

Cowell's Water Quality Working Group: Community Updates Summer 2020



**SAVE
THE
WAVES**
COALITION



What is the problem?

- Years of elevated bacteria concentrations, exceeding state standards
- 10 years on Heal The Bay's "Beach Bummers" list
- "Dirtiest" means high counts of E.coli, Enterococcus, and Total Coliforms
- Chronic issue despite years of effort/investment

Cowell Beach named No. 1 for dirtiest water on West Coast



Report: Santa Cruz's Cowell Beach earns 10th year as 'Beach Bum'



Although the Monterey Bay water at Cowell Beach looks clear at low tide on Wednesday, the beach ranked as fifth most bacteria-contaminated on the West Coast, according to the Heal the Bay's 2018-19 Beach Report Card based on last summer's readings. (Shmuel

Quick Truths

- Water quality contamination is due to high bacteria counts (E.coli and Enterococcus)
- Trash and needles are a problem, but not THE problem
- The waste-water treatment plant does NOT discharge into Cowell Beach or Neary Lagoon and is not the source of high bacteria counts

CWGW Goals and Objectives

CWGW seeks to eliminate all human-derived sources of bacteria capable of causing human illness and reduce naturally occurring sources of bacteria to the maximum extent practicable.

1. Reduce bacteria counts at Cowell Beach through policy and stewardship actions
2. Improve scientific understanding of Cowell's Beach issue
3. Increase public understanding of Cowell's Beach issue

Cowell Beach Water Quality Working Group (CWG)

- Created by and funded through Santa Cruz City Council
- Facilitated by Save The Waves Coalition
- Made up of representatives of Surfrider Foundation Santa Cruz, Sierra Club, City of Santa Cruz, and County of Santa Cruz.
- Monthly meetings

Brief Timeline of CWG Activities

- 2012 - Study conducted by Stanford's Dr. Ali Boehm pointed to human and bird derived bacteria sources.
- 2013 - City repairs infrastructure
 - Repair of leaking lateral,
 - Sealed Neary Lagoon outfall
 - Cap on storm drains
- April 2014 – World Surfing Reserve Summit identifies Cowells as top priority in Stewardship plan
- Sept 2014 – City Council officially created Cowell's Working Group
- Nov 2015 – Recommendations to City after 1 year of study
- June 2016 - Began installing recommended bird screening
- August 2016 – Completed recommended bird screening
- October 2016 – CWG observes significant water quality improvements from previous summer.
- November 2016 – City of Santa Cruz approves continued funding and support for CWG
- May 2017 – Ongoing maintenance by City of Santa Cruz
- November 2017 – Data shows improvements in water quality over time of project
- May 2018 – Ongoing maintenance and quarterly meetings of CWG
- September 2019 – CWG release 'Coalition for Cowells' film and presents at Save The Waves Film Festival at several locations throughout California

