FINAL DRAFT

RATIONALE

FOR

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 11-56

NONPOINT SOURCE POLLUTION CONTROL

DEPARTMENT OF HEALTH ENVIRONMENTAL MANAGEMENT DIVISION CLEAN WATER BRANCH HONOLULU, HAWAII

March 2020

Nonpoint source (NPS) pollution adversely impacts aquatic habitats and marine life, poses public health risks, and negatively impacts Hawaii's economy and way of life, which rely heavily on good water quality. NPS pollution results from a variety of human activities (e.g., timber harvesting, recreational boating, farming) but can be controlled and reduced through implementation of practical methods.

Nonpoint source pollution is not currently regulated in Hawaii. Unlike regulation of point source pollution, regulation of NPS pollution is not federally mandated. The 1972 federal Clean Water Act (CWA) established the basic structure for measuring water quality and regulating point source pollution in U.S. waters, but it expressly omitted regulation and control of NPS pollution from federal purview and instead left protection of surface waters from NPS pollution to states.

Hawaii Revised Statutes (HRS), Chapter 342E (Nonpoint Source Pollution Management and Control) directly addresses NPS pollution management and control, establishing within the Department of Health (DOH) "a nonpoint source pollution management and control program to administer, enforce, and carry out all laws, rules, and programs relating to nonpoint source pollution in the State." Further, HRS §342E-3 provides DOH with the authority to:

- "Adopt rules under chapter 91 necessary for the purposes of this chapter, which may include water quality standards for specific areas, types of nonpoint source pollution discharges, or management measures in the control of water pollution, allowing for varying local conditions" [HRS §342E-3(a)(2)];
- Develop plans, recommendations, and policies, and provide other support to further the State's capacity to carry out the requirements of any federal law, rule, or regulation pertinent to the management or mitigation of nonpoint source pollution" [HRS §342E-3(a)(3)]; and
- "Propose legislation, alternate funding mechanisms, and new programs to improve the State's capacity to mitigate nonpoint source pollution" [HRS §342E-3(a)(11)].

To date, the State does not have administrative rules or a comprehensive program for the control of and enforcement against NPS pollution. Therefore, DOH is proposing administrative rules as authorized under HRS §342E-3(a)(2) to help ensure that Hawaii's waters are adequately protected from NPS pollution. DOH has the authority to enforce Chapter 11-56 under HRS §342E-3(b).

The proposed Chapter 11-56 (Nonpoint Source Pollution Control) provides the regulatory framework for the prevention, abatement, and control of new and existing nonpoint sources of pollution. Chapter 11-56 identifies some major nonpoint sources and requires the development and implementation of a Water Pollution Prevention Plan that identifies the specific management measures to be used for effectively controlling those sources of NPS pollution. These management measures are largely based on Hawaii's Coastal Nonpoint Pollution Control Program (CNPCP) management measures, which are economically achievable management practices designed to reduce and prevent NPS pollution.

In addition to regulating NPS pollution, Chapter 11-56 provides "support to further the State's capacity to carry out the requirements of any federal law, rules, or regulation pertinent to the management or mitigation of NPS pollution" (HRS 342E-3(a)(3)) by serving as a mechanism to implement, track, and demonstrate the effectiveness Hawaii's CNPCP management measures, which are activities required by the federal Coastal Zone Act Reauthorization Amendments

(CZARA). Chapter 11-56 will facilitate approval of Hawaii's CNPCP by the U.S. National Oceanic and Atmospheric Administration and U.S. Environmental Protection Agency and retain approximately \$2.1m annually in federal funds for the State's Coastal Zone Management Program (located within the Department of Business, Economic Development and Tourism) and Polluted Runoff Control Program (located within DOH). Loss of these federal funds due to an insufficient and federally unapproved CNPCP would significantly reduce the State's capacity to manage and mitigate NPS pollution.

