



**UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901**

*sent via electronic mail*

Darryl Lum  
Manager, Clean Water Branch  
Hawaii Department of Health  
2827 Waimano Home Road #225  
Pearl City, HI 96782

Re: Final National Pollutant Discharge Elimination System (NPDES) Permit Quality Review Report for Hawaii Department of Health - 2022

Dear Mr. Lum:

EPA Region 9 is pleased to provide you with the final report describing findings of the NPDES Program and Permit Quality Review (PQR) conducted for Hawaii. The final report is based on permit file reviews and discussions held with Department of Health (DOH) staff and managers in 2021-23. EPA found that permits issued by the state were generally of good quality and adhered to federal guidelines. In particular, DOH implements a statewide permit template which contributes to timely permit issuance and consistency between permits.

EPA provided a draft PQR report to DOH on July 14, 2023 and received comments from DOH on August 8, 2023. EPA's responses to DOH's comments are below.

- EPA made factual corrections based on information DOH provided in their comments on the draft PQR to adjust the date of the HAR 11-55 revision (page 9), status of the ADC permit (page 13), civil penalty amounts (page 27), and the date of the Kailua fact sheet (see page 28).
- After conversations with DOH regarding procedures to establish permit limits for nutrients and enterococcus, EPA updated the final report on pages 18-19.
- EPA also added that plans required by the small MS4 permit are reviewed by DOH during compliance evaluations and during the reissuance process (page 39) based on DOH's comments.
- DOH found inconsistencies in the RPA recommended items and Table 7 summary of recommended items. EPA updated these sections to ensure the items are consistent.

- DOH requested further discussion with EPA regarding benchmarks and potential violations in the MSGP. No changes are needed to the PQR report. EPA and DOH will discuss this MSGP topic during their next monthly call.

The PQR includes action items for DOH to address specific issues. We look forward to working with you to determine next steps and develop a schedule to promptly implement these action items, with a focus on the essential action items. We will work with Hawaii to incorporate key actions to improve the program in the next joint NPDES meeting.

We greatly appreciate the cooperation we received from DOH during the review and look forward to our continued partnership to achieve Clean Water Act goals through the NPDES permitting program.

If you have further questions or concerns, please contact Peter Kozelka of the NPDES Permits Section at [kozelka.peter@epa.gov](mailto:kozelka.peter@epa.gov) or (415) 972-3448.

Sincerely,

Ellen Blake  
Assistant Director, Water Division

Enclosures

**Final**  
**Region 9**  
**NPDES Program and Permit Quality Review**  
**Hawaii**

Review Date: 2022  
Report Date: February 2024

EPA Region 9  
75 Hawthorne St. (WTR-2-3)  
San Francisco, CA 94105

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## Executive Summary

EPA Region 9's National Pollutant Discharge Elimination System (NPDES) Program and Permit Quality Review (PQR) for Hawaii provides an overview of the Hawaii NPDES permitting program, recognizes the many challenges Hawaii faces, and identifies specific areas where EPA and Hawaii can work together to continue to strengthen permit language and documentation in state NPDES permits.

The PQR examined 12 individual permits and one general permit issued by the Hawaii Department of Health (DOH) and several DOH permitting policies. In addition to core permit requirements, the PQR also focused on several national and regional priority areas:

- Permit Controls for Nutrients in Non-Total Maximum Daily Load (TMDL) Waters,
- Small Municipal Separate Storm Sewer System (MS4) Permit Requirements,
- Effectiveness of Publicly Owned Treatment Works (POTW) NPDES Permits with Food Processor Contributions,
- General Stormwater Permits and Phase I MS4s, and
- TMDL Implementation.

EPA found that permits issued in the state were generally of good quality and adhered to federal guidelines. In particular, DOH implements a statewide permit template which contributes to timely permit issuance and consistency between permits, resulting in a significant increase in the number of effective permits and reducing permit backlogs. The main findings of the PQR are identified in five Essential action items (Table 6) and 22 Recommended action items (Table 7). EPA recommends that these Essential actions be addressed through the following (see Table 8):

- Update the DOH permit template.
- Document antidegradation analysis and justification of case-by-case TBELs in fact sheets.
- Improve NPDES permit applications for POTWs to evaluate need for pretreatment programs.
- Revise e-reporting language upon reissuance of MS4 permit.

DOH reviewed and provided comments on the draft PQR report on August 8, 2023. DOH agreed with many of the draft PQR's findings and recommendations. Several of these actions are already underway, and DOH commented that they will use an Excel spreadsheet to track status of each item.

## I. PQR BACKGROUND

National Pollutant Discharge Elimination System (NPDES) Program and Permit Quality Reviews (PQRs) evaluate a select set of NPDES permits to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. Through this review mechanism, EPA promotes national consistency, and identifies successes in implementation of the NPDES program as well as opportunities for improvement in the development of NPDES permits.

EPA previously conducted a PQR of the Hawaii NPDES permitting program in June 2015. The 2015 PQR summary report is available at: [https://www.epa.gov/sites/default/files/2016-08/documents/final\\_hi\\_pqr\\_june\\_2015\\_with\\_letter.pdf](https://www.epa.gov/sites/default/files/2016-08/documents/final_hi_pqr_june_2015_with_letter.pdf) In the 2015 PQR summary report, EPA proposed various action items to improve the Hawaii NPDES permitting program. During the 2022 PQR, EPA requested updates from Hawaii on the progress on those action items. Of the eight action items identified during the last PQR as Essential,<sup>1</sup>six have been resolved and the two remaining actions can be addressed by updating the fact sheet template. In addition, EPA also identified ten Recommended action items in 2015 to improve the Hawaii Department of Health (DOH) program; DOH has implemented nine of these recommendations and can address the other item within future reissuance of Municipal Separate Storm Sewer System (MS4) permits. Section VI of this report contains a detailed review of the progress on action items identified during the 2015 PQR.

EPA conducted a review of the Hawaii NPDES permitting program in 2022, that included reviewing permit files that DOH sent over email and virtual interviews with members of the Hawaii NPDES program staff. The review did not include an on-site visit to DOH in Honolulu, Hawaii, due to COVID-19 restrictions.

As a result of the current PQR, EPA is proposing new action items to improve and/or strengthen Hawaii's NPDES permit program. The action items are identified in Sections III, IV, and V of this report and are divided into two categories:

- **Essential Actions** - Essential action items address noncompliance with respect to a federal regulation, which EPA has cited for each Essential action item. The state must address these action items in order to come into compliance with federal regulations.
- **Recommended Actions** - Recommended action items are recommendations to increase the effectiveness of the state's NPDES permit program.

The PQR includes reviews of core permit components and national and regional topic areas, as well as discussions between the PQR review team and DOH staff addressing program status, the permit issuance process, responsibilities, organization, staffing, and program challenges. The permit reviews consisted of review of the permit application, permit, fact sheet, and any

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<sup>1</sup> During the 2012-2015 PQR cycle, these action items were known as "Category 1" and address deficiencies or noncompliance with respect to federal regulations. EPA is now referring to these action items going forward, as Essential. In addition, previous PQR reports identified recommendations as either "Category 2" or "Category 3" action items. EPA is now consolidating these categories of action items into a single category: Recommended.

correspondence, reports or documents that provide the basis for the development of the permit conditions and related administrative process.

EPA reviewed a total of 14 permits issued in the past 5 years: 11 individual permits, one general permit, and one Phase I and one Phase II MS4 permit. Of the 11 individual permits reviewed, six are major publicly owned treatment works (POTWs), one major federally owned treatment works (FOTW), one major industrial facility and three minor industrial facilities. EPA reviewed some permits for both the core review and the national or regional topic area reviews. EPA selected permits based on the review categories that they fulfilled.

EPA reviewed a total of 14 permits issued in the past 5 years: 11 individual permits, one general permit, and one Phase I and one Phase II MS4 permit. Of the 11 individual permits reviewed, six are for major publicly owned treatment works (POTWs), one for a major federally owned treatment works (FOTW), zero for a minor POTW, one is for major industrial facility, and three are for minor industrial facilities. EPA reviewed some permits for both the core review and the national or regional topic area reviews. EPA selected permits based on the review categories that they fulfilled.

**Table 1. NPDES Permits Selected for 2022 Hawaii PQR**

Permit/Facility Name	NPDES Permit No.	Core Review	Nutrients	Pretreatment	Small (Phase II) MS4	Industrial Stormwater & Large/Medium (Phase I) MS4	TMDL
Schofield Barracks WWTP	HI0110141	X	X				X
CCH Kailua WWTP	HI0021296	X	X				
County of Kauai WWTP	HI0020257	X	X				
Hilo WWTP	HI0021377			X			
CCH Sand Island WWTP	HI0020117			X			
Honouliuli WWTP	HI0020877			X			
Maui County Lahaina WWRF	HI0021848 <sup>2</sup>			X			
Kapaa Quarry HC&D LLC	HI0020796	X	X			X	X
Pacific Shipyards	HI0021878	X				X	
Port Allen Gen Station	HI0000353	X					
Keahole Point Fish LLC	HI0021825		X				
CCH <sup>3</sup> Phase I MS4	HIS000002					X	X
MSGP Phase I MS4	HAR 11-55 Appendix B					X	
2021 Navy Phase II MS4	HIS000257				X		X

<sup>2</sup> In 2012, DOH assigned an NPDES permit number for Maui County WWRF; however, this permit has not yet been issued. EPA reviewed this working draft permit only as part of the food processors into WWTP for pretreatment purposes.

<sup>3</sup> City and County of Honolulu.

## Core Review

The core permit review involved the evaluation of selected permits and supporting materials using basic NPDES program criteria. Reviewers completed the core review by examining selected permits and supporting documentation, assessing these materials using standard PQR tools, and talking with permit writers regarding the permit development process. The core review focused on the *Central Tenets of the NPDES Permitting Program*<sup>4</sup> to evaluate the Hawaii DOH NPDES program. Core topic area permit reviews are conducted to evaluate similar issues or types of permits in all states.

## Topic Area Reviews

The national topics reviewed in the Hawaii NPDES program were: Permit Controls for Nutrients in Non-Total Maximum Daily Load (TMDL) Waters, Small MS4 Permit Requirements, and Effectiveness of POTW NPDES Permits with Food Processor Contributions.

Regional topic area reviews target regional-specific permit types or particular aspects of permits. The regional topic areas selected by EPA Region 9 included: General Stormwater Permits and Phase I MS4s, and TMDL Implementation. These reviews provide important information to DOH, EPA Region 9, EPA HQ, and the public on specific program areas.

## II. STATE PROGRAM BACKGROUND

### A. Program Structure

Hawaii's DOH was authorized to administer the NPDES permit program in November 1974. DOH was authorized to administer the pretreatment program in August 1983. DOH has three divisions including the Clean Water Branch (CWB), which includes the Engineering Section that issues NPDES permits and the Enforcement and Compliance Section that performs the enforcement aspects of the CWA.

The Hawaii Administrative Rules (HAR) Title 11, Chapter 55, last revised on June 26, 2023, establishes standard permit conditions and requirements for NPDES permits issued in Hawaii.<sup>5</sup>

The Hawaii water pollution control program began in the late 1960's in the Sanitary Engineering Branch of the DOH. This Branch included the water pollution control program, wastewater treatment facility construction grants program, and drinking water and swimming pool approval programs. In 1973, the Hawaii State Legislature formally established the water pollution control program through Act 100, which was codified as Chapter 342, Hawaii Revised Statutes (HRS), "Environmental Quality." Then, in November of 1974, EPA delegated the

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<sup>4</sup> <https://www.epa.gov/npdes/central-tenets-npdes-permitting-program>.

<sup>5</sup> See <https://health.hawaii.gov/cwb/hawaii-administrative-rules-har/har-11-55/>.



administration of the NPDES permit program in Hawaii to the DOH.

The DOH's CWB is responsible for protecting and restoring inland and coastal waters for marine life and wildlife. This is accomplished through statewide coastal water surveillance and watershed-based environmental management, utilizing a combination of permit issuance, monitoring, enforcement, sponsorship of polluted runoff projects, and public education. NPDES permits are issued by the Engineering Section of the CWB, which consists of 8 staff responsible for administering permits, policy, and guidance.

In order to ensure consistency, the Engineering Section uses templates for drafting permits based on facility type (i.e., POTW or industrial facility). For example, the permit template for POTWs includes the following sections:

- Part A. Effluent Limitations and Monitoring Requirements,
- Part B. Whole-Effluent Toxicity Limitations and Monitoring Requirements,
- Part C. Water Quality Criteria,
- Part D. Zone of Mixing,
- Part E. Receiving Water Monitoring Program Requirements,
- Part F. Wastewater Pollution Prevention,
- Part G. Pretreatment Requirements,
- Part H. Sludge/Biosolids Requirements,
- Part I. Reporting Requirements,
- Part J. Special Conditions; and,
- Part K. Location Map and Facility Flow Diagram.