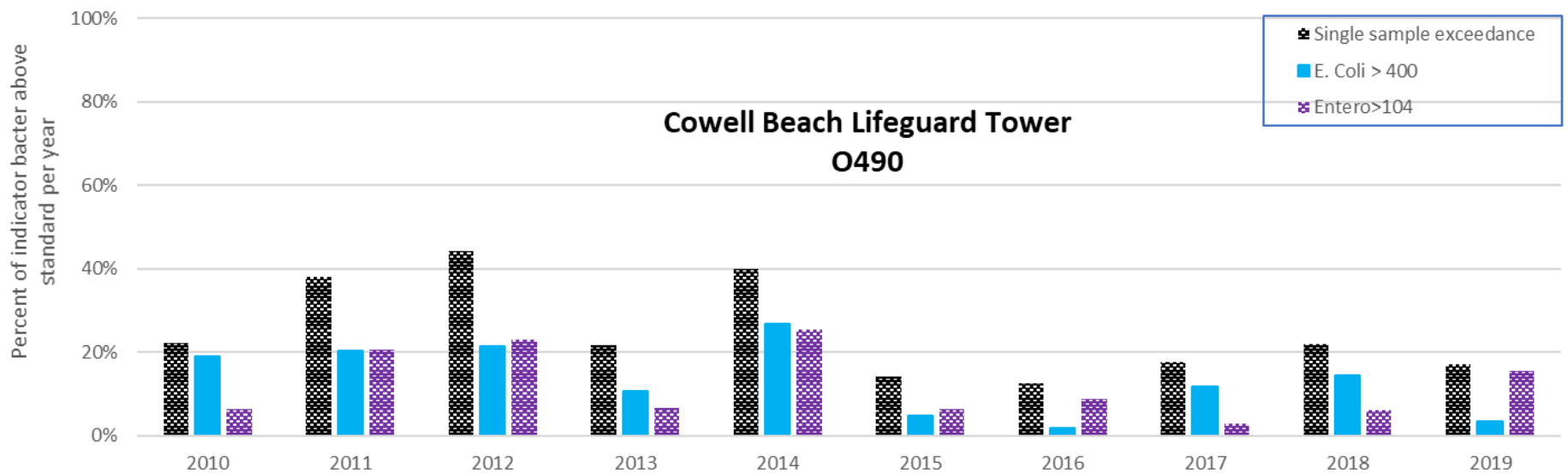
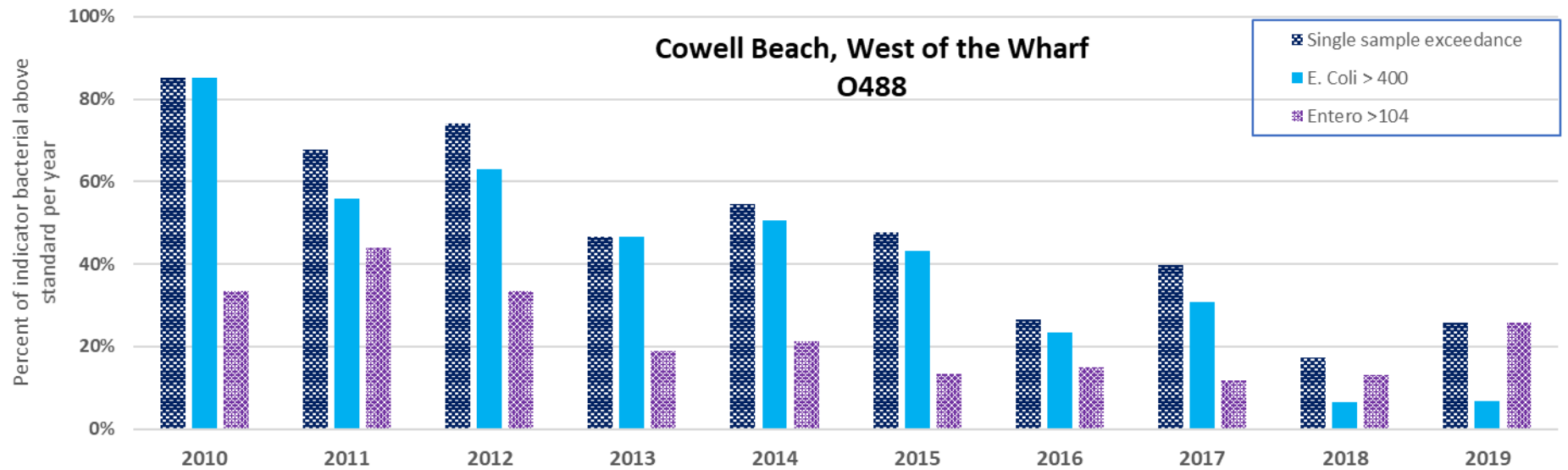


