Climate Action, Resilience, and Environment Committee on 2022-11-30 9:00 AM

Meeting Time: 11-30-22 09:00

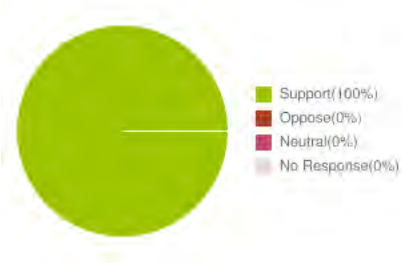
eComments Report

Meetings	Meeting Time	Agenda Items	Comments	Support	Oppose	Neutral
Climate Action, Resilience, and Environment Committee on 2022-11-30 9:00 AM	11-30-22 09:00	4	2	2	0	0

Sentiments for All Meetings

The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



Climate Action, Resilience, and Environment Committee on 2022-11-30 9:00 AM

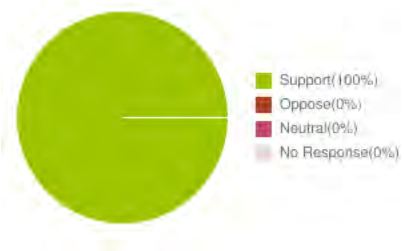
11-30-22 09:00

Agenda Name	Comments	Support	Oppose	Neutral
CARE-100 Reso 22-258 RESOLUTION 22-258, REFERRING TO THE L?NA'I, MAUI, AND MOLOKAI PLANNING COMMISSIONS AND ADVISORY COMMITTEES TO THE MAUI PLANNING COMMISSION A PROPOSED BILL AMENDING THE MAUI COUNTY CODE, RELATING TO THE LANDSCAPE PLANTING PLAN (CARE-100)	1	1	0	0
CARE-2022 Ref NOTE: THE COMMITTEE MAY RECOMMEND THE FOLLOWING COMMUNICATION BE REFERRED TO THE COUNCIL CHAIR FOR THE TERM BEGINNING JANUARY 2, 2023, UNDER RULE 22 OF THE RULES OF THE COUNCIL.	1	1	0	0

Sentiments for All Agenda Items

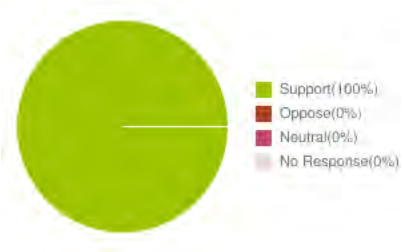
The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



Agenda Item: eComments for CARE-100 Reso 22-258 RESOLUTION 22-258, REFERRING TO THE L?NA'I, MAUI, AND MOLOKAI PLANNING COMMISSIONS AND ADVISORY COMMITTEES TO THE MAUI PLANNING COMMISSION A PROPOSED BILL AMENDING THE MAUI COUNTY CODE, RELATING TO THE LANDSCAPE PLANTING PLAN (CARE-100)

Overall Sentiment



Guest User
Location:
Submitted At: 8:38pm 11-29-22

www.mauibeautiful.org mauigreenbeautiful@gmail.com PO Box 402, Kahului, HI 96753
Testimony for Climate Action, Resilience, and Environment Committee
Wednesday, November 30, 2022

Support for Agenda Item-Resolution 22-258-Referring to the Lanai, Maui, and Molokai Planning Commissions and Advisory Committees to the Maui Planning Commission. A Proposed Bill Amending the Maui County Code, Relating to the Landscape Planting Plan (CARE-100) proposed amendments, including revising Chapter 19.36B.080

Maui Green & Beautiful, is a non-profit organization mission “caring for the Aina through preservation, protection & education” with the focus of the importance of trees to fight against climate change.

When we go to a parking lot during the daytime hours, don’t we all try to park under the shade of a tree? Wouldn’t it be great to see the tree canopies allowed to fill out and not be incorrectly and severely pruned like the trees are in so many of Maui’s parking lots?
19.36B.080 revision empathizes the importance of trees and the shade from their canopies to reduce temperatures in parking lots (heat islands). A goal of 50% shade from the tree canopies to cover hardscapes is used in many municipals including the City of Davis, CA and Portland, OR.

