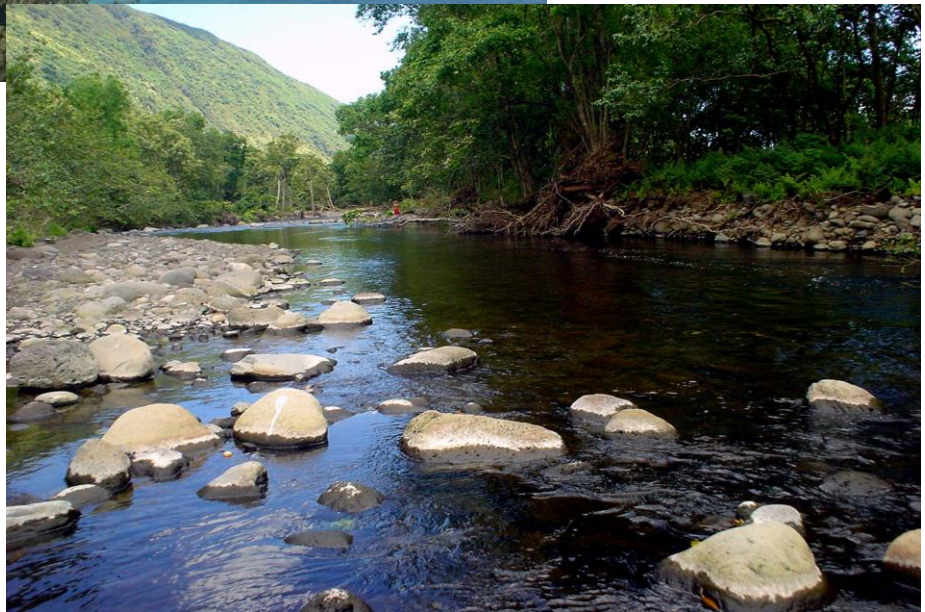


**2008/2010 STATE OF HAWAII WATER QUALITY MONITORING AND  
ASSESSMENT REPORT:**

Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress  
Pursuant to Sections §303(d) and §305(b), Clean Water Act (P.L.97-117)



The Hawaii Department of Health  
Honolulu, Hawaii  
July 3, 2012

## EXECUTIVE SUMMARY

The Hawaii State Department of Health (HIDOH) is required by the Clean Water Act (CWA) section §305(b) and §303(d) to report on the state's water quality. The CWA §305(b) requires states to describe the overall status of water quality statewide and the extent to which water quality provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water. The CWA §303(d) requires states to submit a list of waters that do not meet state water quality standards, plus a priority ranking of listed waters based on the severity of pollution and the uses of the waters.

Due to reorganization within HIDOH, the Integrated Report is now under HIDOH Clean Water Branch (CWB). The Integrated Report was previously under HIDOH Environmental Planning Office (EPO). HIDOH EPO did not complete the 2008 and 2010 Integrated Reports. An agreement was made between the Environmental Protection Agency (EPA) and HIDOH CWB to submit just an updated version for the 2008/2010 Integrated Report, with the intention of doing a more robust 2012 report.

As previously mentioned, the 2008/2010 Integrated Report is an update of the previous 2006 Integrated Report. The previous 2006 Integrated Report, plus assessments made from data collected from marine waters between January 2006 and December 2009, constitute the body of information reviewed for the 2008/2010 Integrated Report. In order to complete this belated report in a timely manner, no data from new locations are used. Any unreviewed data received will be incorporated in the next cycle, the 2012 Integrated Report.

HIDOH's 2008/2010 Integrated Report contains a total of 204 marine segments and 91 stream segments for which decisions of non-attainment reflect the waterbody status as impaired. There are seven new marine waterbodies listed for impairment and no new inland water segments.

### **Marine Waters**

The 2008/2010 Integrated Report contains a total of 204 impaired marine segments. The breakdown per island for the 204 impaired marine segments (and the percent listed waters per island/total number listed waters) is: Kauai 23 (11%), Oahu 65 (32%), Molokai 3 (1%), Lanai 8 (4%), Maui 72 (35%), and Hawaii 33 (16%).

There are seven new marine waterbodies listed as impaired for one or more pollutants that include Total Nitrogen, Nitrate + Nitrite Nitrogen, Chlorophyll a, and/or Ammonium Nitrogen:

- Ala Moana Beach (Diamond Head) (HIW00002)
- Pokai Bay (HIW00007)
- Royal-Moana Beach (HI898947)
- Sans Souci (HI617815)
- Sunset Beach (HI860544)
- Hulupoe Bay (HIW00177)
- Manele Bay Beach (HIW00178)

There are also 10 waterbodies that are delisted, all of which are delisted for enterococci:

Kapaa Beach County Park (HI972832)  
Poipu Beach County Park (HI396850)  
Hawaii Kai Station (HIW00117)  
Hawaiian Electric Beach Park (HI628972)  
Kaaawa Beach Park (HI580360)  
Kaiona Beach (HI234342)  
Kawaikui Beach Park (HI304424)  
Mamala Bay (Sand Isl. Offshore) (HIW00014)  
Waialae Beach County Park (HI997368)  
Waimea Bay (HIW00128)

Of the marine waterbodies previously listed in the 2006 Integrated Report, 30 waterbodies are now listed for one or more new pollutants, for a total of 76 newly listed pollutants. Conversely, one or more pollutants are now delisted from 39 previously listed waterbodies, resulting in the delisting of a total of 49 pollutants.

