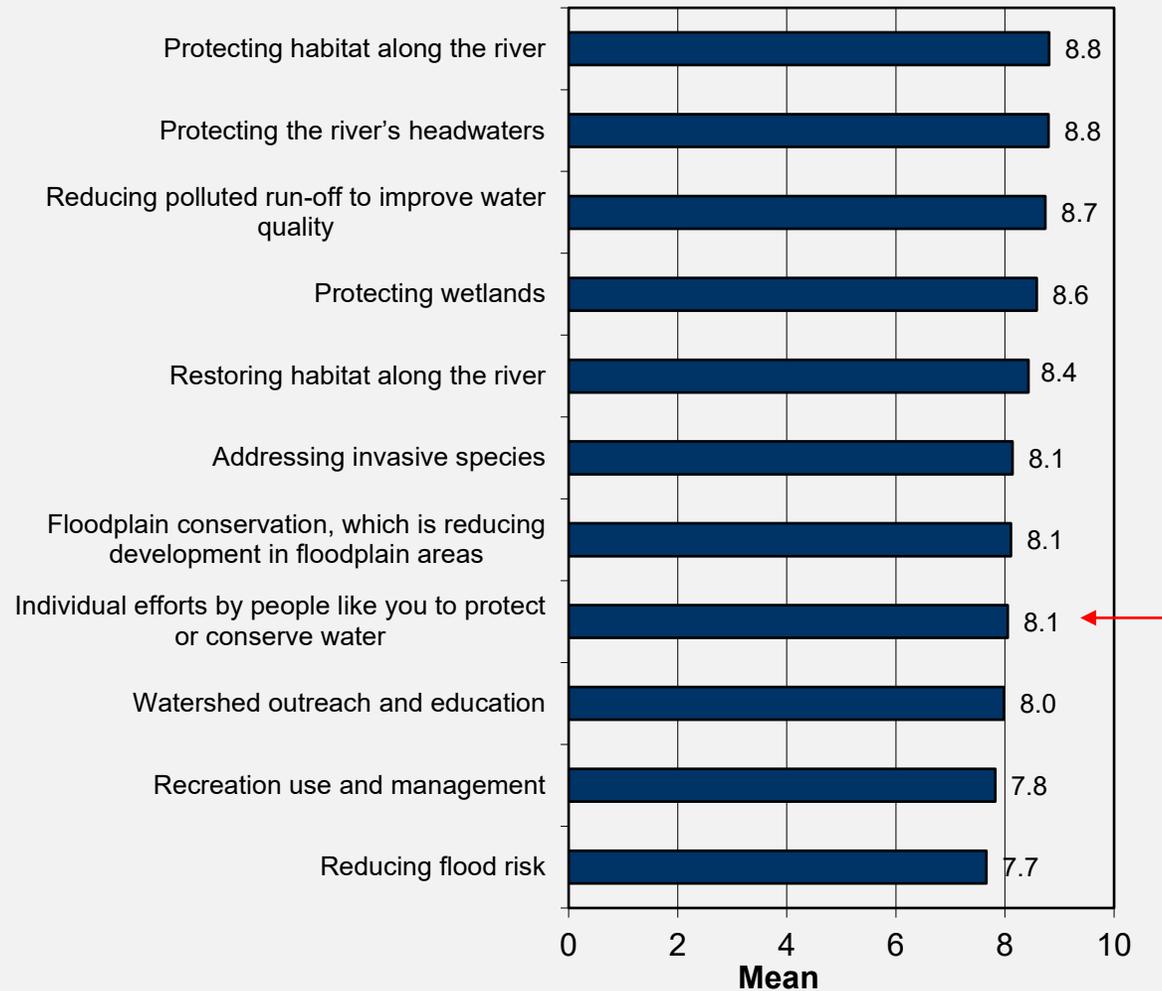
Challenge: Convincing more people that they affect the health of the Carson River Watershed.

Just over a quarter of residents believe they do not affect the health of the watershed at all.

Another 42% think they only affect it a little.

Factors Affecting the Health of the Carson River Watershed

Please tell me how important you think each of the following is to the health of the Carson River Watershed's environment, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.

