

# DELTA RESIDENTS SURVEY

Summary of Results  
October 2023

## Research Team:

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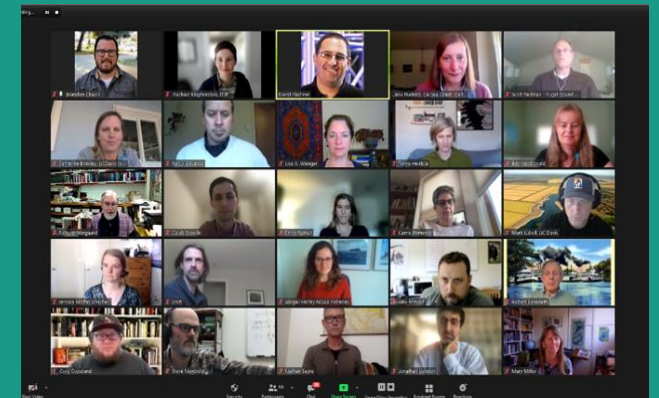
Dr. Julia Tomassilli & Robert Rodriguez – Sacramento State University, Institute for Social Research



# THANK YOU TO OUR PARTNERS

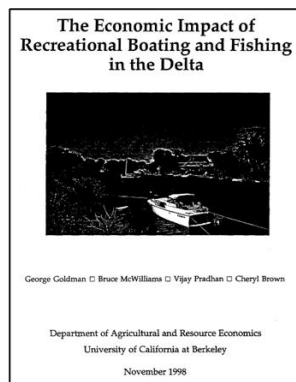
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- Delta residents
- Community organization partners
- Survey advisory group
- Sacramento State Institute for Social Research
- Delta Science Program





## Social Science Task Force recommendation



A collage of three images. The top image shows a large concrete dam in a lush green landscape with rolling hills and a winding river. The middle image shows three swans on a riverbank; one swan is in the foreground with its wings spread, while two others are behind it. The bottom image shows a river flowing through a town, with a bridge crossing the river and buildings lining the banks.

**PUGET SOUND VITAL SIGNS**

UNDERSTANDING ECOSYSTEM HEALTH

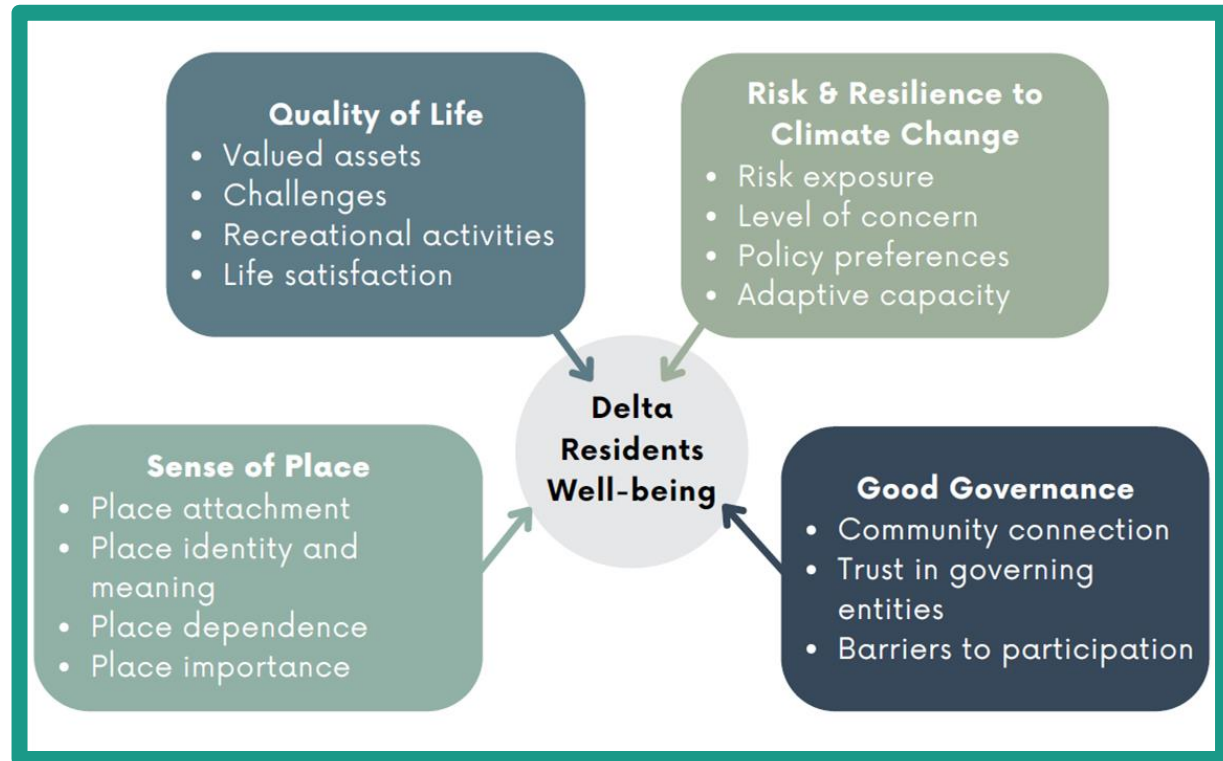
The diagram is a circular infographic with 12 segments, each representing a different vital sign. The segments are arranged in a circle around a central text area. The segments are: 1. Healthy Water Quality (blue/green, image of water), 2. Healthy Human Population (green, image of people), 3. Coastal Wetlands (orange, image of wetlands), 4. Vibrant Urban Quality of Life (orange, image of a city), 5. Thriving Species and Food Web (purple, image of a whale), 6. Healthy Forest (purple, image of a forest), 7. Protected and Restored Habitat (purple, image of a wetland), 8. Air Quality (green, image of a city), 9. Healthy Water Quality (blue/green, image of water), 10. Healthy Human Population (green, image of people), 11. Coastal Wetlands (orange, image of wetlands), 12. Vibrant Urban Quality of Life (orange, image of a city). The central text is 'PUGET SOUND VITAL SIGNS' and 'UNDERSTANDING ECOSYSTEM HEALTH'.

[VIEW CHART](#) [VIEW TABLE](#)