NPDES standard conditions are included as an attachment. On a permit-specific basis, attachments may also include a list of specific monitoring methods.

Fact sheets are also standardized and include the following sections:

- A. Permit Information;
- B. Facility Setting;
- C. Applicable Plans, Policies, and Regulations;
- D. Rationale for Effluent Limitations and Discharge Specifications;
- E. Rationale for Receiving Water and Zone of Mixing Requirements;
- F. Rationale for Monitoring and Reporting Requirements;
- G. Rationale for Provisions; and
- H. Public Participation.

Permit writers are trained internally and through use of EPA's Permit Writers' Course; EPA pretreatment training and webinars; EPA's Water Quality Standards Academy; internal mentoring/discussions; section meetings; and various webinars. In addition to using permit and fact sheet templates, the Engineering Section uses other in-house tools to support NPDES permit development. In 2019, the Engineering Section developed the "Hawaii Implementation Plan for Toxic Pollutants and Nutrients in the NPDES Permit Process" which outlines the procedures for evaluating data, determining reasonable potential (RP), calculating numeric

effluent limits and including monitoring and reporting requirements for each permit. Also, DOH permit writers may choose to use an interactive spreadsheet to conduct reasonable potential analysis (RPA) and calculate permit limits. This spreadsheet is based on the approach specified in EPA's Technical Support Document for Water Quality-based Toxics Control (TSD) (EPA/505/2-90-001) and uses formulas and algorithms to conduct RP calculations automatically, based on effluent monitoring results incorporated from EPA's Enforcement and Compliance History Online (ECHO) database into the spreadsheet.

## **B. Universe and Permit Issuance**

At the time of this report (July 2023), DOH administers approximately 15 major permits, 35 non-stormwater minor permits, 2 Phase I MS4 individual permits, 5 Phase II MS4 individual permits, 69 stormwater minor permits, and 13 general permits, for a total of 139 permits. DOH reports there are approximately 1,000 enrollees in all the general permits.

As of May 2023, approximately 93 percent of NPDES permits in Hawaii were current, including all the majors, which is consistent with the commitment in DOH's CWA Section 106 workplan for at least 90 percent current. DOH has indicated that it intends to keep all majors 100 percent current and keep minors current to the extent feasible.

Permit applicants use EPA's NPDES permit application forms via an online e-permitting portal. Permit writers ensure that applications are complete and use this data along with other available data, such as discharge monitoring report (DMR) data from a previous permit term, to develop the permit requirements.

In 2019, DOH developed two implementation documents to help with specific NPDES permit writing issues. The *Hawaii NPDES Implementation Plan for Water Quality Based Effluent Limits* (HIP) contains written RPA procedures, water quality-based effluent limitation (WQBEL) calculations, TMDL waste load allocation (WLA) implementation, mixing zone requirements, and monitoring and reporting requirements. The *Hawaii Antidegradation Implementation Procedures for NPDES Permits (and CWA Section 401 Water Quality Certifications)* provides guidance for both permit writers and permittees to develop antidegradation analyses that are needed to support NPDES permit development. DOH staff are required to utilize both the HIP and the Antidegradation Implementation Procedures to ensure consistency, fairness, accountability, and transparency throughout the permitting process, including application processing, permit development, permit compliance assessment, and permit enforcement.

As of FY20-FY21, DOH updated state NPDES rules and now requires dischargers to submit permit applications 360 days prior to expiration. DOH uses EPA permit application forms with minor modifications. Technology-based effluent limitations (TBELs) are identified and calculated, and a standardized spreadsheet is used to complete a RPA and determine WQBELs. Mixing zones are used when the discharge is to ocean waters.

DOH also has workflow procedures for public notices, individual permits, general permit type discharges, no exposure certifications, file naming conventions, e-permitting electronic signature, compliance submissions, and telephone calls.

Eight DOH permit writers develop the vast majority of all NPDES permits issued by the state and each prepares three individual permits per year on average. The state has templates for permits, fact sheets, general permit type discharges, public notices, and correspondence; permit writers use these templates as the basis for each document. A few individual permits are drafted by state-hired contractors to produce a preliminary permit document; then the permit is further refined and completed by the DOH staff.

Once a draft permit is developed, it undergoes internal review, including review by DOH management. On a case-by-case basis, DOH asks the state Attorney General's office to review a permit prior to public review. Next the permittee is provided an opportunity for preliminary review and comment. Then DOH requests the permittee to issue the public notice and invite comments to be sent to DOH. Public hearings are rarely requested. After consideration of all public comments, the permit is issued. Permit appeals are considered by the DOH under their petition process. All individual NPDES permits and fact sheets issued after late-2019 are available on the CWB website (<https://health.hawaii.gov/cwb/final-individual-permits/>).

DOH has developed internal guidance regarding establishing the monitoring frequency for permit limits and assessment levels. Special conditions are included as warranted. DOH is not authorized to implement the NPDES Biosolids Program, so biosolids management may be included as a special condition when appropriate. Standard conditions are incorporated by reference in all the DOH permits.

For individual permits, DOH communicates early with permittees to address issues and promote understanding. Meetings are held with permittees when they are deemed necessary. For general permits, DOH must renew via state rulemaking procedures, including hosting stakeholder outreach meetings (e.g., 10–15 for the Multi-Sector General Permit (MSGP)). The meetings are typically held in Honolulu, but may be held in other locations to allow for public participation in other locations. During the COVID-19 pandemic, DOH expanded its ability to conduct meetings, workshops, hearings, etc. online.

Once the permit and fact sheet are drafted, they undergo internal review, stakeholder review (agencies, permittee, and identified stakeholders), and public notice and comment. Permit challenges and appeals have decreased since the 2015 PQR as the program has matured and stakeholder outreach has increased.

### **C. State-Specific Challenges**

DOH has certain state-specific challenges. Two remain from 2015 PQR, while new ones are described in the next section.

- *General Permit Reissuance Process.* DOH has 13 general permits; however, because of state law, they are required to be issued under the procedures for the Hawaii Administrative Rules. Reissuing these permits as rules requires a lengthy (approximately 1 year) administrative process. Since 2015, DOH has staggered the expiration dates in order to have a manageable number of permits (3 or 4 at a time) to reissue in the next round and provide the time needed to focus on the quality of the general permits. At the time of this review, all general permits are current.

- *Nutrient Water Quality Standards Implementation.* DOH has established numeric nutrient water quality standards (WQS) for almost all waters. In the past, the point of compliance with WQS was set at the edge of the mixing zones; however, many of Hawaii's waters are now listed as impaired for nutrients. Newly issued permits are including more enforceable WQBELs set at end-of-pipe that incorporate dilution when available. In order to allow permittees time to comply with these limitations, permits include compliance schedules, which may extend beyond a permit term. In addition to compliance schedules, DOH is looking at other permitting flexibilities to address this issue, such as intake credits, trading, or variances.

## D. Current State Initiatives

- *Revised NPDES related rules.* In 2021, DOH moved the previously adopted intake credit authorization and compliance schedule language into the Hawaii Administrative Rules (HAR 11-55), which are specific to NPDES permits. These changes to the WQS will allow permit writers to apply intake credits in appropriate situations for WQBELs. The revised language also clarifies the requirements for compliance schedules, which are increasingly being included in permits to provide time for permittees to comply with new nutrient limits.
- *Updated Water Quality Standards.* In 2021, DOH adopted EPA's new and revised human health ambient water criteria for 110 chemicals to protect fish consumption uses. Some of these revised criteria are orders of magnitude lower than previous applicable criteria and thus, if RP is triggered, the corresponding numeric effluent limit will also be significantly lower. DOH also adopted CWA 303(c) provisions for the use of WQS variances. EPA approved these revised statewide WQS in January 2022.
- *Unique Discharges.* As a result of court decisions, DOH is developing an NPDES permit for a County of Maui (Lahaina) wastewater treatment facility whose wastewater is discharged to groundwater injection wells and that eventually reaches the receiving water (e.g., coastal water). These unique discharges are challenging to permit and require policy considerations such as acknowledging the fate, transport, and potential attenuation of discharged pollutants, determining the point of compliance, and defining effluent limitations that adequately protect beneficial uses for both groundwater and receiving waters. Across the state, there are likely to be many facilities that have similar discharges to coastal waters, although to-date the universe has not been clearly delineated.
- *Water Pollution Control Database.* DOH continues to improve its Water Pollution Control (WPC) database system that is integrated with the e-permitting applications. The intention is to have draft permits, fact sheets, correspondence letters, RPA, assimilative capacity assessments, and WQBELs automatically generated based on information applicants provide in the e-permitting application. DOH is also working on using e-permitting to bring in all DMR effluent and receiving water monitoring data as data fields so that it can be used to develop the RPA, assimilative capacity assessments, and WQBELs. This WPC database will also benefit the CWB Monitoring Section (includes

TMDLs and Integrated Report), CWB Enforcement Section, and CWB Polluted Runoff Control Section.

- *New Non-point Source Regulatory Program.* DOH is currently developing a state Surface Water Protection Branch (SWPB), which is aimed at regulating nonpoint source runoff into surface waters, which may or may not be considered WOTUS. More specifically, Hawaii Administrative Rules (HAR 11-56) establish pollution controls for agriculture, forestry, marinas, and recreational boating. This will include implementation of a Water Pollution Prevention Plan that identifies the specific management measures to be used for effectively controlling those sources of nonpoint source pollution. DOH anticipates this new SWPB will take another year of program and staff development and it might reduce the universe of NPDES permits because certain facilities and their discharges/runoff are more appropriately addressed by nonpoint source controls. One example is the Agribusiness Development Corporation (ADC) which DOH is currently drafting an NPDES permit for dry weather discharges from one pump station; however, according to DOH, other areas of ADC are more appropriately treated as nonpoint source controls and thus will likely also be subject to future regulations as part of HAR 11-56.

### III. CORE REVIEW FINDINGS

#### A. Basic Facility Information and Permit Application

##### 1. Facility Information

###### *Background*

Basic facility information is necessary to properly establish permit conditions. For example, information regarding facility type, location, processes, and other factors is required by NPDES permit application regulations (40 CFR 122.21). This information is essential for developing technically sound, complete, clear, and enforceable permits. Similarly, fact sheets must include a description of the type of facility or activity subject to a draft permit.

The individual NPDES permits and fact sheets reviewed during the core review consistently identified outfalls and location information relative to receiving waters. Fact sheets included good descriptions of the relevant facilities, including the activity, treatment processes and disposition of effluent, consistent with the permit applications.

###### *Program Strengths*

Since the 2015 PQR, DOH has continued to improve its online portal for NPDES applications and DOH's internal database (Water Pollution Control) to help gather facility specific information with the permittee's application which is transposed into sufficient facility information in the fact sheet.

###### *Areas for Improvement*

No areas for improvement were identified for this section of the PQR.

*Action Items*

No action items were identified for this section of the PQR.

**2. Permit Application Requirements***Background and Process*

Federal regulations at 40 CFR 122.21 and 122.22 specify application requirements for permittees seeking NPDES permits. Although federal forms are available, authorized states are also permitted to use their own forms provided they include all information required by the federal regulations. This portion of the review assesses whether appropriate, complete, and timely application information was received by the state and used in permit development.

DOH requires permittees to submit applications using EPA forms through the state's e-permitting portal. Amongst other things, this portal offers permittees the ability to pay application fees on-line as well as submit an electronic signature as part of application. If DOH determines the application is incomplete, the permit writer notifies the permittee in an email through the e-permitting portal.

As of 2021, DOH permits clearly require that a new permit application must be submitted 360 days prior to the permit expiration date. DOH staff indicated that the e-permitting portal provides the ability to set reminders for the permittees to reapply and that this is routinely performed for filers under general permits.

A copy of the application and any supplemental documentation provided by the permittee that DOH used to draft the permit is generally available in the administrative record. EPA was not able to review any physical administrative records due to COVID-19 travel restrictions. Based on electronic documentation provided, the permit files contain current, appropriate, and complete permit applications, including the applicable EPA forms.

*Program Strengths*

During review of the basic permit provisions, we found permits consistently included issuance, effective, and expiration dates, authorized signatures, and standard conditions. Permit writers routinely follow permit templates while drafting permits.

Positive aspects of the DOH permit application process include the use of reminder letters sent one year in advance of the application due date and the use of a checklist to ascertain the completeness of applications. The use of e-permitting portal for NOIs seeking coverage under DOH's general permits are a program strength, including electronic signature forms.

*Areas for Improvement*

No areas for improvement were identified for this section of the PQR.

*Action Items*

No action items were identified for this section of the PQR.

## B. Developing Effluent Limitations

### 1. Technology-based Effluent Limitations

NPDES regulations at 40 CFR 125.3(a) require that permitting authorities develop technology-based requirements where applicable. EPA reviewed permits, fact sheets, and other supporting documentation for POTWs and non-POTWs to assess whether TBELs represent the minimum level of control that must be imposed in a permit.

