

Tijuana River Valley Sewage Emergency: Assessment of Chemical Exposure (ACE) Results



County of San Diego HHSA
[SANDIEGOCOUNTY.GOV/HHSA](https://sandiegocounty.gov/hhsa)

**SEWAGE/CHEMICAL
CONTAMINATED WATER**

**WATER CONTACT
MAY CAUSE ILLNESS**



BY ORDER OF THE HEALTH OFFICER
COUNTY OF SAN DIEGO
ENVIRONMENTAL HEALTH & QUALITY
(619) 336-2073 sdbeachinfo.com



ACE Goals and Objectives



- **Goal:** Assess individual-level impacts through an *on-line survey* related to sewage exposure from the Tijuana River Valley
- **Objectives:**
 - Understand concerns of air and water exposure from contamination
 - Explore concerns about residential, occupational, recreational and other environmental exposures and health effects
 - Obtain parents' responses on behalf of children under age 18

CASPER* vs. ACE

	CASPER	ACE
Level	Household summary responses	Individual-level responses
Method	In person interview	Self-administered on-line survey
Eligibility	Residents only	Residents, workers, visitors
Children	Child data captured as part of household response	Parents/guardians could answer for individual children
Timing	October 18 -20, 2024	October 21 - November 25, 2024
Sample	189 households interviewed	2099 completed surveys
Locations	Imperial Beach, Nestor, San Ysidro	Imperial Beach, Nestor, San Ysidro, Otay Mesa West, Silver Strand, Coronado

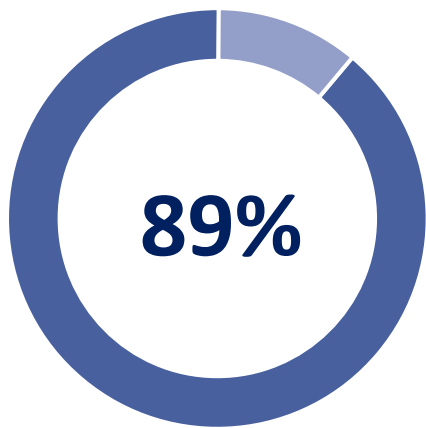
*Community Assessment for Public Health
Emergency Response

