

## APPENDIX A: Data Intake Log

<b>Date Received</b>	<b>Submitter</b>	<b>Organization</b>	<b>Waterbody Area</b>	<b>Description of Data</b>
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2007
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2008
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2009
01/18/2011	Steve Dollar	Marine Research Consultants	Makena, Maui	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Hokulia, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Kukio, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Maniniowali, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Kapulehu, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Kohanaiki, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Waikoloa, Hawaii	excel doc; nutrients
01/31/2011	Richard Brock	Environmental Assessment Co.	Manele, Lanai	excel doc; nutrients
06/23/2011	Kenneth Tenno	City and County of Honolulu	Sand Island, Oahu	excel doc; nutrients
10/06/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2006

## APPENDIX B: Public Comments Log

ID	Name	Affiliation	email	Address
01	Michele P. Hoke		<a href="mailto:maui.basket@juno.com">maui.basket@juno.com</a>	133 Haloa Rd., Haiku, HI 96709
02	Brad Porter	University of Hawaii	<a href="mailto:bradp@hawaii.edu">bradp@hawaii.edu</a>	
03	Pam Palencia		<a href="mailto:kachina@mauigateway.com">kachina@mauigateway.com</a>	
04	PM Wylie		<a href="mailto:prentisentina@yahoo.com">prentisentina@yahoo.com</a>	
05	Laily Chowdry		<a href="mailto:crystal01@clearwire.net">crystal01@clearwire.net</a>	64 Ehiku Loop, Kihei, HI 96754
06	Liz Foote	The Coral Reef Alliance	<a href="mailto:lfoote@coral.org">lfoote@coral.org</a>	
07	Bonnie Marsh		<a href="mailto:naturadoc@gmail.com">naturadoc@gmail.com</a>	
08	Michelle Johanning		<a href="mailto:loveartmichelle@live.com">loveartmichelle@live.com</a>	Kihei
09	Bryan Brey		<a href="mailto:bryanbrey@gmail.com">bryanbrey@gmail.com</a>	Kihei
10	Mike Moran		<a href="mailto:MMMMahalo2000@aol.com">MMMMahalo2000@aol.com</a>	Maui
11	Pam Daoust		<a href="mailto:daoust@hawaii.rr.com">daoust@hawaii.rr.com</a>	190 Hau'oli St, #395, Wailuku, HI 96793
12	Gary Lani-Montira	University of Hawaii	<a href="mailto:lani7@hawaii.edu">lani7@hawaii.edu</a>	
13	Drew Sulock	Pacific Whale Foundation	<a href="mailto:drewsulock@pacificwhale.org">drewsulock@pacificwhale.org</a>	300 Ma'alaea Rd., Suite 211, Wailuku, HI 96793
14	Carole Burstein		<a href="mailto:cbaloha@gmail.com">cbaloha@gmail.com</a>	
15	Melinda Long		<a href="mailto:hikingmelinda@yahoo.com">hikingmelinda@yahoo.com</a>	Kihei
16	Tamara Paltin	Save Honolua Coalition	<a href="mailto:tampaltin@gmail.com">tampaltin@gmail.com</a>	
17	Laura Binstock		<a href="mailto:leilah@ipuka.org">leilah@ipuka.org</a>	Haiku, HI 96708
18	Christina Wine	University of Hawaii	<a href="mailto:cmlwine@hawaii.edu">cmlwine@hawaii.edu</a>	