# OBJECTIVES OF DELTA RESIDENTS SURVEY

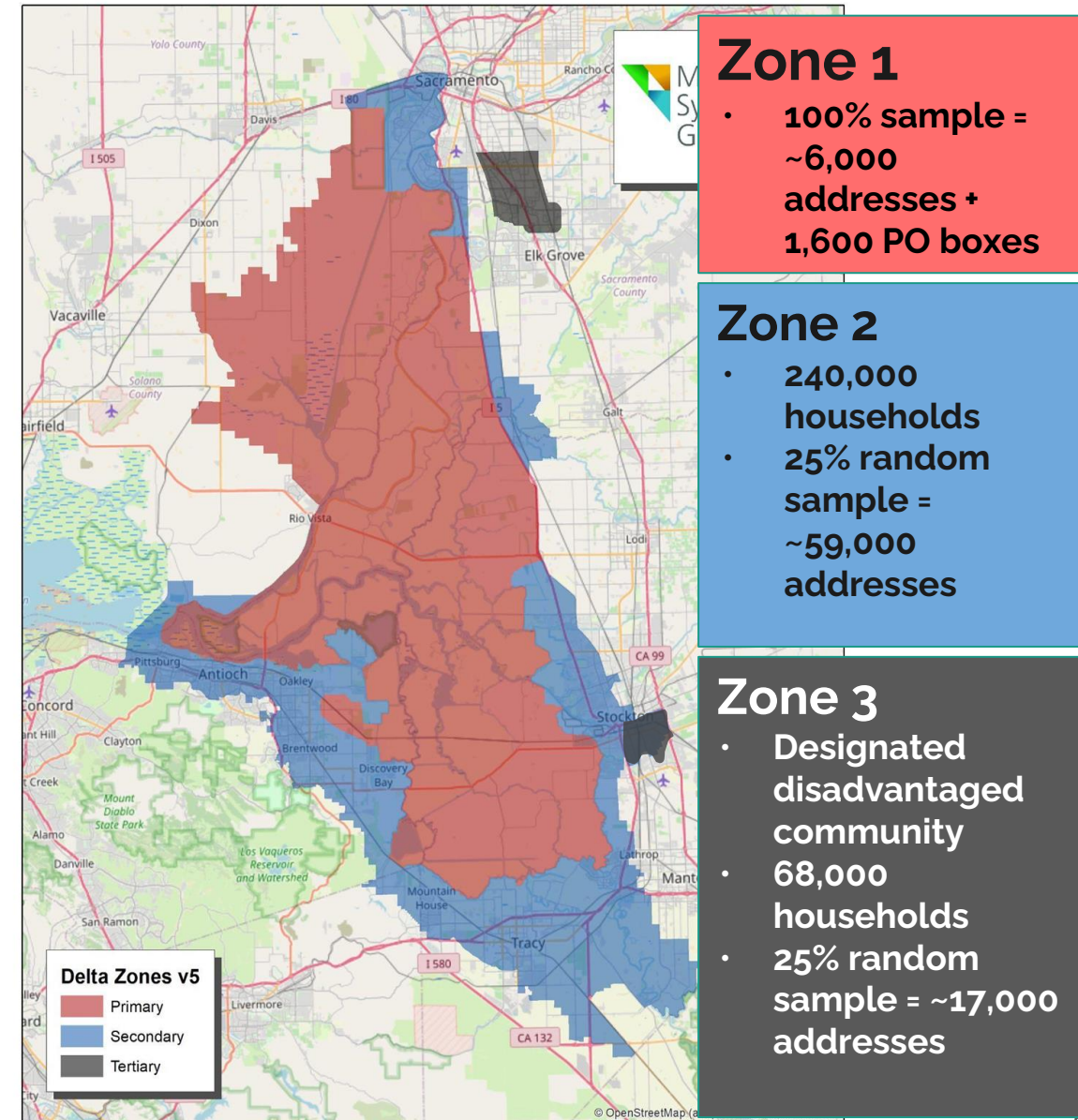
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1. Assess Delta residents subjective well-being
2. Pilot-test survey approach for social indicator monitoring
3. Develop capacity and partnerships for monitoring human well-being and social change over time



# SURVEY APPROACH

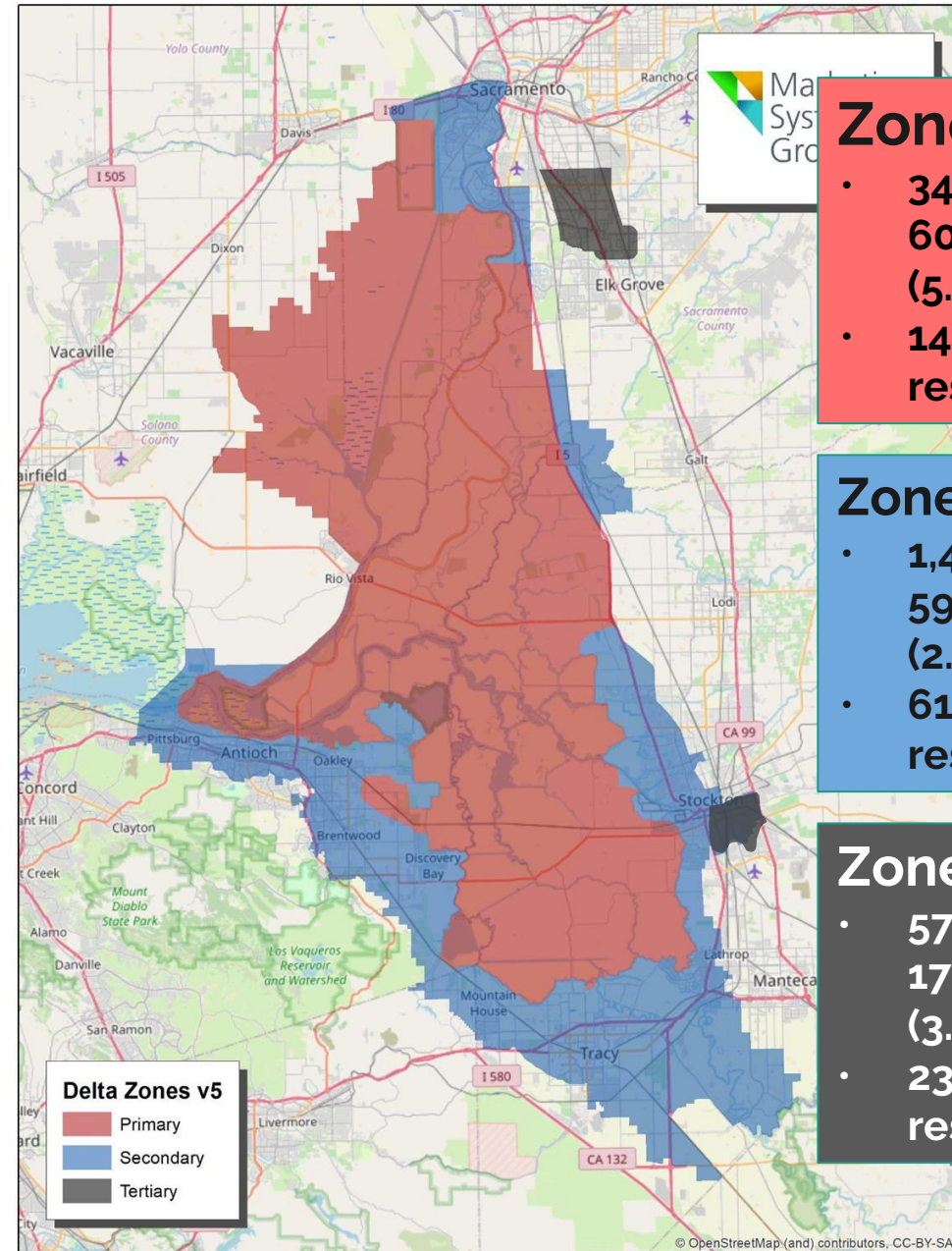
- February - April 2023
- Mailed invitations letters to ~80,000 households
- Random sampling approach to reach more representative sample
- Survey online or hard copy, English & Spanish
- \$5 incentives to participants





# WHO RESPONDED?

**2,208** usable  
responses from  
residents across the  
Delta  
(**2.9% response rate**)



## Zone 1

- 344 responses / 6000 invitations (5.7% RR)
- 14.8% overall respondents

## Zone 2

- 1,462 responses / 59,000 invitations (2.5% RR)
- 61.7% overall respondents

## Zone 3

- 575 responses / 17,000 invitations (3.4% RR)
- 23.5% overall responses

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# WHO ARE THE RESPONDENTS?



- **Gender:** 56% female, 43% male, <1% non-binary
- **Age:** ~50% 50+ years
- **Race & Ethnicity:** 55% White, 22% Hispanic/Latino, 18% Asian or Asian American, 9% Black, 3% Native American, 2% Native Hawaiian or Pacific Islander, 1% other

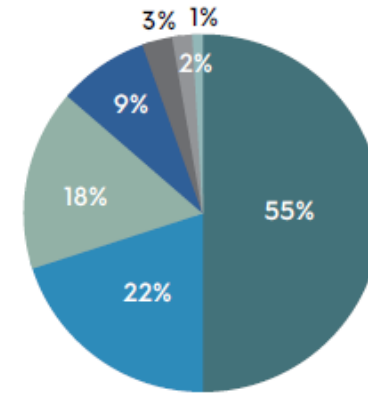
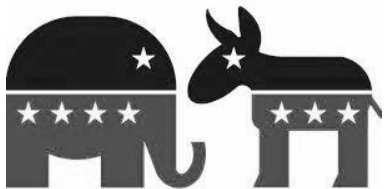
- **Languages spoken:** 93.5% speak English in households, 6.5% report NOT speaking English at home

- **Education:** >55% Bachelor's degree+

- **Income:** 56% make <\$100K in household

- **Home ownership:** 77% own residence

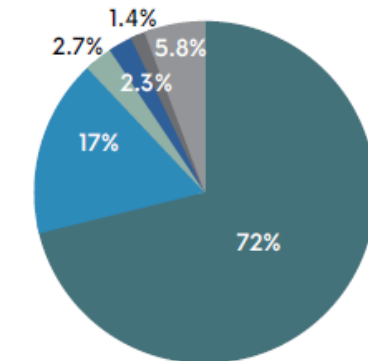
- **Political ideology:** 9% very liberal, 26% liberal, 38% moderate, 15% conservative, 4% very conservative; 8% do not identify with this spectrum



## Race & Ethnicity

Respondents permitted to select all that apply; numbers do not add to 100%.