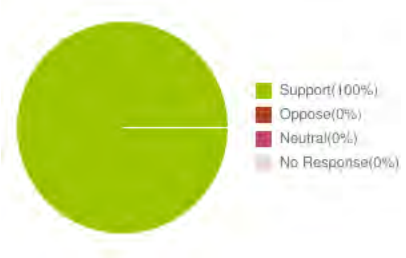
Maui Green & Beautiful recently was awarded a Kaulunani grant from the Department of Land & Natural Resources Division of Forestry & Wildlife for a “Re-Shade Maui” campaign to educate parking lot owners and arborists about the importance of tree canopy shade (using the pruning standards recognized by the International Society of Arboriculture) and how trees can reduce the effects of climate change and also to recognize the parking lots that are striving for full canopy trees. A great example is the parking lot at UH Maui campus that our own Maui tree expert, Ernest Rezents, planted with his students and now it’s the best place to park on campus during the day!

Again, please support & approve the revision of 19.36B.080. Full canopy shade trees are the solution to reducing temperatures. Trees filter our air, reduce flooding, produce oxygen, erosion control and create beauty for all of us to enjoy.

Mahalo for your time,
Elaine Malina
Maui Green & Beautiful Board member
MG&B past-president, ISA Certified Arborist since 1997, past member of the Maui County Arborist committee, landscaping career on Maui since 1983.

Agenda Item: eComments for CARE-2022 Ref NOTE: THE COMMITTEE MAY RECOMMEND THE FOLLOWING COMMUNICATION BE REFERRED TO THE COUNCIL CHAIR FOR THE TERM BEGINNING JANUARY 2, 2023, UNDER RULE 22 OF THE RULES OF THE COUNCIL.

Overall Sentiment



Travis Liggett
Location:
Submitted At: 10:04am 11-30-22

November 30, 2022

Re: Bill 52

Aloha CARE Committee,

I am writing to encourage you to recommend that Bill 52 requiring disinfection of all municipal wastewater discharges in Maui County be referred to the Council Chair for the term beginning January 2, 2023.

Bill 52 is an important law that needs to be passed to protect Maui residents and visitors from harmful pathogens in non-disinfected wastewater that flows from municipal injection well wastewater discharges into nearshore recreation areas, including Cove Park in Kihei where indicator bacteria measurements are routinely measured above safe levels in nearshore waters where surfers, swimmers and divers enjoy Maui's ocean environment. See included documents for maps of injection well plumes and supporting references.