#### *TBELs for POTWs Background and Process*

POTWs must meet secondary or equivalent to secondary standards (including limits for (biochemical oxygen demand) BOD5, total suspended solids (TSS), pH, and percent pollutant removal), and must contain numeric limits for all of these parameters (or authorized alternatives) in accordance with the secondary treatment regulations at 40 CFR Part 133. EPA reviewed two POTW permits for TBELs: City and County of Honolulu – Kailua and County of Kauai.

The POTW permits EPA reviewed included numeric limits for BOD5, TSS, and pH. These limits are expressed in appropriate units (i.e., concentration, mass, standard units) and in the appropriate forms (i.e., monthly average and weekly average). Mass-based limits are for BOD and TSS are appropriately included, as are appropriate percent removal requirements for BOD5 and TSS. The fact sheet described the facility treatment processes and basis for establishing TBELs. Permits and fact sheets include the final limits and rationale for the limits. None of the permits that EPA reviewed included adjusted TBELs.

#### *Program Strengths*

The establishment of TBELs is consistent with the EPA requirements regarding units and form. Additionally, the description of the facility processes and rationale for limits is clear and consistent.

#### *Areas for Improvement*

The fact sheets that EPA reviewed did not consistently include calculations for mass-based TBELs for each pollutant. Including these calculations would allow the public and the permittee to understand how the permit writer calculated the final mass-based limits.

#### *Action Items*

Essential	•No essential action items were identified for this section of the PQR.
Recommended	•Consider including limit calculations for mass-based TBELs for POTWs in fact sheets.

*TBELs for Non-POTW Dischargers Background and Process*

Permits issued to non-POTWs must require compliance with a level of treatment performance equivalent to Best Practicable Control Technology Currently Available (BPT), Best Available Technology Economically Achievable (BAT) or Best Conventional Pollutant Control Technology (BCT) for existing sources, and consistent with New Source Performance Standards (NSPS) for new sources. Where federal effluent limitations guidelines (ELGs) have been developed for a category of dischargers, the TBELs in a permit must be based on the application of these guidelines. If ELGs are not available, a permit must include requirements at least as stringent as BPT/BAT/BCT developed on a case-by-case basis, or using best professional judgment (BPJ) basis, in accordance with the criteria outlined at 40 CFR 125.3(d).

EPA reviewed permits for four non-POTW facilities: Port Allen Generating Station, Kapaa Quarry, Keahole Point Fish (aquaculture facility), and Pacific Shipyard. EPA also reviewed one permit for an FOTW, the Schofield Barracks facility for U.S. Army Garrison-Hawaii.

The Port Allen Generating Station permit applies ELGs for steam electric power plants in accordance with 40 CFR Part 432: Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Steam Electric Power Generating Point Source Category. There are no new sources in this permit, so the effluent limits are based on BPT and BAT; numeric TBELs are defined for flow and polychlorinated biphenyls (PCBs) as explained in the fact sheet.

The Kapaa Quarry permit applies ELGs for mineral mining and process in the form of best management practices for fish hatcheries in accordance with 40 CFR 436 Part B, Crushed Stone subcategory and Part C, Construction Sand and Gravel subcategory. The permit does not include numeric TBELs; however, does include numeric WQBELs.

The Keahole Point Fish permit applies ELGs for concentrated aquatic animal production facilities in the form of best management practices for fish hatcheries in accordance with 40 CFR Part 451. The permit does not include numeric TBELs.

The Pacific Shipyard 2021 permit modification to the 2017 permit involved incorporating additional storm water outfalls and updating requirements for storm water associated with industrial activity and best management practices language. The 2017 permit applies conditions and requirements to storm water runoff discharge based on EPA's 2015 MSGP, Sector R, which covers ship and boat building and repair yards. There are no ELGs applicable to the discharge of dry dock operations, such as repair and maintenance of government and commercial ships.

Overall, the four non-POTW permits that EPA reviewed include appropriate TBELs. Adequate information and justification are provided regarding how ELGs are applied in these permits.

The Schofield Barracks facility for U.S. Army Garrison-Hawaii Wastewater Treatment Plant (WWTP) permit is for a privately owned/federal facility, and thus not a POTW. This permit includes numeric TBELs for BOD, TSS and pH that are equal to the secondary treatment requirements applied to POTWs. The final TBELs are in appropriate units and form. The fact sheet provides one sentence stating these TBELs are based on the secondary treatment



requirements (40 CFR 133.102); however, it did not include adequate rationale (applying BPJ) of the basis for these TBELs.

*Program Strengths*

The establishment of TBELs is consistent and meets regulatory requirements regarding units and form. Adequate justification is provided for the categorization of facilities, and applicable regulations are cited.

*Areas for Improvement*

When using BPJ to develop case-by-case TBELs, adequate justification should be provided for the numerical limits and necessity of case-by-case TBELs and adequately documented in the fact sheet. The 2015 PQR also included this recommendation for adequate justification of case-by-case TBELs.

*Action Items*

Essential	<ul style="list-style-type: none"> <li>• Include a discussion in the fact sheet (40 CFR Part 124.56) regarding how and why case-by-case TBELs were established. [40 CFR 125.3(c)(2)]</li> </ul>
Recommended	<ul style="list-style-type: none"> <li>• No recommended action items were identified for this section of the PQR.</li> </ul>

**2. Reasonable Potential and Water Quality-Based Effluent Limitations**

*Background*

The NPDES regulations at 40 CFR 122.44(d)(1) require permits to include any requirements in addition to or more stringent than technology-based requirements where necessary to achieve state water quality standards, including narrative criteria for water quality. To establish such WQBELs, the permitting authority must evaluate whether any pollutants or pollutant parameters cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.

The PQR for Hawaii assessed the processes employed to implement these requirements. Specifically, the PQR reviewed permits, fact sheets, and other documents in the administrative record to evaluate how permit writers and water quality modelers:

- determined the appropriate water quality standards applicable to receiving waters,
- evaluated and characterized the effluent and receiving water including identifying pollutants of concern,
- determined critical conditions,
- incorporated information on ambient pollutant concentrations,

- assessed any dilution considerations (if authorized),
- determined whether limits were necessary for pollutants of concern and, where necessary,
- calculated such limits or other permit conditions.

For impaired waters, the PQR also assessed whether and how permit writers consulted and developed limits consistent with the assumptions of applicable EPA-approved TMDLs.

#### *Process for Assessing Reasonable Potential and Developing WQBELs*

Hawaii's current WQS are found in HAR Title 11, Chapter 54, which establishes beneficial uses and classifications of state waters, the state anti-degradation policy, zone of mixing (ZOM) standards, numeric aquatic life standards for 72 toxic pollutants, human health standards for 110 toxic pollutants, narrative standards for toxicity, and numeric standards for nutrients and other nonconventional pollutants for specific waters.

DOH determines pollutants of concern by considering the previous permit limits, water quality standards for the receiving water, receiving water data, and discharge monitoring report data. DOH also considers if significant treatment changes at the facility have occurred, which may have influenced the representativeness of the data set. RPA for nutrients, toxic pollutants, and enterococcus is performed using the 2019 *Hawaii Implementation Plan for Toxic Pollutants and Nutrients in NPDES Permit process* (HIP). The HIP's RPA for toxics is based on EPA's TSD. As previously described, the HIP updates and expands upon an older document, *1989 State Toxics Control Program: Derivation of water quality-based discharge toxicity limits for biomonitoring and specific pollutants* (STCP).

#### *RPA document(s)*

DOH permit writers reference the HIP document when evaluating the need for WQBELs, assessing dilution in various types of waters and available assimilative capacity, completing an RPA, and calculating WQBELs for three categories of pollutants – enterococcus, nutrients, and toxic pollutants. The HIP also established new procedures and clarification where the STCP was lacking (e.g., evaluating RP, establishing limits for non-toxics, addressing storm water, establishing intake credits, monitoring and reporting, data handling, dealing with non-detects values). The HIP outlines instructions for calculating the coefficient of variation (CV), determining the multiplying factor and quantitative methods for determining the projected maximum effluent or receiving water concentration, and comparing to applicable standards.

The quantitative methods are unique for each category of pollutants:

- Enterococcus - use either effluent data and applicable dilution factors or receiving water data to compare the maximum effluent monthly geometric mean to the applicable geometric mean WQS
- Enterococcus - use either the effluent or receiving water data to compare the maximum observed single sample value (after applicable dilution) to the applicable statistical threshold value

- Nutrients - assuming receiving water data is available, compare the maximum annual geometric mean values to the applicable geometric mean WQS
- Toxic pollutants (excluding carcinogens) – follow TSD procedures to calculate the maximum receiving water concentration (including dilution if appropriate) and compare to applicable water quality criteria
- Toxic pollutants (including human health carcinogens) – follow TSD procedures to calculate the maximum annual average receiving water concentration (including dilution if appropriate) and compare to applicable water quality criteria.

Overall, DOH's RPA procedures for toxics, nutrients, and enterococcus are consistent with EPA national guidance.

There is no national guidance regarding how to conduct RPA with data that has non-detect values (i.e., below the method detection limit (MDL)). DOH permit writers follow the guidelines in the HIP to determine RP when some or all the measurements are non-detect. Geometric means cannot be calculated with zeros (non-detect) in the data set. If all data is less than the MDL, a geometric mean of zero is assumed. When the data set includes detected and non-detect results below the MDL, and a geometric mean must be calculated, the substitution method is applied by using  $\frac{1}{4}$  of the MDL for non-detect.

The HIP contains a section on whole effluent toxicity (WET), but it does not define quantitative or qualitative procedures for either RPA or establishing numeric WET limits in permits. DOH should update the HIP to include more definitive steps that is consistent with EPA's NPDES RP regulations for WET at 40 CFR Part 122.44(d)(1)(ii) through (v) inclusive to determine WET RPA and for delineating a policy and/or procedures for applying numeric WET limits in permits.

In general, DOH has significantly improved implementation of WQS in permits. The permits reviewed included WQBELs when RP was determined, implemented TMDL WLAs, assessed assimilative capacity, and typically included monitoring for pollutants causing impairment. Permits reviewed included "basic water quality criteria applicable to all waters" or commonly referred to as narrative conditions as required in the Hawaii regulations for water quality criteria.

#### *Documentation of RPA and WQBELs*

RPA is documented in part D of most fact sheets in a section titled "Determining the Need for WQBELs – Reasonable Potential Analysis", and the final WQBELs are documented in Part A of the permits. The fact sheets reviewed included discussions of RPA results by parameter and often included a summary table.

Some fact sheets reviewed did not detail any CV used for the RPA, other than a standard sentence about an estimated CV with the uncertainty due to a limited number of data to project an estimated value. EPA recommends the following statements be included in the fact sheet to provide a clear definition and use of the CV:

A calculated CV for the reasonable potential analysis is used only if there are 10 or more detectable measurements. For data sets where there are less than 10

data points, or 80 percent or greater of the data is non-detect, the CV is set at 0.6 as recommended in section 5.5.2 of EPA's TSD (1991), which was found by EPA to be a reasonable estimate for environmental data for a broad range of wastewaters and is adequate for the purpose and intent of an RPA if the data distribution is unknown.

All fact sheets reviewed contained similar boilerplate language about RP for toxicity.

Of the fact sheets reviewed, EPA found that numeric WET limits were established for major POTW permits and one major industrial permit (power generating station); however, the fact sheet did not include a detailed RPA of existing effluent WET results; thus, the rationale was unclear. NPDES regulations at 40 CFR 124.56 require the permit fact sheet to document permit rationales for RP and limits decisions and calculations.

Fact sheets reviewed for the other minor industrial permits included either template language about toxicity RP or described there was no RP. For permits with WET numeric limits, EPA recommends that DOH update the fact sheet template to include a table of RP for WET results, any applicable percent effect, and RP determination.

### *Program Strengths*

#### Reasonable Potential

The HIP document is available to permit writers to outline the steps for completing the analysis. Permit writers also use an RPA spreadsheet that accompanies the HIP that incorporates effluent results imported from EPA's ECHO database for comparison with applicable WQS.

Fact sheets generally have good explanation of RPA for each chemical parameter and include a table to summarize the determinations. DOH states that it periodically updates the HIP to reflect DOH current practices and revisions to DOH regulations.

#### WQBEL Development

For the permits reviewed, each fact sheet contained a detailed description outlining the steps for developing WQBELs and was consistent with regulatory requirements.

DOH had drafted a guidance document titled, *Performing a Dilution Study for a Hawaii National Pollutant Discharge Elimination System (NPDES) permit Zone of Initial Dilution (ZID) and Zone of Mixing (ZOM)*, August 2016. The use of mixing zones is documented in DOH fact sheets in a section titled "Zone of Mixing" under part E of most fact sheets. DOH requires permittees to request approval of a mixing zone before it can be considered in the development of WQBELs. Otherwise, limits must be met without consideration of a mixing zone.