<b>ID</b>	<b>Name</b>	<b>Affiliation</b>	<b>email</b>	<b>Address</b>
19	Patricia Hoskin	Humpback Whale Sanctuary	<a href="mailto:pattylou9@gmail.com">pattylou9@gmail.com</a>	2495 S. Kihei Rd., #163, Kihei, HI 96753
20	Mary Malone		<a href="mailto:marymalone2@aol.com">marymalone2@aol.com</a>	69 North Church Street, Wailuku, HI 96793
21	Robin Knox	Water Quality Consulting, Inc.	<a href="mailto:robin@wqcinc.com">robin@wqcinc.com</a>	
22	Daniel Kanahale		<a href="mailto:tookie49_2004@yahoo.com">tookie49_2004@yahoo.com</a>	P.O. Box 648, Kihei, HI 96753
23	Jodi Sussman		<a href="mailto:jodisussman33@gmail.com">jodisussman33@gmail.com</a>	P.O. Box 2331, Kihei, HI 96753
24	Clare Apana		<a href="mailto:ahkada@aol.com">ahkada@aol.com</a>	
25	Janet Hashimoto	EPA, Region 9		75 Hawthorne Street San Francisco, CA 94105-3901
26	Chittaranjan Ray	University of Hawaii WRRC		2500 Dole Street Krauss Annex 19 Honolulu, HI 96822
27	Mia Charleston	Maui Nui Marine Resource Council	<a href="mailto:admmnmrc@yahoo.com">admmnmrc@yahoo.com</a>	
28	John Seebart		<a href="mailto:seebartj001@hawaii.rr.com">seebartj001@hawaii.rr.com</a>	
29	Liz Foote		<a href="mailto:lfoote@hawaii.rr.com">lfoote@hawaii.rr.com</a>	160 Kinohi Loa Loop, Wailuku, HI 96793
30	Robin Knox		<a href="mailto:robin@wqcinc.com">robin@wqcinc.com</a>	28 Waikalani Place, Kihei, HI 96753
31	Jennifer O'Connell			1588 A'a Street, Lahaina, HI 96761

**APPENDIX C: Public Comments and Responses**

<b>Commenter IDs</b>	<b>Summary of Comments</b>	<b>Response</b>
1 thru 22	Request for extension of Public Comment period. (original comment period scheduled to end on 12/13/2011)	The Public Comment period was extended to January 31, 2012. Document titled "Background Information 2008-2010 Integrated Report and Current Ongoing Studies at West Maui" was also attached to responses. (see Attachment A below)
20 thru 23	The Hawaii Department of Health failed to submit this report to Congress during 2008, so this is the first update since the 2006. The report however does not consider any new monitoring locations since 2006, but instead updates the assessment using the data from January 2006 to December 2009. Ten coastal beach segments were taken off the impaired list for recreational use impairments, however none of them were in Maui County. The state changed the goal, increasing the allowable fecal indicator bacteria concentration in the water. (now 35 colonies per 100 ml of water verse 7 colonies per 100 ml). There are 10 beaches that were taken off the impaired waters list due only to the change in criteria.	<p>DOH failed to submit the 2008 and 2010 report to Congress as required by the Clean Water Act. The Environmental Planning Office was responsible for the completion and submission of the 2008 and 2010 reports. However, since the reorganization, the responsibility now falls upon the Clean Water Branch.</p> <p>In agreement with EPA, the 2008/2010 IR is just an updated place holder for the 2012 report. We will produce a more robust 2012 report.</p>

Commenter IDs	Summary of Comments	Response
21 thru 23	<p>For Maui the assessments delist for Enterococcus bacteria impairment Kahului Harbor, Kalama Park, and Kalepolepo Beach Park.</p> <p>Both of these areas are in the effluent plume of the Kihei sewage injection wells. The County is not required to disinfect the sewage effluent in Kihei before injection and often injects effluent without disinfection of any kind. These areas also exhibit impairments due to high turbidity and high chlorophyll A. These water quality conditions encourage the growth of microorganisms including pathogens. High turbidity blocks the penetration of sunlight that would kill bacteria and high nutrient concentrations provide nourishment for microbes. Your Department of Health allows the injection of sewage effluent that has not been treated to remove microbial pathogens into this microbe nurturing environment. Previously these waters were on the list as having impairments (not meeting the bacterial criteria). Are these water bodies being delisted because they are safe to swim in or because you raised the criteria concentration?</p>	<p>In 2010, CWB sampled 50 coastal stations from Mala Wharf to Hawea Point under the EPA National Coastal Condition Assessment Protocol. In 2011, another 50 different stations from Mala Wharf to Hawea Point were sampled under the same protocols. CWB is aware of the Lahaina injection well. Samples from the seeps have been collected and tested for bacteria and water quality parameters. Beginning 2012, samples from the Lahaina seeps are hoped to be collected for pharmaceuticals, waste water compounds, nutrients, and molecular markers.</p> <p>CWB also monitors Maui's beaches three times a week for bacteria levels.</p>