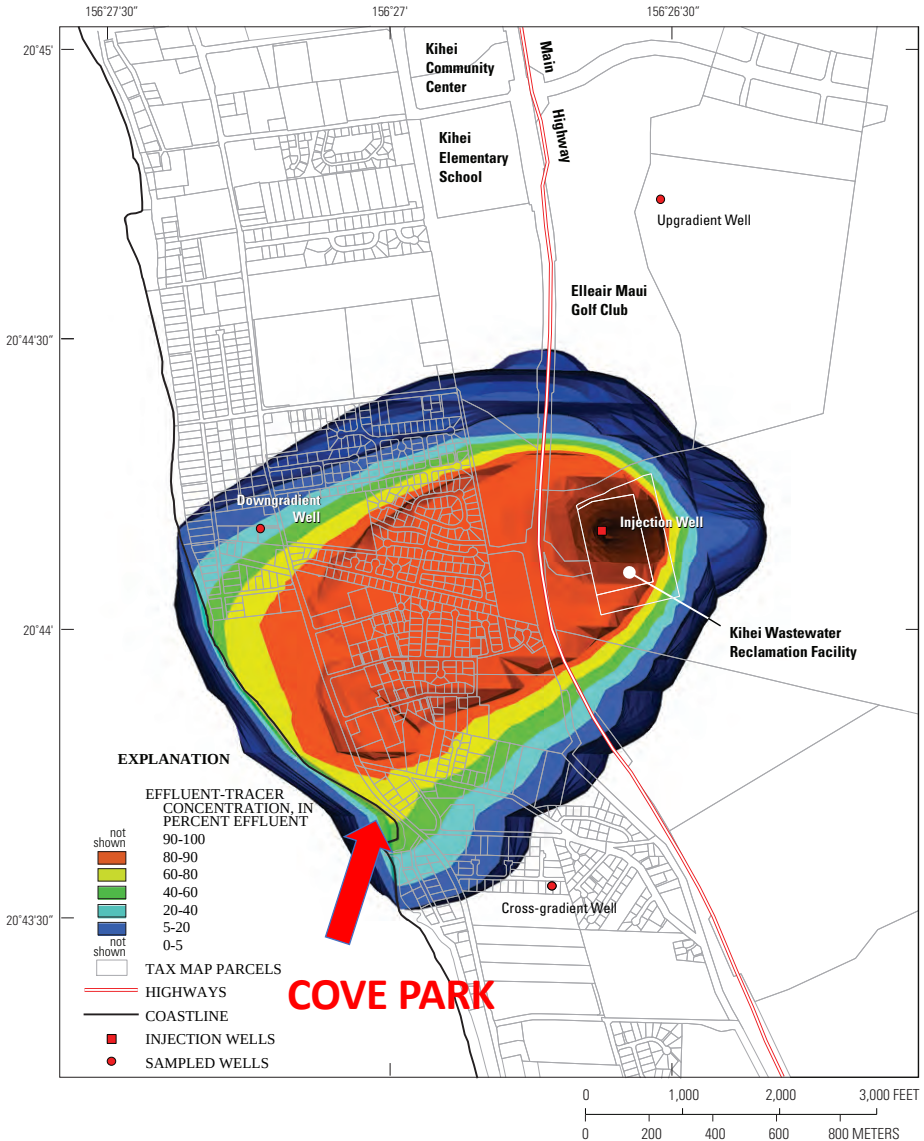
Good news is that, since Bill 52 was up for discussion in the CARE Committee earlier this year, the County of Maui Department of Environmental Management has moved forward with installing UV disinfection for the injection well flows at the Kihei Wastewater Reclamation Facility. This capability is almost ready to be initiated. This is a big step forward toward cleaning up indicator bacteria measurements at nearshore recreation areas located inside the injection well plume such as Cove Park. Lahaina has enjoyed UV disinfection of injection well discharges since 2015. Only Kahului remains without any disinfection of injection well discharges after chlorine disinfection was ceased in 2018.

There is an existing County contract with engineering firm Brown and Caldwell to draft a Preliminary Engineering Report describing a design for a new pump station at the Kahului WWRF to convey the water away from injection wells to soil aquifer treatment (SAT) basins or reuse away from the plant. UV disinfection will be added to this pump station PER, making UV disinfection of all municipal wastewater within reach County wide. Please keep the momentum going toward 100% municipal wastewater reuse in Maui County by advancing Bill 52 to the next Council.

Special thanks to Council member King for drafting Bill 52, and gratitude to all Members for your public service.

Thank you,

Travis Liggett
President, Reef Power LLC
travis@reefpowermaui.com
www.FlushAware.com
www.Instagram.com/reefpowermaui



Hunt 2007 link

MAUINOW

Maui News

High Bacteria Count at Cove Park, Maui

September 9, 2021, 5:16 PM HST

Article link

PC: file photo by Wendy Osher

The public is advised of a water quality exceedance of enterococci at Cove Park, Maui. Levels of 137 per 100 mL have been detected during routine beach monitoring.

The Department of Health Clean Water Branch provides beach monitoring and notification through its beach program.

The advisory for this beach is posted because testing for enterococci indicate that potentially harmful microorganisms such as bacteria, viruses, protozoa, or parasites may be present in the water. The department advises that wimming at beaches with pollution in the water may make you ill.

Maui News

High bacteria count advisory issued for Cove Park, Maui

August 19, 2022, 8:26 AM HST

Article link

13 COMMENTS

Listen to this Article
1 minute

A A A

A water quality exceedance of enterococci was recorded at Cove Park, Maui, resulting in an advisory from the State Department of Health, Clean Water Branch.

Levels of 364 per 100 mL have been detected during routine beach monitoring. That's beyond the threshold limit of 130 enterococci per 100 mL.

The advisory is posted because testing for enterococci indicate that potentially harmful microorganisms such as bacteria, viruses, protozoa, or parasites may be present in the water. The DOH advises that swimming at beaches with pollution in the water may make you ill.

"Children, the elderly, and people with weakened immune systems are the most likely populations to develop illnesses or infections after coming into contact with polluted water, usually while swimming. Fortunately, while swimming-related illnesses can be unpleasant, they are usually not very serious – they require little or no treatment or get better quickly upon treatment, and they have no long-term health effects," according to the advisory.