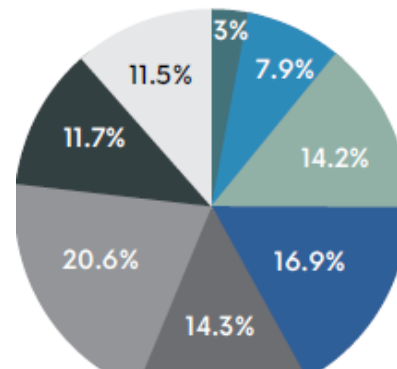
- White
- Hispanic or Latino/a
- Asian or Asian American
- Black or African American
- Native American or Native Alaskan
- Native Hawaiian or Pacific Islander
- Other



## Languages spoken

93.5% of respondents report speaking English in their households; 29% speak an additional language.

- English only
- Spanish
- Chinese
- Tagalog
- Vietnamese
- Other



## Income

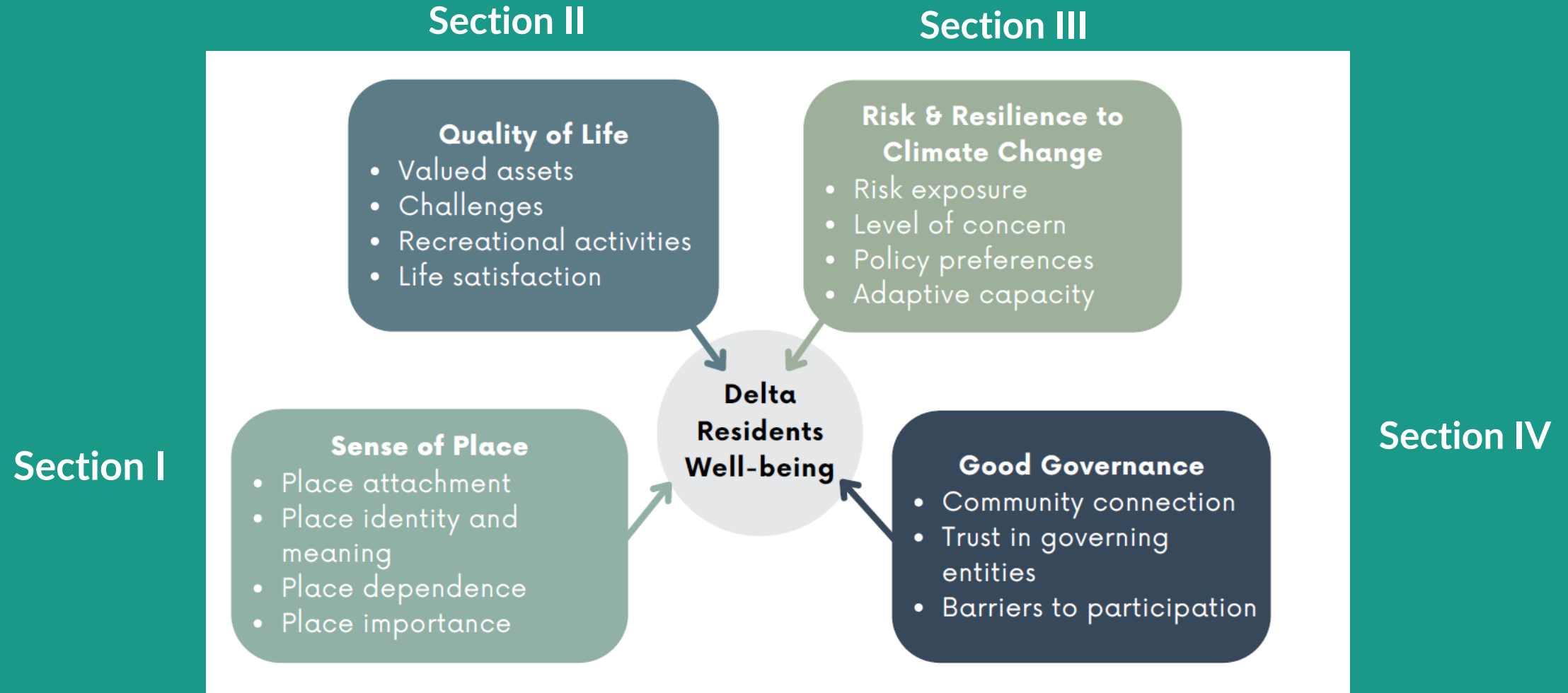
Average income is ~\$105,000.

- Less than \$10,000
- \$10,000-\$24,999
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$149,999
- \$150,000-\$200,000
- Greater than \$200,000



# SURVEY RESULTS

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# SECTION I

## SENSE OF PLACE

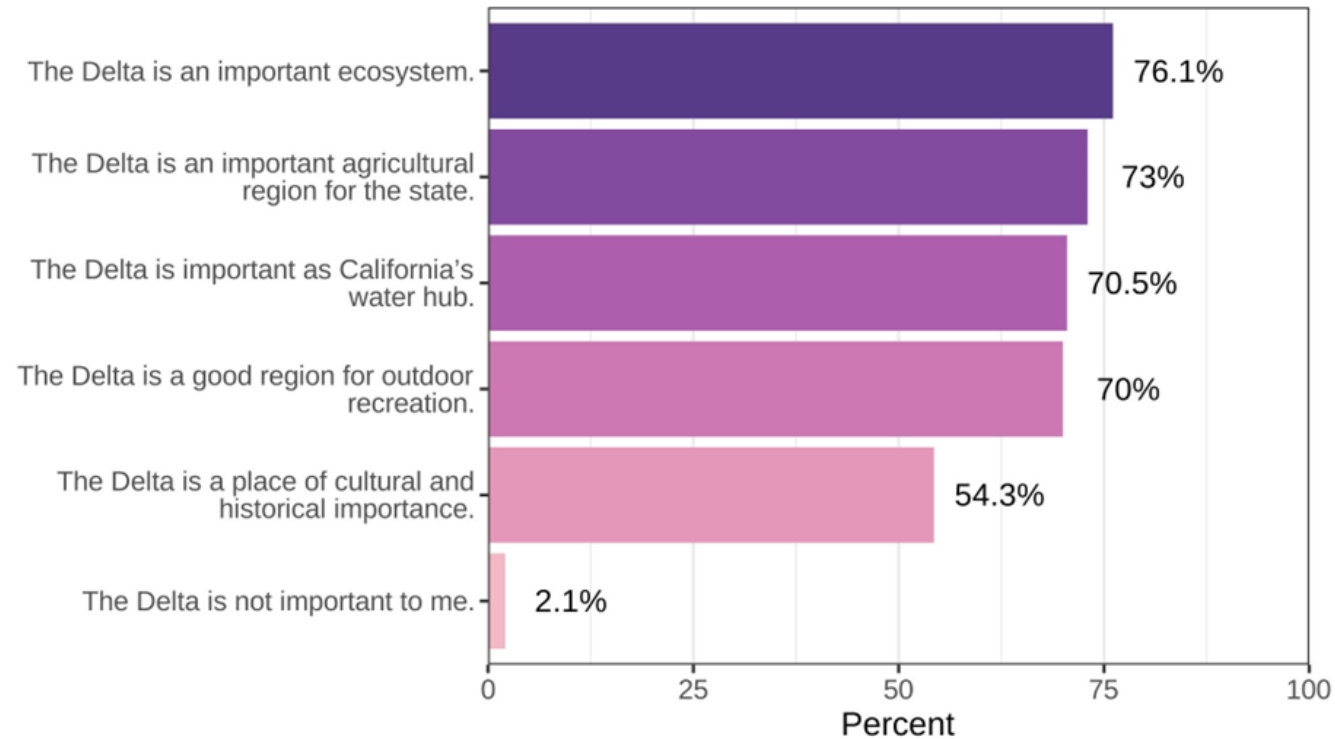
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Discovery Bay neighborhoods  
(Photo credit: CA DWR)

# MAJORITY OF RESPONDENTS AGREE ON MULTIFACETED IMPORTANCE OF DELTA

“Which of the following describe why you feel the Delta is important?”