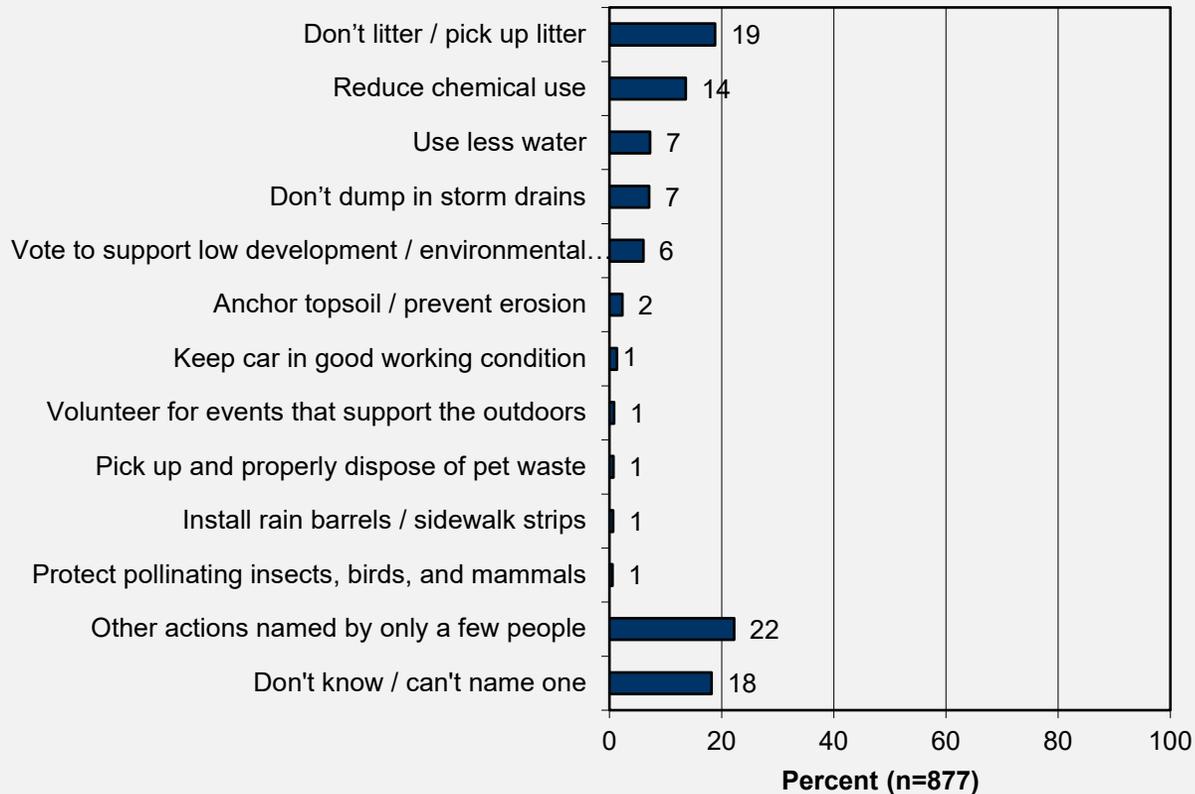


Challenge: Getting more people to understand that their individual efforts to protect or conserve water are important to the health of the Carson River Watershed.

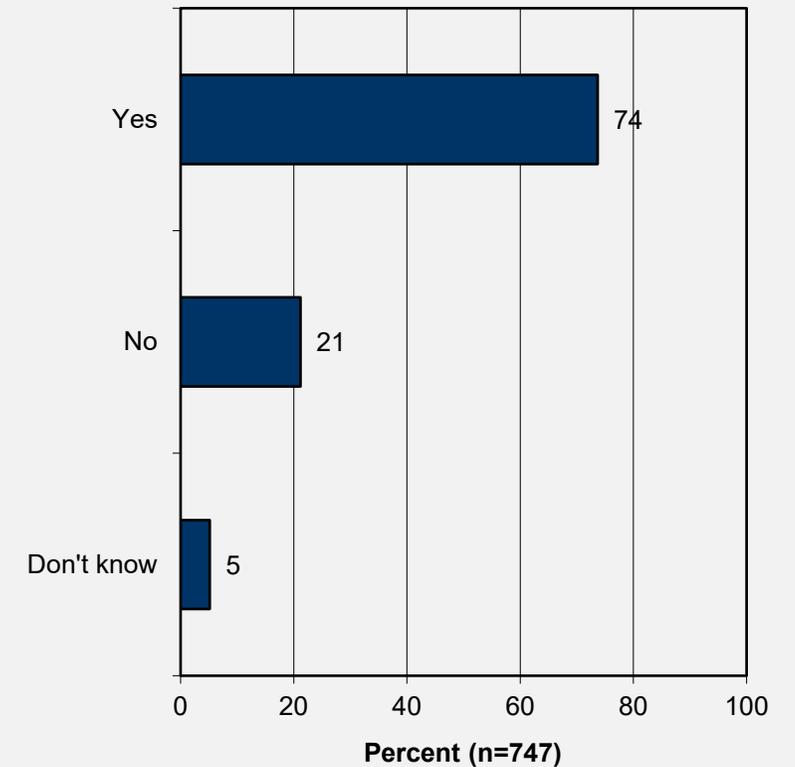
Activities That Contribute to Water Health

Win: Many people are currently taking action to improve the health of the watershed.