Regulation of NPS pollution proposed in Chapter 11-56 also helps the State fulfill its public trust duties. Article XI, Section 7, of the Hawaii State Constitution mandates that, "The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people." Article XI, Section 9, states that, "Each person has the right to a clean and healthful environment, as defined by the laws related to environmental quality, including control of pollution and conservation, protection, and enhancement of natural resources."

This document explains the rationale behind the proposed NPS pollution regulatory requirements contained in the new Chapter 11-56, HAR.

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| 11-56-01 | None | Definitions | Definitions are provided to clarify and ensure consistency in understanding the proposed regulations and apply to this chapter and its appendices. |
| | | | The definition of "animal feeding operation" is consistent with the federal definition of that term under National Pollutant Discharge Elimination System (NPDES) regulations at Title 40 of the <i>Code of Federal Regulations</i> [40 CFR], section 122.23(b)(1) and incorporates the federal definition of "production area" at 40 CFR 122.23(b)(8) to ensure consistency in regulation of animal feeding operations under point source and nonpoint source regulatory programs. |
| | | | The definition of "wastewater" is based on the definition in HAR §11-62-03; the phrase "including waste-contaminated stormwater runoff" was added to clarify that the definition encompasses various sources of NPS pollution. A definition of wastewater that applies specifically to Appendix A (Agriculture) to identify the various sources of wastewater at an animal feeding operation, for consistency with regulation of point source discharges from similar types of operations. |
| 11-56-02 | None | General policy for nonpoint source pollution control | Reiterates and augments the State's legislatively mandated policy for protecting, maintaining, and restoring the quality of State waters through the control of new and existing nonpoint sources of pollution. Adds language clarifying that compliance with the chapter is to be considered compliance with the policy. |
| 11-56-03(a)(1) | None | (1) Publicly-owned entities owning land or conducting the activities below, as identified in Appendices A through C of this chapter: (A) Agriculture (Appendix A); (B) Forestry (Silviculture) (Appendix B); and (C) Marinas and recreational boating (Appendix C); | Identifies government agencies as being subject to the NPS pollution control program subject to limitations based on activities and size. The applicability of the Chapter is designed to ensure that publicly-owned entities conducting activities associated with the nonpoint source discharge are subject to the requirements of the Chapter. |

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| | | | Where the publicly-owned entity owns the land, but is not engaged in the activities associated with the nonpoint source discharge, the Chapter requirements still apply (i.e., the publicly-owned entity is responsible for ensuring compliance with Chapter requirements for those other entities responsible for the activities associated with the nonpoint source pollution discharges from publicly-owned land). |
| 11-56-03(a)(2) | None | (2) Privately-owned entities that cause or contribute to nonpoint source pollution due to operation or management of lands used for the activities identified in section 11-56-03(a) are subject to this chapter and applicable requirements set forth in Appendices A through C of this chapter upon written notification by the director. | Defines situations when non-public entities may be required to participate in the NPS pollution control program. This section was designed to capture privately-owned entities that are found to cause or contribute to nonpoint source pollution. More specifically, privately-owned lands or activities may be subject to the requirements of the Chapter at the discretion of the director, based on an assessment of the risk of harm to human or environmental health, as determined by the director. |
| 11-56-03(b) | None | (b) At the discretion of the director, specific provisions of this chapter, additional management measures, or other remedies, may be applied to any persons who are found to be causing or contributing to nonpoint source pollution. In these cases, the director shall issue a nonpoint source order (hereafter "NPS Order") to affected persons that includes: (1) A notice of findings specifying the source(s) of nonpoint source pollution involved and the conduct that is causing or caused it; (2) A requirement to register under section 11-56-05; (3) A requirement to develop and implement a Water Pollution Prevention Plan under section 11-56-06(a)(1); (4) A time schedule for compliance with provisions of this chapter; and (5) Any other specific requirements for controlling the nonpoint source pollution deemed necessary by the director. | This section authorizes the director to order prescriptive pollution control measures in response to a formal finding of persons causing or contributing to NPS pollution. DOH understands that complex sources of NPS pollution exist and may impact regional or localized water quality. This provision allows DOH to require NPS pollution controls for sources as necessary to ensure water quality standards are attained throughout the State. |