Q4 prompts users to, "Select all that apply". 2113 survey respondents. Data are weighted.



# SENSE OF PLACE in a resident's voice

“Fairly flat low-lying region with rich agricultural soils and a long, rich history as old as (and older than) the state of California. It is also an economically-challenged area with limited educational and job opportunities with accompanying crime and sociological issues. It is a key nexus for limited critical resources (farmland, water) that many wish to exploit for financial reasons despite the irreversible damage that would be done to this key, mediating ecosystem.”

– Delta resident

# SECTION II QUALITY OF LIFE

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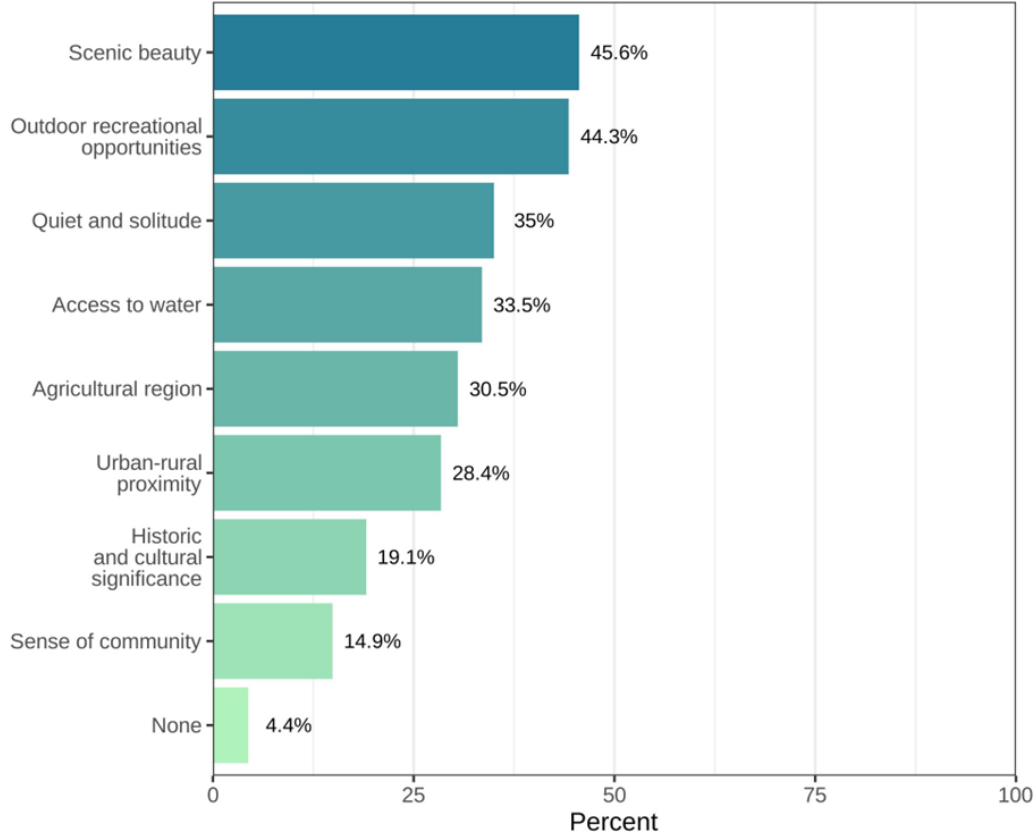


Historic legacy town of Locke  
(Photo credit: J. Rudnick)

# FACTORS INFLUENCING QUALITY OF LIFE VARY HIGHLY

“Which factors, if any, do you value most about living in the Delta?”

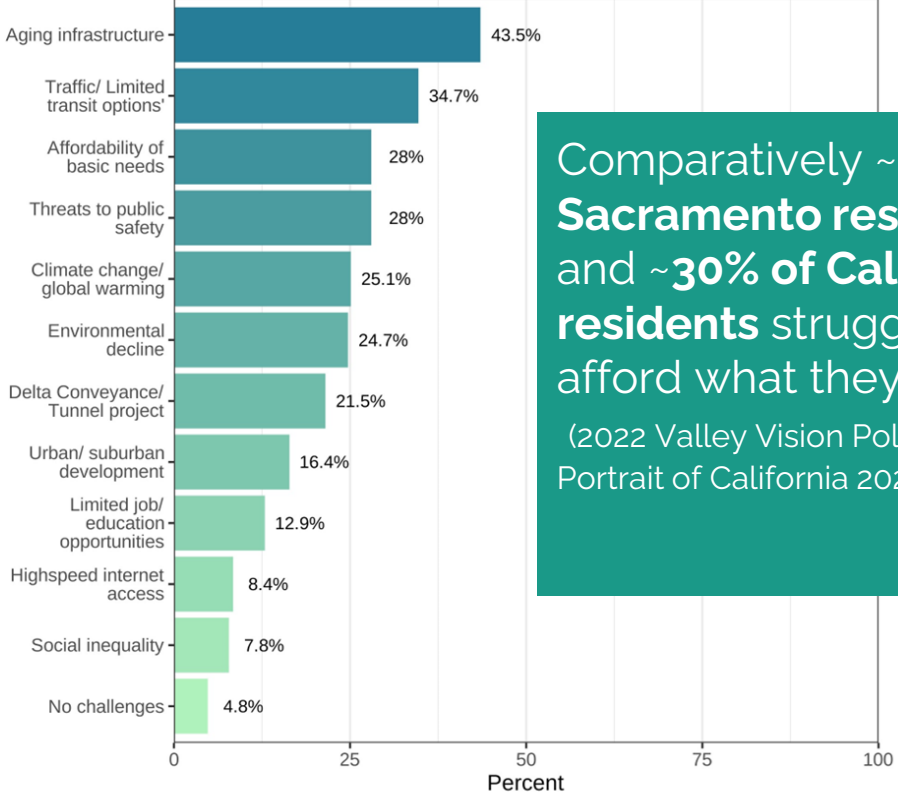
6. Valued assets to Delta life



2171 survey respondents. Question type was "Select up to 3."

“Which factors, if any, present the largest challenges to your well-being living in the Delta?”

7. Challenges to life in Delta



2185 survey respondents. Question type was "Select up to 3."

