

Water Quality in Clear Lake Outreach Perspectives Project

Polling and Focus Groups –
Summary & Recommendations



LAKE COUNTY
WATERSHED
PROTECTION DISTRICT

2021-2022 Awarded Project for The Blue
Ribbon Committee
*Pawan Upadhyay (Lake County Water
Resources)*



SCI Consulting Group

4745 Mangles Boulevard • Fairfield, California 94534 • Tel: 707.430.4300 • Fax: 707.430.4319



Agenda Overview

Receive Focus Groups
Summary

Receive Mailed Survey
Results

Findings &
Recommended Next
Steps



Outreach Perspectives Project – To Date

May 24 –
Sept 24

- Focus groups held with feedback from SES, Clean Water Management Council, and Clear Lake Integrated Science Symposium

May 25 –
August 2025

- Mailed Survey

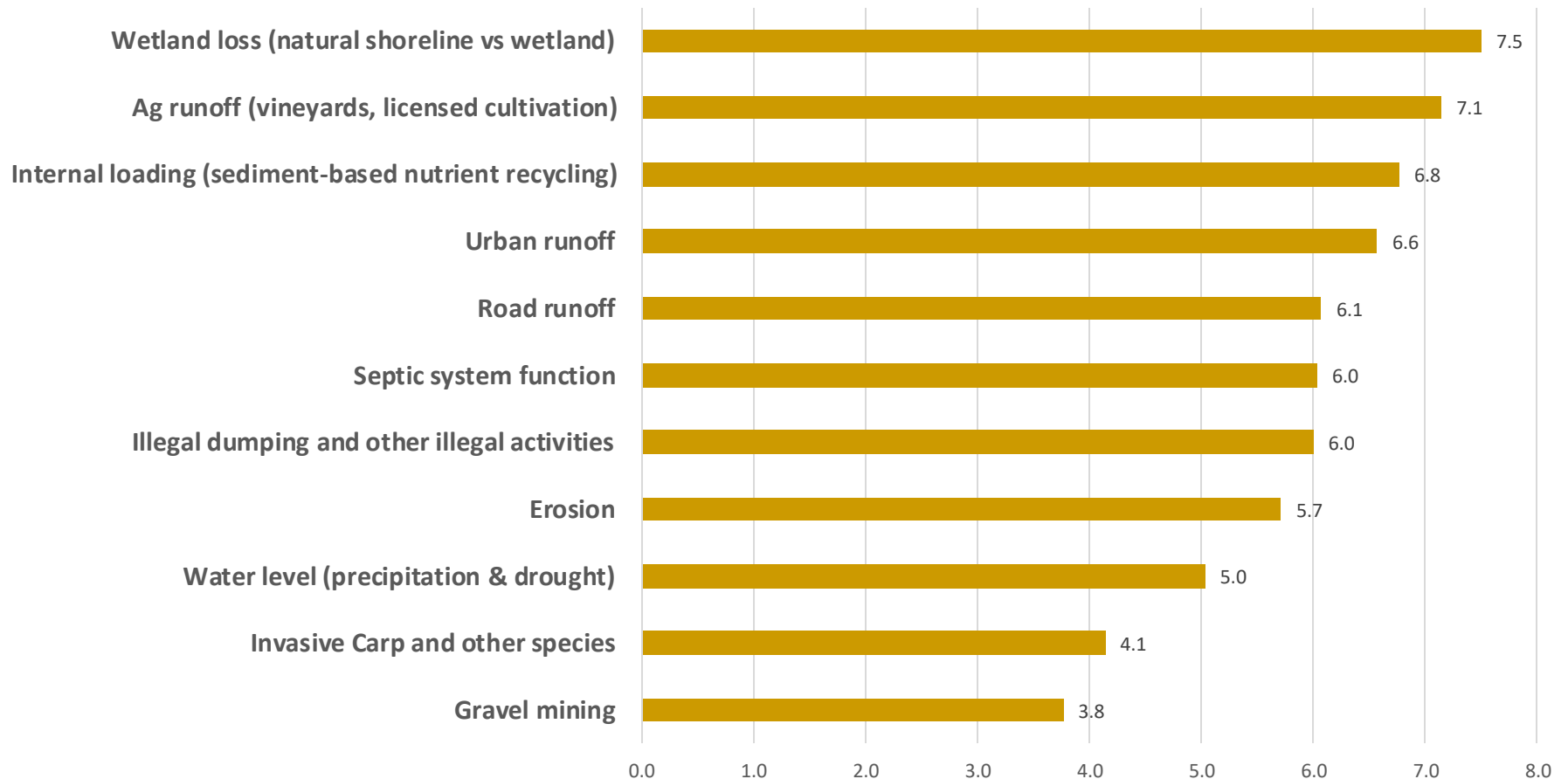
Today

- Results of Outreach Perspectives – findings & recommended next steps

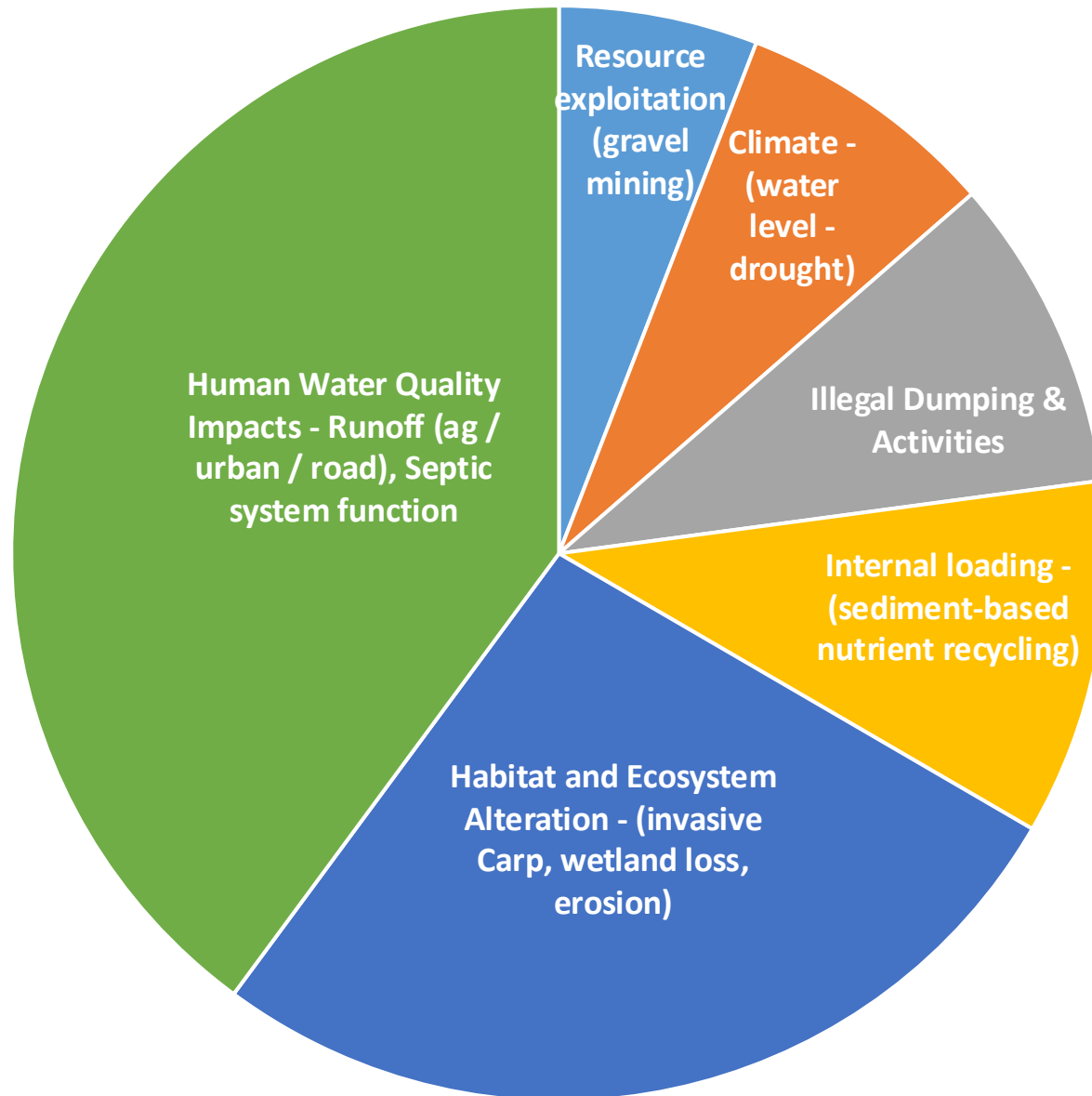