Demographics

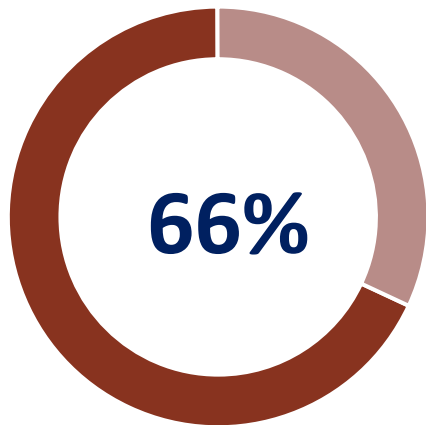


SOURCE: San Diego Union-Tribune

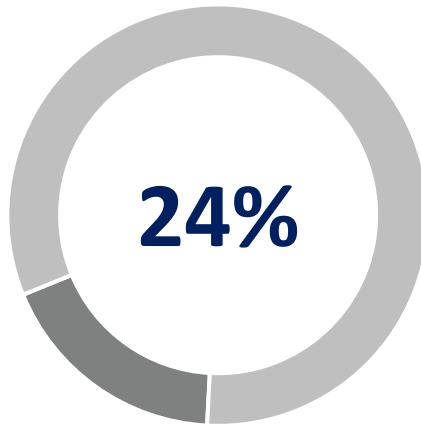
Summary of 2,099 participants



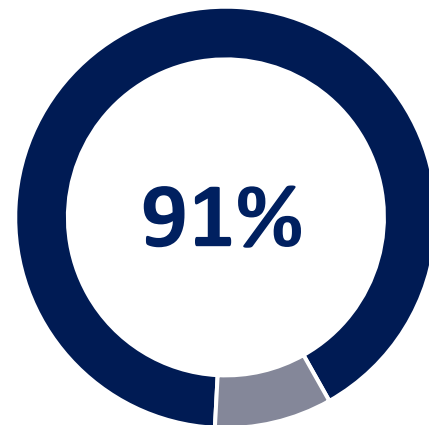
**18 years or
older**



Female

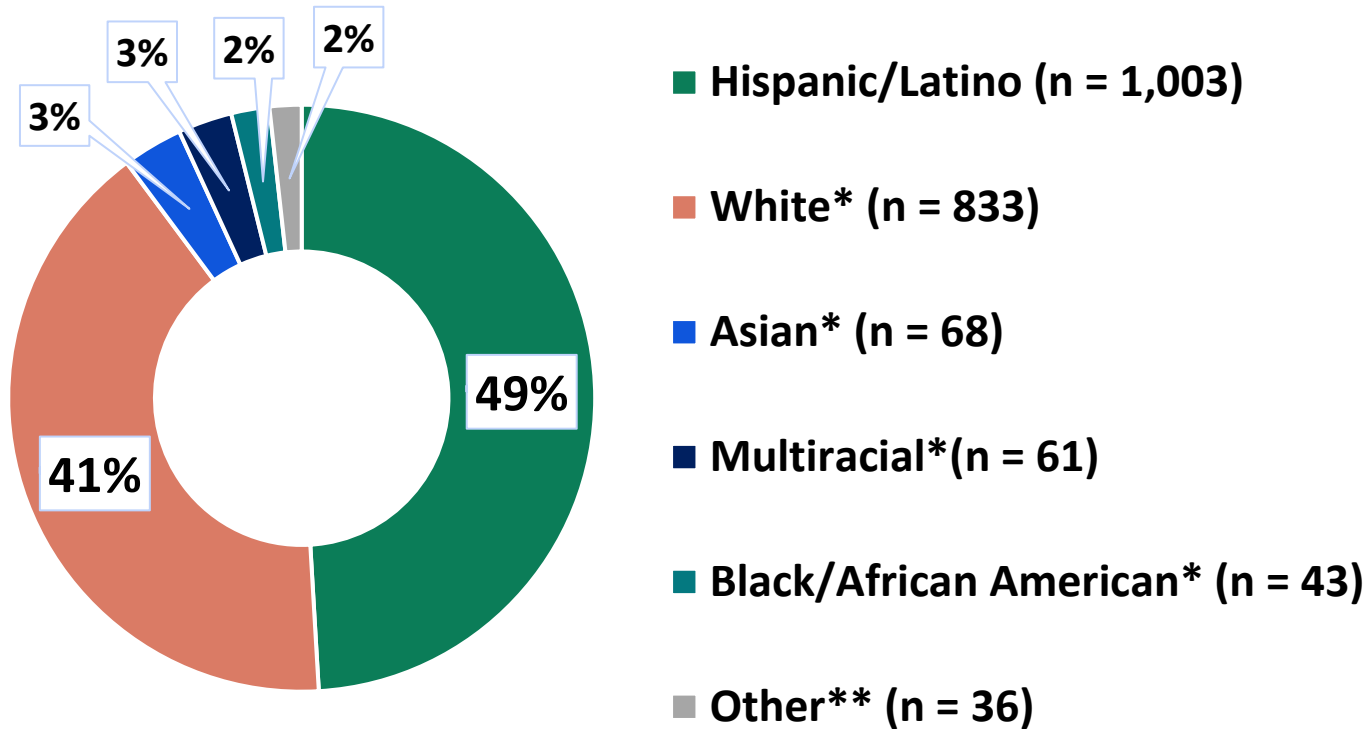


**High School
or less**



**Have health
insurance**

Race and Ethnicity



172 Spanish
surveys
taken

*Non-Hispanic; **Includes non-Hispanic Native Hawaiian or Pacific Islander, American Indian or Alaska Native, and Middle Eastern or North African

Reasons for Time Spent in the Affected Area



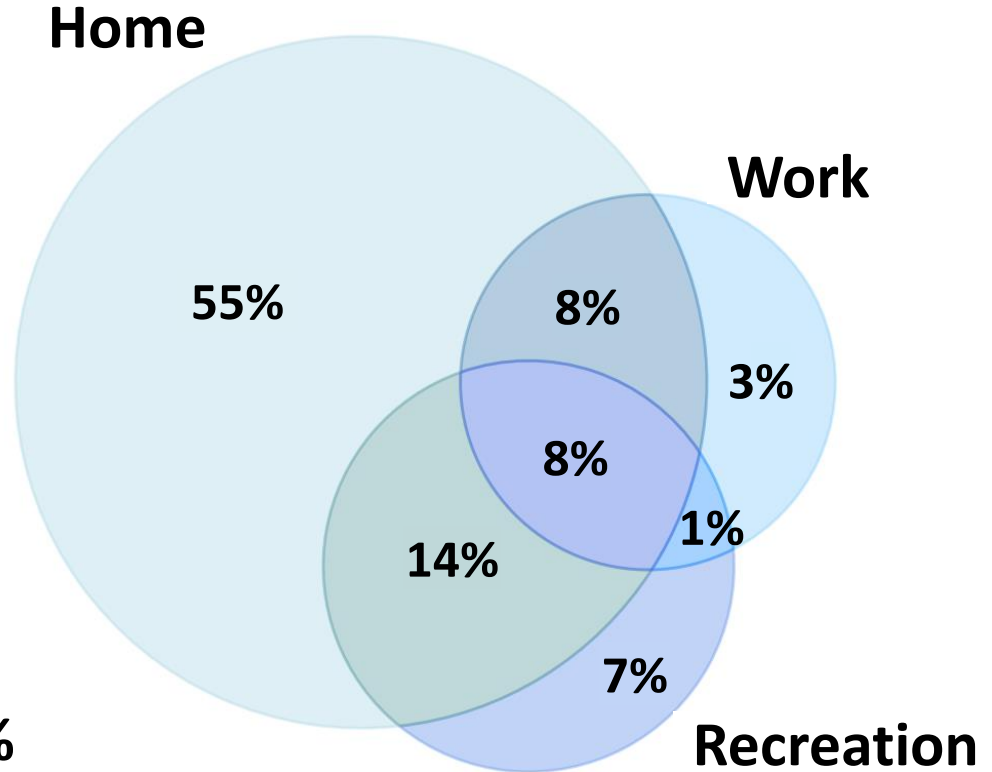
Home - 86%



Work - 21%



Recreation - 31%



Home (H): 1,158 (55.2%); Work (W): 69 (3.3%); Recreation (R): 156 (7.4%); H + R: 300 (14.3%); H + W: 171 (8.2%); H + W + R: 177 (8.4%); W + R: 26 (1.2%)*Other reasons for spending time in the affected area were excluded from this analysis: 42 (2.0%)

Among Those Working in the Affected Area (n=443)

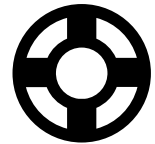


25%

**of workers had direct
contact with contaminated
river or beach water**

Occupations with direct water contact:

- Protective services: Lifeguards, firefighters, and law enforcement including park rangers
- Construction and extraction
- Building and grounds maintenance
- Architects and engineers