State of Hawaii | Department of Health

State of Hawaii, Department of Health
Clean Water Branch

COVE PARK *enterococcus* MEASUREMENTS BY HI DOH RECENTLY SHOW FREQUENT SPIKES NEAR OR ABOVE THE "BEACH ACTION VALUE" OF 130 MPN/100mL

2 out of 18 measurements since September 2021 have exceeded the BAV

Cove Park

Location Identifier	000703
Location Name	Cove Park
Island	Maui
Latitude Decimal Degrees	20.727503
Longitude Decimal Degrees	-156.449739

Sample No	MD12152102
Clostridium Qualifier	
Clostridium Results	0008
Enterococci Qualifier	
Enterococci Results	137

Date	12/15/2021
Time	9:30 AM
Temperature	25.40
Salinity	32.63
Dissolved Oxygen	05.65
Dissolved Oxygen Saturation	083.00
pH	08.06
Turbidity	0011.20
Comments	Sunny, calm, 1 ft shore break, 100 surfers, many homeless people

December 15, 2021 137 MPN 100 surfers

Location Identifier	000703
Location Name	Cove Park
Island	Maui
Latitude Decimal Degrees	20.727503
Longitude Decimal Degrees	-156.449739

Sample No	MD09082102
Clostridium Qualifier	
Clostridium Results	0005
Enterococci Qualifier	
Enterococci Results	137

Date	9/8/2021
Time	9:30 AM
Temperature	27.00
Salinity	31.35
Dissolved Oxygen	06.30
Dissolved Oxygen Saturation	093.90
pH	08.14
Turbidity	0003.84
Comments	Sunny, calm, 2 ft shore break, 50 people, 100 surfers, many homeless people

September 8, 2021 137 MPN 100 surfers

Location Identifier	000703
Location Name	Cove Park
Island	Maui
Latitude Decimal Degrees	20.727503
Longitude Decimal Degrees	-156.449739

Sample No	MD09012102
Clostridium Qualifier	
Clostridium Results	0002
Enterococci Qualifier	
Enterococci Results	124

Date	9/1/2021
Time	10:00 AM
Temperature	27.20
Salinity	32.57
Dissolved Oxygen	06.26
Dissolved Oxygen Saturation	096.00
pH	08.09
Turbidity	0005.08
Comments	Sunny, calm, 3 ft shore break, 200 surfers, many homeless people

September 1, 2021 124 MPN 200 surfers

Location Identifier	000703
Location Name	Cove Park
Island	Maui
Latitude Decimal Degrees	20.727503
Longitude Decimal Degrees	-156.449739

Sample No	MD05231802
Clostridium Qualifier	
Clostridium Results	0006
Enterococci Qualifier	>
Enterococci Results	2005

Date	5/23/2018
Time	9:20 AM
Temperature	26.00
Salinity	31.19
Dissolved Oxygen	06.36
Dissolved Oxygen Saturation	093.40
pH	07.92
Turbidity	0003.67
Comments	Calm, sunny, 1-2 ft shore break, 100 people, rising tide

May 5, 2018 >2005 MPN 100 people

LIST OF PATHOGENIC (ILLNESS-CAUSING) LIFE FORMS COMMONLY FOUND IN INFECTED WASTEWATER, SUCH AS R-3 INJECTED IN KIHEI AND KAHULUI

The list of pathogenic microbial species commonly found in non-disinfected wastewater is long and alarming, shown in the **U.S. NIH list** below.

Respiratory infections such as COVID-19 and **skin infections** can be caused by water borne pathogens.