Focus Groups – Perceived causes of water quality issues

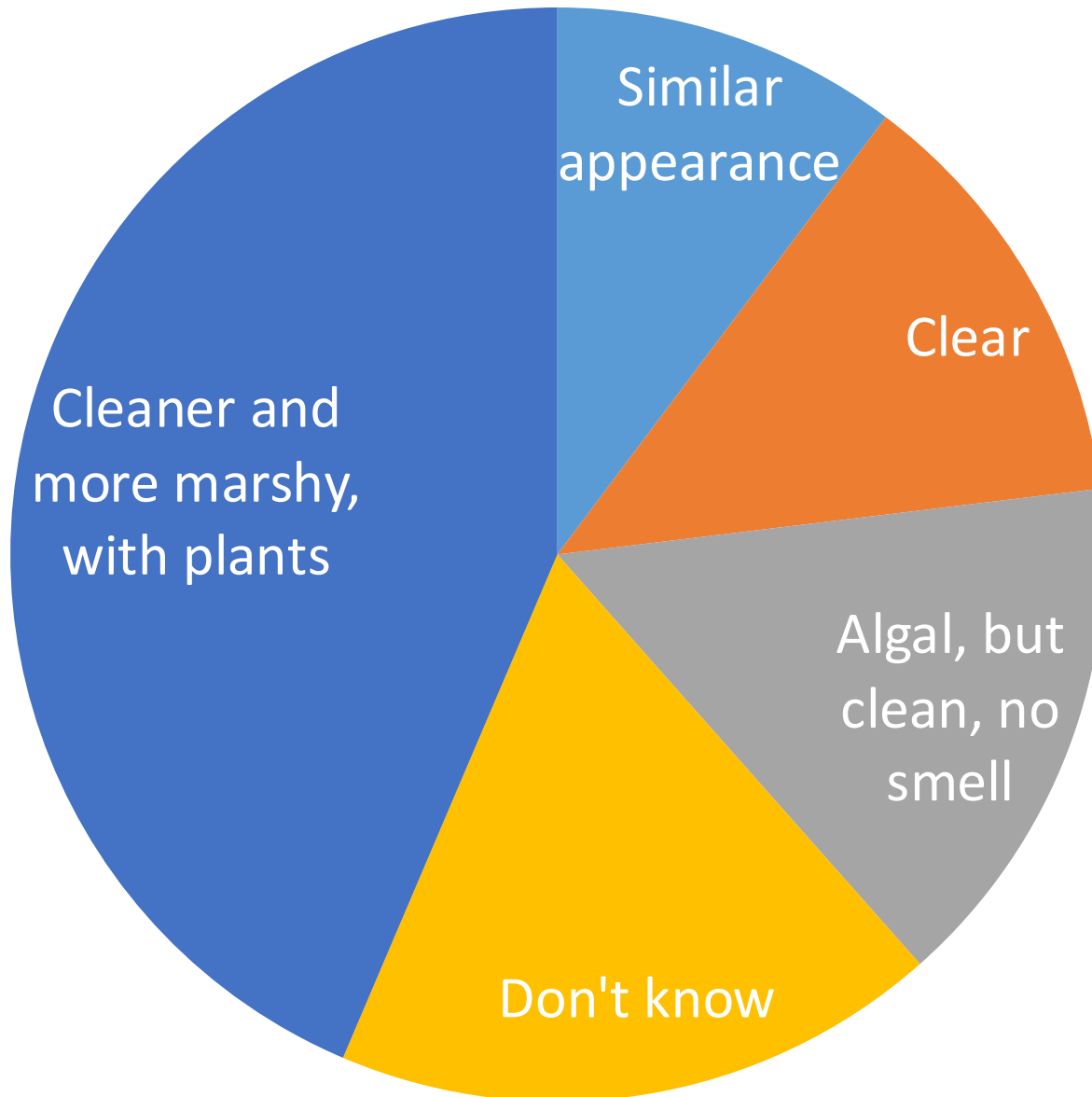
What do you believe is the most influential driver of reduced water quality in Clear Lake?



Focus Groups: Water quality drivers - grouped



Focus Groups: Clear Lake's Appearance 2 Centuries Ago



What did Clear Lake look like in the year 1824, 2 centuries ago? What does a pre-development Clear Lake look like?