Thoughts, Concerns, and Experiences



SOURCE: Getty Images

92% of Respondents Were Very Concerned about the Sewage Crisis



97%

air quality



96%

beach water
quality



94%

Tijuana River
water quality



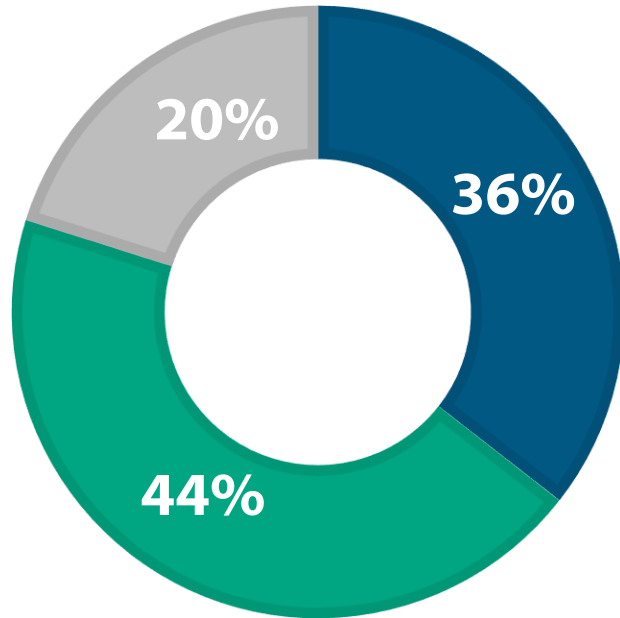
86%

drinking water
quality

82% of respondents reported concerns on
all categories

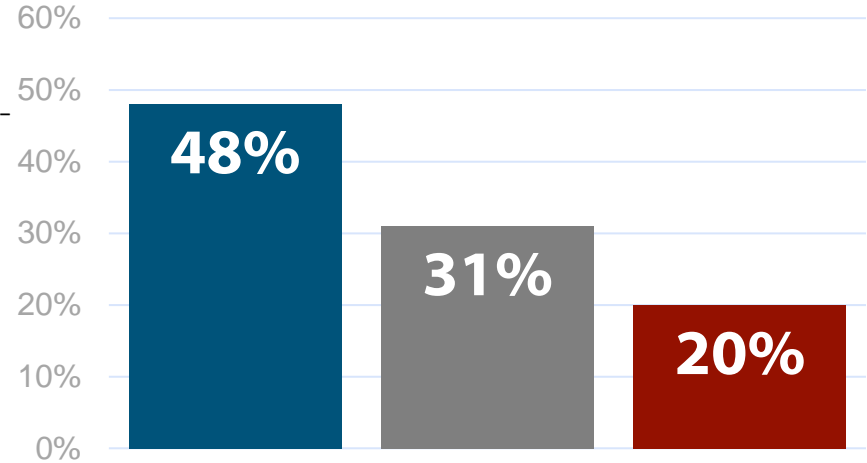
Impact on Daily Life in the Last 30 Days

Changed Activities/Routines



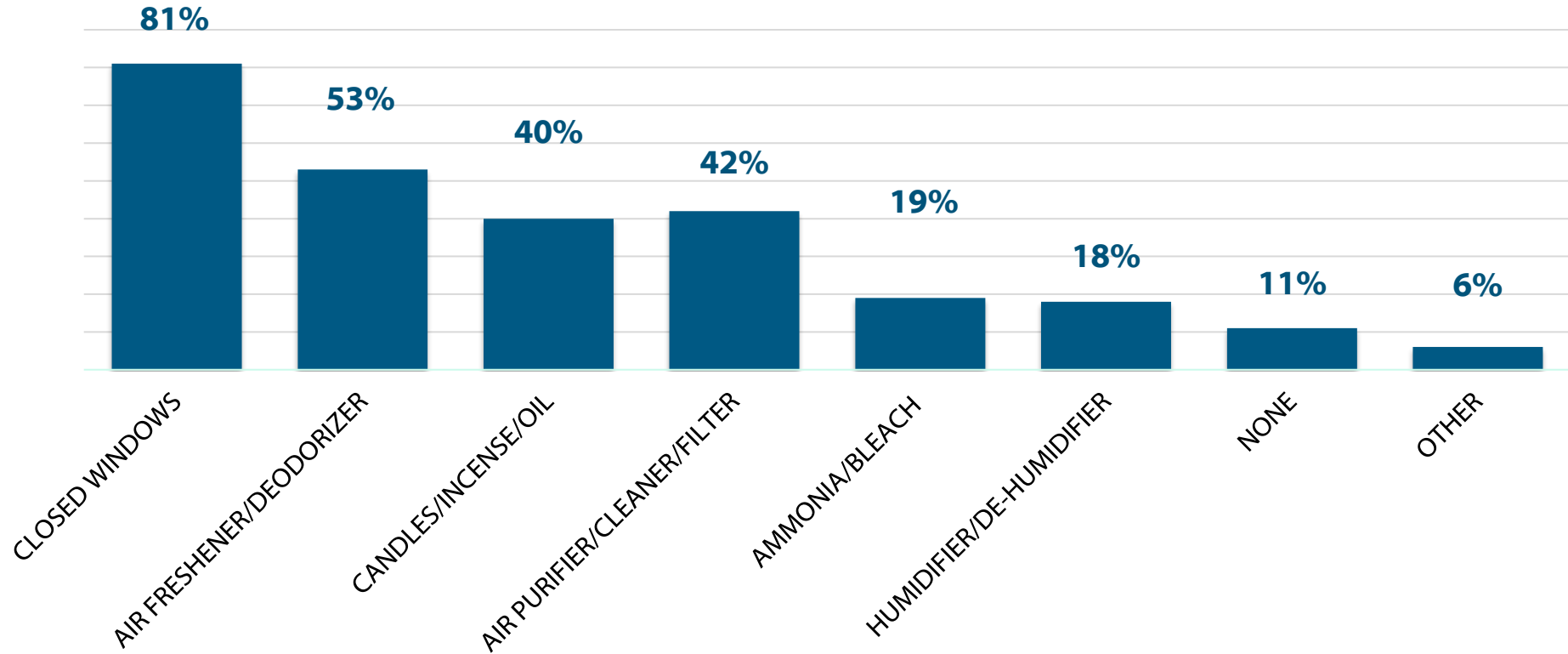
- Yes - Many changes
- Yes - Some changes
- No changes