Commenter IDs	Summary of Comments	Response
24	<p>I would like to have public information sessions be made available to all islands so that questions and clarity of found results can be explained. how come criteria is getting less stringent when more problems with the beach waters seem to be occurring?</p>	<p>CWB is open to holding meetings with any group as long as there is interest. Due to tight budgets and layoffs, it is not feasible to hold open public meetings and hope that the public comes. CWB prefers to hold discussions with individuals, groups, or associations so that we get the most for our tax dollars. Since you have showed interest, you will be notified when the 2012 report is available for comment.</p> <p>Document titled "Background Information 2008-2010 Integrated Report and Current Ongoing Studies at West Maui" was also attached to responses. (see Attachment A below)</p>
26	<p>Suggest provide greater detail about (1) spacial decision units; (2) data packages that DOH received; (3) timelines and assessment methodologies.</p>	<p>We will consider your comments and make appropriate changes where applicable.</p>
27 thru 30	<p>Runoff, wastewater, poor management on West Maui are strangling reefs and flooding towns. Lahaina wastewater treatment and injection well.</p> <p>Request information meetings be held around the state on the various islands, and in there various communities, explaining the report in order to facilitate public participation.</p>	<p>We monitor the beaches at West Maui weekly and have been doing additional monitoring since 2010.</p> <p>Upon completion of the West Maui studies, you will be invited to attend a presentation discussing the results.</p> <p>Document titled "DOH Maui Monitoring Activities Recent and Ongoing" was also attached to response. (see Attachment B below)</p>

Commenter IDs	Summary of Comments	Response
28	<p>I am very unhappy that water quality standards have been reduced here in Hawaii. The people of this state and the leading industry in the state depend on our environment. We market the "pristine" waters of beaches on the various islands. Therefore lowering of our once high standards seems deceptive, and detrimental to our health and ultimately to our tourist based businesses.</p>	<p>Bacteria standards were revised to match the EPA national standard and were approved by EPA. Numerous studies have shown that having the enterococci standard at 7 colony forming units/100 mL was too low and that enterococci were being questioned as a reliable indicator. We use another tracer, <i>Clostridium perfringens</i>, in determining human fecal concerns in our recreational waters. Link to studies: <a href="http://www/great-lakes.net/mailman/swish.cgi?query=enterococci&amp;listname=beachnet&amp;submit=Search&amp;sort=swishrank&amp;metaname=swishdefault">http://www/great-lakes.net/mailman/swish.cgi?query=enterococci&amp;listname=beachnet&amp;submit=Search&amp;sort=swishrank&amp;metaname=swishdefault</a></p>
29	<p>Kahekili in West Maui has insufficient data for some parameters. I am hoping you can ensure that the minimal amount of sampling can be conducted over the next reporting period.</p>	<p>In 2010 and 2011, under a United States Environmental Protection Agency sponsored West Maui Priority Watershed Project, 50 coastal stations from Kapalua to Wahikuli were monitored and sampled by the DOH under a probabilistic monitoring design. Since January of 2012, monthly sampling has been underway at Kahekili, targeting the underwater seeps associated with the Lahaina Wastewater Reclamation Facility. In addition, since at least 2010, the DOH has been sampling twice a month at Kahekili/Airport 2 (Mahinahina), Airport Beach (Kahekili), and Black Rock.</p>