In your opinion, what is the single most important action you can take to help protect or improve the health of the Carson River and the watershed's environment?

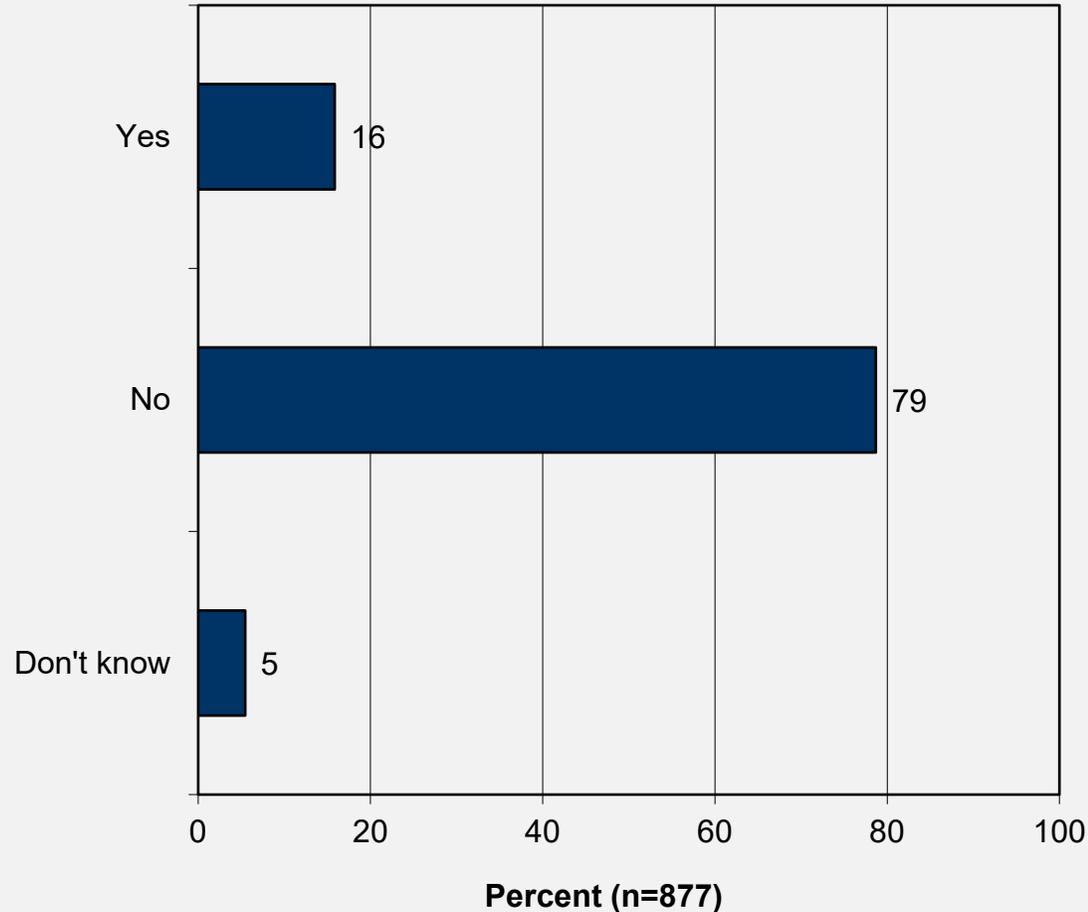


Are you currently taking this action?
(Among those who named an action.)



Awareness of Conservation Messages and Ads

In the past 5 years, did you see or hear any ads or messages about the Carson River Watershed with the tagline, "Your Actions Matter," asking you to take specific actions to help protect water quality?