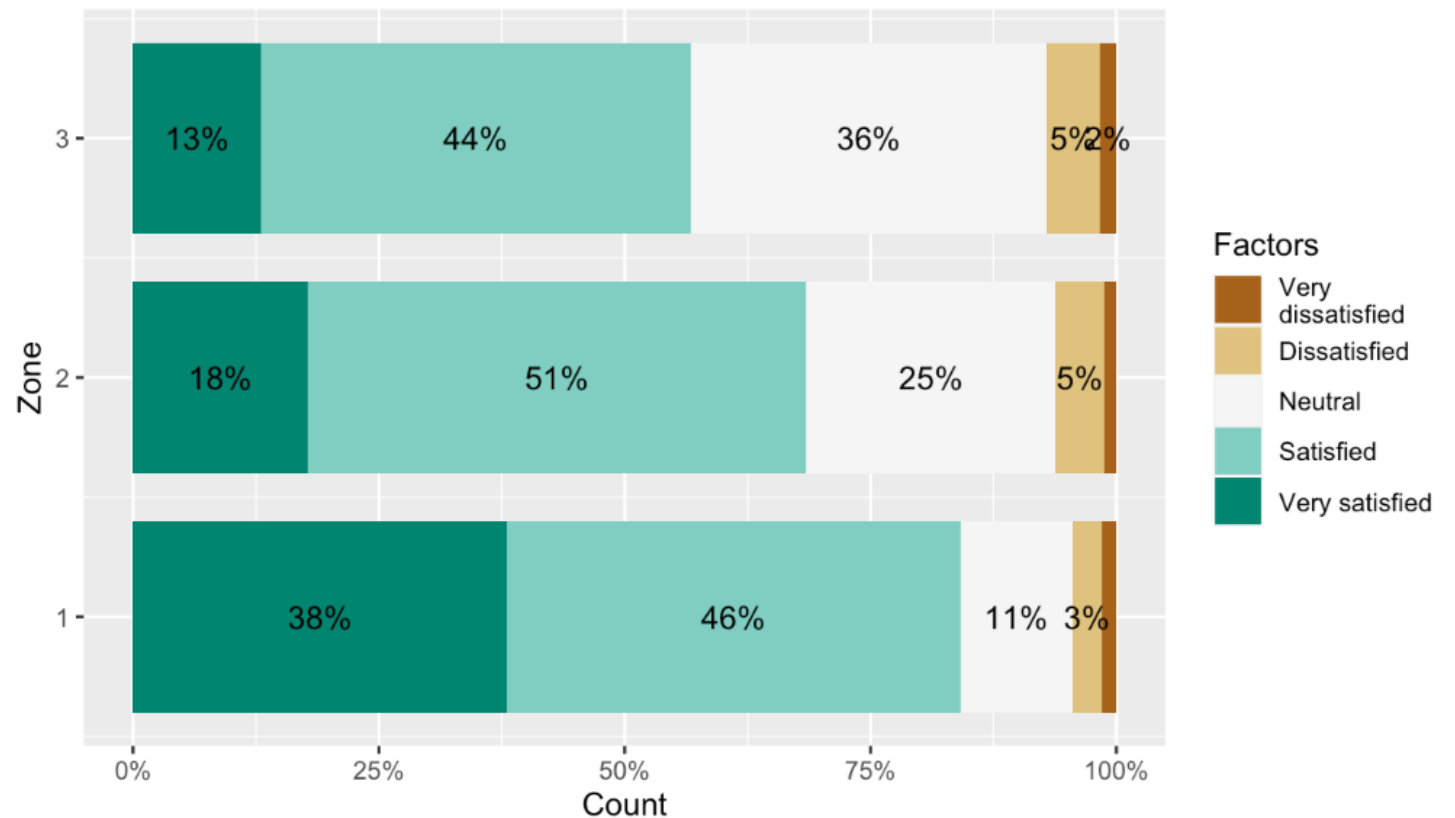
Comparatively ~33% Sacramento residents and ~30% of California residents struggle to afford what they need  
(2022 Valley Vision Poll; A Portrait of California 2021-22)



# MAJORITY SATISFIED WITH QUALITY OF LIFE, THOUGH SATISFACTION LOWER THAN NATIONAL AVERAGE

- Overall, 59% respondents are satisfied or very satisfied with the quality of their life in the Delta, equivalent to average life satisfaction score of 2.4 out of 5
- Significantly higher among White, older, higher income & Zone 1 residents
- Compare to average life satisfaction score of U.S. population 3.5 out of 5

“Rate your overall level of satisfaction with your quality of life in the Delta”



2265 (n) total respondents.  
Respondents by Zone:  
1. n = 334.  
2. n = 1393.  
3. n = 538.

# SECTION III RISK AND RESILIENCE TO ENVIRONMENTAL AND CLIMATE CHANGE

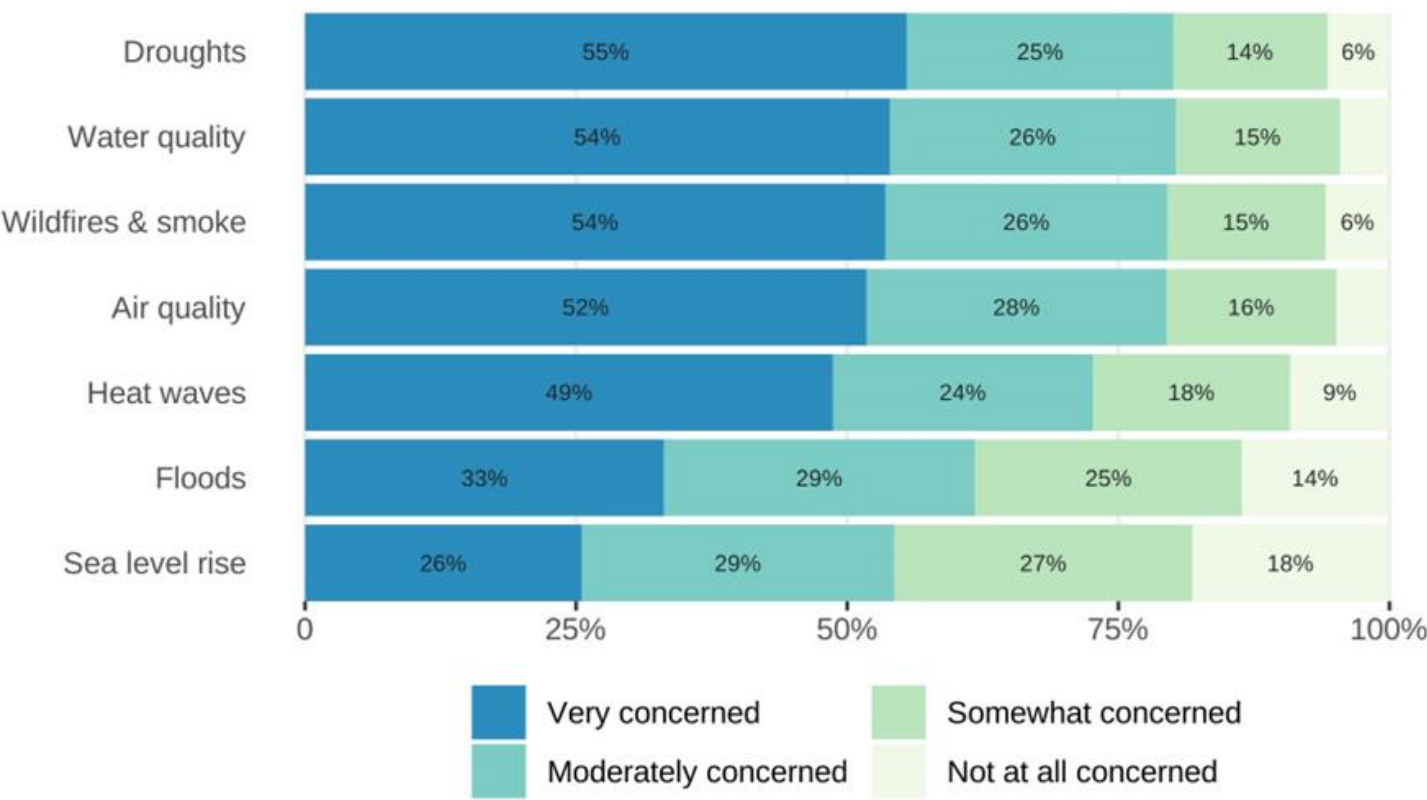
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Salinity barrier installation at West False River  
(Photo credit: CA DWR)

# MAJORITY CONCERNED ABOUT CLIMATE CHANGE THREATS

“How concerned are you about each of the following environmental changes affecting the Delta over the next 25 years?”



2089 survey respondents. Data are weighted.

