

Public Comments and HDOH Responses

2014 State of Hawaii Water Quality Monitoring and Assessment Report

As part of the 2014 State of Hawaii Water Quality Monitoring and Assessment Report (Integrated Report) process, the Hawaii Department of Health (HDOH) solicited public comments for the draft 2014 IR over a 30-day period (April 14th, 2014 – May 14th, 2014). The public comment period was advertised via the HDOH Clean Water Branch (CWB) website and local newspapers. The HDOH received only one set of comments from an Oahu resident.

Commenter: David C. Penn

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Date Submitted: May 14, 2014

Comment: The DOH call for data for the 2014 reporting cycle was premised on the continuance of the rolling six-year window for data assessment that DOH first instituted in 2002 after a pre-implementation public participation process. Shrinking the window to two years after the end of the 2014 reporting cycle, unilaterally and without prior public notice, is bad policy that unfairly defeats public reliance on DOH precedents, unexpectedly closes the door on readily available data, and potentially causes changes in the outcome of assessment decisions by virtue of sample size alone. The proposed 2014 assessment methodology presents retroactively inoperable considerations for the design of third-party sampling campaigns and monitoring programs, and generates confusion about how to approach data collection for the current 2016 cycle and beyond. DOH's decision to "take a different approach" (p. 5) lacks supporting technical or policy rationale, bears no evidence of public participation or EPA support, and may well qualify as arbitrary and capricious agency action. DOH maintains that it instituted a two-year data window "to maintain consistency with the required two year reporting cycle" (p. 9), yet presents no evidence that a longer data window is inconsistent with the reporting cycle, and does not explain how a shorter window fits with the state's monitoring strategy, which should be the driving consideration, as opposed to a forced fit with EPA's reporting cycle. Part of the reason for instituting a six year window was to provide adequate time for acquiring sufficient data to support robust decision making that accounts for longer-term changes in land cover, land use, human activity, natural dynamics, and watershed response. Decreasing the size of the data window for assessment decisions could lead to a biennial revolving door of flip-flopping impairment decisions, and defeats the purpose of using assessment results for long-term program planning and TMDL development and implementation.

Response: According to the Clean Water Act (CWA) states are required to report on the health of all its waters (§305(b)), and those that are impaired (§303(d)) every two years. The basis for a two year assessment period is the incorporation of *new*, readily available data in determining the current status of State waters while also coinciding with the CWA reporting cycle requirement. For instance, readily available data collected by the Hawaii Department of Health (HDOH) and other sources from 2006- Oct 2011 was assessed in the 2012 Integrated Report (IR). The 2014 IR assesses *new*, readily available data from Nov 2011-Oct 2013.

Comment: If DOH intends to promote and implement this change in assessment methodology over subsequent reporting cycles, it is imperative for DOH to take it out for public review ASAP. Although the 2014 data window closed in November 2013, DOH unfortunately has not yet provided public notice about the timeframe and assessment methodology for the current 2016 reporting cycle that is already 25% expired.

Response: The HIDOH CWB is currently developing a new standardized assessment methodology. The CWB will provide a public comment period upon completion of the new assessment methodology draft. This public comment period will be prior to the public comment period for the 2016 draft IR.

Comment: The draft WQMAR states that “Most assessment units are represented by one sampling station identified as a beach shoreline segment; however there are some instances where one assessment unit is represented by multiple sampling stations” (p. 16). However, the assessment tables do not indicate (1) how this distinction actually plays out for each beach shoreline segment and other water body segments (e.g. how many stations, and which stations, are associated with each assessment decision unit), and (2) which assessment units represent beach shoreline segments only as opposed to assessment units that represent a larger portion of the marine water body type(s) that enclose a beach shoreline segment.

Response: The HIDOH CWB is currently working to improve decision unit identification through the development of a new standardized assessment methodology. The CWB will provide a public comment period upon completion of the new assessment methodology draft. This public comment period will be prior to the public comment period for the 2016 draft IR. The HIDOH will consider your comments and suggestions for the 2016 IR.