Extra Steps Taken to Avoid Area



- Yes - Frequently
- Yes - Sometimes
- No

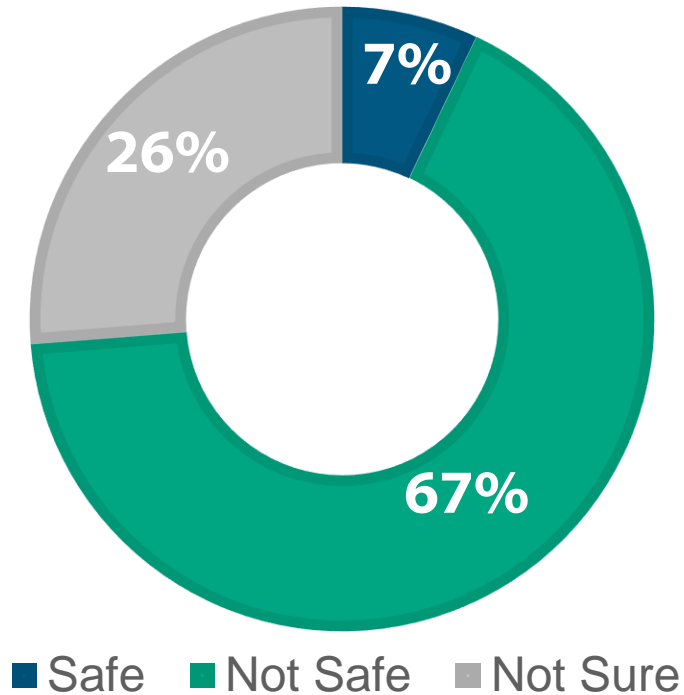
Action Taken to Reduce Sewage Smell* (n=1935)