Within the CCH-Kailua permit, EPA identified conflicting language in footnotes to Effluent Limitations table (page 4) regarding the enterococcus maximum daily effluent limitation (MDEL). Specifically, one footnote contradicted another footnote on the applicability of

the MDEL value, as excerpted below:

*(6) Effluent limit [is] expressed as a single sample maximum.*

*(7) The daily maximum effluent limitation shall not be exceeded in more than ten (10) percent of samples taken within the same 30-day interval in which the geometric mean was calculated.*

Footnote (7) was not included in other WWTP permits as part of EPA’s review of core permits; therefore, it appears that DOH permits treat this MDEL as a single sample maximum value (i.e., one grab sample result is not to exceed this value).

*Areas for Improvement*

Reasonable Potential

DOH should update the HIP to address RPA methods for toxicity, including any policy decisions for establishing numeric toxicity effluent limits in permits. DOH also should revise the permit and fact sheet template language to reflect the updated HIP contents for toxicity.

DOH should update the fact sheet template to include calculations of CVs and present both CVs and multiplier values within the RP tables.

WQBEL Development

For the enterococcus MDEL, DOH should include consistent language as to how this limitation will be applied for permit compliance.

*Action Items*

Essential	<ul style="list-style-type: none"> <li>•No essential action items were identified for this section of the PQR.</li> </ul>
Recommended	<ul style="list-style-type: none"> <li>•Update the HIP to describe DOH’s policy for applying WET limits and determining RPA for toxicity and revise templates accordingly.</li> <li>•The calculation of CVs and RP multipliers should be consistent with the HIP procedures and EPA’s TSD and included in the RPA Results tables in Part F of the fact sheets.</li> <li>•Ensure clear language for the interpretation of effluent results for the enterococcus MDEL.</li> </ul>

**3. Final Effluent Limitations and Documentation**

*Background and Process*

Permits must include all applicable statutory and regulatory requirements, including technology and water quality standards, and must include effluent limitations that ensure that all applicable CWA standards are met. The permitting authority must identify the most stringent effluent limitations and establish them as the final effluent limitations in the permit. In addition, for reissued permits, if any of the limitations are less stringent than the corresponding

limitations in the previous NPDES permit, the permit writer must conduct an anti-backsliding analysis, and if necessary, revise the limitations accordingly. In addition, for new or increased discharges, the permitting authority should conduct an antidegradation review, to ensure the permit is written to maintain existing high quality of surface waters, or if appropriate, allow for some degradation. The NPDES regulations at 40 CFR 131.12 outline the common elements of the antidegradation review process.

In addition, permit records for POTWs and industrial facilities should contain comprehensive documentation (40 CFR 124.56) of the development of all effluent limitations. Documentation for TBELs should include assessment of applicable standards, data used in developing effluent limitations, and actual calculations used to develop effluent limitations including the RPA. The procedures implemented for determining the need for WQBELs as well as the procedures explaining the basis for establishing, or for not establishing, WQBELs should be clear and straight forward. The permit writer should adequately document changes from the previous permit, ensure draft and final limitations match (unless the basis for a change is documented), and include all supporting documentation in the permit file. The permit writer should sufficiently document determinations regarding anti-backsliding and antidegradation requirements.

Of the DOH permits reviewed, all fact sheets included appropriate “boilerplate” language reflecting the RPA procedures and a table listing parameters and the applicable water quality standards.

Permits and fact sheets must discuss how the most stringent of the applicable TBELs and WQBELs were identified and applied. The 2015 PQR also included this specific recommendation.

#### *Anti-backsliding*

Anti-backsliding refers to statutory (CWA Section 402(o)) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. All the individual permits reviewed show that this requirement is generally sufficiently addressed in the fact sheet with a specific section addressing anti-backsliding. Whereas the fact sheets reviewed had discussions of the appropriate changes to prior effluent limits, some fact sheets could be strengthened by adding the specific regulatory rationale to support the changes. This would include a parameter-specific explanation supported by the allowable backsliding exception within either CWA Section 303(d)(4) or 402(o).

#### *Antidegradation*

Hawaii’s WQS, Chapter 11-54, provide the water quality criteria to protect the existing designated uses; the state’s Antidegradation Policy is contained with sub-chapter 11-54-1.1. As of 2019, DOH also has developed and finalized Antidegradation Implementation Procedures. DOH permit writers are required to follow these procedures for consistency, fairness, accountability and transparency throughout the NPDES permit process. Permittees are also

required to follow the procedures in this document when submitting an antidegradation analysis with their NPDES application.

All the core permits reviewed provide some information about antidegradation within the fact sheet; however, improvements could be made to the fact sheet template.

*Program Strengths*

Fact sheets were well organized with specific sections that were consistent across permits to address various requirements including anti-backsliding, and antidegradation. This organization makes it easy to locate the rationale for various permit terms within the fact sheet. The fact sheets in general had adequate descriptions of applicable standards and TMDLs and regulatory basis. Final limits were documented in the permit, with appropriate units and form.

*Areas for Improvement*

Fact sheets should document that the most stringent of the applicable TBELs and WQBELs for each pollutant are included in the permit and the more stringent limits apply.

Fact sheets should describe, by parameter, the specific backsliding rationale as allowed by statute or regulations. Backsliding requirements should go beyond mere statements that assert that any permit limit removal is “allowable backsliding” and include summary of data evaluated and explanation of why that is the case.

When effluent limits are removed or less stringent, based on CWA 303(d)(4), then DOH should include a more complete summary of the antidegradation analysis.

Additionally, including effluent limit calculations in the fact sheet would improve clarity for the public, permittee and DOH permit writers in future.

*Action Items*

Essential	<ul style="list-style-type: none"> <li>• Complete an antidegradation analysis for all changes that result in less stringent limits and document it in the final fact sheet. [40 CFR 131.12]</li> </ul>
Recommended	<ul style="list-style-type: none"> <li>• Consider documenting WQBEL calculations in the fact sheet.</li> <li>• Include fact sheet statement that the most stringent of the applicable TBELs or WQBELs are included in the permit.</li> </ul>

**C. Monitoring and Reporting Requirements**

*Background and Process*

NPDES regulations at 40 CFR 122.41(j) require permittees to evaluate compliance with the effluent limitations established in their permits and provide the results to the permitting authority. Monitoring and reporting conditions require the permittee to conduct routine or episodic self-monitoring of permitted discharges and where applicable, internal processes, and report the analytical results to the permitting authority with information necessary to evaluate

discharge characteristics and compliance status.

Specifically, 40 CFR 122.44(i) requires NPDES permits to establish, at minimum, annual reporting of monitoring for all limited parameters sufficient to assure compliance with permit limitations, including specific requirements for the types of information to be provided and the methods for the collection and analysis of such samples. In addition, 40 CFR 122.48 requires that permits specify the type, intervals, and frequency of monitoring sufficient to yield data which are representative of the monitored activity. The regulations at 40 CFR 122.44(i) also require reporting of monitoring results with a frequency dependent on the nature and effect of the discharge. 40 CFR Part 127 requires NPDES-regulated entities to submit certain data electronically, including discharge monitoring reports and various program-specific reports, as applicable.

NPDES permits should specify appropriate monitoring locations to ensure compliance with the permit limitations and provide the necessary data to determine the effects of an effluent on the receiving water. A complete fact sheet will include a description and justification for all monitoring locations required by the permit. States may have policy or guidance documents to support determining appropriate monitoring frequencies; documentation should include an explicit discussion in the fact sheet providing the basis for establishing monitoring frequencies, including identification of the specific state policy or internal guidance referenced. Permits must also specify the sample collection method for all parameters required to be monitored in the permit. The fact sheet should present the rationale for requiring grab or composite samples and discuss the basis of a standard permit condition requirement mandating use of a sufficiently sensitive 40 CFR Part 136 analytical method.

DOH generally follows EPA's national guidance on developing monitoring requirements. The permits reviewed included appropriate monitoring and reporting requirements based on the facility type, nature of discharge, and appropriate limits in the permit. For example, influent monitoring is included for standard parameters such as TSS and BOD5 for POTWs. The permits include a general requirement that monitoring must be conducted according to approved methods under 40 CFR Part 136 and that sufficiently sensitive analytical methods must be used.

The permits reviewed typically also included assessment-level monitoring and effluent characterization monitoring. These serve not as permit limits but as monitoring triggers to indicate when there might be a reason to reevaluate RP due to an excursion of a WQS ("cause" under RP) for a particular parameter. For permits that contain mixing zone approvals, typically there is also receiving water monitoring required in the permit to verify the dilution credit and to evaluate compliance of the discharge with the applicable water quality criteria at edge of ZOM.

All permits reviewed included standard language allowing DOH to re-open the permit and revise requirements if appropriate.

### *Program Strengths*

Because DOH permit writers use streamlined templates for most aspects, including monitoring requirements, these permits generally had robust and consistent monitoring requirements



within and across permit types.

*Areas for Improvement*

In the permits reviewed, fact sheets did not describe the rationale for requiring grab or composite samples as consistent with 40 CFR Part 136 analytical methods.

*Action Items*

Essential	•No essential action items were identified for this section of the PQR.
Recommended	•Fact sheets should (40 CFR 124.56) include rationale for requiring either grab or composite samples for monitoring and reflect the sample procedures described within analytical methods of 40 CFR Part 136.

**D. Standard and Special Conditions**

*Background and Process*

Federal regulations at 40 CFR 122.41 require that all NPDES permits, including NPDES general permits, contain certain “standard” permit conditions. Further, the regulations at 40 CFR 122.42 require that NPDES permits for certain categories of dischargers must contain additional standard conditions. Permitting authorities must include these conditions in NPDES permits and may not alter or omit any standard condition unless such alteration or omission results in a requirement more stringent than those in the federal regulations.

All permits reviewed for this PQR included standard permit conditions as an attachment. DOH updated the individual permit standard conditions in 2021 (version 16). DOH is planning to update the general permit standard conditions via rulemaking in 2023. The Standard Conditions for general permits are essentially same as those for individual permits.

Permits may also contain additional requirements that are unique to a particular discharger. These case-specific requirements are generally referred to as “special conditions.” Special conditions might include requirements such as: additional monitoring or special studies such as a mercury minimization plan; best management practices (see 40 CFR 122.44(k)); or permit compliance schedules (see 40 CFR 122.47). Where a permit contains special conditions, such conditions must be consistent with applicable regulations.

Permits reviewed included permit conditions including development of Stormwater Pollution Control Plans where an individual permit incorporated a requirement that is required by the Multi-Sector/Industrial Stormwater General Permit. By incorporating such requirements in the individual discharge permit, DOH provided the permittee the ability to meet both sets of

requirements in one permit. Reviewed WWTP permits contained a special condition to maintain in good working order a sufficient alternate power source for operating the facility. Other special conditions included the reporting requirement to provide DOH with an annual chemical usage summary for a fin fish aquaculture facility for one permit and a power generating plant for the other.

#### *Program Strengths*

Overall, the permits demonstrated appropriate use of standard and special permit conditions, with requirements in the permit to meet such conditions. DOH is including EPA's current standard permit conditions.

In 2023, DOH updated the state civil penalty amounts (\$60,000) to be closer to current federal amounts.

#### *Areas for Improvement*

No areas for improvement were identified for this section of the PQR.

#### *Action Items*

No action items were identified for this section of the PQR.

## **E. Administrative Process**

#### *Background and Process*

The administrative process includes documenting the basis of all permit decisions (40 CFR 124.5 and 40 CFR 124.6); coordinating EPA and state review of the draft (or proposed) permit (40 CFR 123.44); providing public notice (40 CFR 124.10); conducting hearings if appropriate (40

CFR 124.11 and 40 CFR 124.12); responding to public comments (40 CFR 124.17); and modifying a permit (if necessary) after issuance (40 CFR 124.5). EPA discussed each element of the administrative process with DOH and reviewed materials from the administrative process as they related to the core permit review.

DOH sends pre-public notice drafts of permits and fact sheets to EPA Region 9 for review at least 30 days prior to public notice, as specified in the 1974 NPDES Memorandum of Agreement between DOH and EPA. For general permits, DOH provides at least 90 days for EPA Region 9 review, as specified in the 1991 NPDES Memorandum of Agreement for general permits. DOH addresses all comments from EPA before public noticing the draft permit.

DOH and the permittee publishes a notice of the draft permits and fact sheets on its website inviting interested parties to respond in writing by mail or email, for a 30-day comment period, consistent with 40 CFR 124.10. Copies of these draft documents are also available for public inspection at the DOH office.