For perspective, Clear Lake is one-half million to 2.5 million years old, post-colonial development began in 1850 when cattle farming began in the region.

CLEAR LAKE ENHANCEMENT WATER QUALITY, STORMWATER & FLOOD PROTECTION INITIATIVE



LAKE COUNTY
WATERSHED
PROTECTION DISTRICT

Why Am I Receiving This Survey?

Public health, Clear Lake's water quality, and flood protection are important to Lake County residents. The Lake County Watershed Protection District is responsible for managing water resources, flood control, and environmental protection. Established in 1951, the District oversees flood prevention, stormwater management, watershed planning, water quality testing, and invasive species prevention programs. It also maintains key water infrastructure, including levees, creeks, and reservoirs.

As a local property owner, you are receiving this survey because the District is considering proposing a funding measure to help pay for critical needs in managing water quality projects and stormwater facilities. We are seeking input on your priorities for local water resources, public health, flood protection, and environmental sustainability.

Please read the following information, then complete the enclosed survey either by mail or online; and return it by June 9. Your answers are critical in guiding future water management efforts to protect the County and its residents from impacts of local flooding, and safeguarding water quality for future generations.

Long Term Fiscal Sustainability

There is no secure, dedicated funding to maintain, operate, and improve water quality and the stormwater infrastructure in the Clear Lake Watershed. These critical infrastructure needs are funded largely from the County's General Fund, competing with other community priorities such as public safety, roads, and parks, and inconsistent grant funding.

Unreliable grant funding and limited General Fund resources have left water quality projects and stormwater infrastructure improvements drastically underfunded, impacting nutrient runoff, trash, and pollution in Clear Lake and its tributaries. The District spends \$50k - \$250k annually on stormwater operations, but an additional \$1M-\$1.5M is needed for an adequate level of maintenance, small drainage improvements, and deferred repairs to reduce flood risks and protect Clear Lake. A larger investment—over \$50M—is required to upgrade aging infrastructure, replace undersized pipes, and reduce flood risks across the watershed. While long-term solutions are needed, smaller annual investments would help prevent system decline and address immediate concerns and improve the health of Clear Lake.

Stormwater System Deficiencies

• **Aging infrastructure & flooding:** Undersized and deteriorating drains cause localized flooding. Example: In early 2023, Upper Lake's system was overwhelmed, flooding Main Street and requiring 60 hours of pumping to protect homes.

• **Trash pollution:** Trash flowing into streams and Clear Lake degrades our quality of life and negatively impacts water quality and the local economy. Community-led trash reduction efforts are in the early stages of implementation, but there is a significant funding gap between current expenditures and the amount needed to effectively reduce these pollutants.

Visit www.lakecountycalifornia.gov/1126/Watershed-Protection-District



Clear Lake is the oldest lake in North America, dating back 480,000 years. Clear Lake continues to struggle with long lasting impacts of nutrient pollution, mineral and septic runoff, and trash pollution.

Water Quality Challenges



In the summer and fall, mats of toxic cyanobacteria can clog the perimeter of Clear Lake. Residents are often cautioned to avoid these cyanobacteria due to sickness and other severe health effects on people, pets, and livestock caused by the resulting cyanotoxins.



Erosion in tributaries such as Scotts Creek creates increased levels of phosphorus in Clear Lake, aiding in the generation of cyanobacteria.

Potential Solutions

Oxygenation: This approach has been used successfully in other lakes and reservoirs to combat anoxia. Installation of oxygen delivery systems to the deep waters would prevent the release of phosphorus from sediments and reduce the internal nutrient loading that fuels HABs. This method is also being studied for its potential to reduce mercury levels in Clear Lake fish.

Erosion reduction: Restoration of watershed ecosystems to restore the natural shape and stability of stream channels would reduce the sediment flow and transport of HAB-causing nutrients into Clear Lake. Restoration of the natural shape and stability of stream channels, reinforcing stream banks with revegetation plantings, and further erosion management practices would reduce nutrient loading and HABs in Clear Lake in the short and long term.

Storm drains and trash reduction: Increased maintenance of storm drains and community-led solutions such as educational awareness programs and creek cleanup events would limit the flow of urban pollutants into Clear Lake.



Trash pollution in streams and Clear Lake degrades water quality, harms ecosystems, and impacts the local economy. Limited funding and resources hinder efforts to reduce these pollutants.