The major pathogens of concern in municipal wastewater and diseases or illness associated with them:

Name of pathogen	Major disease or symptoms
Bacteria	
Campylobacter jejuni	Gastroenteritis
Escherichia coli	Gastroenteritis
Salmonella spp.	Salmonellosis, typhoid, paratyphoid
Shigella spp.	Bacillary dysentery
Staphylococcus	Skin Infections, bacteremia, toxic shock syndrome, septic arthritis
Streptococcus	Cellulitis, Pink eye, meningitis, pneumonia, endocarditis, necrotizing fasciitis
Vibrio cholerae	Cholera
Yersinia spp.	Gastroenteritis
Viruses	
Adenovirus	Upper respiratory infection and gastroenteritis
Astrovirus	Gastroenteritis
Coxsackie virus	Meningitis, pneumonia, fever
Echovirus	Meningitis, paralysis, encephalitis, fever
Hepatitis virus	Infectious hepatitis, miscarriage, and death
Human calicivirus	Epidemic gastroenteritis with severe diarrhea
Polio virus	Poliomyelitis
Reovirus	Respiratory infections, gastroenteritis
Rotavirus	Acute gastroenteritis with severe diarrhea
TT hepatitis	Hepatitis
COVID-19	Acute respiratory illness
Protozoa	
Balantidium coli	Balantidiasis
Cryptosporidium spp.	Cryptosporidiosis
Entamoeba histolytica	Acute amoebic dysentery
Giardia duodenalis	Giardiasis
Toxoplasma gondii	Toxoplasmosis

> Hawaii J Med Public Health. 2012 Aug;71(8):218-23.

Risk factors for community-associated Staphylococcus aureus skin infection in children of Maui