Comment: Moreover, unlike previous assessment methodologies, the 2014 methodology does not explain how data from multiple depths and transects are combined for analysis to make an assessment decision. This level of detail is critical for those who are designing monitoring campaigns and sampling plans. As it stands now, the only thing that a reader can safely conclude from Figure 1 (p. 16) and the accompanying text is that at least ten samples collected within a two year period from anywhere within an assessment decision unit may be statistically analyzed to make an assessment decision. This assumes that a reader can figure out the boundaries of the decision unit (which is another concern), and that all data collected is submitted for analysis (also a concern).

Response: Available depth and transect data are assessed in the 2014 IR. Clarification is provided in the text in the recreational and ecosystem health water quality assessment section of the report.

Comment: The 2012 assessment methodology for bacteriological data departed from the methodology of previous cycles, and the 2014 assessment methodology appears to represent yet another after-the fact departure from established methodologies that was implemented without pre-requisite public notice and participation. For example, in the 2012 methodology, for the first time in the assessment process, “Enterococci data was given a 10% allowable exceedance, in which the water body was not listed as impaired if the geometric mean exceeded state standards

10% or less of the time for the entire data set” (p. 13). The 2014 methodology does not include this statement, and instead introduces, again for the first time in the assessment process, the use of the single sample maximum (SSM) criterion for making impairment decisions. On its face as presented, reconciling the assessment process presented in Figure 1 (p. 16) with that in Table 1 (p. 17) and accompanying text yields the following rules for impairment decision making. For a minimum sample size of ten data points, impairment occurs when, within an assessment decision unit or at a single sampling station:

- (a) Two of ten samples collected anytime during a two-year period exceed the SSM.
- (b) The geometric mean of ten samples collected during any two months within a two-year period (five samples each month) exceeds the geometric mean criterion.

If this is not how DOH analyzes the data to make assessment decisions, then a more thorough explanation of the assessment methodology is desperately needed. Regardless, the new methodology, whatever it is, should be taken out for public review immediately in order to provide the opportunity to validate or invalidate its credibility for the current reporting cycle.

Response: The HIDOH CWB is currently developing a new standardized assessment methodology. The CWB will provide a public comment period upon completion of the new assessment methodology draft. This public comment period will be prior to the public comment period for the 2016 draft IR.

Comment: It appears that DOH defines readily-available data as the data that it collects and requires others to collect, along with what others submit voluntarily. Although the use of DMR data is an encouraging, long-overdue improvement, the overall scope of data retrieval and mining efforts remains exceedingly narrow and passive compared with other jurisdictions, overlooking many standard and EPA-recommended data sources. Moreover, the decision to shorten the data window to two years closed the door on surface water data collected by DOH and others between 2007 and 2011 that would otherwise be readily available for assessment decision purposes.

Response: Readily available data collected by the HIDOH and other sources from 2006- Oct 2011 was assessed in the 2012 IR. The 2014 IR assesses *new*, readily available data from Nov 2011-Oct 2013.

Comment: DOH should explicitly state its definition of readily-available data and describe its data retrieval/data mining process so that other parties will have a better idea of how to focus their own efforts in submitting data to DOH. Perhaps a useful starting point would be to inventory and list all potential data sources, then prioritize and rationalize which ones to pursue, and why others are not pursued, on a recurring basis.

Response: The HIDOH will consider your comments and suggestions for the 2016 IR.

Comment: The draft WQMAR is not clear about (1) the total number and source of new data documents that CWB received and reviewed in response to calls for data for the 2014 reporting cycle; (2) waters for which water quality problems were reported by other persons; (3) the

organizations and groups that CWB actively solicited for research they may be conducting or reporting; and (4) a rationale, other than undersized dataset, for each decision to not use existing and readily available data and information.