OFFICIAL SURVEY - Lake County Watershed Protection District



Clear Lake Enhancement, Water Quality, Storm Water & Flood Protection Initiative

This survey has been mailed to a random sample of property and business owners in the Lake County Watershed Protection District to gather information and input. This information will help the District make decisions about funding for future water resources management activities. You may take the survey online or mail the completed survey below in the postage-prepaid return envelope provided. Please return it by June 9, 2025.

SENDER: PLTNMBR SACKNUMBER PACKNUMBER OEL
NAME
COMPANY
ADDRESS2
ADDRESS1
CITY STATE ZIP



Survey Instructions:

- 1) Read each question listed below.
- 2) Fill in the circle for your response. Please use a pen and completely fill in the circle.
- 3) Detach the bottom portion of this sheet containing your answers.
- 4) Place the bottom portion of this sheet in the return envelope and mail (no postage needed).

Detach Here

Fill in Lower Portion, Detach at this Line, and Mail Back in Return Envelope

Detach Here

To complete this survey online please do one of the following:

- visit www.inputlocal.com, enter: SURVEY NAME "CLEARLAKE", SURVEY CODE ownerid, or
- scan the QR CODE on the right with your phone's camera app and follow the instructions.

Property and business owners within Lake County may be asked to vote on a local ballot measure as follows. Please indicate your level of support.

1. In order to protect properties from flood damage, reduce flooding of streets, prevent pollution of Clear Lake and our creeks and streams, minimize nutrient runoff into Clear Lake, and ensure clean water for drinking and recreation:

- Maintaining, cleaning, repairing, rehabilitating and operating our storm drains and stormwater infrastructure;
- Keeping trash and other pollutants from flowing into Clear lake where it can harm habitat and interfere with recreation;
- Restoring Clear Lake by managing vegetation growth, erosion, and other water quality issues;

would you support an annual assessment on each property(ies)* in the amount of total amt.?

Definitely YES ☐ **Probably YES** ☐ **Probably NO** ☐ **Definitely NO** ☐

*Assessment amount listed is the proposed total combined annual amount for all properties you own.

Now, please read the following statements regarding the proposed Clear Lake Enhancement and Water Quality Initiative ballot measure. For each statement, please indicate whether they make you more or less likely to support the measure:

	Much More Likely	Somewhat More Likely	No Impact	Somewhat Less Likely	Much Less Likely
2. This measure would help protect Lake County from local street and property flooding by properly maintaining, operating, and rehabilitating its aging storm drainage infrastructure	☐	☐	☐	☐	☐
3. This measure would help pay for the infrastructure and operations to remove trash and pollution before it enters Clear Lake and our local creeks and streams	☐	☐	☐	☐	☐
4. This measure would fund the management of sediment, trash, debris, and vegetation to prevent pollution from entering Clear Lake and local creeks and streams	☐	☐	☐	☐	☐
5. The District plans to address its drainage and water quality challenges in ways that are environmentally sustainable, including green infrastructure, to protect Clear Lake	☐	☐	☐	☐	☐
6. This measure would pay for a public awareness campaign promoting the benefits of native plants species and proper septic system installation and maintenance	☐	☐	☐	☐	☐
7. This measure would fund vegetation management activities such as shoreline restoration and planting of native trees	☐	☐	☐	☐	☐
8. This measure would help pay for increased water quality monitoring needed for proper water management.	☐	☐	☐	☐	☐
9. This measure would help pay for oxygenation systems, reducing the frequency of cyanobacteria events.	☐	☐	☐	☐	☐
10. We must reduce human-linked water quality impacts on Clear Lake, such as runoff, septic systems, ecosystem alteration, and resource exploitation, and this measure would help pay for it	☐	☐	☐	☐	☐
11. This measure would help ensure recreation such as swimming, boating, and other water activities would be safe from unwanted vegetation, pollutants, and reduce the number of cyanobacteria	☐	☐	☐	☐	☐
12. This measure would also fund Clear Lake as a recreational amenity that also serves as a drinking water source.	☐	☐	☐	☐	☐
13. Creating a dedicated, reliable and consistent funding source is the best way to ensure clean water and avoid local flooding.	☐	☐	☐	☐	☐

Please use this space to write any reasons why you support or oppose this proposed measure. Also, please describe which issues are most important to you:

To respond online, visit www.inputlocal.com and enter code found on front of survey