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| 11-56-04 | None | Exemptions. If any discharge of a pollutant to State waters subject to this chapter is otherwise subject to regulation as a point source under an NPDES permit, the requirements in this chapter shall not apply to that discharge. | Regulation of discharges already authorized and regulated under the DOH point source pollution control program (i.e. NPDES permit program), including general and individual NPDES permits, is unnecessary, and thereby exempt from Chapter 11-56 requirements. It is not DOH's intent to establish duplicative regulatory requirements for a single discharge. |
| 11-56-05 | None | Registry requirements | Persons to whom Chapter 11-56 applies must register with DOH. Registrations expire 5 years from the date of submission to DOH. Fee of \$500 good for 5 years and transferable. Registration includes providing basic contact information to the DOH as well as a disclosure of the activities which are potential sources of NPS pollution. To minimize renewal burden on persons, where the information on previous registrations and other Chapter requirements remains unchanged, a simplified renewal has been provided. In those instances where registration information has changed, then the registration renewal must indicate those changes to allow DOH to ensure that appropriate controls are in place to control the nonpoint sources of pollution. |
| 11-56-06 | None | Water Pollution Prevention Plans | The requirement to develop, submit, and implement a Water Pollution Prevention Plan will ensure equitable, consistent, and appropriate requirements for the control of nonpoint source pollution from applicable activities. Water Pollution Prevention Plans must include a description of the activities conducted which are potential sources of NPS pollution, the location of the activities, the management measures to be implemented to mitigate the NPS pollution, and practices used to self-monitor compliance with NPS rules. |
| 11-56-06(a)(1)(H) | None | (H) Description of the authorized | One of the primary nonpoint source control components |
| and (I) | | management measure(s) identified in chapter | contained in the required Water Pollution Prevention Plans |

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| Section | Current | Proposed 11-56, Appendices A through C, that will be implemented to control nonpoint source pollution at the location; (I) Description of the authorized management practice(s) identified in chapter 11-56, Appendices A through C, that will be implemented to meet each management measure's requirements. For each management practice to be implemented, the following information shall be provided: (i) Name of the practice; (ii) Issuing entity of the practice; (iii) Location (internet address or other) where the practice can be retrieved; (iv) Code number or standard number of the practice, if applicable; (v) Description of the practice will be implemented; and (vii) Description of how the practice meets the requirements of the management measure. | is the use of authorized management measures. Section 6217(g)(5) of the federal Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) defines management measures as "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives." Hawaii's Coastal Nonpoint Source Pollution Control Program (CNPCP), which was developed pursuant to CZARA, establishes recommended management measures that are contained in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program. The specific management measures that are identified in Appendices A through C of the Chapter are based on those contained in the October 2010 document. Within each management measure (e.g., Erosion and Sediment Control), various management practices (e.g., conservation crop rotation) are specified for consideration and inclusion as part of the Water Pollution Prevention Plan. The management practices are based on the following sources: NRCS's Hawaii Field Office Technical Guide (eFOTG). PPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA, EPA-841-B-03-004, July 2003). |
| | | | EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA, EPA-841-B-05-001, April 2005). EPA National Management Measures Guidance to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA, EPA-841-B-01- 005, November 2001). |