Response: (1) Appendix B of the 2014 IR provides details on the sources of new data and types of data provided by each source. (2) and (3) The HDOH will consider your comments and suggestions for the 2016 IR. (4) The 2014 IR states that any datasets that do not meet data submittal requirements (i.e. datasets that meet the CWB's Quality Assurance/Quality Control requirements and minimum of 10 samples) are not assessed.

Comment: In order to promote collaboration, coordination, communication, and transparency in monitoring efforts, it would be useful for CWB to provide a comprehensive directory of all the data documents available, received, and otherwise obtained for the 2014 reporting cycle, including for example metadata for the NPDES-related data from specific control stations obtained via DMRs, keyed to water body and sampling station.

Response: The HDOH CWB is currently working to improve visual tools electronically. This effort may take additional time and resources. The CWB hopes to have improved visual tools available for the 2016 IR. The HDOH will consider your comments and suggestions for the 2016 IR.

Comment: Overall, the law, policy, and spirit of the monitoring and assessment process suggest that CWB's draft report should include a coded list of all datasets received and reviewed, and should indicate in the assessment tables which datasets are associated with each assessment decision, including those obtained from agencies, consultants, contractors, permits (with permit and sample types), and other sources. For example, many contractor datasets are associated with specific monitoring requirements that were imposed as conditions of county and state discretionary approvals. In such cases, CWB should indicate which government approvals are associated with a particular assessment decision dataset, in order to promote transparency and accountability and facilitate public participation.

Response: The HDOH will consider your comments and suggestions for the 2016 IR.

Comment: The DOH assessment methodology does not incorporate monitoring and assessment of designated use attainment and antidegradation policy compliance (see explanation of standards on page 9). Statements such as "Water quality standards are currently attained in four marine water bodies on Oahu; Ewa Beach, Ocean Pointe C, Pokai Bay and Sandy Beach, resulting in the removal ("delisting") of each water body from the CWA §303(d) list of impaired waters" (p. 3) could be better stated as "Conventional numeric water quality criteria are currently attained . . . resulting in the removal . . . and the placement of these water bodies in category 2 (some elements of the standards attained) and category 3 (some elements of the standards unassessed)."

Response: In the Introduction of the 2014 IR numeric water quality criteria was substituted for water quality standards and on page 10 it is specified that numeric water quality criteria is referred to as water quality standards throughout the remaining text of the 2014 IR.

Comment: DOH claims that “Water body assessments indicate pH meets the water quality criteria as outlined in HAR Ch. 11-54” (p. 10). In order to shed more light on this situation, DOH should include pH assessment results in the assessment tables. This would provide a more comprehensive and useful picture of the spatial extent and frequency of pH measurement and criterion attainment.

Response: The HODOH will consider your comments and suggestions for the 2016 IR.

Comment: If “CWB is in the process of developing a standardized assessment methodology which includes grouping coastal sampling stations with their associated 12-unit hydrologic unit code (HUC-12) watershed (Appendix A) and statewide watershed delineations” (p.11), then it should provide for public participation in the development of the methodology and indicate a tentative schedule for rollout and implementation. HUC-12 is a set of “statewide watershed delineations” that is the national and state standard for WBD and NHD, so what other delineations does DOH propose to utilize? HUC-12 may not be the best-suited delineation for local needs in some situations, given certain hydrographic and geographic elements of its methodology, as excerpted below. This highlights the importance of continuing the work of the Hawaii NHD Stewardship Partnership and expanding it to include WBD stewardship in order to institute desirable, collaborative local level resolution in addition to the national scheme.

“The typical size for a 12-digit hydrologic unit is 10,000–40,000 acres; however, in some areas with unique geomorphology the 12-digit hydrologic units may be greater than 40,000 acres or less than 10,000 acres, but never less than 3,000 acres. A variance outside the size criteria of up to 10 percent of the polygons within a State is allowed for both the 10-digit and the 12-digit hydrologic unit.