Of the 204 listed marine segments, 37 are due to high enterococci indicator bacteria test results. Hawaii's bacteria water quality criteria for enterococci are now set at a geometric mean of 35 colony forming units (CFU)/100 mL and a single sample maximum limit of 104 CFU/100 mL, which are the same as the Environmental Protection Agency's (EPA) recommended criteria. HDOH amended Hawaii's water quality criteria for enterococci in May 2009. This action revised the geometric mean from 7 to 35 CFU/100 mL and the single sample maximum limit from 100 to 104 CFU/100 mL. Hawaii also uses a secondary tracer, *Clostridium perfringens*, as an additional investigative tool to help confirm high bacterial indicator counts.

Turbidity is the most common pollutant to trigger a marine water listing for impairment, with 151 occurrences in the 2008/2010 Integrated Report. The HDOH thinks these are due to polluted runoff and is focusing its polluted runoff control program on selected watersheds to make measurable improvements.

### **Inland Waters**

The 2008/2010 Integrated Report contains a total of 91 stream segments. Within the 91 listed inland freshwater perennial stream segments, there are a total of 320 individual occurrences of pollutants which did not meet the state water quality criteria. The most common listing was turbidity with 106 instances of exceedance. The next most common listings were Nitrate + Nitrite Nitrogen, Total Nitrogen, and Total Phosphorus with 76, 67, and 40 instances of exceedance, respectively. No new data since the previous 2006 cycle were reviewed for the freshwater portion of the 2008/2010 Integrated Report. However, any data submitted since December 2005 will be reviewed in the 2012 Integrated Report. Therefore, all data submitted since the cut off for the 2006 Integrated Report will be reviewed for the 2012 Integrated Report.

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## INTRODUCTION

The 2008/2010 Integrated Report is intended to satisfy the requirements for State reporting pursuant to Sections §303(d) and §305(b), Clean Water Act (P.L. 97-117). The CWA requires states to provide an assessment every two years of the quality of all their waters (§305(b)) and a list of those waters that are impaired or threatened (§303(d)).

The 305(b) report is "[the] **National Water Quality Inventory Report to Congress**... is the primary vehicle for informing Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters."<sup>1</sup> EPA recommends that states sort their surface waters into five categories according to the following guidance:

- Category 1:** All designated uses are supported, no use is threatened;
- Category 2:** Available data and/or information indicate that some, but not all of the designated uses are supported;
- Category 3:** There is insufficient available data and/or information to make a use support determinations;
- Category 4:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed;
  - 4a.** A TMDL to address a specific segment/pollutant combination has been approved or established by EPA;
  - 4b.** A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements;
  - 4c.** A use is impaired, but the impairment is not caused by a pollutant;
- Category 5:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Waterbodies classified in Category 5 constitute the CWA §303(d) List of Impaired Waters. The 2008/2010 Integrated Report identifies waterbodies that are not expected to meet state water quality standards, even after application of technology-based effluent limitations. States are required to obtain and review all existing and readily available surface water quality data and related information to compare against the state's water quality standards, and after applying listing criteria, determine the level of impairment for that waterbody. The list requirements apply to waterbodies impaired by point and/or non-point sources of pollution and include a requirement for listing of those pollutants for which applicable water quality standards are exceeded.

The 2008/2010 Integrated Report, including a priority ranking of listed waters based on the severity of pollution and the uses of the waters, will be submitted to EPA immediately upon completion. Computation of Total Maximum Daily Loads (TMDLs) for all §303(d)-listed pollutant/waterbody combinations, prepared in accordance with the priority rankings, must follow with EPA approval of each state's List. TMDLs for all listed pollutant/waterbody

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<sup>1</sup> EPA Monitoring and Assessing Water Quality (n.d.). Retrieved September 27 2006, from <http://water.epa.gov/lawsregs/guidance/cwa/305b/index.cfm>

combinations are prepared in accordance with the priority rankings and the State-EPA schedule for submission for TMDLs. The time frame for establishing TMDLs should be 8 to 13 years from the date of the original listing. This schedule is negotiated on a continuing basis and is influenced by federal funding, state policy, data availability and a host of other factors, which vary from year to year.

Decisions to list, delist, or not list a waterbody for which data exist and have been reviewed must be documented (40 CFR §130.7). The periodic listing process allows HDOH to list waterbodies, which after recent sampling, show exceedance; delist waterbodies (from the 303(d) section), which do not, after further sampling show exceedance for listed parameters; and more clearly articulate the parameter for which previously listed waterbodies should be listed. Additional information is also provided regarding attainment of known pollutants, pursuant to the 305(b) portion of the guidance as well.

Hawaii's 2006 Integrated Report, plus data collected from January 2006 to December 2009, constitutes the body of information reviewed for the 2008/2010 Integrated Report. In order to complete this belated report in a timely manner, no data from new locations are used. Changes to the marine listings are described in Chapter 1. Although there are no changes from the 2006 List of Impaired Waters for stream segments, Chapter 2 of this report provides a description of the inland water assessments. The full table of Waterbody Assessment Decisions is presented in Chapter 3.