**>3 out of 4** respondents are concerned about **drought, water quality, wildfire & smoke, air quality**

Overall concern is greater among:

- Women
- Respondents identifying as politically liberal
- Zone 2 & 3 residents

Comparatively **73% of Californians** & **65% US residents** are worried about the effects of global warming

(Yale Climate Change US Poll, 2021)



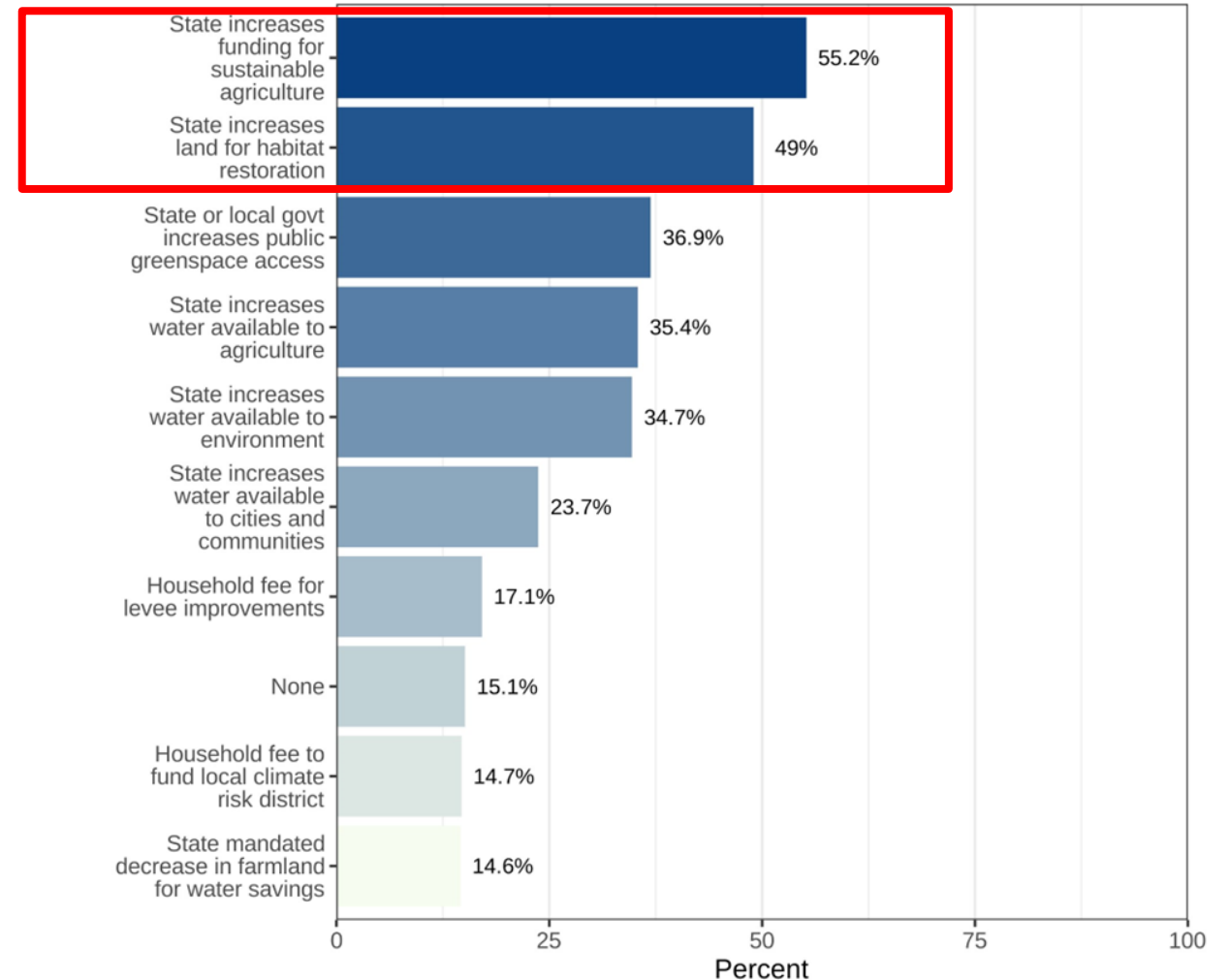
# MAJORITY SUPPORT ADAPTATION ACTIONS ON SUSTAINABLE AGRICULTURE, HABITAT RESTORATION & DROUGHT PREPARATION

Support for nearly all policy approaches higher among:

- Higher education respondents
- Politically liberal respondents

“To prepare for possible environmental and climate change impacts in the Delta, would you support any of the following policy approaches?”

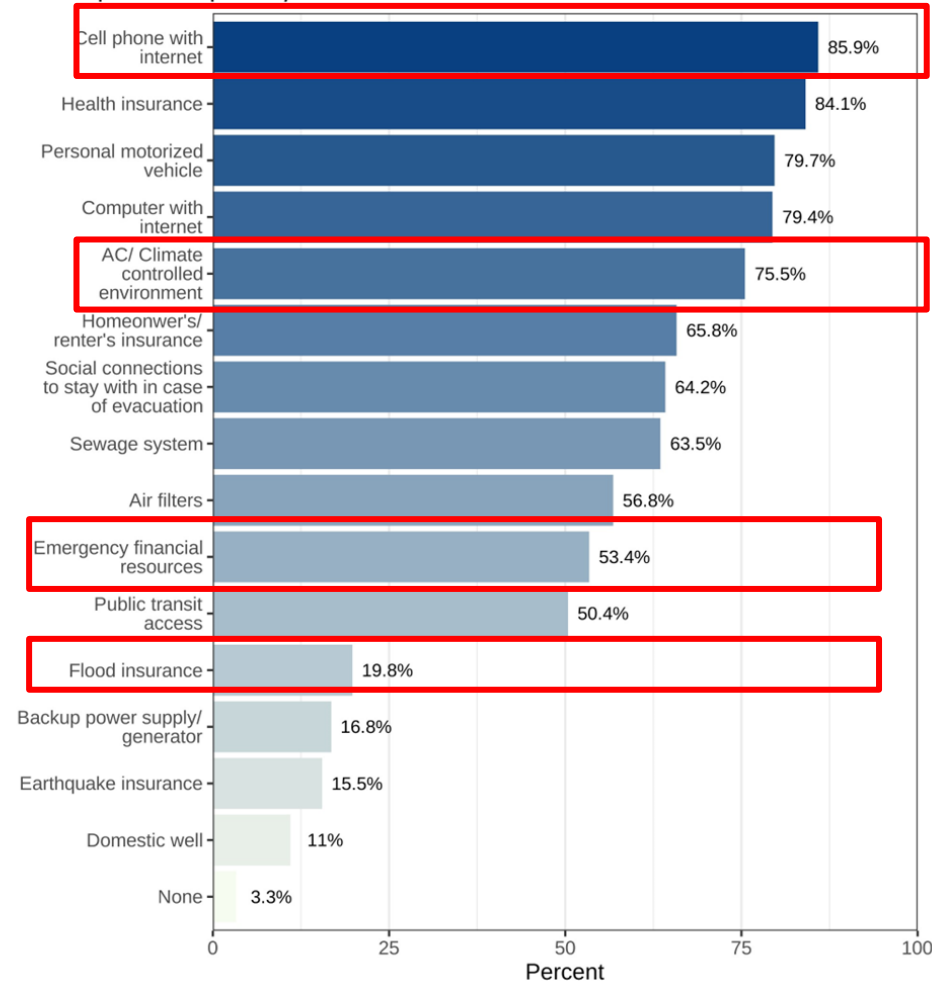
## 17. Adaptation Policy Support



# ADAPTIVE CAPACITY VARIES ACROSS DEMOGRAPHICS & GEOGRAPHY

“Which of the following resources do you currently have access to?”

## 24. Adaptive capacity



2196 survey respondents. Question type was "Select all of the above."

## ENVIRONMENTAL & CLIMATE CHANGE in a resident's voice

“I worry that with the declining economy, income inequality, lack of affordable housing, and continued gentrification of the entire state... the Delta as we know (or knew it... once upon a time I could eat fish out of certain waterways I no longer can) will be nearly non-existent due to overuse and climate change.”