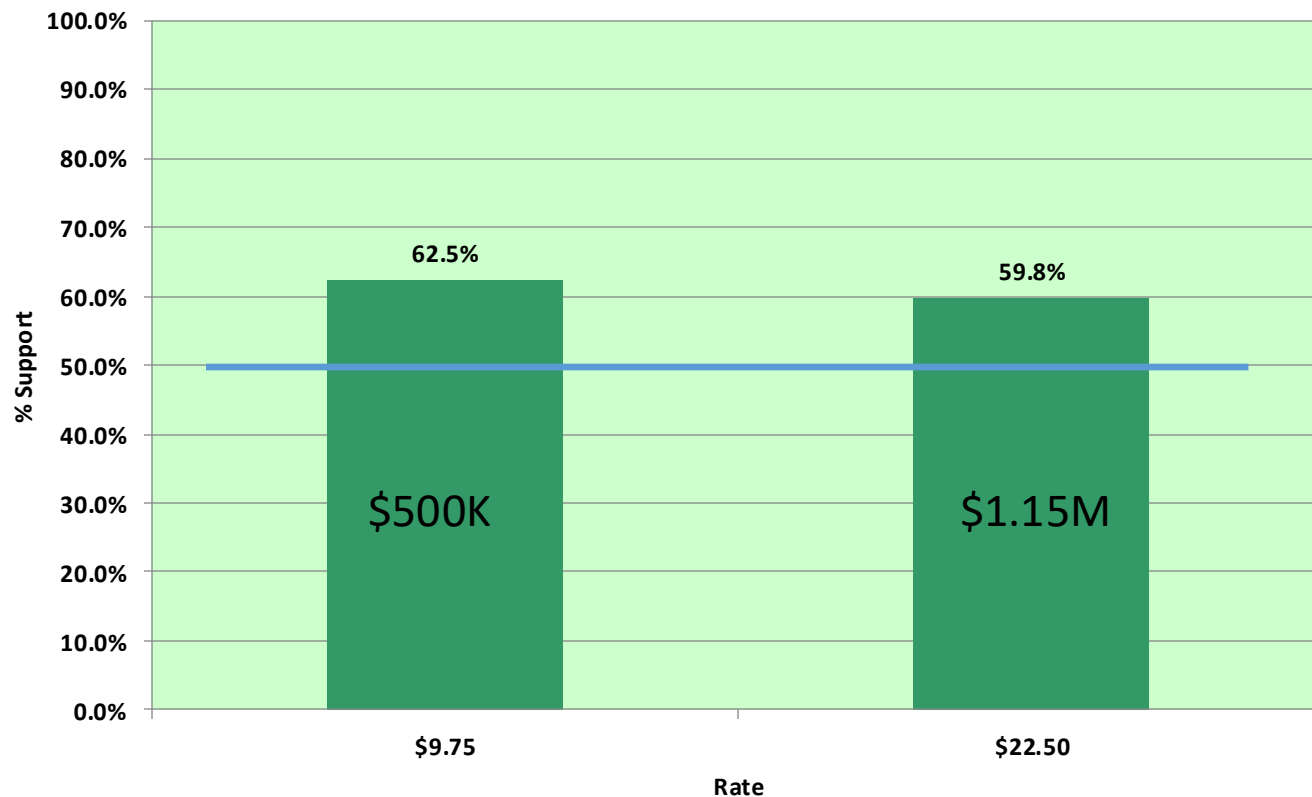
Para español, vea el reverso.

This survey is being conducted by an independent third party on behalf of the District. All information obtained through this process will remain confidential and only shared with the District to aggregate form

Mailed Survey - Results

- 7,100 surveys mailed
- Stratified random sampling of Property Owners
- 2 SFR rates tested: \$9.75 & \$22.50