In coastal areas where radial or centripetal drainage predominates, such as Hawaii, individual streams with outlets to the ocean, or remnants, may be less than 3,000 acres each. Their acreage can be combined into a single hydrologic unit of greater than 10,000 acres. In nonterrestrial coastal hydrologic units, subdivision to meet size criteria is not required, however the benefit of uniformity of sizes at any level should be considered.”

Response: The HODOH CWB is currently developing a new standardized assessment methodology that will include not only 12-unit Hydrologic Unit Codes (HUC-12) watershed delineations but also state watershed delineations. The CWB will provide a public comment period upon completion of the new assessment methodology draft. This public comment period will be prior to the public comment period for the 2016 draft IR.

Comment: The draft WQMAR correctly states that “Estuaries are categorized as inland waters” (p. 13). In addition, the WQS define “stream system” as the combination of hydrologically linked fresh water stream segments and estuary segments. Rather than lumping the assessment of estuaries with marine waters, it seems more appropriate to treat estuarine assessments as inland water body assessments. Note that the assessment tables are inconsistent on this point – some results for water body type “E” appear in marine water tables, while others appear in stream tables.

Response: In addition to the development of a new standardized assessment methodology the HODOH CWB is also working to organize the Chapter 3 Water Body Assessments Table into a clearer, easier to interpret table. The HODOH will consider your comments and suggestions for the 2016 IR.

Comment: The draft report provides a geocode for each ADU. However, it does not include maps, descriptions, or links to explicit ADU boundaries that would inform the design of a unit-specific monitoring campaign. It would be useful for CWB to publish additional information in the WQMAR that describes how readers can link a geocode to the actual geospatial location and delineation of its corresponding ADU, or can otherwise obtain maps and geospatial data files that show the hydrographic boundaries of each ADU.

Response: Maps are always useful in visually identifying the locations of the attainment decision units (ADU). The CWB is currently working to improve the maps and other visual tools. This effort may take additional time and resources. The CWB hopes to have improved maps and tools available for the 2016 IR. The HODOH will consider your comments and suggestions for the 2016 IR.

Comment: NHD is a preferred solution in which DOH and its agency partners have already invested significant resources, along with its WBD counterpart. The draft report notes the breakdown of impaired waters by island. For descriptive purposes, the report should also indicate—in tabular and chart format—the breakdown of listed marine water bodies by water body type, class, and bottom type, and the breakdown of listed inland water bodies by water body type and class. Moreover, DOH should add water body class to each record that appears in the Chapter 3 Assessment Tables, particularly so that a reader can discern where water quality impairments occur in our most protected classes, AA and 1.

Response: In addition to the development of a new standardized assessment methodology the HODOH CWB is also working to organize the Chapter 3 Water Body Assessments Table into a clearer, easier to interpret table. The Water Body Assessment Results Table does provide a water body category for all assessed inland and marine water bodies. The HODOH will consider your comments and suggestions for the 2016 IR.

Comment: It would be useful to publish the Chapter 3 Assessment Tables, and related information, in spreadsheet/database file formats, so that users can more easily search and analyze the results.

Response: The HODOH CWB is currently working to improve visual tools electronically. This effort may take additional time and resources. The CWB hopes to have improved visual tools available for the 2016 IR. The HODOH will consider your comments and suggestions for the 2016 IR.

Comment: The draft report and related EPA information present a confusing picture of marine water ADU type and distribution. The draft report states that approximately 575 “marine recreation shoreline water body segments” are established statewide, and that CWB assessed 157 “marine segments” for the 2012 reporting cycle (p. 2). Elsewhere in the report are references to “beach shoreline segment,” and EPA reports annually on the monitoring of “coastal recreational beaches.”¹ It remains difficult for readers to distinguish the relationships between spatial

boundaries, monitoring approaches, and assessment methodologies for “marine segment,” “beach segment,” “sampling station,” “coastal recreational beach,” and assessment decision unit.