Gayle J Early [1], Steven E Seifried

Affiliations + expand

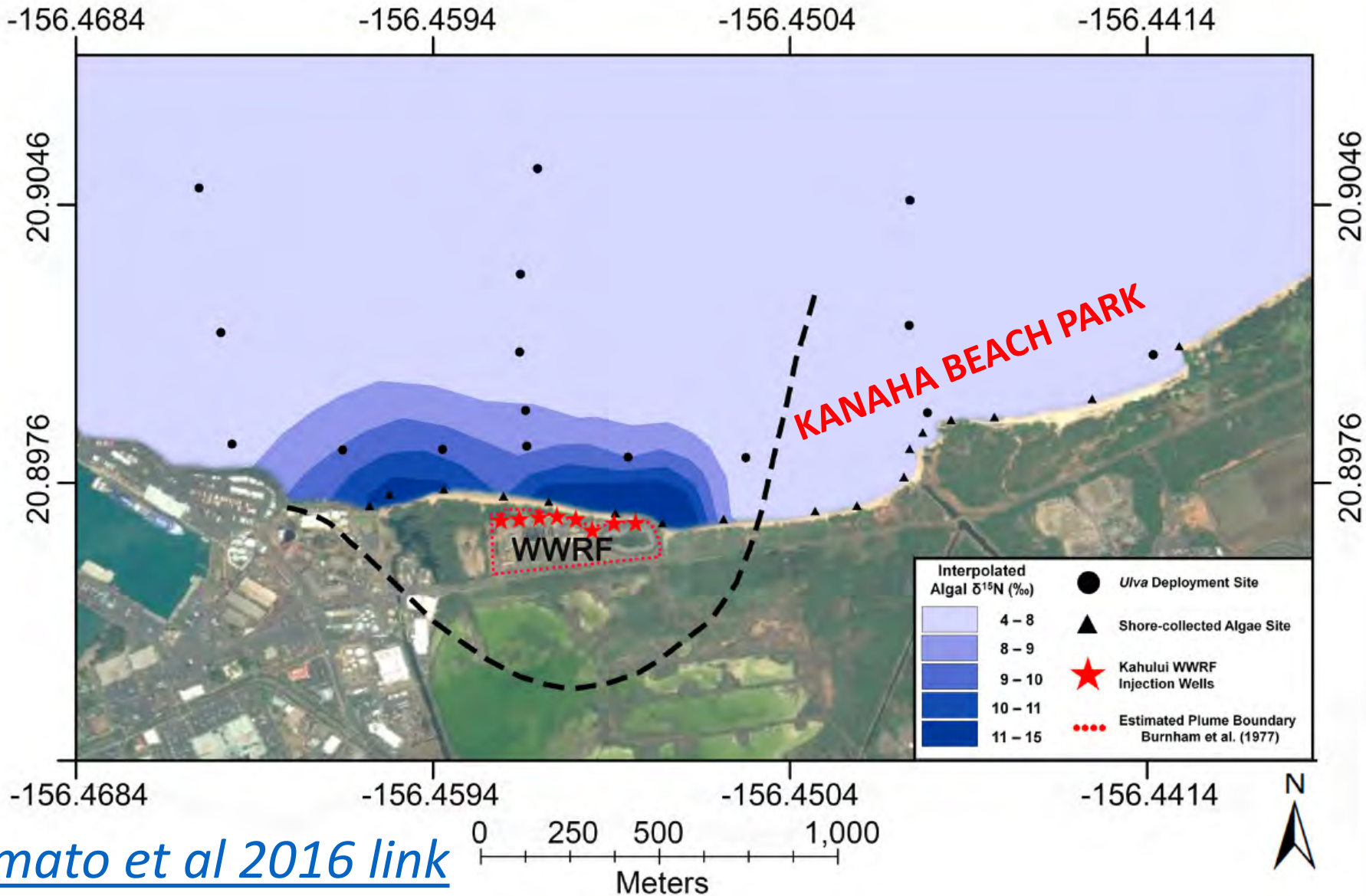
PMID: 22900237 PMCID: PMC3419822

Free PMC article

Article link

Abstract

The prevalence of community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA) infection, and Staphylococcus aureus (S. aureus) infection overall, has dramatically increased in the past 10 years. Children and Native Hawaiians and Pacific Islanders (NHPI) are disproportionately affected by CA-MRSA infection. The purpose of this case-control study was to identify risk factors for CA-S. aureus skin infections in children of Maui, Hawai'i, as a foundation for reducing the transmission of these infections. Survey data were obtained from patients in pediatric



Amato et al 2016 link

High bacteria count posted at Kanaha Beach

LOCAL NEWS

NOV 9, 2019

The Maui News

SHARE TWEET

High levels of bacteria have been detected at Kanaha Beach, the state Department of Health announced Friday morning.

During routine beach monitoring, the department's Clean Water Branch detected enterococci levels of 364 per 100 milliliters, indicating that potentially harmful microorganism such as bacteria, viruses, protozoa or parasites may be present in the water.

The advisory will remain in effect until water sample results no longer exceed the threshold level of 130 enterococci per 100 ml.

Swimming at beaches with pollution in the water may lead to illness, the department said.

Children, the elderly and people with weakened immune systems are the most likely to develop illnesses or infections after coming into contact with polluted water, usually while swimming. The department said that while swimming-related illnesses can be unpleasant, they are usually not very serious, requiring little or no treatment or improving quickly upon treatment, and they have no long-term health effects.

The most common illness associated with swimming in water polluted by fecal pathogens is gastroenteritis. It occurs in a variety of forms that can have one or more of the following symptoms: nausea, vomiting, stomachache, diarrhea, headache or fever. Other minor illnesses associated with swimming include ear, eye, nose and throat infections. In highly polluted water, swimmers may occasionally be exposed to more serious diseases.

Article link

Maui News

High Bacteria Count Notification East of Hoaloha Park in Kahului, Maui

December 4, 2020, 5:00 AM HST

Article link

The Hawai'i State Department of Health has issued a high bacteria count notification and is retesting water at Kahului Harbor east of Hoaloha Park.

The department reports that bacteria levels of 1625 per 100 mL were detected during routine beach monitoring, but is uncertain about the representativeness of the first sample.

"This beach has historically met the acceptable beach threshold level, and there is no known source of fecal contamination. Therefore, DOH has collected another sample and is retesting the site," according to a department notification.

Surfrider Foundation records high bacteria levels at Kahului, Haneo‘o, Maliko, Baby Beach

August 15, 2022, 8:56 AM HST

** Updated August 15, 9:07 AM*

4 COMMENTS

Listen to this Article
1 minute

A A A

Maui water quality testing. PC: Surfrider Foundation

August 10 2022 indicator bacteria exceedances article link

The Surfrider Foundation’s Blue Water Task Force recorded high bacteria levels this month at Kahului Harbor, Haneo‘o in East Maui, Maliko Bay, and Baby Beach on the North Shore.

The citizen science water testing program conducted the tests on Aug. 10, 2022.

This is the second month in a row that Kahului Harbor had high levels of Enterococcus bacteria, with results showing a count of 2400 MPN/100mL. It was the third month in a row for high levels at Haneo‘o, which had 454 MPN/100mL, down from the month before when rates were 1152 MPN/100mL. Baby Beach recorded a rate of 175 MPN/100mL, marking the first time this year that the location had high bacteria levels in the monthly report.