- Delta resident



# SECTION IV CIVIC ENGAGEMENT & GOOD GOVERNANCE

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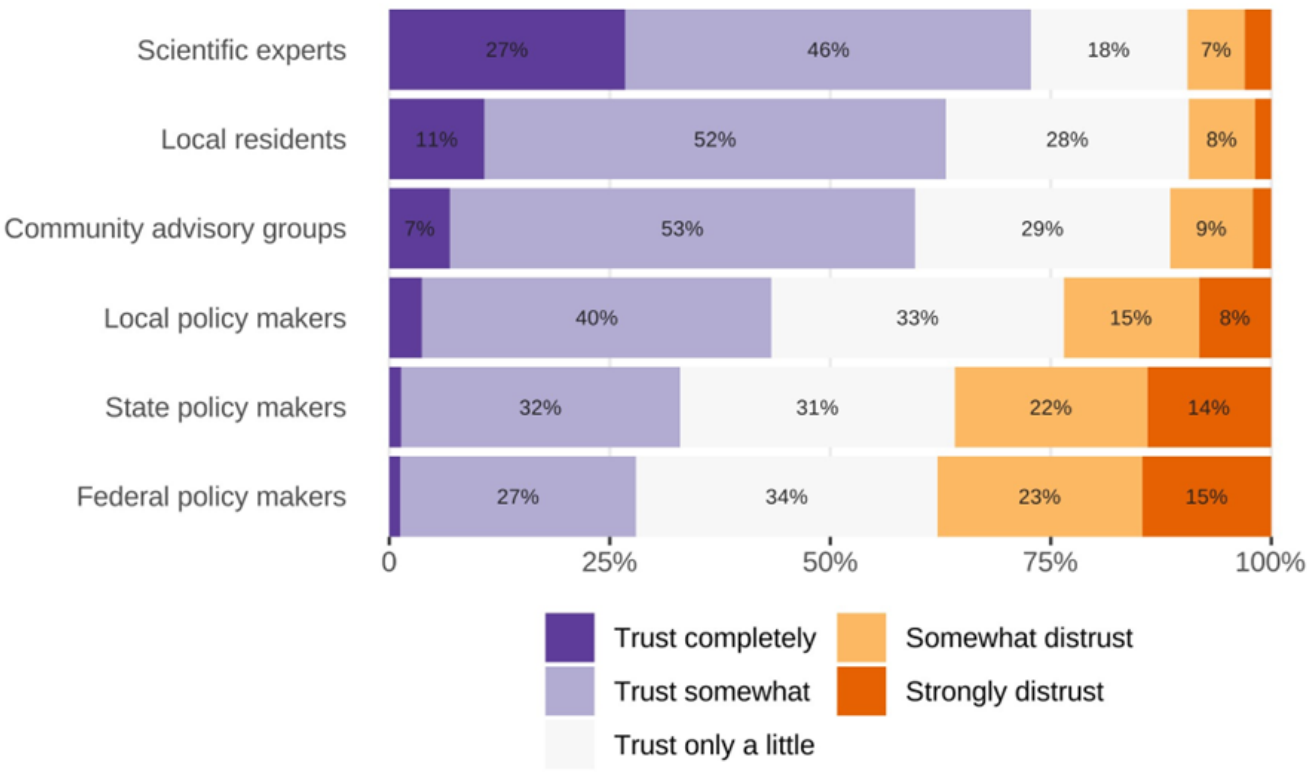


Delta Tour Water Education for  
Latino Leaders, May 2023  
(Photo: J. Rudnick)

# SCIENTISTS, COMMUNITY ADVISORY GROUPS AND LOCAL RESIDENTS ARE TRUSTED TO ACT IN BEST INTERESTS OF DELTA

## Q41. Trust in Social Groups

Please rate the following entities on how much you trust them to act in the best interests of the Delta.



# WHAT HAVE WE LEARNED?

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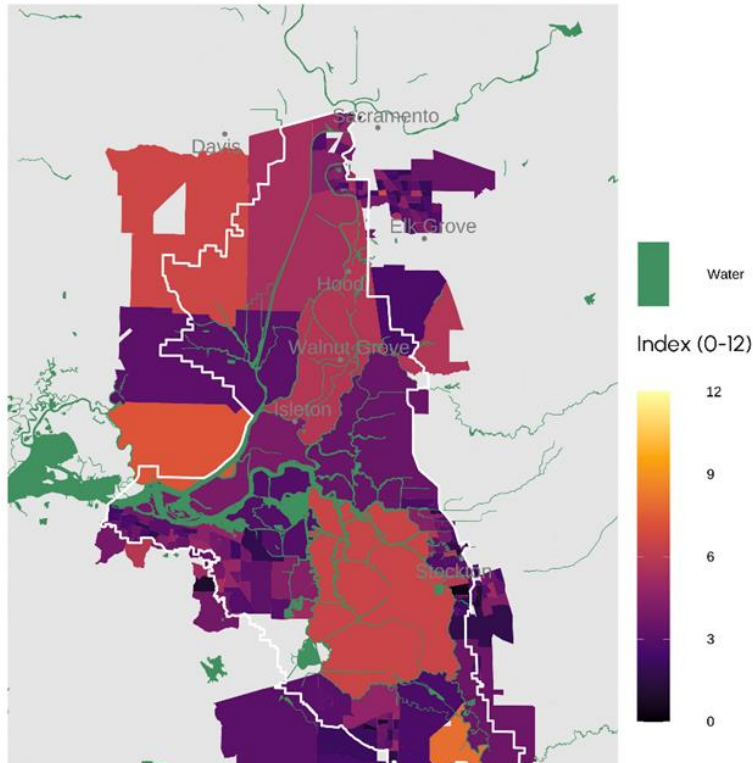


# KEY TAKEAWAYS & REFLECTIONS

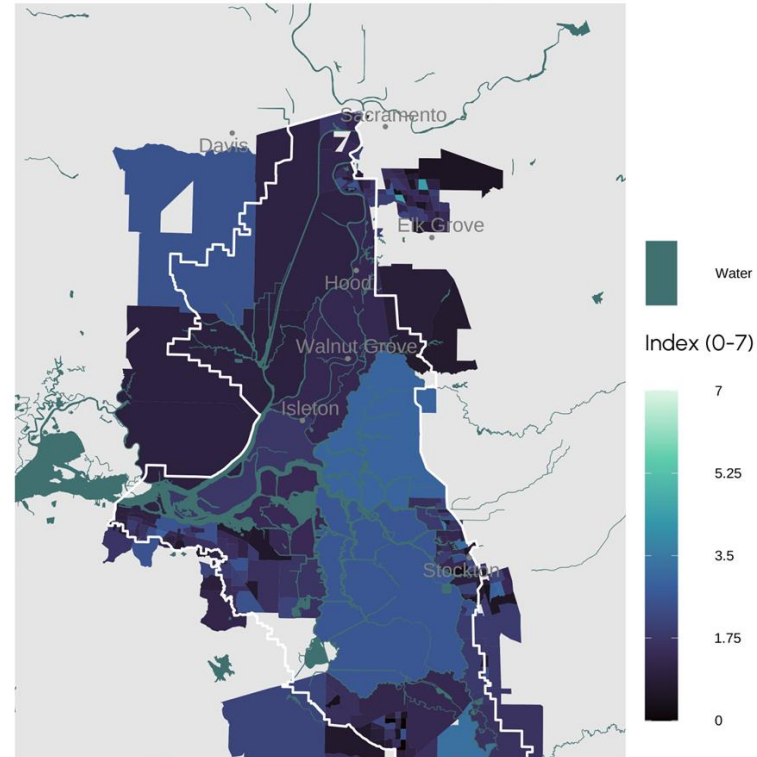
I	Delta holds different meanings to different communities	<ul style="list-style-type: none"><li>• What assumptions do we hold about residents' values &amp; concerns that should be re-evaluated?</li><li>• Who is typically represented in decision-making processes?</li><li>• How to encourage and ensure more representative participation?</li></ul>
II	Priorities and concerns for region reflect varied needs and resources	<ul style="list-style-type: none"><li>• How do management and policy decisions address residents' needs? Which residents' needs?</li><li>• How do environmental agencies impact quality of life, directly and indirectly?</li></ul>
III	Climate change concern & need for adaptation is high	<ul style="list-style-type: none"><li>• How can adaptation efforts prioritize those most impacted?</li><li>• How can communication and collaboration (re)build trust and support for adaptation?</li></ul>
IV	Participation and community engagement is low	<ul style="list-style-type: none"><li>• How to (re)engage and (re)motivate residents to participate in decisions that affect their lives and communities?</li><li>• How to build social capital to support regional resilience?</li></ul>