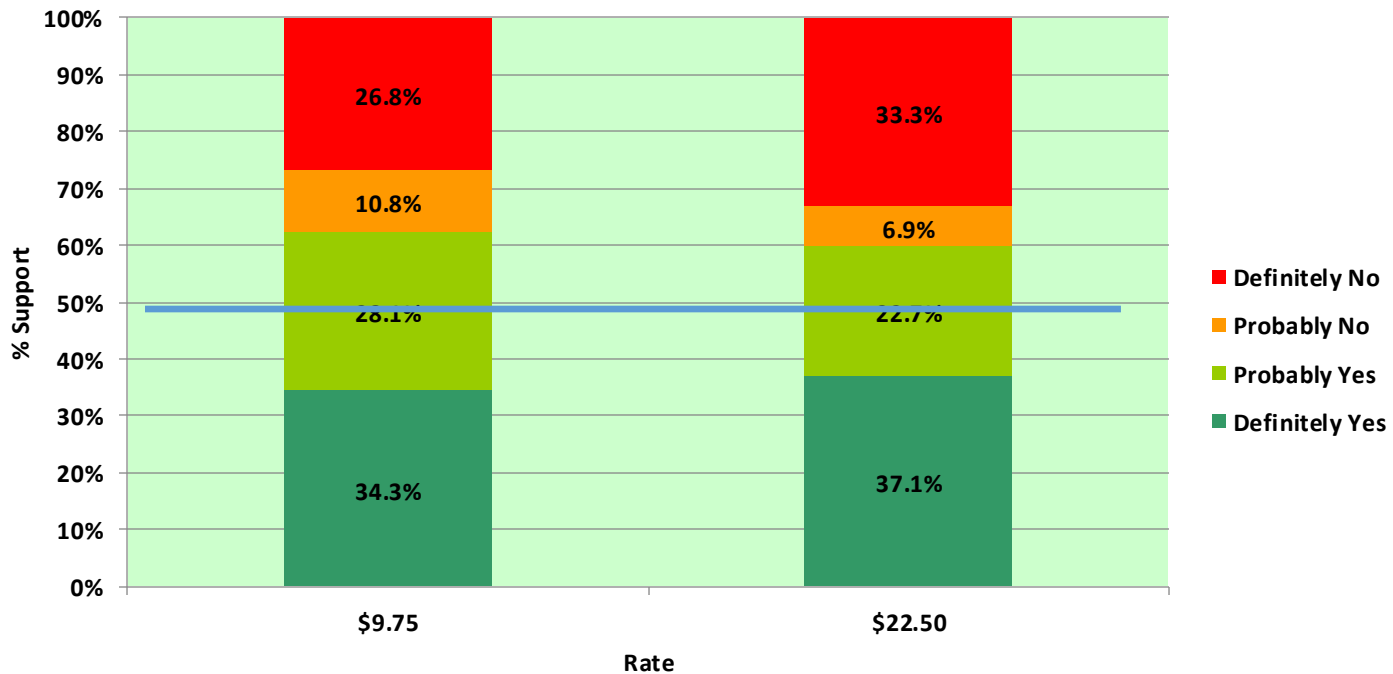
Overall Support by Proposed Rate - Property Related Fee



Mailed Survey – Results cont'd

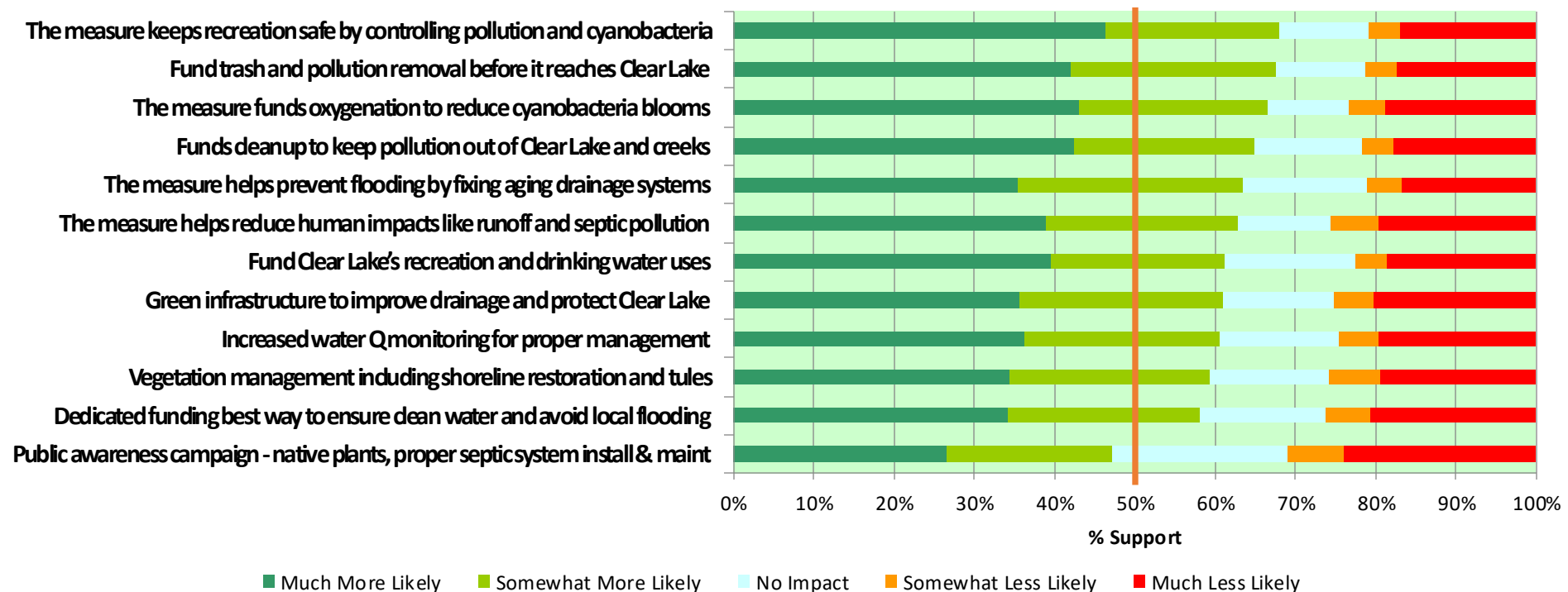
- 809 responses (3.4% margin of error)
- 62.5% support at \$9.75 rate
- 59.8% support at \$22.50 rate