Mendium-high levels were recorded at several popular swimming beaches including: Baldwin Beach, Kū‘au, East Ho‘okipa, and Hāna Bay.

The group plans to add Mā‘alaea to its sample sites in the near future, due to injection wells at the location, as well as symptoms reported by surfers in the area. The task force reported medium levels at Mā‘alaea, and anticipates having a full report in the near future.

County of Maui not planning to invest in disinfection of injected effluent in Kahului until FY2026. Estimated cost of UV disinfection install in Kahului $6M

Wailuku-Kahului Wastewater Reclamation Facility (WWRF) Upgrade to R-1 (CBS-1169)

The plan to upgrade the Kahului/Wailuku WWRF to R-1 is only in the preliminary planning stages. We do not have any preliminary plans, or formal cost estimates at this time. The preliminary estimate in the six year CIP was based on the one channel expansion in Lahaina that cost approximately $6 million. An actual cost estimate will be prepared once we get closer to design contracts.

We have listed it as a potential project on our six year Capital Improvement Program. At this point in time it is not required until the recycled water force main (CBS-1171) and pump station (CBS-5034) projects are constructed to transfer water to the central valley and the water could be used by customers. These other projects are also on the six year schedule and have design contracts issued and the EIS is in process. The current time line is our best estimate, it is not required to be completed by FY2028. It is dependent on other projects as well as other approvals (mayor's office, County Council, etc.) Note that funding for projects is only approved on a year to year basis during the County Budget process.

County of Maui
Fiscal Year 2022-2027 Capital Improvement Program

CBS No: CBS-1169

Project Name: Wailuku-Kahului Wastewater Reclamation Facility (WWRF) Upgrade to R-1

Department: Department of Environmental Management

District: Wailuku-Kahului

Project Type: Sewer

Anticipated Life: 30 years

Prior Years	Appr	Ensuing	Subsequent Years					Total
Expend/Encb	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	6-Year
0	0	0	0	0	0	1,800,000	0	1,800,000

PROJECT DESCRIPTION

The primary objective for this project is to modify the Wailuku-Kahului Wastewater Reclamation Facility to produce a R-1 quality reclaimed water for the Wailuku-Kahului service area. This includes construction of ultraviolet disinfection basins, on-site storage, a pump station and all related piping and electrical to connect to the proposed force main.

PROJECT JUSTIFICATION

Use of reclaimed water will result in the conservation of potable water resources, preservation of brackish water resources and reduction of treated effluent discharged into injection wells.

STRATEGIC PLAN ALIGNMENT

Department's Strategic Plan	Countywide Priority Results
Sustain Reliable Wastewater Infrastructure Ensure Facilities Meet Future Needs Provide Reliable Wastewater Service	A Suitable Public Infrastructure A Strong, Diversified Economy A Prepared, Safe, and Liveable County A Healthy and Sustainable Community

Operating Impact Narrative

Addition of this treatment capability will require an additional position to manage the system, and extra costs for electricity and materials to operate the disinfection system and pumps.

Wailuku-Kahului WWRF
R-1 Recycled Water Study

Prepared for

County of Maui, Wastewater Reclamation Division, Wailuku, HI

August 2015

2015 Reuse study #1 link

2015 Reuse study #2 link

Table 5-6. DOH Reuse Guidelines - Disinfection Requirements

Item	Requirement
General Disinfection	
Inactivation of F-specific bacteriophage MS2 or poliovirus	5-log or 99.99% removal
Fecal coliform bacteria concentration	<2.2 colony forming units (CFU)/100 mL 7-day median, and >23 CFU/100 mL in no more than one sample in 30 days, and <200 CFU/mL at all times
Disinfection via UV	
UV dose	100,000 μWs/cm^2 (for non-membrane filtration)
Minimum UV transmittance	55 percent
Post-filtration turbidity	Automatic diversion from reuse if >2 NTU
Measurements for flow rate, UV intensity, UV transmittance, turbidity, operational UV dose	Continuous
UV System Redundancy	Required such that PWWF can be handled when one bank of lamps (in each channel) is offline