In the permits reviewed, three had received public comments and DOH responded to all comments either in a stand-alone document or as part of the permit fact sheet. Based on the response to comments documentation that was included in the administrative record for

Keahole Point Fish, Pacific Shipyard (2017 permit), and the City and County of Honolulu MS4 and MSGP, it appears that DOH adequately addressed all comments received on those permits during the public comment period.

For one permit, Kailua WWTP, the final fact sheet (dated March 6, 2020) stated that the permittee submitted comments in a letter dated February 19, 2020 and that no other public comments were received. EPA did not find a “Response to Comment” (RTC) document for this permit, but the fact sheet included a statement that all comments were addressed. However, EPA did not find documentation of the changes and rationale for how the permit was modified as a result of the February 19, 2020 comments.

*Program Strengths*

Due to the use of standard procedures and templates in most aspects of permit development, public review, and issuance, DOH’s administrative process for permit issuance is robust and meets the general requirements of the appropriate regulations.

*Areas for Improvement*

DOH should remind permit writers to appropriately document comments received during the public notice period and generate a RTC document or include equivalent documentation as an appendix to the final fact sheet. This RTC documentation should also provide rationale regarding changes made to the draft permit based on the comments received.

The fact sheet template could be improved to include a generic statement if no comments were received and to serve as reminder about this to permit writers.

*Action Items*

If comments were received during the public notice period, DOH permit writers should include RTC documentation in the final fact sheet and provide a rationale regarding the changes made to the draft permit based on the comments received.

DOH should include a RTC document incorporating changes made to the Kailua 2022 final fact sheet based on comments received in February 2020.

Essential	• No essential action items were identified for this section of the PQR.
Recommended	• Documentation that comments were not received during the public comment period should be included in the final administrative record or described as such in the final fact sheet. If comments are received, the fact sheet should describe the changes or there should be a RTC document.

## F. Administrative Record and Fact Sheet

### *Background and Process*

The administrative record is the foundation that supports the NPDES permit. If EPA issues the permit, 40 CFR 124.9 identifies the required content of the administrative record for a draft permit and 40 CFR 124.18 identifies the requirements for a final permit. Authorized state programs should have equivalent documentation pursuant to the provisions of 40 CFR 123. The record should contain the necessary documentation to justify permit conditions. At a minimum, the administrative record for a permit should contain the permit application and supporting data; draft permit; fact sheet or statement of basis;<sup>6</sup> all items cited in the statement of basis or fact sheet including but not limited to calculations used to derive the permit limitations; meeting reports; correspondence between the applicant and regulatory personnel; all other items supporting the file; the final response to comments.

Current regulations require that fact sheets include information regarding the type of facility or activity permitted, the type and quantity of pollutants discharged, the technical, statutory, and regulatory basis for permit conditions, the basis and calculations for effluent limits and conditions, the reasons for application of certain specific limits, rationales for variances or alternatives, contact information, and procedures for issuing the final permit. Generally, the administrative record includes the permit application, the draft permit, any fact sheet or statement of basis, documents cited in the fact sheet or statement of basis, and other documents contained in the supporting file for the permit.

EPA reviewed fact sheets and administrative records as part of the core PQR review. Each administrative record reviewed contained the permit application, public notice, final permit, and fact sheet.

The fact sheets provided by DOH generally adequately explained the basis for all permit conditions and requirements, as well as documented changes from the previous permit. DOH has a standard template for permit fact sheets, which helps the permit writer produce consistent contents. The fact sheets generally provided all the necessary information for a permit reviewer to understand the basis for the conditions and limitations included in the permit. If public comments were received, then DOH provided responses to comments as part of the fact sheet.

### *Program Strengths*

As indicated in the discussion above, the use of templates for fact sheets and a spreadsheet that allows for automatic calculations to conduct RPA is a key strength of DOH's permitting program. These factors make the permits and fact sheets consistent across permit writers and allow for both the permittee and others who review the permit and fact sheet to quickly find information about the basis for the permit as well as the limits and conditions included in the permit.

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<sup>6</sup> Per 40 CFR 124.8(a), every EPA and state-issued permit must be accompanied by a fact sheet if the permit: Incorporates a variance or requires an explanation under 124.56(b); is an NPDES general permit; is subject to widespread public interest; is a Class I sludge management facility; or includes a sewage sludge land application plan.

### *Areas for Improvement*

No areas for improvement were identified for this section of the PQR.

### *Action Items*

No action items were identified for this section of the PQR.

## **IV. NATIONAL TOPIC AREA FINDINGS**

National topic areas are aspects of the NPDES permit program that have been determined to be important on a national scale. National topic areas are reviewed for all state PQRs. The national topics areas for this cycle of state permit quality review are: Permit Controls for Nutrients in Non-TMDL Waters, Effectiveness of POTW NPDES Permits with Food Processor Contributions, and MS4 Permit Requirements.

### **A. Permit Controls for Nutrients in Non-TMDL Waters**

#### *Background*

Nutrient pollution is an ongoing environmental challenge; however, nationally, permits often lack nutrient limits. It is vital that permitting authorities actively consider nutrient pollution in their permitting decisions. Of the permits that do have limits, many are derived from wasteload allocations in TMDLs, since state criteria are often not established for nutrients or established criteria may be challenging to interpret. For this section, waters that are not protected by a TMDL are considered. These waters may already be impaired by nutrient pollution or may be vulnerable to nutrient pollution due to their hydrology and environmental conditions. For the purposes of this program area, ammonia is considered a toxic pollutant, not a nutrient.

Federal regulations at 40 CFR 122.44(d)(1)(i) require permit limits to be developed for any pollutant that will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, whether those water quality standards are narrative or numeric.

To assess how nutrients are addressed in the Hawaii NPDES program, EPA Region 9 reviewed five permits and the nutrient criteria in the current Hawaii WQS. The permits reviewed include County of Kauai WWTP, City and County of Honolulu - Kailua WWTP, Schofield Barracks Schofield Barracks, Keahole Point Fish, Kapaa Quarry. Only the Kapaa Quarry permit also contained applicable TMDLs for nutrients for the receiving waters.

DOH has established numeric criteria for nitrogen species and phosphorus for streams, estuaries, open coastal waters, and open ocean waters based on designated use. In one case, site specific criteria are established for Pearl Harbor. These numeric criteria for phosphorus, total nitrogen, nitrate+nitrite, and ammonia are expressed as geometric mean, and not to exceed ten percent of the time and not to exceed two percent of the time. EPA's review of DOH's narrative water quality criteria (HAR 11-54) show they do not include surface water conditions that explicitly state "nutrients, nitrogen or phosphorus", nor do any criteria imply nutrient associated degradation of water quality; e.g., algae or aquatic plants or eutrophication

that could inhibit aquatic life beneficial uses. One narrative criteria states: [Shall be free from] “Substances or conditions or combinations thereof in concentrations which produce undesirable aquatic life.”

For the five permits EPA reviewed, all the receiving waters have established numeric criteria for nutrients. EPA found that two of the permits (Kapaa Quarry and Keahole Point Fish) included WQBELs for nitrogen or phosphorus or ammonia and the fact sheets did include RPA using the numeric criterion. For both facilities, the receiving waters were identified as impaired for nutrients. The Keahole Point Fish permit contained receiving water monitoring for nutrients, because the permit also contained a mixing zone for these parameters. DOH includes receiving water monitoring when a mixing zone is applied within the permit. For one WWTP permit, Schofield Barracks, the permit requires monitoring for total nitrogen and total phosphorus because the discharges flow into a nutrient impaired waterbody.

For the other two wastewater treatment plants, the fact sheet explained there was no RP for total nitrogen, total phosphorus, or ammonia, thus no effluent limits were required to be included. The two WWTP permits did include monitoring for nitrogen and phosphorus in the receiving waters, presumably because the mixing zones were applied. The receiving waters for these two WWTPs are not impaired for nutrients.

#### *Program Strengths*

DOH used the applicable numeric criteria to conduct RPA for nutrients and, where appropriate, set numeric effluent limits for nutrients (mass-based), including ammonia (concentration-based). Fact sheets documented the RPA and conclusions. Monitoring requirements for total nitrogen and total phosphorus were included in the permits where the discharges entered nutrient impaired waters. This monitoring serves to characterize the effluent and inform future permit requirements.

#### *Areas for Improvement*

No areas for improvement were identified for this section of the PQR.

#### *Action Items*

No areas for improvement were identified for this section of the PQR.

## **B. Effectiveness of POTW NPDES Permits with Food Processor Contributions**

The general pretreatment regulations (40 CFR 403) establish responsibilities of federal, state, and local government, industry and the public to implement pretreatment standards to control pollutants from industrial users which may cause pass through or interfere with POTW treatment processes or which may contaminate sewage sludge.

#### *Background*

Indirect discharges of food processors can be a significant contributor to noncompliance at recipient POTWs. Food processing discharges contribute to nutrient pollution (e.g., nitrogen,

phosphorus, ammonia) to the nation's waterways. Focusing specifically on the Food Processing Industrial Sector will synchronize PQRs with the Office of Enforcement Compliance and Assurance (OECA)'s Significant Non-compliance (SNC)/National Compliance Initiative (NCI).

The goal of the PQR was to identify successful and unique practices with respect to the control of food processor discharges by evaluating whether appropriate controls are included in the receiving POTW NPDES Permit and documented in the associated Fact Sheet or Statement of Basis; as well as by compiling information to develop or improve permit writers' tools to be used to improve both POTW and industrial user compliance.

The PQR also assessed the status of the pretreatment program in Hawaii as well as specific language in POTW NPDES permits. With respect to NPDES permits, focus was placed on the following regulatory requirements for pretreatment activities and pretreatment programs:

- 40 CFR 122.42(b) (POTW requirements to notify Director of new pollutants or change in discharge);
- 40 CFR 122.44(j) (Pretreatment Programs for POTWs);
- 40 CFR 403.8 (Pretreatment Program Requirements: Development and Implementation by POTW), including the requirement to permit all significant industrial users (SIUs);
- 40 CFR 403.9 (POTW Pretreatment Program and/or Authorization to revise Pretreatment Standards: Submission for Approval);
- 40 CFR 403.12(i) (Annual POTW Reports); and
- 40 CFR 403.18 (Modification of POTW Pretreatment Program).

The national pretreatment program is a component of the NPDES program and is a cooperative effort of federal, state, and local environmental regulatory agencies. DOH is authorized to implement the NPDES and pretreatment programs.

City and County of Honolulu (CCH) has an approved POTW pretreatment program which regulates 12 SIUs discharging to 4 WWTPs. The number of SIUs, categorical industrial users (CIUs), and non-significant categorical industrial users (NSCIUs) in Hawaii's single approved POTW pretreatment program is as follows:

- CCH Sand Island WWTP – 8 permitted SIUs (1 CIU, 7 non-categorical SIUs). The number of SIUs decreased from 9 to 8 in 2020 with the closing of Meadow Gold Dairies.
- CCH Honouliuli WWTP – 4 permitted SIUs (2 CIUs and 2 non-categorical SIUs).
- CCH Kailua WWTP – 0 SIUs, CIUs, and NSCIUs.
- CCH Waianae WWTP – 0 SIUs, CIUs, and NSCIUs.

DOH has not identified any SIUs discharging to POTWs without approved pretreatment programs (see Table 2 below).

**Table 2. Hawaii SIUs by Pretreatment Program Status**

<b>SIU Description</b>	<b>Number of SIUs in Approved Pretreatment Programs <sup>1</sup></b>	<b>Number of SIUs in Non-Approved Pretreatment Programs <sup>1</sup></b>	<b>Total</b>
CIU	3	0	<b>3</b>
Non-CIU	9	0	<b>9</b>
<b>Total SIUs</b>	<b>12</b>	<b>0</b>	<b>12</b>

<sup>1</sup>Data source: Email communication with DOH on September 23, 2021.

DOH permit writers and pretreatment staff reside within the Clean Water Branch. According to DOH, permit writers incorporate standard pretreatment conditions (language previously agreed upon with EPA) in the NPDES permits for POTWs that are required to implement approved pretreatment programs. Pretreatment regulations are incorporated by reference into the NPDES permit.

DOH permit writers review the NPDES POTW application, draft permit, and fact sheet. If permit writers determine that a POTW may need to develop a pretreatment program (design flow of 5 MGD or more and SIUs identified in NPDES application), they will ask for management approval to incorporate pretreatment requirements in the draft permit.

According to DOH staff, SIUs outside of approved pretreatment programs would be identified when staff are processing the permit for the facility that receives the discharge from the SIUs. The permit writer would review the list of facilities in Section 4 of EPA Form 2A of the permit application for POTWs (*Industrial Discharges, Table F, and Hazardous Wastes*). In addition, if a permit writer is processing a permit for industrial storm water or construction-related discharges for an indirect discharging facility that would be subject to a categorical pretreatment standard, the permit writer would inform the appropriate NPDES management team, who will then determine how process wastewater will be controlled.