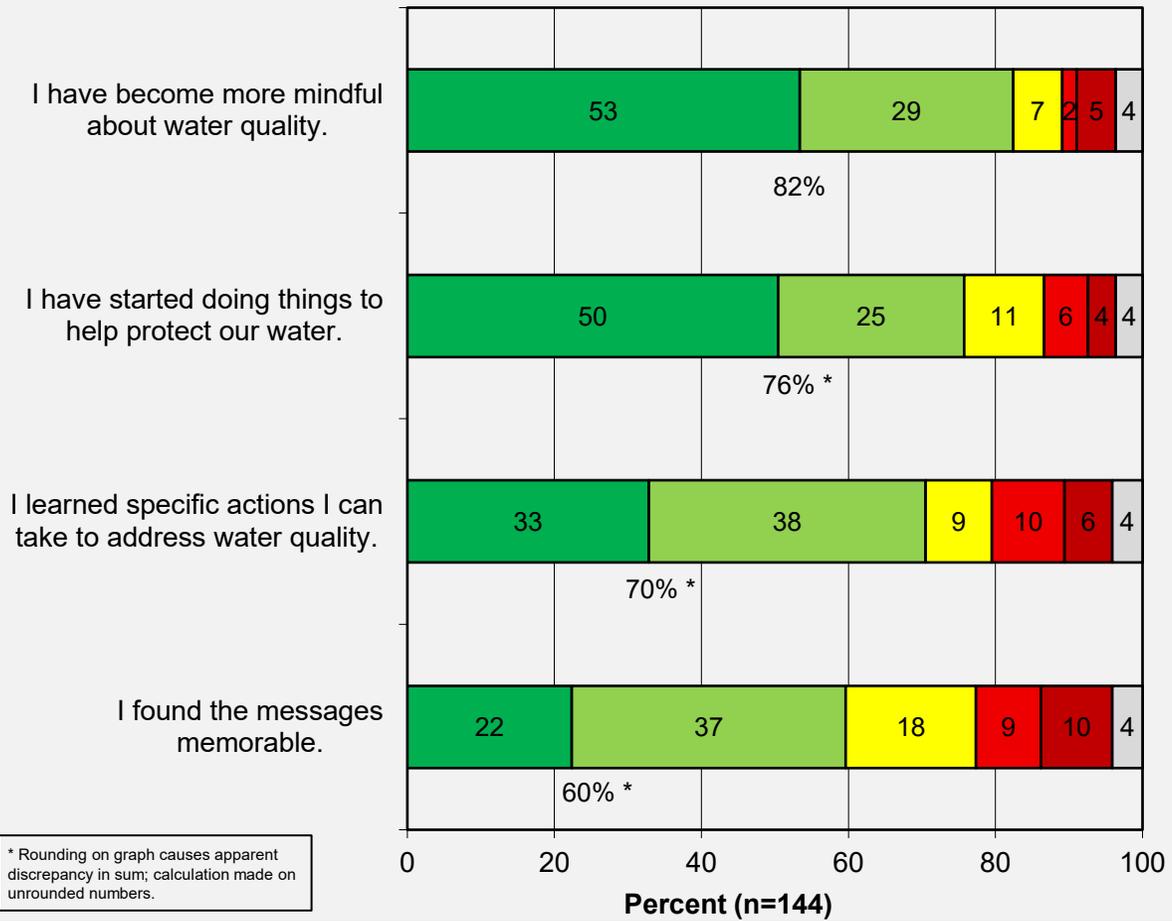
Overall, 16% of residents saw or heard ads or messages about the Carson River Watershed with the tagline, "Your Actions Matter," in the past 5 years.

Those who indicated knowing that they live in a watershed were more likely to have seen or heard the messaging.

Comparison: With a budget of more than \$1.5 million, the Michigan Wildlife Council's marketing and media efforts resulted in 11% of Michigan residents recalling a message or ad from the Council in the past 6 months.

Thinking about the ads and messages and how they may or may not have influenced you personally, please tell me whether you agree or disagree with each of the following statements.
(Among those who saw or heard a message in the past 5 years.)

■ Strongly agree
 ■ Moderately agree
 ■ Neither
 ■ Moderately disagree
 ■ Strongly disagree
 ■ Don't know



* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

Win: Among those who had seen/heard messages, 82% agree that they have become more mindful about water quality, and 76% say that they have started doing things to help protect water.

Actions That Residents Are Taking to Improve the Carson River Watershed's Environment

Win: Substantial percentages of residents are taking positive actions.

Challenge: While very few people dispose of motor oil down the storm drain, more than a third wash their car in their driveway.

Positive Actions			
	Percent Who Could Take the Action	Percent Who Could Take Action Who Took Action	Percent of All
Picked up litter	100.0	95.4	95.4
Reduced noxious/invasive weeds	79.7	87.4	69.7
Picked up pet's waste	70.9	95.0	67.4
Reduced pesticide/herbicide use	79.7	74.4	59.3
Reduced fertilizer use	79.8	74.0	59.1
Changed landscape for water	79.8	42.9	34.3
Redirected downspouts	79.8	37.9	30.3

Negative Actions			
	Percent Who Could Take the Action	Percent Who Could Take Action Who Took Action	Percent of All
Washed car in driveway	89	44	39
Disposed oil down storm drain	89	2	2

Trends and Grading

Grading System:

Question	Baseline Result (2015)	Goal	Current Result (2026)
1. Do you currently live in a watershed? Yes No [Percentage who responded "Yes"]	38%	48% (A) 43% (B) 41% (C) 38% (D)	35%
2. How important to you, personally, is the health of the Carson River Watershed's environment? 0 to 10 scale [Mean rating]	8.27	9.00 (A) 8.75 (B) 8.52 (C) 8.27 (D)	8.52
3. How much would you say you affect the health of the Carson River Watershed's environment? A great deal A moderate amount A little Not at all [Percentage who responded "A great deal"]	7%	17% (A) 12% (B) 10% (C) 7% (D)	7%
4. Reducing polluted run-off to improve water quality. (How important do you think this is to the health of the Carson River Watershed's environment?) 0 to 10 scale [Percentage rating it "9" or "10"]	71%	81% (A) 76% (B) 74% (C) 71% (D)	66%
5. Protecting habitat along the river. (How important do you think this is to the health of the Carson River Watershed's environment?) 0 to 10 scale [Percentage rating it "9" or "10"]	56%	66% (A) 61% (B) 59% (C) 56% (D)	65%
6. Addressing invasive species. (How important do you think this is to the health of the Carson River Watershed's environment?) 0 to 10 scale [Percentage rating it "9" or "10"]	49%	59% (A) 54% (B) 52% (C) 49% (D)	50%

Question	Baseline Result (2015)	Goal	Current Result (2026)
7. Reduced fertilizer use. (How often have you done this in the past 5 years?) Always / Frequently / Sometimes / Rarely / Never [Percentage reporting that they did this.]	63%	73% (A) 68% (B) 65% (C) 63% (D)	74%
8. Picked up your pet's waste. (How often have you done this in the past 5 years?) Always / Frequently / Sometimes / Rarely / Never [Percentage reporting that they did this.]	87%	97% (A) 92% (B) 89% (C) 87% (D)	95%
9. Washed your car in your driveway. (How often have you done this in the past 5 years?) Always / Frequently / Sometimes / Rarely / Never [Percentage reporting that they did this.]	41%	31% (A) 36% (B) 39% (C) 41% (D)	44%
10. Disposed of oil down the storm drain. (How often have you done this in the past 5 years?) Always / Frequently / Sometimes / Rarely / Never [Percentage reporting that they did this.]	2%	1% (A) NA (B) NA (C) 2% (D)	2%
11. [HISPANIC/LATINO GRADING] Disposed of oil down the storm drain. (How often have you done this in the past 5 years?) Always / Frequently / Sometimes / Rarely / Never [Percentage reporting that they did this.]	7%	3% (A) 5% (B) 6% (C) 7% (D)	4%

Wins Since 2015:

- The importance residents give to floodplain conservation, recreation use and management, protection of habitat along the river, and addressing invasive species have all increased since 2015.
- Ratings of the importance of the health of the Carson River Watershed increased from 8.27 to 8.52 (scale of 0 to 10).
- More pet owners today pick up their pet's waste compared to pet owners in 2015 survey (87% in 2015, 95% today).
- More lawn owners today have reduced noxious/invasive weeds on their property (70% in 2015; 87% today).
- Reducing fertilizer use among those with a lawn went from 63% in 2015 to 74% today.

Overall Trend Grades:

Question	Letter Grade
1. Do you currently live in a watershed?	F
2. How important to you, personally, is the health of the Carson River Watershed's environment?	C *
3. How much would you say you affect the health of the Carson River Watershed's environment?	D
4. Reducing polluted run-off to improve water quality. (How important do you think this is to the health of the Carson River Watershed's environment?)	F
5. Protecting habitat along the river. (How important do you think this is to the health of the Carson River Watershed's environment?)	B *
6. Addressing invasive species. (How important do you think this is to the health of the Carson River Watershed's environment?)	D
7. Reduced fertilizer use. (How often have you done this in the past 5 years?)	A *
8. Picked up your pet's waste. (How often have you done this in the past 5 years?)	B *
9. Washed your car in your driveway. (How often have you done this in the past 5 years?)	F
10. Disposed of oil down the storm drain. (How often have you done this in the past 5 years?)	D
11. [HISPANIC/LATINO GRADING] Disposed of oil down the storm drain. (How often have you done this in the past 5 years?)	B
Grade Point Average	C
Grade Point Average without item 10	C

* Indicates that the change resulting in the given grade was statistically significant.

A scenic landscape featuring a river winding through a valley. The river is surrounded by dense evergreen forests and lush greenery. In the background, there are mountains under a clear blue sky. The overall scene is bright and natural.

Questions?

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