Detailed Overall Support by Proposed Rate - Property Related Fee



Mailed Survey – Community Issues & Priorities

Support by Projects and Issues



Mailed Survey: Write-in comments

Property Owners in Favor of the Assessment

37	Overall Support for the Proposed Assessment
66	Support with Environmental Concerns
12	Comments on Taxes
3	Comments on CPI
22	Transparency / Need more info
140	Total

Property Owners Against the Assessment

67	Taxes & Assessments are already too High
26	Mistrust or Lack of confidence in the District/Government
4	Fixed Income
27	Enforcement/Fee based on use and/or pollution
8	Parcel does not receive benefit from assessments
22	Cost
12	Specific Questions
166	Total



Focus Groups and Mailed Survey: Key Alignments

- Focus groups identified *perceived causes of poor water quality*
- Survey measure *support for solutions*

Issue Area	Focus Group Concern	Survey Message	Support Level
Runoff & Septic	Biggest water quality concern	Reduce runoff and fix septic systems	Very High
Flooding & Drainage	Related to runoff and local flooding	Maintain drainage systems and ensure funding	Very High
Trash & Pollution	Illegal dumping, debris	Remove trash before it reaches Clear Lake	High
Cyanobacteria Blooms	Nutrient recycling from sediments	Oxygenation systems and safer recreation	High
Ecosystem Health	Invasive species, wetland loss, erosion	Restore shorelines and native plants	Moderate
Climate & Water Levels	Low concern	Not directly addressed	Low / N/A
Education Campaigns	Not emphasized	Promote native plants and septic care	Low

Focus Groups and Mailed Survey: Key Alignments

- Issues BOTH seen as major causes AND that survey messages addressed directly drove the most support:
 - Causes: runoff, septic
 - Solution: reducing human-linked water Q impacts

Narrative Insight

- Focus Group participants *see water Q as human-caused and fixable through maintenance, cleanup, and prevention*
- Survey results confirm that **messages emphasizing practical, visible outcomes** – less flooding, cleaner water, safer recreation – outperform abstract or educational appeals

Outreach Perspectives Project Takeaways

- People support **direct, visible actions** (drainage fixes, trash removal, and bloom control)
- **Runoff and septic issues** are seen as top priorities
- Education and climate topics attract less interest (de-emphasize)
- Frame restoration and education as **supporting clean water goals** (cause & effect to reinforce)

Recommendations

- Community shows support for a property-related Fee at \$22.50
- Proceed with next steps (Benefit Funds Assessment / Funding Options Memorandum phase)



Funding Measure Feasibility

Next Steps

Benefit Funds Assessment

- Potential Revenue Mechanism Implementation

Future – Potential Implementation of Funding Source

- *Fee Study*
- *Balloting*



Questions?



Water Resources Contact:

Pawan Upadhyay Pawan.Upadhyay@lakecountycalifornia.gov

SCI Contacts:

John Bliss john.bliss@sci-cg.com

Chris Coulter chris.coulter@sci-cg.com



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