CWG Findings

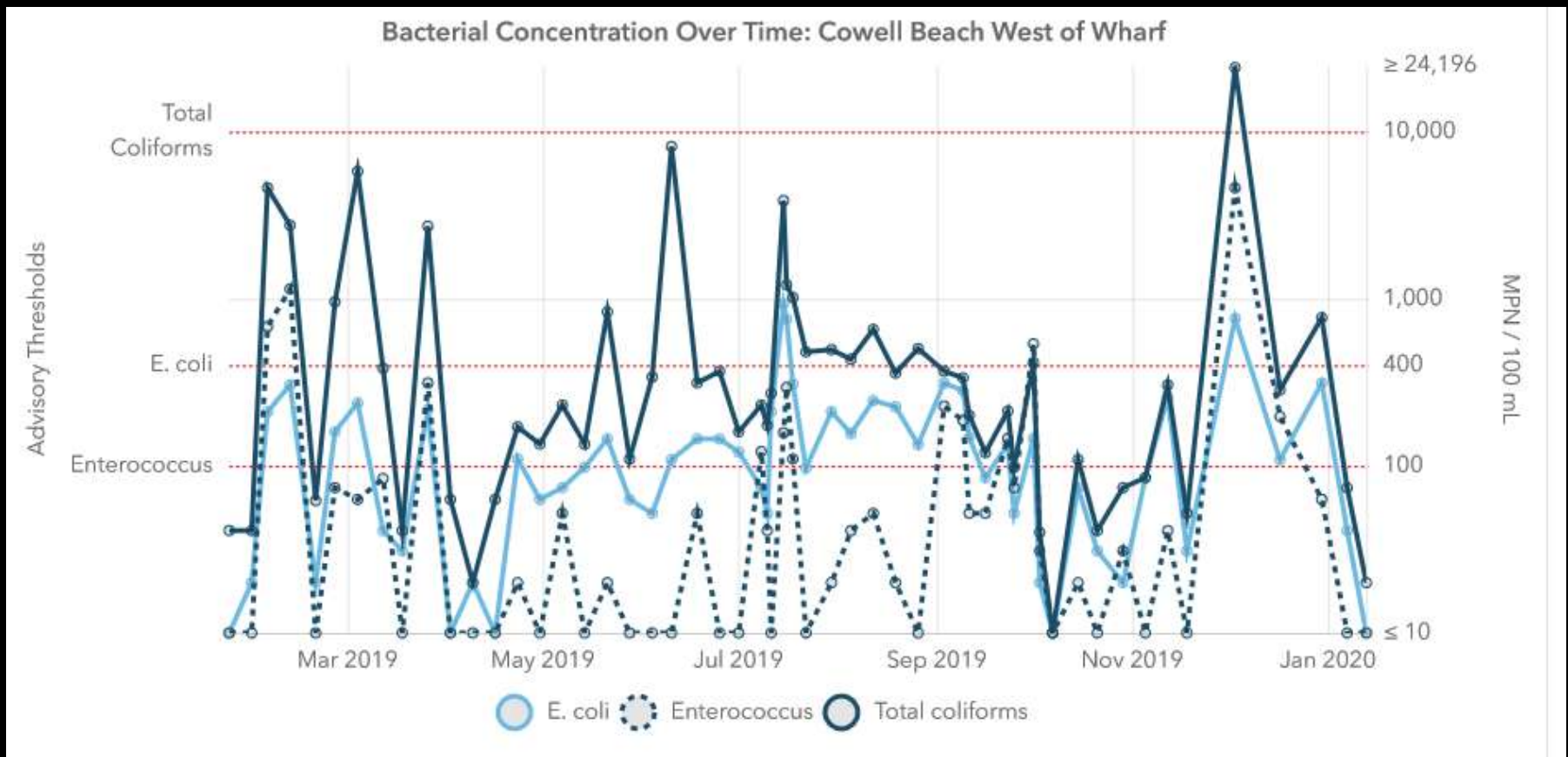


Enhanced Water Quality Over Time

Indicator Bacteria Annual