Response: Textual changes are made to reflect consistency in wording for assessed water bodies.

Comment: Under these circumstances, in order to promote internal consistency and spatial coherence, and facilitate public participation, I again suggest that (1) the draft report explicitly incorporate and identify each CWB-assessed “coastal recreation beach” as an individual ADU for recreational use attainment (swimming) only, and (2) DOH create a master inventory of marine water body segments that indicates which beaches and which monitoring stations are associated with each segment and decision unit type.

Response: The HIDOH CWB is currently working to improve attainment decision unit (ADU) identification through the development of a new standardized assessment methodology. The CWB will provide a public comment period upon completion of the new assessment methodology draft. This public comment period will be prior to the public comment period for the 2016 draft IR. The HIDOH will consider your comments and suggestions for the 2016 IR.

Comment: I believe that the past practice of listing water bodies in geographical order, rather than alphabetical order, is more useful for readers, especially because the search functionality of the digital version of the report now provides an efficient way for readers to find information about a known water body of interest that need not be tied to an alphabetically-ordered list.

Response: The 2002, 2004, 2008/2010 and 2012 IRs sorted water bodies by island (north to south-except 2002 & 2004) > stream category (alphabetically) > marine category (alphabetically); the 2006 IR sorted water bodies by island (north to south) > stream category (sorted by geocode ID) > marine category (alphabetically). The CWB will keep with the format used most consistently in previous IRs and sort water bodies by island (north to south) > stream category (alphabetically) > marine category (alphabetically).

Comment: Within the assessment tables, the entry for a water body for which a TMDL was completed or is in progress does not always include a separate TMDL priority for impairments that are not addressed or resolved in the TMDL decision, including new impairments for different pollutants that are listed after a TMDL is established. It seems necessary for TMDL priority to be added in these cases for the remaining pollutant-water body combinations for which a TMDL is not in development or has not been established. For example, what is the priority for Dieldrin TMDL development in Kaneohe Stream, Oahu? Metals and lead in Kapaa Stream, Oahu? For nutrient TMDL development in Hanalei estuary at Weke Road?

Response: TMDL priority for Dieldrin in Kaneohe Stream and metals and lead in Kapaa Stream is addressed in the Water Body Assessment Results Table in the 2014 IR. Nutrient TMDL development in Hanalei Estuary (at Weke Road) is addressed in the Water Body Assessment Results Table in the 2014 IR.

Comment: Page 53 of the draft WQMAR states that “The prioritization (low, medium, high) of water bodies for TMDL development is based on the number of parameters not attaining state WQS and the severity of exceedances.” However, the footnotes to the assessment tables indicate

otherwise, that “High (**H**), Medium (**M**), & Low (**L**) priority for initiating TMDL development within the current monitoring and assessment cycle (through October 31, 2013), based on current and projected resource availability for completing the TMDL development process.” These two prioritization schemes appear to be mutually exclusive, and it is important for DOH to decide which one it is really using. Whereas the second method relies upon subjective DOH administrative policy, the first method is objective and quantifiable. If DOH decides to use the first method, then each TMDL priority decision captured in the assessment tables should include a tally of non-attaining parameters, an exceedance factor for each nonattainment, and an explanation of how multiple exceedance factors for a single water body are combined to generate an overall priority decision.

Response: The prioritization of water bodies for TMDL development is clarified in the text of the 2014 IR and footnotes of the Chapter 3 Water Body Assessments Table.

Comment: Kauai Stream Waters: Add Papakolea Stream, TMDLs approved 2008.

Response: After review of the Nawiliwili Bay Watershed TMDL, Papakolea Stream was added to the Chapter 3 Water Body Assessments Table in the 2014 IR.