Table 6-3. UV Disinfection Design Criteria	
Description	**Value**
Filtered water UV transmittance	55 percent minimum [a]
Minimum UV dose	100,000 µWs/cm^2
UV technology	Trojan UV3000+
Lamp type	Low pressure high output, in quartz sleeves
End of lamp life factor	0.98
Lamp fouling factor	0.95
Lamp cleaning system	Automatic
Number of channels	3
Number of banks per channel	5 (1 redundant bank per channel)
Total number of banks	15 (12 duty, 3 redundant)
Number of modules per bank	18 [a]
Number of lamps per module	8
Total number of UV lamps	2,160 [a]
Lamp power draw	254 watts/lamp
Maximum power draw	540 kW [a]
Water level control	Fixed weirs
Instrumentation	Continuous UV intensity monitoring Continuous UV transmissivity monitoring
Energy conservation	Automatic lamp dimming

UV costs for parts & power in the $100K's per year

		FY2021	Estimated FY2022	Estimated FY2023
POWER COST:	(per 2 MGD)			
Lahaina WWRF	UV System	$ 112,958.36	$ 137,875.65	$ 144,037.99
Kihei WWRF	UV System	$ 68,107.25	$ 85,134.06	$ 140,608.51
Electrical Cost per KWH	HECO	$ 0.31	$ 0.31	$ 0.32
	S POWER (PV)	$ 0.21	$ 0.21	$ 0.21
Estimated Annual UV Power Cost		$ 181,065.61	$ 223,009.71	$ 284,646.50
MATERIALS/SUPPLIES:				
Lahaina WWRF	UV lamps, sleeves, modules, parts	$ 127,217	$ 132,340	$ 135,000
Kihei WWRF	UV lamps, replacement modules, parts	$ 51,538	$ 121,400	$ 128,000
Estimated Annual UV Equipment Cost		$ 178,756	$ 253,741	$ 263,000

Anticipated Bill 52 CD1 language:

"Municipal wastewater effluent discharged or reused by the County must meet Hawaii state R-1 reuse standards for fecal coliform bacteria; the County must allocate sufficient funding for the implementation of this subsection so that its implementation does not cause any increases in sewage rates for residents."

REUSE GUIDELINES

Volume 1: Recycled Water Facilities

Prepared by
Hawai'i State Department of Health
Wastewater Branch
January 2016
(Replaces May 15, 2002 Version)

D. R-1 Recycled Water

In order to be classified as R-1 recycled water, wastewater must be oxidized, filtered and disinfected as follows:

3. **Disinfection**

The disinfection process, when combined with filtration, must have demonstrated inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least resistant to disinfection as the polio virus may be used for purposes of demonstration.

b. UV Disinfection

1) When using media filtration:

a) The design UV dose shall be 100 mJ/cm^2 or greater under maximum daily flow; and

b) The filtered UV transmittance shall be 55 percent or greater at 254 nanometers (nm).

2) When using membrane filtration:

a) The design UV dose shall be 80 mJ/cm^2 or greater under maximum daily flow; and

b) The filtered UV transmittance shall be 65 percent or greater at 254 nanometers (nm).

3) The minimum acceptable design requirements and commissioning of new UV disinfection systems shall comply with the *NWRI UV Guidelines*.

4) A UV system that is Title 22 certified by California is acceptable to the DOH.

4. **Fecal Coliform**

a. The median density measured in the disinfected effluent shall not exceed 2.2/100 milliliters using the bacteriological results of the last seven days for which analyses have been completed;

b. The density shall not exceed 23/100 milliliters in more than one sample in any 30-day period; and

c. No sample shall exceed 200/100 milliliters.

d. Frequency of sampling and analysis:

1) Sampling and analysis shall be done daily for fecal coliform when R-1 is being used as allowed (i.e. not directly disposed).

2) If approved by the Director, sampling frequency may be reduced to weekly sampling based on:

a) Use of R-1 when a lower class of recycled water is allowed;
b) Volume of R-1 used;
c) Disinfection or filtration method used;
d) Demonstrated disinfection quality and reliability;
e) Sampling location; and
f) Other factors as determined by the DOH.

Hawaii DOH 2016 Reuse Guidelines link

FlushAware
Do you know what happens to the water that goes down the toilet and drain?
Learn About Your Maui Island Wastewater Disposal Method
FlushAware.com

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MAUI NUI

MARINE RESOURCE COUNCIL

Special Thanks

COUNTY OF MAUI

STATE OF HAWAII

B.a.R.E.

Born and Raised Earth