# RECOGNIZING HIGH DIVERSITY ACROSS THE REGION

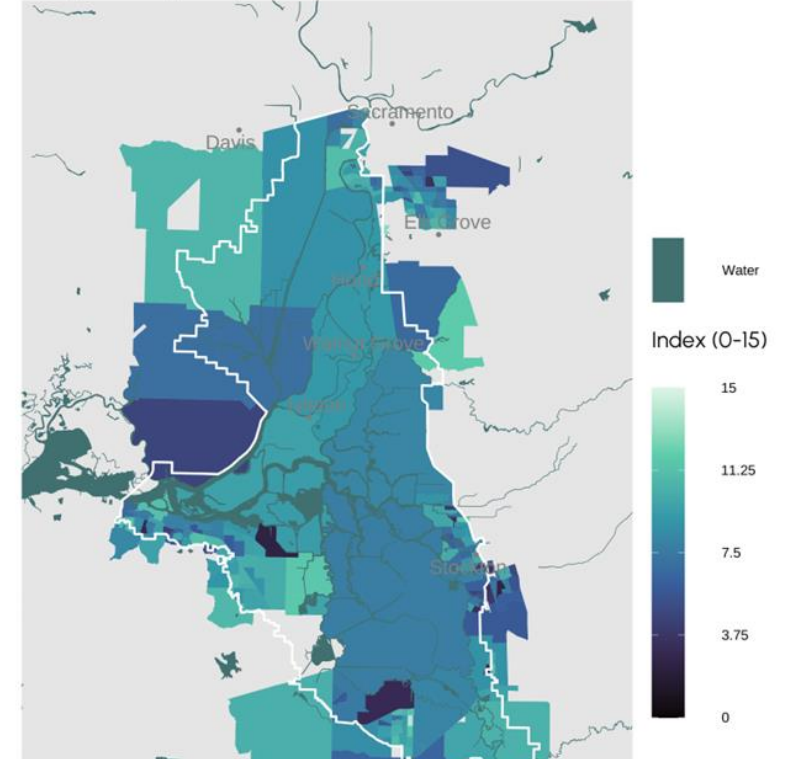
Sense of Place Index



Environmental Impacts Experienced Index

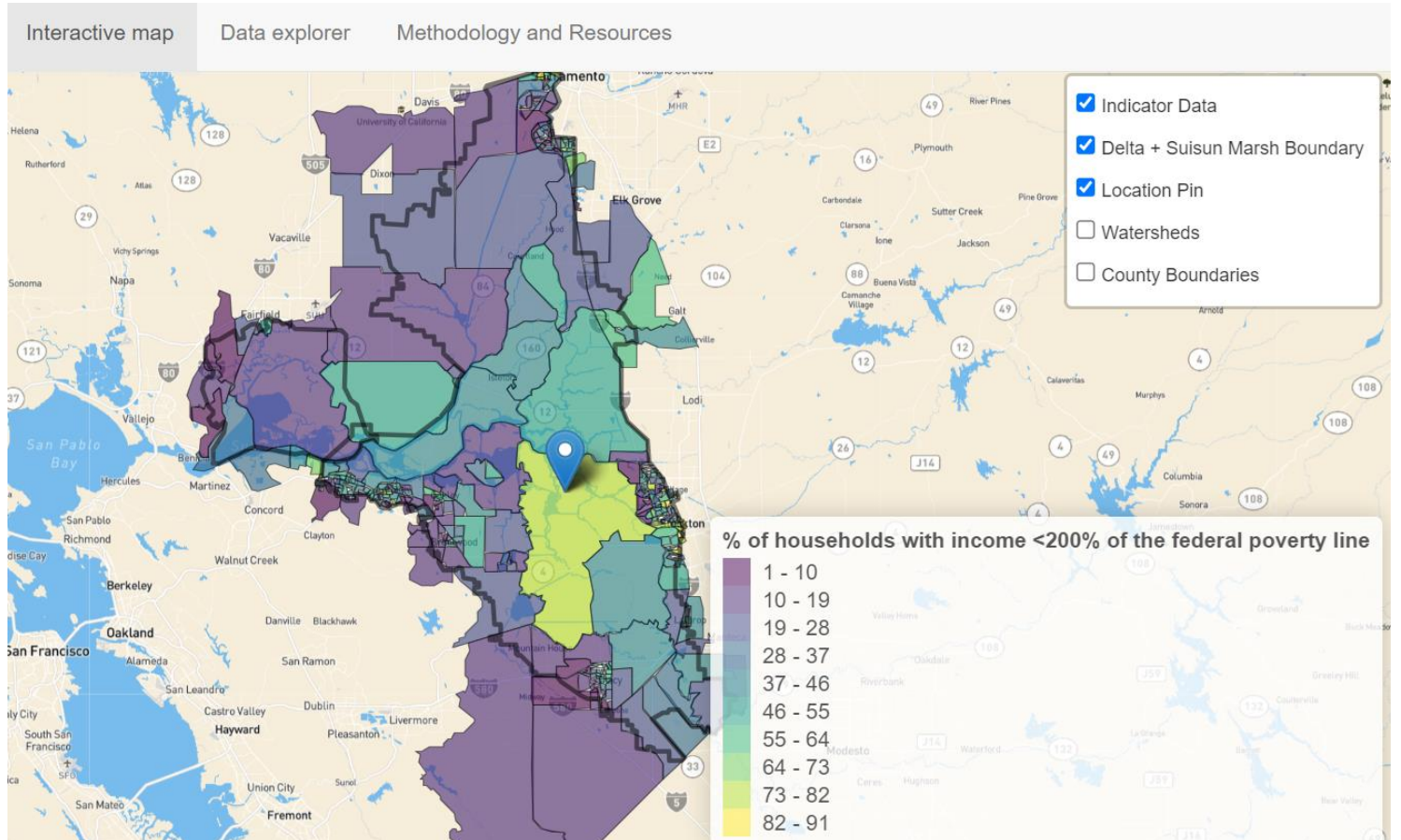
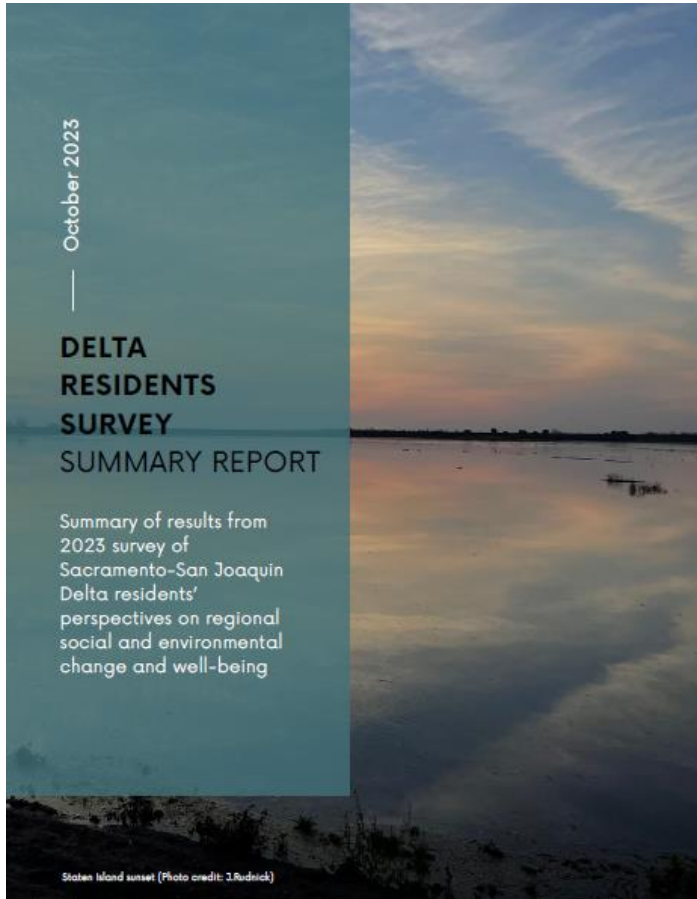


Adaptive Capacity Index



“The Delta should not be characterized as a homogenous community legally, environmentally, socially, politically, hydrologically, or economically.”  
- Delta resident

# SHARING RESULTS AND NEXT STEPS



Visit website to find report, publicly available data, data viewer tools and further results: <https://ktomari.github.io/DeltaResidentsSurvey/>



# WHERE TO GO FROM HERE

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# Thank you!

Questions? Send to [jrudnick@ucsd.edu](mailto:jrudnick@ucsd.edu)

Find Summary Report, anonymized data, and tools to explore the data at:  
<https://ktomari.github.io/DeltaResidentsSurvey/>