Comment: Kauai Marine Waters: It is unclear why the entries for Hanalei Bay Mooring Station and Hanalei Bay upstream of Dolphin indicate unaddressed turbidity and bacteriological impairments that are High Priority for TMDL development. The TMDLs for Hanalei embayment and estuary established the entire embayment and estuary water bodies as decision units, thus leaving no room for a stand-alone, station-based impairment within the same segment for the same pollutant. Does DOH intend to subdivide the embayment and estuary into multiple segments for TMDL revision? Or does DOH intend to “stack” TMDLs for smaller segments on top of the established TMDLs for encompassing larger segments?

Response: Changes are made to the Hanalei stations regarding TMDL development in the Chapter 3 Water Body Assessments Table in the 2014 IR.

Comment: Oahu Stream Waters: Indicate Kaelepulu water body type as “inland waters” rather than estuary, as was determined by the previous Environmental Health Administration in conjunction with TMDL development.

Response: TMDL development for Kaelepulu Watershed include Kaelepulu Stream (geocode ID 3-2-14) which is listed under Oahu inland freshwaters; Kaelepulu Estuary (geocode HIW00182) which is listed as Kaelepulu Stream-Kailua Beach under Oahu marine waters and Hamakua stream which is not listed in the Chapter 3 Water Body Assessments Table in the 2014 IR.

Comment: Oahu Marine Waters for Hanauma Bay Oceanic Station, my research indicates that the depth at this station places it in open coastal waters, not oceanic waters.

Response: Based on coordinates obtained from the EPA STORET database the Hanauma Bay (Oceanic) station is located at depths (183 m (600 ft) depth contour to 3 miles offshore) consistent with oceanic waters.

Comment: Appendix A, Table 9 Table heading states “Water bodies (§303(d) and §305(b)) are sorted by island, north to south.” The meaning of this heading is unclear. Water bodies listed in the “Scope of Assessment” column do not conform to north-south geographic ordering. The information in the table is somewhat meaningless without associated maps or instructions about how to access HUC-12 maps (are these the WBD HUC-12s or from other sources) and geocoded polygon coverages, and overlay them with each other.

Response: The statement of “Water bodies (§303(d) and §305(b)) are sorted by island, north to south” has been removed from the text. Maps are always useful in visually identifying the locations of the HUC-12 delineations. The CWB is currently working to improve the maps and other visual tools. This effort may take additional time and resources. The HDOH hopes to have improved maps and tools available for the 2016 IR.

Comment: Use of the Class 1 Reserve Tables that DOH recently added to the WQS website may lead to erroneous and contentious interpretation of the water quality standards. For example: all inland waters within a State Forest Reserve are not necessarily Class 1. Only those areas within the P subzone of the Conservation District (Class 1b), or within the other protected area designations (Class 1a including Natural Area Reserve, National/State Park, state/federal fish and wildlife refuge, critical habitat) hold Class 1 waters.

Response: This comment is beyond the scope of the 2014 IR.

Comment: Is private land that is enrolled in a private-public Natural Area Reserve Partnership a “natural reserve . . . established under chapter 195, HRS” with Class 1 waters?

Response: This comment is beyond the scope of the 2014 IR.

Comment: For water quality standards purposes, is there a legal difference between “X National Park” and a unit of the National Park system that carries a different categorization, e.g. “Y National Historical Park” and “Z National Historic Landmark District?”

Response: This comment is beyond the scope of the 2014 IR.

Comment: Similarly, is there a legal difference between “X State Park,” “Y State Recreation Area,” “Z State Wayside,” etc.? All are administered by the Division of State Parks, but are they all “State Parks” under the WQS?

Response: This comment is beyond the scope of the 2014 IR.

Comment: If a state sanctuary, mitigation area, preserve, etc. is not established under HRS 195 (Natural Area Reserve), then what is the legal basis for designating it as Class 1? How expansive is the definition of a state wildlife refuge, a term that does not appear in state wildlife conservation statutes and designations?

Response: This comment is beyond the scope of the 2014 IR.