Committer IDs	Summary of Comments	Response
30	<p>I request that the Department of Health not delist enterococcus as a pollutant for any water body based solely on the change in state water quality standard that relaxed the enterococcus geomean criterion from 7 cfu/100ml to 35 cfu/100 ml. I request that delisting for enterococcus be allowed only where there is a documented statistically significant improvement in water quality as evidenced by decrease in enterococcus concentration from the levels that originally led to the waterbody being listed as impaired.</p> <p>The previous water quality criterion for enterococcus of 7 cfu/100 ml was sensitive enough to discern the impairment. The new criterion of 35 cfu/100 ml is not sensitive enough to discern the obvious impairments to recreation in these waters.</p>	<p>Our bacteria standards were revised to match the EPA national standard, and were approved by the EPA. Studies have shown that having the enterococci standard at seven (7) colony forming units/100 ml was low and that enterococci was being questioned as a reliable indicator. That is why we use another secondary tracer, Clostridium perfringens, in determining human fecal contamination in our recreational waters. In addition, we are funding a study, looking at the survivability of enterococci and other human pathogens in tropical sand. Dr. Tao Yan, University of Hawaii School of Civil and Environmental Engineering is conducting the study under the Kualoa SEP.</p>
31	<p>Cross contamination in prominent areas and being kept secret. If the solution is to merely sanitize/treat the sewage prior to it being pumped into the ocean, I cannot imagine why that measure would be ignored. West side of Maui, Kahekili beach.</p>	<p>Presently, the County of Maui is disinfecting the effluent that is discharged into the injection wells at the Lahaina Waste Treatment Facility.</p> <p>CWB monthly Lahaina Seep monitoring of Kahekili Beach indicate very low levels of indicator bacteria from ambient waters and the injection well connected underwater seeps. In addition, we sample twice a month at Black Rock, Kahekili Beach Park, and fronting the Airport. Bacteria levels at these sites have been very low.</p> <p>Document titled "DOH Maui Monitoring Activities Recent and Ongoing" was also attached to response. (see Attachment B below)</p>

## **APPENDIX D: Attachment A**

### **Background Information 2008-2010 Integrated Report and Current Ongoing Studies at West Maui**

Thank you for your interest in the 2008-2010 Integrated Report(IR). Some refer to this as the “Impaired Waters” report. This report is a requirement of the Clean Water Act.

In August 2010, in a re-organization of the Environmental Planning Office and the Clean Water Branch: the 303(d)Impaired Waters, Total Maximum Daily Load, and Water Quality(WQ) Standards Programs were moved to the Clean Water Branch, Monitoring & Analysis Section.

The 303(d) Program produces the IR and was late in the 2008 and 2010 reports. The person in charge resigned before the move to Clean Water Branch(CWB). The position was immediately filled and work was started on producing an updated 2008/2010 IR report. In an agreement with EPA, an update IR was allowed, mainly as a “place holder” for a more robust 2012 IR report that is due April 1, 2012.

WQ Standards Program was vacant for more than 5 years but filled with the bumping that occurred during the reduction in force in 2010. The program is catching up, pesticides amendments to our standards are moving along to other agencies and the legislature for review, and certain typos in standards have been corrected.

Getting back to the IR, I ask that you continue your interest in it but keep in mind that this report is just a place holder and save comments for the 2012 IR report due April 1, 2012. The 2012 report will be a more robust report and will share information of recently completed and ongoing activities occurring in West Maui. We have completed the 2011 West Maui Priority Watershed Sampling(nutrients, bacteria, physical parameters,etc.) of 50 coastal stations in early September 2011. In 2010, a similar study was done at 50 different stations in West Maui.