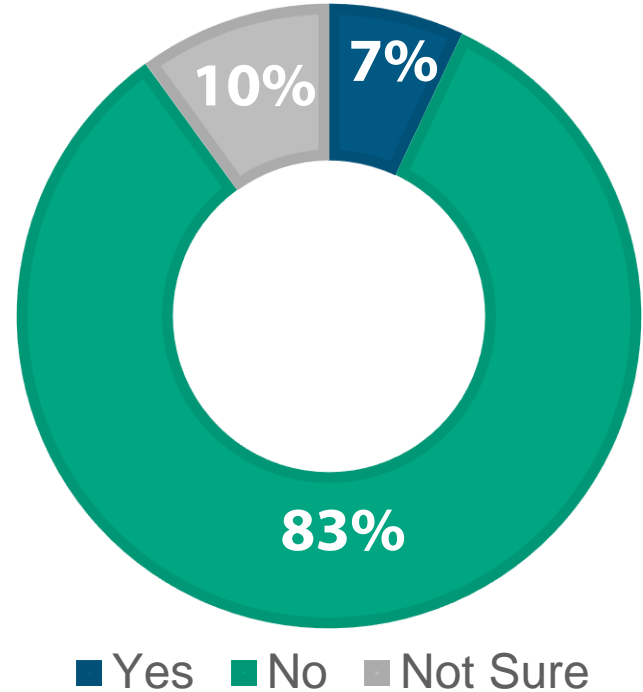
*Not mutually exclusive

Beliefs about the Sewage Crisis

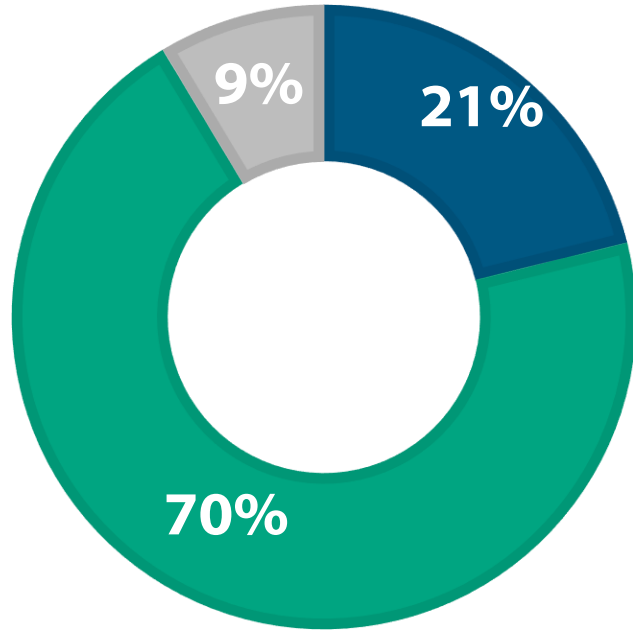
Safe to Visit, Work or Live



Sewage Clean Up Adequate



Drinking Water When in the Affected Area



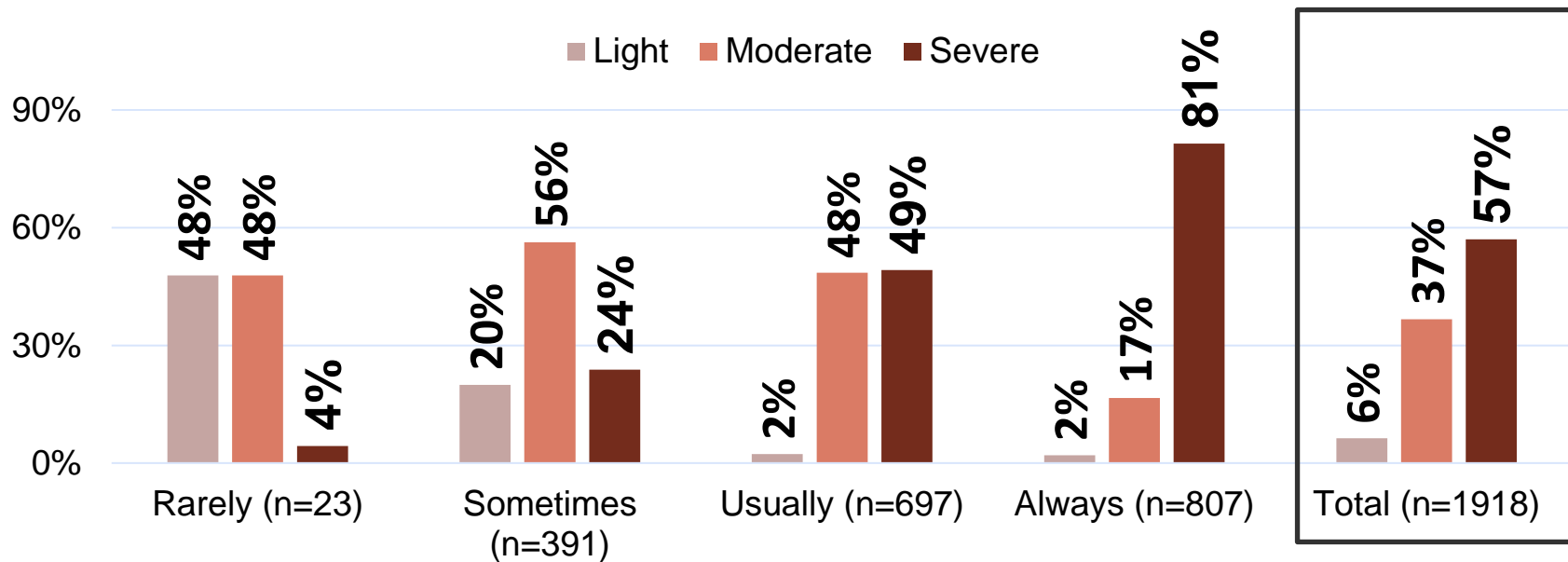
■ Tap/city ■ Bottle ■ Other

Primary Source of Drinking Water

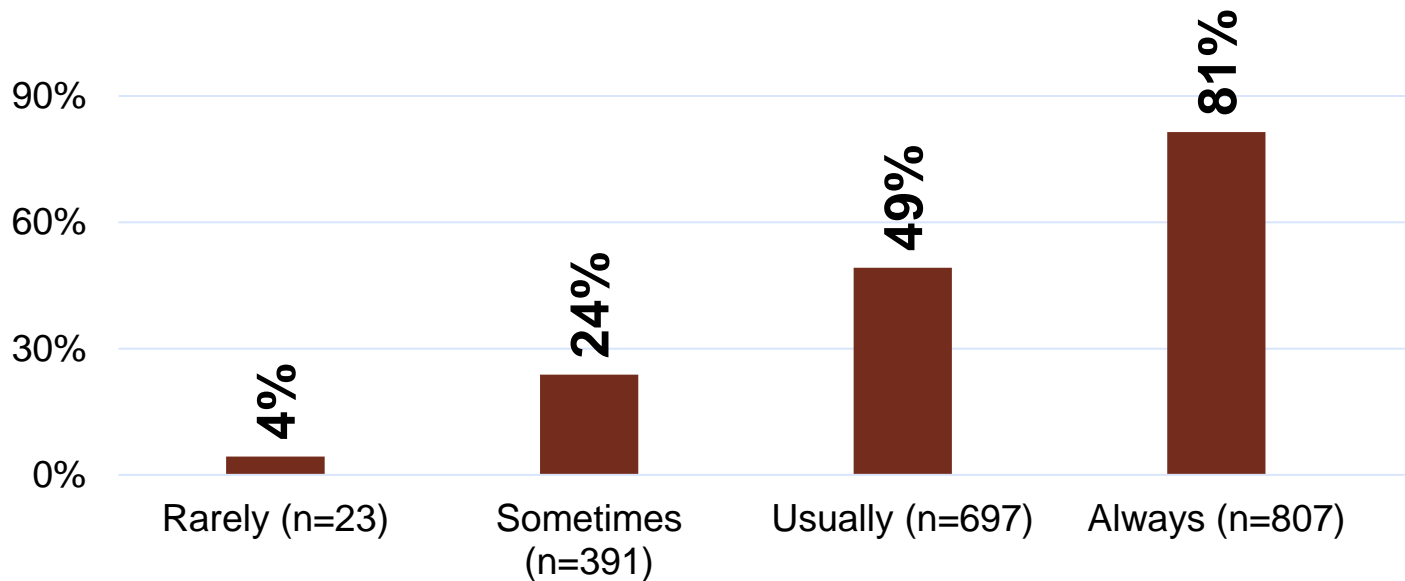


63% filter their drinking water

92% Noticed Sewage Smell in Last 30 Days

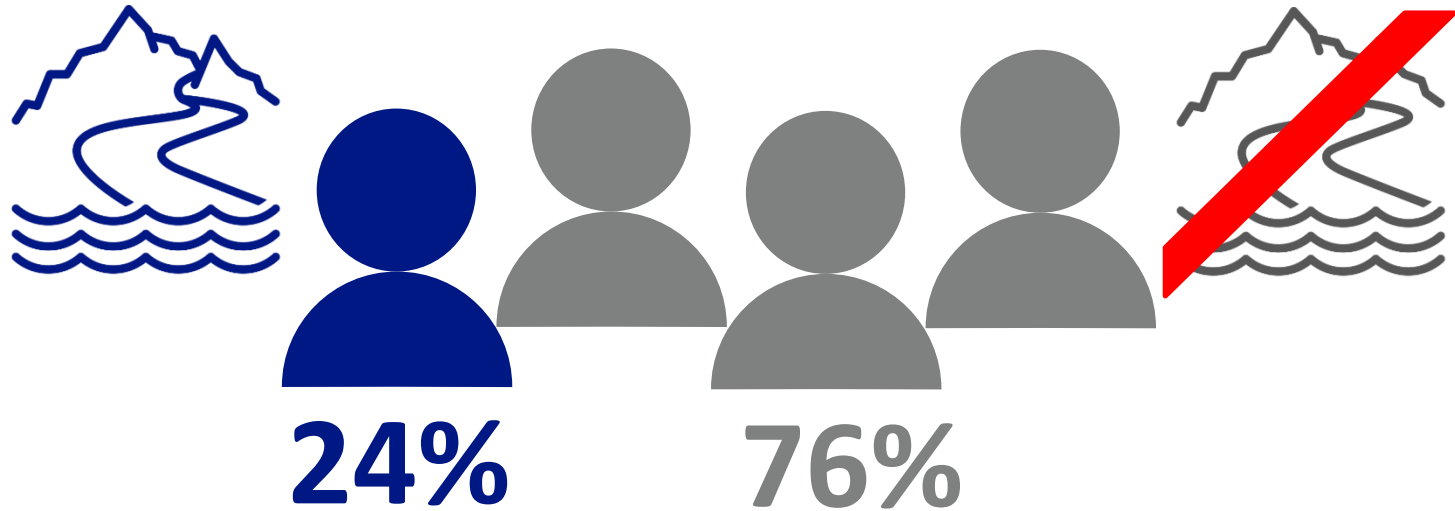


92% Noticed Sewage Smell in Last 30 Days