Exceedances 2010-2019



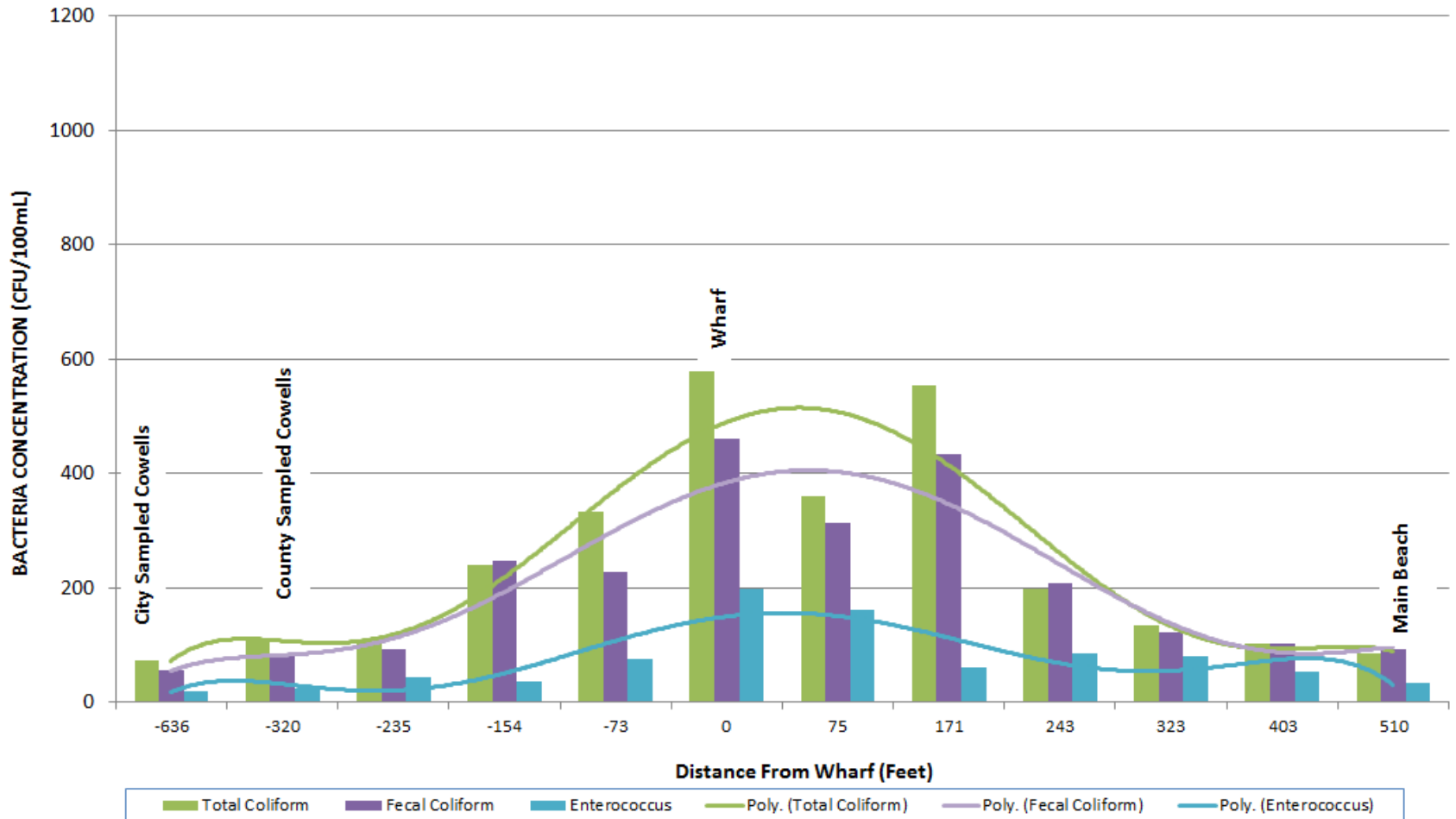
Bacterial Concentration Over Time March 2019 – January 2020