DOH staff, both the permit writers and enforcement staff, provide general oversight of the Pretreatment Program, including conducting pretreatment compliance audits and inspections, reviewing annual pretreatment program reports, reviewing local limits, and reviewing program modifications. DOH does not permit any indirect dischargers in POTWs without approved pretreatment programs.

The PQR for this topic area was based on review of NPDES permits, permit applications, and fact sheets. Table 3 below identifies the four NPDES permits selected by EPA Region 9 for this PQR national topic area. Permit selection was based on the list of POTWs that were known to have food processors based on review of existing NPDES permit applications as well as Google map searches.



**Table 3. NPDES Permits Selected for the Pretreatment Topic Area**

Permittee	Permit No.	Approved Pretreatment Program?	Average Design Flow (MGD)	No. of SIUs <sup>1</sup>	No. of Food Processors
CCH Department of Environmental Services - Honouliuli WWTP	HI0020877	Yes	38	5 <sup>2</sup>	2 <sup>1</sup>
CCH Department of Environmental Services – Sand Island WWTP	HI0020117	Yes	90	8 <sup>3</sup>	3 <sup>1</sup>
County of Hawaii Department of Environmental Management, Hilo WWTP	HI0021377	No <sup>4</sup>	5.0	0	5 <sup>5</sup>
County of Maui, Lahaina Wastewater Reclamation Facility	HI0021848	No	9.0	0	1 <sup>6</sup>

<sup>1</sup> Based on the information provided in the permit application.

<sup>2</sup> According to DOH, the number of SIUs discharging to Honouliuli has changed from 5 to 4 since permit application submittal.

<sup>3</sup> As noted in the Areas for Improvement section below, the Sand Island permit application and permit fact sheet contain conflicting numbers of SIUs.

<sup>4</sup> The 2020 Hilo permit reviewed does not require the POTW to develop or implement a pretreatment program. However, at the time of the May 2021 Compliance Evaluation Inspection, the Permittee was under an Administrative Order to develop an industrial pretreatment program.

<sup>5</sup> Based on information collected in May 2021 during nondomestic user site visits conducted as part of IU Survey.

<sup>6</sup> Based on an internet search and further discussion with DOH. This is new permit and has not been issued; EPA's contractors reviewed a working draft (dated 2021) of this permit.

### *Program Strengths*

#### All Programs

The standard notification requirements under 40 CFR 122.42(b) are included in the DOH "Standard NPDES Permit Conditions" (Version 15), referenced in each of the NPDES permits reviewed.

Each NPDES permit contained final effluent limits for secondary treatment standards in accordance with 40 CFR 133.102 for BOD<sub>5</sub>, TSS, and pH and required not less than 85% removal of BOD<sub>5</sub> and TSS. In addition, the CCH Honouliuli and Sand Island NPDES permits contain interim effluent limits as defined in the 2010 Consent Decree with respect to secondary treatment.

#### POTWs with Approved Pretreatment Programs

The CCH Sand Island and Honouliuli NPDES permits contained effluent limits for the following pollutants of concern for food processors: pH, BOD<sub>5</sub>, and TSS; the permits also contained effluent monitoring requirements for total oil and grease and fats, oils, and grease. The permits included influent monitoring requirements for these parameters as well.

The Honouliuli and Sand Island NPDES permits required development and enforcement of local limits. Both permits contained requirements established at 40 CFR 122.44(j)(2)(ii) requiring a written technical evaluation of the need to revise local limits following permit issuance or reissuance and include due dates for submissions. The permits required submittal of a Local Limits Interim Progress Report within 6 months after the permit effective date and a Local Limits Development Report within 12 months after the permit effective date.

#### POTWs Without Approved Pretreatment Programs

The County of Maui Lahaina NPDES working draft permit contained effluent limits for the following pollutants of concern for food processors: pH, total nitrogen, total phosphorus, ammonia nitrogen, BOD5, and TSS; the permit also contained influent monitoring requirements for these parameters. Although County of Maui does not have a formally approved pretreatment program, they are implementing an informal program; the NPDES permit contained language referencing pretreatment conditions in 40 CFR Part 403 and requires specific actions to occur. The working draft permit did not, however, stipulate the existence of, or requirement for, an approved pretreatment program.

The Lahaina working draft permit required the permittee to submit a "...BMP-based program for controlling animal and vegetable oil and grease within 180 calendar days of the effective date of this permit" and required the permittee to continue implementing its most current BMP-based program for controlling animal vegetable oil and grease, until the permittee develops the updated program.

The Lahaina working draft permit required the permittee to submit an annual pretreatment report and requires the permittee to develop and enforce local limits. The working draft permit required the permittee to submit the following:

- Local Limits Interim Progress Report once per permit term, due 6 months after permit effective date
- Local Limits Development Report once per permit term, due 12 months after permit effective date.

The County of Hawaii Hilo NPDES permit contained effluent limitations for pH, BOD5 and TSS and influent monitoring requirements for BOD5 and TSS.

#### *Areas for Improvement*

#### POTWs with Approved Pretreatment Programs

The Honouliuli NPDES permit and fact sheet did not identify the approval and/or most recent modification dates of the program. Furthermore, neither document identified the basis for program implementation. In addition, the Honouliuli NPDES permit fact sheet did not identify and characterize the contributing industrial dischargers (including hauled industrial waste). Similarly, the Sand Island NPDES permit and permit fact sheet did not state the basis for pretreatment program implementation. While the Sand Island NPDES permit fact sheet described some of the industrial contributions including specifying the number of non-categorical SIUs discharging to the WWTP, it did not mention receiving industrial contributions from the CIU listed in the permit application.

EPA recommends that DOH provide training or written guidance to permit writers to ensure fact sheets clearly document the rationale for pretreatment program development or implementation, including a description of the types of industrial users discharging to the POTW, and indicate when the program was approved or modified.

The permit writer should include a statement in the fact sheet identifying the basis (e.g., the facility is a major POTW that accepts wastewater from multiple SIUs) and rationale for requiring a pretreatment program. See 40 CFR 403.8(a) for the criteria. Inclusion of this information in the POTW NPDES permit fact sheets is important for documenting the rationale for the POTW's monitoring and sampling requirements. Permit fact sheets should also specify whether the POTW accepts hauled waste and provide more information on hauled waste types, volumes, discharge locations, and whether hauled waste contributions are included in the RPA.

Part 2A.F of the Sand Island permit application specified that the POTW has 9 non-categorical SIUs and 1 CIU, but in attachment 2A-7 of the permit application, the permittee listed 8 non-categorical SIUs (Coke, Itoen, ALSCO, United Laundry-Hoonee, United Laundry-Alahao, Meadow Gold Dairies, Dust-Ex, Pacific Biodiesel). Based on information provided by DOH staff on September 22, 2021, the number of SIUs decreased from 9 to 8 in 2020 with the closing of Meadow Gold Dairies. Furthermore, the permit fact sheet indicated that the POTW only has six non-categorical SIUs. In addition, the Sand Island permit application did not list the non-process flow volume for one SIU (Pacific Biodiesel). Permit writers must ensure that NPDES permit applications contain all the necessary information (required by 40 CFR 122.21(j)(6)) to comprehensively evaluate the POTW and the potential need for a pretreatment program, including accurately identifying all SIUs, industrial processes, flows, and hauled industrial waste, and identify any applicable categorical classifications. In addition, permit writers should ensure that the fact sheets identify and characterize all contributing industrial dischargers. Types of non-domestic discharges received by the POTW that were known and documented by the POTW at the time of permit issuance should be noted to distinguish them from new wastestreams accepted after permit issuance.

#### *POTWs Without Approved Pretreatment Programs*

Based on internet searches, the Hilo WWTP received wastewater from multiple food processing facilities. Three food processing facilities visited during a May 2021 Compliance Evaluation Inspection of the Hilo WWTP were determined to have the potential to cause harm and should be considered for classification as SIUs. The 2020 Hilo permit reviewed did not require the POTW to develop or implement a pretreatment program. However, at the time of the May 2021 Compliance Evaluation Inspection, an Administrative Order was pending which could include a requirement to develop an industrial pretreatment program. In addition, DOH should require the County of Hawaii to provide additional evaluation and classification of all nondomestic users, including determination of SIUs, and issue the necessary control mechanisms to ensure protection of the collection system and WWTP.

#### *Action Items*

Essential

- Permit writers must ensure that NPDES permit applications contain all the necessary information to comprehensively evaluate the POTW and the potential need for a pretreatment program, including accurately identifying all SIUs, industrial processes, flows, and hauled industrial waste, and identify any applicable categorical classifications. [40 CFR 122.21(j)(6)].

Recommended

- DOH should ensure that the Pretreatment Requirements section of the permit retains all necessary pretreatment program requirements, including the requirement to evaluate local limits.
- Permit writers should ensure that the permit fact sheets identify and characterize all contributing industrial dischargers, including any hauled waste.
- Permit writers should include in the POTW permits a timeframe for notification of any new introduction of pollutants and substantial changes in the volume or character of pollutants being introduced into that POTW.
- It is recommended that DOH provide training or written guidance to permit writers to ensure fact sheets clearly document the rationale for pretreatment program development or implementation, including a description of the types of industrial users discharging to the POTW, and indicate when the program was approved or modified.
- Permit writers should specify the basis and rationale for requiring a pretreatment program in the permit fact sheet.
- Permit writers should specify the program approval or modification dates in fact sheets to ensure that the program includes up-to-date federal regulations.
- DOH should require the City and County of Hawaii to provide additional evaluation and classification of all nondomestic users, including determination of SIUs, and issue the necessary control mechanisms to ensure protection of the collection system and WWTP.

### C. Small Municipal Separate Storm Sewer System (MS4) Permit Requirements

#### *Introduction*

The NPDES program requires stormwater discharges from certain MS4s, industrial activities, and construction sites to be permitted. Generally, EPA and NPDES-authorized states issue individual permits for medium and large MS4s and general permits for small MS4s, industrial activities, and construction activities. Hawaii has two individual Phase I MS4s, one general permit for Phase II MS4s that covers approximately 16 small MS4s, five separate small MS4 permits for federal facilities and the Honolulu Airport. Hawaii also has a total of 13 general permits.

### *Background*

As explained in the MS4 Remand Rule, states can either issue a comprehensive general permit, which establishes all necessary permit terms and conditions upfront in one comprehensive permit, or issue a two-step permit which establishes some requirements in a general permit and others applicable to individual MS4s through a second proposal and public comment process.

As of 2016, DOH had already begun development of MS4 permits with an eye toward including permit requirements consistent with the principles that would later be included in the Remand Rule. Currently, all of DOH's MS4 permits provide for public review of notices of intent (NOIs) and best management practices proposed by permittees to meet the requirements of the permit; as such, it is considered the two-step process as described in each MS4 permit.

EPA Region 9 selected to review one individual MS4 permit for the Department of the Navy, Navy Region Hawaii (COMNAVREG HI), which covers discharges from the Joint Base Pearl Harbor-Hickham small MS4 and other Navy industrial areas and facilities and associated storm sewer outfalls. This Navy permit was issued on January 22, 2021 and became effective on February 1, 2021; the permit will expire on January 31, 2026.

### ***Individual Small MS4 Permit Authorizing Discharges of Stormwater and Certain Non-Stormwater Discharges from Department of Navy, Navy Region Hawaii (COMNAVREG HI) Permit No. HIS000257***

#### *Program Strengths*

One of the fundamental goals of the Remand Rule was to ensure adequate opportunity for public participation when general permits are issued for small MS4s and to ensure adequate state review of submittals under a general permit. The Navy small MS4 permit (Part A.6) established permit requirements for all plans as allowable (e.g., Stormwater Pollution Control Plans, Stormwater Management Plans, Enforcement Response Plans, etc.) to be available on the Permittee's website for at least 30 days for public review and comment prior to finalization of such plans by Navy. Also, the permit required the permittee to address all comments received at least 30 days prior to plan finalization and provide the Navy's response to comments document to DOH.

The Navy small MS4 permit included a requirement for the permittee to develop a "Debris Control BMPs Program Plan" which included several appropriate components such as an Asset Management System and Mapping, Inspection/Maintenance Schedule, Maintenance Activities Plan, Trash Reductions Plan, Erosion Control Plan, Chemical Application plan and Commercial Activities Management Plan. All of these permit components were consistent with EPA guidance or regulations for small MS4 permits. DOH reviews these plans before a compliance evaluation inspection and during the NPDES renewal application process.

The Navy small MS4 fact sheet indicated that DOH will review all Plans described above for adequacy and will provide an opportunity for public comment/public hearing on these Plans, consistent with the intent of the Remand Rule.

*Areas for Improvement*

EPA’s final e-reporting rule requires that MS4 annual reports be submitted electronically no later than December 21, 2025. This deadline should be included in all of DOH’s MS4 permits.