The more frequent the smell was reported; the more likely it was to be severe

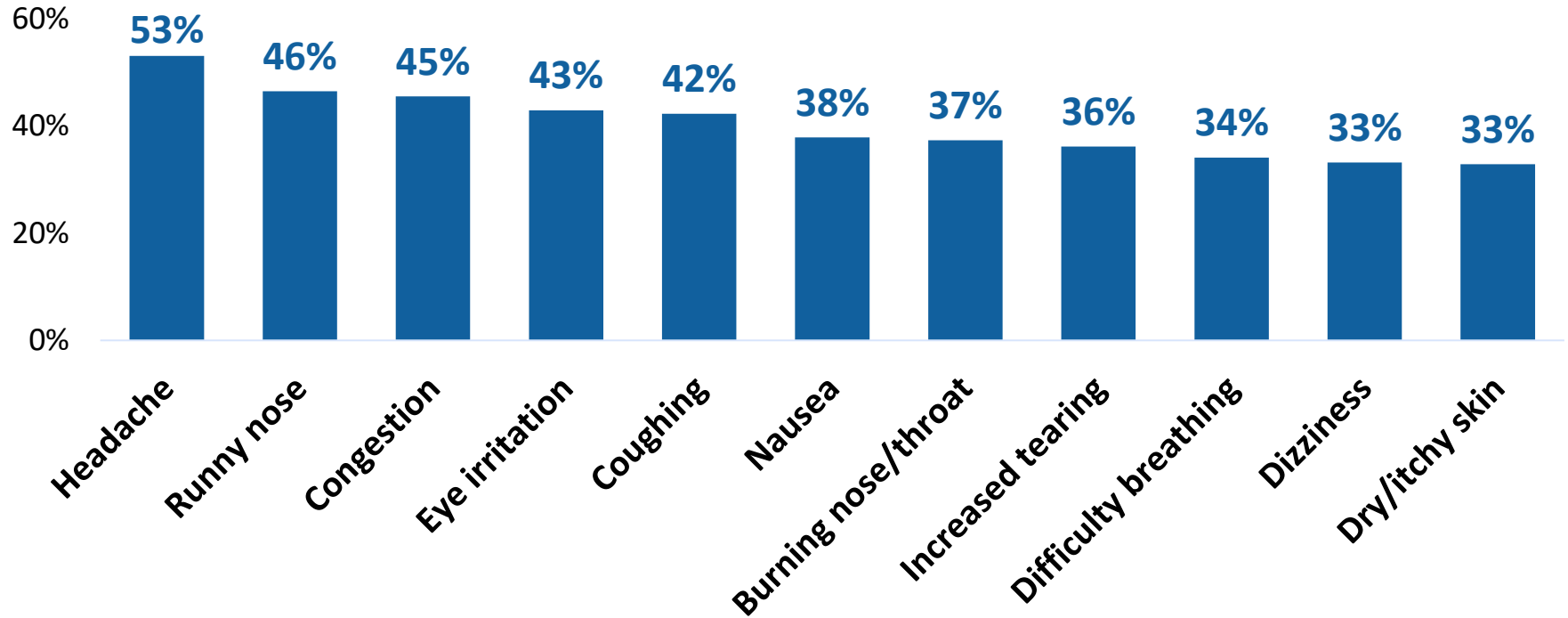
Almost 1 in 4 Participants Reported Direct Contact with Contaminated River or Beach Water



Physical Health

HEALTH

64%* Reported At Least One New or Worsening Physical Health Symptom They Attributed to the Sewage Crisis in the Past 30 Days



Medical Care Because of Sewage Crisis

31%

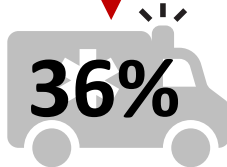
**Sought medical care because
of sewage crisis symptoms**

n=412/1351



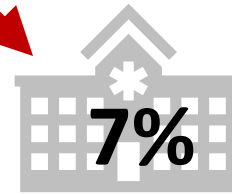
72%

Primary Care/HCP
(outpatient)