Geographic Distribution of the issue

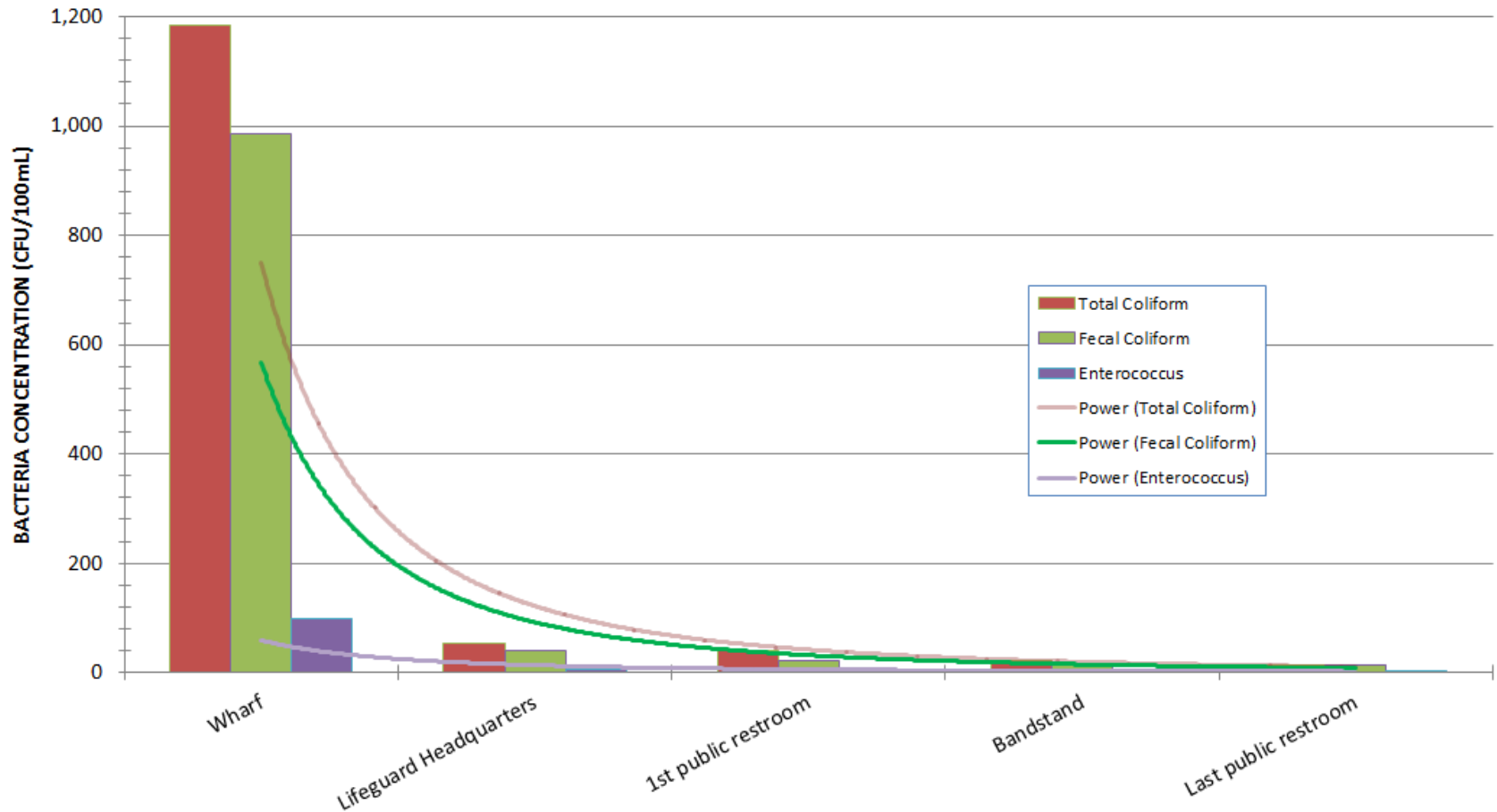
Bacteria Profile at Cowell and Main Beach

(Geometric Mean, 5 samples in 30 days, Aug-Sept, 2015)



Geographic Distribution of the issue

Bacteria Profile along the Santa Cruz Wharf
(Geometric Mean, 5 samples in 30 days, Sept-Oct.2015)



Summary

1. Cowell Beach bacteria exceedances are highest under the wharf, and they tend to get lower as one travels along the beach away from the wharf in either direction (East or West);
2. Cowell Beach bacteria along the wharf are seemingly lower after the first couple of hundred feet where the birds do not roost and nest; and
3. There were no sewage-associated bacteria detected in any of the 25 samples taken along the wharf, as indicated by caffeine measurements taken during the study to establish the distribution of bacteria along the wharf.
4. Paradoxical to most other coastal communities, Cowell Beach water quality is predictably worse during the dry season (May – October)

CWVG 2020 Goals

- Continue Group Facilitation and Project Management
- Conduct epidemiological study to understand public health risk
- Ensure adequate signage to enhance public understanding
- Maintain sewer inspections and upgrades, produce lateral ordinance recommendations

Public Outreach

- 3 public meetings
- 10 local news articles
- 13 social media posts, with over 10,000 likes
- 15 local events attended/tabled
- 10 targeted stakeholder meetings
- 'Coalition for Cowells' film part of Save The Waves Film Festival educating hundreds of Californians about the issue

Accomplishments

- Created new monitoring location in surf line-up
- Implemented new testing, data sharing between agencies, and conclusions
- Isolated the geographic scope and seasonality of the high bacteria concentrations
- Installed 250 linear feet of bird exclusion barriers under wharf
- Very little human DNA found in the last 2 years
- Significant reduction in bacteria exceedances over the last ten years
- Increased public outreach and communication
- Increased community and financial support

Contact

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