The permit must include all updated requirements for pollution prevention and terms and conditions should be set forth in terms that are clear, specific, and measurable. The Remand Rule recommends that permits avoid unenforceable language that requires implementation of permit provisions “if practicable” or that permittees “should” implement or “consider” certain BMPs. See 81 FR 89335 (December 9, 2016). As such, EPA recommends that during the next reissuance of its small MS4 permit, the state revise applicable permit provisions where such unenforceable language is currently used and substitute it with clear, specific, and measurable conditions as required.

Whereas the 2021 Navy small MS4 permit included the requirement for an Asset Management System, the next permit issued should include additional requirements of an Asset Management Plan (AMP) to address potential impacts or vulnerability due to climate change.

*Action Items*

<b>Essential</b>	<ul style="list-style-type: none"> <li>•Ensure that EPA’s final e-reporting rule deadline is included in each DOH small MS4 permit. [40 CFR 127.16(a)]</li> <li>•Permits must include all updated requirements for pollution prevention and terms and conditions should be set forth in terms that are clear, specific, and measurable. [40 CFR 122.34(a)]</li> </ul>
<b>Recommended</b>	<ul style="list-style-type: none"> <li>•Future small MS4 permits should expand the scope of Asset Management Plans to also address potential impacts or vulnerability due to climate change.</li> </ul>

**V. REGIONAL TOPIC AREA FINDINGS**

**A. General Stormwater Permits and Phase I MS4s**

DOH administers two Phase I MS4 permits and two general permits for stormwater discharges from construction activity (CGP) and industrial stormwater activity (MSGP).

This section reviews the following permits:

- Permit No. HIS000002 for discharges from the MS4 serving the City and County of Honolulu (CCH) including industrial and certain other facilities operated by CCH.
- Proposed general permit for stormwater discharges associated with industrial activity found in Hawaii Administrative Rules, Chapter 11-55, Appendix B.

***Permit No. HIS000002 for discharges from the MS4 serving CCH.****Background*

The CCH MS4 permit authorizes discharges from the MS4 under the jurisdiction of the CCH, encompassing the entire Island of Oahu, except for areas under the jurisdiction of the military. EPA reviewed the CCH permit to evaluate NPDES permitting for Phase I MS4s by the DOH. The permit was issued on August 7, 2020 and became effective on September 1, 2020; the permit expires on August 31, 2025.

*Program Strengths (Phase I MS4 Permitting)*

Overall, the permit included a generally thorough set of requirements consistent with NPDES stormwater regulations for a Phase I permit. Further, the requirements were highly detailed and consistent with EPA's recommendation for clear, specific and measurable requirements. For example, quantitative performance standards were included for low impact development controls that must be included for runoff from new developments/redevelopments. Such requirements will enhance the clarity and enforceability of the permit. The permit also ensured full opportunities for public participation in reviewing and commenting upon the updated stormwater management program. Although CCH is a Phase I MS4 permittee, the requirements and structure of the permit were similar to a Phase II permit. This is consistent with EPA's goal of eventually attaining a seamless program between Phase I and Phase II MS4 permittees.

Although not specifically required by the stormwater regulations, the permit included a retrofit plan requirement for the installation of additional controls for pollutants in runoff from existing developed areas; this requirement will expedite the reduction of pollutants in discharges from the existing urban area served by the MS4. The permit also emphasized low impact development control measures to be retrofitted into existing developed areas.

The permit also included a requirement for the development and implementation of a detailed trash management plan. Region 9 has been encouraging trash management plans in MS4 permits given growing concerns regarding trash in receiving waters. Although NPDES stormwater regulations include a number of generic control measures that will help to reduce trash discharges (such as public education, illegal dumping controls and storm drain maintenance), a detailed trash control plan such as the one found in the CCH permit should improve the effectiveness of the permit in controlling trash.

The CCH MS4 permit authorized stormwater discharges from CCH industrial facilities and small MS4 facilities that would otherwise be covered by separate general permits. For the CCH permit, it is believed that combining all the discharges into one permit will streamline implementation of the overall program and enhance the environmental benefits.

*Areas for Improvement*

In accordance with two Executive Orders issued by President Biden in January 2021, Region 9 is focusing additional attention on the issues of climate change and environmental justice. The

MS4 permit program offers certain opportunities for addressing these issues that should be considered when MS4 permits are reissued. We note that these subjects were not discussed in the fact sheet for the CCH MS4 permit. For future permit reissuances, we recommend that DOH consider the potential impacts and vulnerability of climate change for CCH and how MS4 permit requirements could help to mitigate the potential impacts. For example, additional green infrastructure requirements could increase resiliency in the face of changing climatic patterns (such as more intense storms). DOH should also review the geographic area of coverage of the MS4 permit for the presence of disadvantaged communities. EPA's EJSCREEN tool could be used to identify such communities. The MS4 permit could focus specific requirements in these communities. For example, DOH could explore the possibility of green infrastructure retrofits, thereby bringing the many benefits of the green infrastructure besides water quality improvements (such as urban heat island mitigation, flood protection and aesthetic benefits) to communities that often lack these features.

EPA also encourages the development of AMPs as a useful tool for ensuring consistent and efficient performance of water infrastructure systems. Although the CCH MS4 permit requires an inventory of hard assets (such as structural controls), other components of an AMP such as soft assets (e.g., key personnel), as well as a strategy for maintaining the assets (and paying for the maintenance) are missing. The AMP should also address the potential impacts of climate change.

The 2015 PQR recommended that MS4 permits require additional mapping information about the MS4 including outfall locations and names of receiving waters. Although the CCH permit requires a map of MS4 assets, information concerning outfall locations and receiving waters is not clearly required. We recommend that future permits require this information.

The 2015 PQR also recommended that the fact sheet discuss how the permit would comply with anti-degradation requirements. We did not find such a discussion and we reiterate this recommendation.

### ***General permit for stormwater discharges associated with industrial activity found in Hawaii Administrative Rules, Chapter 11-55, Appendix B.***

#### *Background*

Region 9 reviewed this general permit to evaluate NPDES permitting for stormwater discharges associated with industrial activity (a.k.a. "DOH MSGP"). General NPDES permits are adopted in Hawaii as appendices to Hawaii Administrative Rules (HAR), Chapter 11-55; the industrial general permit is found in Appendix B. The existing general permit expired in 2017; the draft permit was public noticed with the comment period ending on August 25, 2021. One comment was submitted on this MSGP and DOH appropriately responded to the comment and revised the draft permit accordingly. The final permit became effective on January 15, 2022.

#### *Program Strengths*

The proposed DOH permit closely followed the requirements of EPA's 2015 MSGP; as such, the strengths of EPA's permit are also found in the DOH permit including detailed BMP and



monitoring requirements for the same industrial sectors as found in the EPA permit. These requirements enhance the clarity, effectiveness, and enforceability of the permit.

#### *Areas for Improvement*

As noted above, the DOH MSGP closely followed the 2015 EPA MSGP. While the state is not required include the same requirements as EPA's MSGP, EPA reissued its MSGP permit in January 2021 and included revisions and improvements from the 2015 permit including:

- Consideration of enhanced stormwater control measures for major storm events.
- Indicator monitoring for pH, TSS, and COD for subsectors without benchmark monitoring.
- Indicator monitoring for polycyclic aromatic hydrocarbons (PAHs) for facilities using coal-tar based paving sealcoats and certain sectors where PAHs may be exposed to stormwater.
- Updated benchmark monitoring schedule.
- Updated benchmark values.
- Revisions to monitoring requirements for discharges to impaired waters.
- Three levels of increasingly robust corrective actions following exceedances of benchmark concentrations – referred to as additional implementation measures.
- Streamlining and reorganization of the permit to improve clarity and readability.

Additional information about these revisions can be found in the final 2021 EPA MSGP and fact sheet available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>.

EPA also recommends that DOH revise the discussion of benchmarks in the fact sheet to further clarify circumstances that would be considered a violation of the permit. The DOH MSGP included a broad narrative requirement that discharges must not cause or contribute to exceedances of applicable water quality standards. The fact sheet for the DOH MSGP noted that exceedance of a benchmark would not be a violation of the permit, but failure to implement appropriate corrective actions would be a violation. However, the DOH fact sheet also indicated that failure to implement corrective actions would be the only potential permit violation. The fact sheet should clarify that a benchmark exceedance itself could also be a violation of the permit if that exceedance is also a violation of a water quality standard.

*Action Items*

Essential	<ul style="list-style-type: none"> <li>•No essential action items were identified for this section of the PQR.</li> </ul>
Recommended	<ul style="list-style-type: none"> <li>•Consider climate change and environmental justice in determining requirements for future MS4 permits.</li> <li>•Update future MS4 permit requirements for asset management plans to address potential impacts of climate change.</li> <li>•Demonstrate in MS4 fact sheets the consistency with antidegradation requirements.</li> <li>•Ensure MS4 permit requirements for up-to-date and complete MS4 maps, including outfall locations and receiving water names.</li> <li>•Use EPA’s 2021 MSGP (or latest available) as basis for reissuance of DOH’s MSGP.</li> <li>•Clarify in the MSGP fact sheet that exceedance of a benchmark is a permit violation if it is also a violation of a water quality standard.</li> </ul>

**B. TMDL Implementation**

*Background*

Section 40 CFR 122.44(d)(1)(vii)(B) requires that effluent limits established to protect a water quality criterion are consistent with the assumptions and requirements of any applicable wasteload allocation (WLA) in a TMDL. WLAs are developed as a part of a TMDL (see 40 CFR 130.7). A TMDL is a calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to meet that target to the source(s) of the pollutant. Pollutant sources are characterized as either point sources that receive a WLA, or nonpoint sources that receive a load allocation (LA). Point sources include all sources subject to regulation under the NPDES program. A WLA is the allowable load of a pollutant that is allocated to a specific facility that has been identified as a source of that pollutant within a TMDL.

Properly implementing TMDLs and their applicable WLAs (and LAs) is important for the improvement of water quality, as TMDLs are developed to restore the water quality of impaired water bodies. The focus of the TMDL implementation review is to verify that permits and fact sheets include accurate limits based on applicable TMDL WLAs.

DOH permits treat each WLA as the specific numeric effluent limits; DOH does not derive the effluent limit from the WLA. Each permit and fact sheet generally describe the Permittee shall implement the TMDL Implementation and Monitoring Plans (I&M Plans) based on the requirements of each TMDL and the corresponding WLAs. Each permittee must develop the TMDL I&M Plans prior to permit implementation. The permittee may also request compliance schedules to identify the annual stepwise progress towards reducing pollutant loads and

meeting the final WLAs.

EPA reviewed four permits for this regional review topic. However, only three permits have applicable and approved TMDLs; the TMDL for the other permit (Schofield Barracks WWTP) had not been finalized at the time of permit issuance. The permits reviewed for TMDL implementation are Kappa Quarry LLC, CCH MS4, and Navy II MS4.

A TMDL for total nitrogen and turbidity within the North and South Forks of Kaukonahua Stream was developed by DOH in September 2009 and approved by EPA on January 25, 2010 (hereinafter referred to as the Kaukonahua TMDL). This TMDL identifies WLAs for turbidity and total nitrogen for several NPDES sources in the North Fork watershed, including the CCH MS4 and the Navy MS4. The CCH MS4 permit includes WLAs for turbidity and total nitrogen in both wet and dry season. The Navy small MS4 permit includes WLAs for turbidity and total nitrogen for the wet season only, since dry season WLAs are not required for the Navy. The fact sheet for each permit explains DOH's rationale for selecting the seasonal "elevated" flow WLA; thus, the Kaukonahua TMDL was appropriately included in both NPDES permits.

A TMDL for TSS, nitrogen and phosphorus in Kapaa Stream was developed by DOH in May 2007 and approved by EPA in 2007. This TMDL identifies WLAs for TSS, total nitrogen and total phosphorus for NPDES sources in the Kapaa watershed including, Kapaa Quarry and CCH MS4. The Kapaa Quarry permit includes the baseflow values for each parameter and the permit fact sheet provides DOH's rationale that the TMDL does not include allocations to the Kapaa Quarry during rain events, so no WLAs are included, rather the Quarry facility must capture and retain stormwater on-site during wet events. For the CCH MS4 point source, the TMDL did not identify base flow or dry season WLAs for this point source. Additionally, the TMDL did not clarify which of the wet season WLAs, either the 2% or the 10% not to exceed frequency standard, were to apply to the CCH MS4 discharges. Within each permit fact sheet, DOH explains the use of the 10% not to exceed frequency water quality standard as the applicable numeric WLA for each parameter in the CCH MS4 permit. The Kapaa Stream TMDL was appropriately included in each of these permits.