36%

Hospital/emergency
room/urgent
care and released



7%

Hospital/emergency
room/urgent care
and admitted

(Categories Are Not Mutually Exclusive)



M₃

E₁

N₁

T₁

A₁

L₁

H₄


E₁

A₁

L₁

T₁

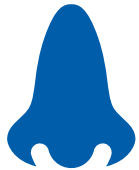
H₄



65%
feel like their
mental
health symptoms
are related to the
Sewage Crisis
(n=1200/1850)



Overall, **28% of participants*** scored 3 or more on Generalized Anxiety Disorder 2-item (GAD-2) screen indicating possible clinical **anxiety** in the last 2 weeks



Participants reporting severe sewage smell tended to score **higher** on the GAD-2

35% participants who reported **severe sewage smell**, reported **anxiety** symptoms



Overall, **21% of participants*** scored 3 or more on Patient Health Questionnaire-2 (PHQ-2) screen indicating likely major **depression** in the last 2 weeks



Participants reporting severe sewage smell tended to score **higher** on the PHQ-2

27% of participants who reported **severe sewage smell**, reported **depression** symptoms

Key Findings: ACE

- 92% were concerned about air quality; 86% were concerned about tap water quality
- 95% reported noticing a sewage smell in the preceding 30 days; 57% said it was severe
- 24% reported direct contact with contaminated river or beach water including workers
- 64% reported at least one new or worsening physical health symptom they attributed to the Sewage Crisis in the past 30 days
- Most common symptoms attributed to the Crisis were headache or respiratory symptoms; 31% of those reporting sought medical care
- 28% of participants reported symptoms of anxiety; 21% reported symptoms of depression. Rates were higher among those reporting severe sewage smell

ACE Findings Similar to CASPER

- Widespread community concern about the sewage crisis, including air and drinking water quality concerns
- Most respondents use bottled water in the affected area
- Most respondents reported physical health symptom(s) they attributed to the sewage crisis
- Respondents also attributed mental health symptoms to the sewage crisis
- Preferred communications channels: word of mouth, TV, internet news, email, and text message
- Needs of respondents: action, water, medical or mental health care or supplies, improve water/air quality

County of San Diego: Actions Already Being Taken



County of San Diego Action

- **Collaboration, Coordination, & Advocacy for South Bay Communities**
 - South Bay School Districts Leadership
 - South Bay Health Care Clinics
 - All Agency Meeting- Ongoing Monthly meeting with local, state, and federal governmental partners

Local

- San Diego Air Pollution Control District
- County of San Diego
- San Diego Regional Water Quality Control Board
- Imperial Beach, Chula Vista, San Diego, and Coronado Cities

State

- California Environmental Protection Agency
- State Water Resource Control Board
- California Department of Public Health
- Coastal Commission
- California Air Resources Board (CARB)

Federal

- US Environmental Protection Agency (EPA)
- Agency for Toxic Substances and Disease Registry (ATSDR)
- Office of Community Health Hazard Assessment (OCHHA)
- National Center for Environmental Health
- International Boundary & Water Commission (IBWC)

County of San Diego Action

■ Collaboration, Coordination, & Advocacy: Public Health Assessment

- In June 2025, ATSDR confirmed a Public Health Assessment (PHA) will be conducted. Activities include:
 - Analyze air, surface water, sediment, soil, fish tissue, and odor complaint data to evaluate past, current, and future chemical exposures.
 - Identify information gaps and uncertainties where there is not enough data to determine health risks.
- Sign up to receive email updates about ATSDR's public health assessment by contacting Ben Gerhardstein (bgerhardstein@cdc.gov) in the ATSDR Region 9 office.
- For more information on the PHA visit [ATSDR Public Health Assessment](#)



County of San Diego Action

- Collaboration, Coordination, & Advocacy: State of Emergency Request



County of San Diego Actions



■ Drinking Water Concerns

- In October 2024, a letter was sent by Public Health Officer to State Water Board, Deputy Secretary and Special Council on Water Policy with specific actions:
 - **Educate the community** through proactive outreach, media, and social media on how drinking water is tested and kept safe in their community
 - Explore increasing the **frequency of testing of drinking water** to ensure the water remains safe and share these results with the community
- Met with the four water agencies and CDPH to share the CASPER results to advocate for increased messaging on the safety of their water to residents
- Follow-up meeting is scheduled to share ACE results

County of San Diego Actions

■ Mental Health Concerns

- Working with County Behavioral Health Services (BHS) on education and health promotion
 - [Mental Wellness Resource Directory](#)
 - [Community Toolkit](#) available in multiple languages
 - Distributed mental health resources during ACE survey to South Bay
- Promote 988 crisis line for resources and mental health evaluations
- Focused partnership with South Region Outpatient Providers
 - BHS' Communication & Engagement Team
 - South Region Collaborative