We are involved in the Lahaina Tracer Study and have taken samples from the seeps for bacteria analysis and have taken physical WQ measurements. In late January/early February, we will begin pharmaceutical, molecular(qPCR), and nutrient sampling of the seeps and adjacent areas. Beach monitoring will continue in the area as normal. Pharmaceutical (schedule 2080) and wastewater compounds (schedule 4433) samples will be analyzed by USGS lab. qPCR will target feral pig, cow, bird, human, and enterococci markers and will be performed by Dr. Alexandria Boehm’s lab at Stanford University.

Although I have data available, I am not at liberty to share any of the data at the moment but will do so at a later date, when all studies are completed, data analyzed, and a draft final is written. A lot of time, money, and work is being put forth for the West Maui Priority Watershed and we ask for your patience to allow us to do our work.

## **Attachment B**

### **DOH Maui Monitoring Activities Recent and Ongoing**

The DOH, Clean Water Branch is actively continuing West Maui monitoring activities. In 2010, 50 coastal stations from Hawea Point to Mala Wharf were selected under a probabilistic monitoring design and monitored under EPA National Coastal Condition Assessment (NCCA) protocol. In 2011, the monitoring was repeated on another 50 different stations.

In January 2012, DOH Clean Water Branch (CWB) began monthly sampling at underwater seeps identified by the University of Hawaii (UH) as the sites where effluent from the Lahaina Wastewater Reclamation Facility are discharging treated effluent into coastal waters. CWB is being assisted by Meghan Dailer of the UH. Samples are being analyzed for nutrients, bacteria, EPA toxics, and chlorine residual. In addition, water quality parameters are being measured. In April 2012, CWB began collecting samples for molecular (qPCR) analysis at the seeps and other nearby areas. In the very near future, pharmaceutical samples will also be collected at the seeps and nearby areas. The seep monitoring will continue to the end of 2012, data will be analyzed and a report will be written.

After the report is released, CWB will present the results to the West Maui Community. All persons who have shown an interest in the water quality of West Maui will be invited to the presentation.

## **APPENDIX E: Public Notice Announcement**

(Note: Original Public Notice was published in 6 local newspapers on Sunday, November 13, 2011. Public Comment period was 30 days. Due to numerous email requests for extension, the comment period was extended to January 31, 2012, for a total of 79 days.)

### **NOTICE OF PUBLIC COMMENT PERIOD FOR DRAFT REPORT ON HAWAII'S 2008/2010 LIST OF ASSESSED WATERBODIES**

Under §303(d) of the Federal Clean Water Act, the Department of Health (DOH), State of Hawaii, requests public comments on the draft report titled "2008/2010 Integrated Report of Assessed Waters Prepared Under Clean Water Act §303(d) and §305(b)." The draft report is available for public inspection Monday through Friday between 7:45 a.m. and 4:30 p.m. in the Clean Water Branch (CWB), Department of Health, 919 Ala Moana Blvd., Rm. 301, Honolulu, 96814. For a copy of the draft report, contact CWB at 586-4309, send an email to [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov), fax a request to 586-4352, visit our website at <http://hawaii.gov/health/environmental/water/cleanwater/index.html>, or mail a request to the CWB address above. The District Health Offices (DHOs) on Hawaii, Kauai and Maui also have copies of this document available for review:

Hawai'i DHO, 1582 Kamehameha Ave., Hilo, HI 96720, (808) 933-0401

Kealakekua Health Office, 79-7595 Haukapila St., Rm. 109, Kealakekua, HI 96750, (808) 322-1507

Kaua'i DHO, 3040 Umi St., Lihue, HI 96766, (808) 241-3323

Maui DHO, 54 High St., Wailuku, HI 96793 (808) 984-8230

All comments must be transmitted in writing by 12/13/2011 to Alec Wong, Clean Water Branch, Department of Health, 919 Ala Moana Blvd., Third Floor, Honolulu, HI 96814.

**Loretta Fuddy, A.C.S.W., M.P.H.**  
**Director of Health**