DOH has established and EPA has approved several other TMDLs, in addition to the two TMDLs described immediately above. Specifically, the following TMDLs contain WLAs that are included into the CCH MS4 permit:

- Kaneohe Stream for TSS, total nitrogen and total phosphorus,
- Kawa Stream for TSS, total nitrogen and total phosphorus,
- Waimanalo Stream for TSS, total nitrogen and total phosphorus,
- Ala Wai Canal for total nitrogen and total phosphorus,
- Waikele Stream for total nitrogen.

The CCH MS4 permit provides tables for each TMDL which typically has WLAs for wet and dry seasons. Some tables identify both the WLA as well as the seasonal load reduction amounts (mass-based), whereas other tables include only the needed reductions. The CCH MS4 permit also provides TMDL Schedules of Compliance (again as tables per TMDL) with milestone and

deliverable dates for each year. The permit also describes that “the permittee shall comply with the WLA reductions consistent with the assumptions of the applicable TMDL document as soon as possible, but no later than the final compliance date.” The MS4 fact sheet describes the rationale for selecting the appropriate specific WLA (e.g., geomean criteria or 10 percent wet season criteria, etc.) included in the permit. The fact sheet also states, “Baseflow conditions were excluded [from the permit] because they represent non-runoff conditions when there is no discharge from the MS4”.

*Program Strengths*

The permits and fact sheets reviewed for all three permits clearly explained the applicable WLAs and established numeric effluent limitations that appear to implement the WLAs.

*Areas for Improvement*

DOH permits should avoid relying only on the TMDL “needed reductions” as the numeric effluent values for permit implementation. Specifically, DOH could add the final WLAs for each approved TMDL in the final; this will identify the final discharge specific milestone to be achieved by the permittee. DOH permits should also explain any decisions made about what WLA exceedance frequencies apply when a TMDL does not specify that information in the permit fact sheet.

*Action Items*

Essential	•No essential action items were identified for this section of the PQR.
Recommended	•Utilize final WLA values as the final numeric effluent limits in the permit to demonstrate the specific discharge milestone quantity to be achieved by each permittee.

## VI. REVIEW OF PROGRESS ON ESSENTIAL ACTION ITEMS FROM LAST PQR

This section provides a summary of the main findings from the last PQR and provides a review of the status of the state’s efforts in addressing the action items identified during the last PQR, conducted in 2015. As discussed previously, during the 2012-2017 PQR cycle, EPA referred to action items that address deficiencies or noncompliance with respect to federal regulations as “Category 1”. EPA is now referring to these action items, going forward, as Essential.

**Table 4. Essential Action Items Identified During 2015 PQR**

Program Area	Action Item Title	Status Update
Basic Facility Information and Permit Application	DOH should revise its permit template and/or provide permit-writer training to remind permit writers to identify and address applicable TMDLs and impaired receiving water settings for all outfalls in the fact sheet.	Resolved
	Through revisions to the permit template or training, DOH should remind permit writers that the most stringent of the applicable TBELs or WQBELs is to be included for each pollutant in permits and documented in fact sheets.	(Not Resolved) DOH should improve fact sheet language by including a generic statement that describes the more protective effluent limit has been selected between the applicable types of effluent limits.
Technology-based Effluent Limitations	DOH should also remind permit writers to clearly describe how each categorization and performance level were determined to be applicable (BAT, etc.) in fact sheets.	Resolved
	DOH should remind permit writers to clearly document the justification and calculation of BPJ-based limits in fact sheets.	(Not Resolved) For non-POTW permits, DOH should improve permit and fact sheet language regarding the justification of case-by-case effluent limits; e.g., TBELs via BPJ.
Water Quality-Based Effluent Limitations	Through revisions to the STCP, permit template or training, DOH should remind permit writers that final WQBELs must be expressed as both short and long-term limits unless impracticable, and document this decision in fact sheet.	(Resolved)

Program Area	Action Item Title	Status Update
	DOH should also remind permit writers to document findings in fact sheets regarding anti-backsliding requirements for each pollutant.	(Partially Resolved)
	DOH should provide training to permit writers on requirements for developing and documenting compliance schedules in fact sheets, specifically how to determine the final compliance date meets the “as soon as possible” requirement of 40 CFR 122.47.	(Resolved)
Special and Standard Conditions	DOH should incorporate all of the federal standard conditions in the state’s standard conditions document.	(Resolved)

## VII. RECOMMENDED ACTION ITEMS FROM LAST PQR

This section provides a summary of the recommendations from the last PQR, conducted in 2015, and notes any state efforts to act on those recommendations. As discussed previously, during the 2012-2017 PQR cycle, EPA referred to action items that are recommendations to strengthen the state’s program as either “Category 2” or “Category 3” action items. EPA is consolidating these two categories of action items into a single category: Recommended.

For the purpose of this summary, “resolved” indicates that DOH and EPA have taken the action prescribed in the action item (e.g. set up a standing meeting between DOH and EPA), and the action is ongoing.

**Table 5. Recommended Action Items Identified During 2015 PQR**

Program Area	Action Item Title	Status
Water Quality Based Effluent Limitations	DOH should provide permit writers training on the applicability of 316(a) variances.	Resolved
	DOH should establish consistent internal review procedures for draft permits to ensure that permit requirements are consistent with fact sheet justification.	Resolved

Program Area	Action Item Title	Status
Documentation	As indicated in other action items, DOH should ensure, through revisions to the permit template or training, that permit writers clearly document in fact sheets the basis for RPA, limits, and compliance schedules, and how anti-backsliding and antidegradation requirements are met.	Partially Resolved
Pretreatment	DOH should provide training or written guidance to permit writers to ensure fact sheets clearly document the justification for a pretreatment program, including a description of the types of industrial users discharging to the POTW, and indicate when the program was approved or modified by the state.	Partially Resolved
Stormwater	More specific requirements for storm sewer system mapping including requirements for identifying location of outfalls, names and locations of all receiving waters associated with outfalls, system inlets and catch basins.	Partially Resolved
	Fact sheet documentation of all permit requirements, including how anti-degradation requirements are met.	Partially Resolved
Reasonable Potential Analysis	DOH should revise policies, guidance, and/or provide training to permit writers regarding: <ul style="list-style-type: none"> <li>• How to set performance-based limits using limited effluent data.</li> <li>• How to incorporate non-detect data into RP analyses.</li> </ul>	Resolved (see HIP)
	DOH should revise its permit template to include documentation of the number of samples and dilution factor in the RPA table for each pollutant.	Resolved (see HIP)
Low Impact Development (LID)	DOH should ensure through provision of guidance or training for permit writers that all MS4 permits incorporate specific LID performance standards.	Resolved

## VIII. ACTION ITEMS FROM FY 2018–2022 PQR CYCLE

This section provides a summary of the main findings of the 2022 PQR and provides proposed action items to improve DOH’s NPDES permit programs, as discussed throughout sections III, IV, and V of this report.

The proposed action items are divided into two categories to identify the priority that should be placed on each item and facilitate discussions between Regions and states.

- **Essential Actions** - Proposed “Essential” action items address noncompliance with respect to a federal regulation. The permitting authority is expected to address these action items in order to come into compliance with federal regulations. As discussed earlier in the report, prior PQR reports identified these action items as Category 1. Essential Actions are listed in Table 6 below.
- **Recommended Actions** - Proposed “Recommended” action items are recommendations to increase the effectiveness of the DOH’s NPDES permit program. Prior reports identified these action items as Category 2 and 3. Recommended Actions are listed in Table 7 below.

*The following tables summarize only those action items that were identified in Sections III, IV, and V of the report.*



**Table 6. Essential Action Items from FY 2018-2022 PQR Cycle**

Program Area	Action Item Title	Citation
TBELs for Non-POTW Dischargers	Include a discussion in the fact sheet regarding how and why case-by-case TBELs were established, including BPJ or BAT, etc.	40 CFR 125.3(d)
Final Effluent Limitations and Documentation of Effluent Limitations Development	Complete an antidegradation analysis for all changes that result in less stringent limits and document it in the final fact sheet.	40 CFR 131.12
Pretreatment: Food Processing Sector	Ensure that NPDES permit applications for POTWs contain all necessary information to evaluate the potential need for a pretreatment program, including identify all SIUs, industrial processes, flows, and hauled industrial waste, and identify any applicable categorical classifications.	40 CFR 122.44(j)(2)
Municipal Separate Storm Sewer Systems (MS4s) and General Stormwater permits	Ensure that EPA’s final e-reporting rule deadline is included in each DOH small MS4 permit.	40 CFR 127.16(a)
	Permits should include all updated requirements for pollution prevention and terms and conditions should be set forth in terms that are clear, specific, and measurable.	40 CFR 122.34(a)

**Table 7. Recommended Action Items from FY 2018-2022 PQR Cycle**

Program Area	Action Item Title
TBELs for POTWs	Consider including limit calculations for mass-based TBELs for POTWs in fact sheets.
Reasonable Potential Analysis/WQBELs	Describe the selection of coefficient of variation (CV) and use of reasonable potential multipliers and consistency with EPA's Technical Support Document for Water Quality-based Toxics Control (EPA, 1991).
	Consider including reasonable potential multipliers in the reasonable potential table in Part VIII of the fact sheet.
	Update the HIP to describe DOH's policy for applying WET limits and determining RPA for toxicity and revise templates accordingly.
	Ensure clear language for the interpretation of effluent results for the enterococcus MDEL.
Final Effluent Limitations and Documentation of Effluent Limitations Development	Consider documenting WQBEL calculations in the fact sheet.
	Include fact sheet statement that the most stringent of the applicable TBELs or WQBELs are included in the permit.
Monitoring Reporting Requirements	Fact sheets should (40 CFR 124.56) include rationale for requiring either grab or composite samples for monitoring and reflect the sample procedures described within analytical methods of 40 CFR Part 136.
Administrative Process	Ensure a response to comments document or documentation that comments were not received during the public comment period are included in the final fact sheet and within the final administrative record.
	Documentation of response to comments should be publicly available online.
Administrative Record and Fact Sheet	Permit writers should be trained to recognize when they need to provide and what they need to provide in terms of antidegradation analysis, anti-backsliding explanation, or individual permit limit calculations and derivations in the fact sheet and permit.
Pretreatment: Food Processing Sector	DOH should ensure that the Pretreatment Requirements section of the permit retains all necessary pretreatment program requirements, including the requirement to evaluate local limits.

Program Area	Action Item Title
	Permit writers should ensure that the permit fact sheets identify and characterize all contributing industrial dischargers, including any hauled waste.
	Permit writers should include in the POTW permits a timeframe for notification of any new introduction of pollutants and substantial changes in the volume or character of pollutants being introduced into that POTW.
	DOH should continue to provide training or written guidance to permit writers to ensure fact sheets clearly document the rationale for pretreatment program development or implementation, including a description of the types of industrial users discharging to the POTW, and indicate when the program was approved or modified.
	Permit writers should specify the basis and rationale for requiring a pretreatment program in the permit fact sheet.
	Permit writers should specify the program approval or modification dates in fact sheets to ensure that the program includes up-to-date federal regulations.
	DOH should require the City and County of Hawaii to provide additional evaluation and classification of all nondomestic users, including determination of SIUs, and issue the necessary control mechanisms to ensure protection of the collection system and WWTP.
Municipal Separate Storm Sewer Systems (MS4s)	DOH should consider updating asset management plan requirements to address impacts due to climate change and environmental justice in future MS4 permits.
	Future fact sheets for MS4 permits should demonstrate consistency with anti-degradation requirements.
	Ensure requirements in MS4 permits for up-to-date and complete MS4 map including outfall locations and names of receiving waters.
General Stormwater Permits and Phase I MS4s	DOH should consider basing its next MSGP on EPA's updated 2021 MSGP (or the latest available MSGP) instead of the previous 2015 MSGP.
	The MSGP fact sheet should clarify that exceedance of a benchmark is a permit violation if it is also a violation of a water quality standard.
TMDL Implementation	For Permits with applicable WLAs, DOH should include the numeric WLA value as the final effluent limit instead of the amount of wasteload reduction needed.

**Table 8. EPA Recommendations to Address Essential Action Items from FY 2018-2022 PQR Cycle<sup>7</sup>**

<b>EPA Recommendations to Address Essential Action Items</b>	
Update the DOH permit template	<p>The permit and fact sheet templates should be updated to include specific instructions and example language to address several essential actions and recommendations listed above. Most notably:</p> <ul style="list-style-type: none"> <li>• Document case-by-case TBEL development.</li> <li>• Include a summary of the antidegradation analysis associated with less stringent limits.</li> </ul>
Improve NPDES permit applications for POTWs with Pretreatment programs	Ensure NPDES permit applications for POTWs contain sufficient information to evaluate existing or potential need for pretreatment program.
Update MS4 permit language.	Include EPA’s final e-reporting rule deadline.
	Improve requirements for pollution prevention and terms and conditions to be set forth in terms that are clear, specific, and measurable.

<sup>7</sup> EPA is open to alternative approaches to address the essential action items at DOH’s request.