County of San Diego Actions

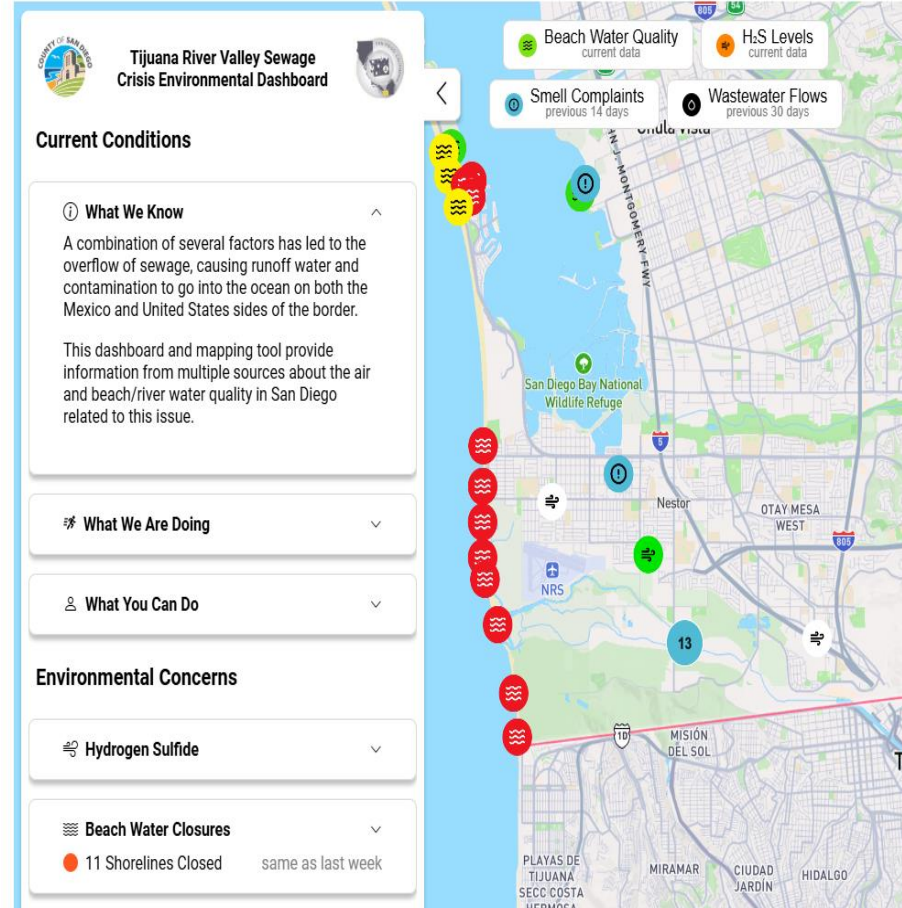
- **Other Efforts**
 - Air Purifier distribution by Air Pollution Control District
 - [AIRE Program](#)
 - Online Registration Portal
 - Direct Delivery from Manufacturer
 - Additional Partner Distribution Events



County of San Diego Actions: Communications

TJRV Environmental Dashboard

- Pulls multiple data sources into one:
 - Beach water quality
 - H2S levels
 - Smell/Odor complaints
 - Wastewater flows
 - [Environmental Dashboard](#)

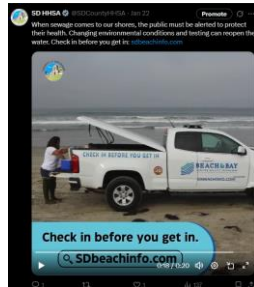


County of San Diego Actions: Communications

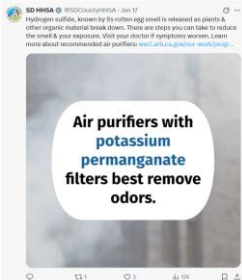
- More than 231,000 social media impressions
- Targeted South Bay zip codes on Facebook, Instagram and NextDoor in English and Spanish
 - May: Odor Level Guidance - 74,562
 - April: Free Air Purifiers - 66,477
 - October ACE Survey participation - 49,844
 - October ACE Survey participation in Spanish - 5,200



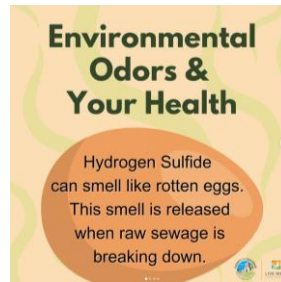
Beach/Bay Water



Air Purifiers



Odors and Your Health



ACE Survey



CASPER



County of San Diego: Communication Plan

County News Center, Media, Social Media

Website Update w/Dashboard

Mass email to ACE respondents

All Agencies (Local, State, Federal)

South County Task Force

South Region Healthcare Agencies

Water Agencies

South Region Superintendents & School Leadership

South Region Community Leadership Team

Chamber of Commerce

Border Health Collaborative

K-12 Schools

Cities: Imperial Beach, San Diego, Coronado, & Chula Vista

Legislative & Elected Groups

Healthy San Diego

APCD's IBC Steering Committee

Impacted Community Based Organizations

Coastal Commission




Hot Spot Mitigation

- Visibly foamy area near Saturn Boulevard, with increased levels of hydrogen sulfide, likely due to turbidity
- Fall 2024 – mitigation by City of SD in conjunction with Navy after County initiated discussions
- June 2025 - Restarted urgent discussions with City of SD, Navy, and IBWC due to ongoing foam and increased detections



ACE Dashboard

SanDiegoCounty.gov Home


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Tijuana River Valley & Beach Water Sewage Crisis Public Health Response

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The County of San Diego cares for South Region residents and what they are experiencing around health and quality of life issues. This website provides information and resources on the health concerns and impacts from sewage and pollution in the Tijuana River Valley and surrounding communities.




What the County is Doing




Public Health Data




CDC Health Survey (CASPER)




ATSDR Exposures Survey (ACE)





ATSDR Public Health Assessment





Environmental Dashboard


 **About Environmental Odors**

 **About Contaminated Water**


Select Language 

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COUNTYNEWSCENTER



County Camp for Teens
Shaping Tomorrow's
Public Health Leaders



VIDEO: Seniors Find
Safety and Security at
Santa Fe Senior Village



Local Senior Finds a
Happy Home

[More Stories](#)

[Tijuana River Valley & Beach Water Sewage Crisis Public Health Response](#)



Closing

- **Focus on the Root Cause while supporting the Health of the Community**
 - Significant Funding has been acquired to fix sewage infrastructure
 - On May 20, 2025, USIBWC and EPA announced the acceleration of the expansion of the South Bay International Wastewater Treatment Plant from 25 to 35 million gallons per day.
 - Originally planned to take 2 years, the upgrade will be completed in 100 days (August 28, 2025)

IBWC 100-day Plan



THANK YOU

ANY QUESTIONS?