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| 11-56-06(a)(1)(J) | None | (J) Implementation schedule of the applicable management measures and management practice(s); | This section provides time for newly regulated facilities to come into compliance with the NPS control program regulations. Each regulated entity must provide an implementation schedule as part of their Water Pollution Prevention Plan. The implementation schedule provides a commitment on the part of the regulated entity to design, install and implement management measures in a timely manner to ensure protection of waters of the State from nonpoint source pollution. |
| 11-56-06(a)(1)(K) | None | (K) Long-term operation and maintenance schedule that provides for inspection of management practices, including the repair, replacement, or other routine maintenance of the management practices to ensure proper function and operation; | To ensure continued effectiveness of implemented management measures, DOH is requiring each regulated entity to propose an operation and maintenance schedule for the proposed management measures contained in their Water Pollution Prevention Plan. Routine inspections and maintenance of management measures are necessary to protect State waters, as well as assist regulated entities in avoiding noncompliance related to failure to properly implement their Water Pollution Prevention Plan. |
| 11-56-06(a)(1)(M) | None | (M) Description of any other plan required by federal, State, or local regulatory agencies that is being implemented to control nonpoint source pollution; | DOH will consider other plans being implemented in its assessment of the effectiveness of proposed Water Pollution Prevention Plans. DOH recognizes that other plans may overlap with Water Pollution Prevention Plans in their scope and requirements and as such, requires information on those other plans to reconcile conflicting regulatory requirements. |
| 11-56-06(a)(1)(L) 11-56-06(a)(2) and (3) | None | (L) A monitoring strategy consistent with section 11-56-06(a)(2); (2) A monitoring strategy shall be included as a component of the Water Pollution Prevention Plan to assess the Water Pollution Prevention Plan's effectiveness in reducing and controlling nonpoint source pollution at the location(s) specified in the Water Pollution Prevention Plan. A monitoring strategy shall include the following, as applicable: (A) Routine/periodic visual monitoring and inspection of management measures; | Each regulated entity will be required to develop and implement a self-monitoring strategy to ensure that the Water Pollution Prevention Plan is effective in reducing and controlling nonpoint source pollution. Due to the potential variety of locations and activities for which management measures will be implemented as part of Water Pollution Prevention Plans, DOH has provided flexibility regarding the specific components to be included in monitoring strategies. DOH expects that monitoring strategies, at a minimum, will include routine inspection of management measures and visual evaluation of discharges to waters of the State. Water quality monitoring of discharges and receiving waters should be included in management |

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| | | (B) Routine/periodic visual monitoring and inspection of State waters affected by the nonpoint source pollution from the facility; | strategies as necessary to demonstrate effectiveness of the Water Pollution Prevention Plan. |
| | | (C) Water quality monitoring of nonpoint source discharges from the facility; (D) Water quality monitoring of State waters affected by the nonpoint source pollution from the facility; and/or (E) Other methods, as deemed necessary, to determine whether the required management measures are being properly implemented and maintained, and whether the management measures are effective. (3) If the monitoring strategy is found to be inadequate for properly evaluating the effectiveness of a Water Pollution Prevention Plan, the director may specify monitoring requirements that shall be implemented. Ineffective monitoring strategies cannot be used as a defense in any enforcement action specified in section 11-56-12 for violations of | If the proposed monitoring strategies are considered inadequate for determining the effectiveness of a Water Pollution Prevention Plan in reducing and controlling nonpoint source pollution, then the director may require amended and/or additional monitoring methods to be implemented by the regulated entity. |
| 11-56-06(a)(5) | None | this chapter. (5) As necessary, the director may require persons to revise a Water Pollution Prevention Plan to include additional management measures and/or controls to ensure protection of State waters from nonpoint source pollution, including consistency with: (A) Department-approved watershed plans; (B) Approved TMDLs and associated load allocations; (C) Watershed restoration and protection projects funded under Clean Water Act Section 319(h); (D) Approved water quality trades; (E) Supplemental environmental projects; (F) Approved Spill Prevention, Control, and Countermeasure Plans under 40 CFR Part 112; or | DOH is mandated to address NPS pollution statewide. As described in the DOH-developed <i>Hawai'i's Nonpoint Source Management Plan, 2015 to 2020</i> , a number of federal, state, and local water quality management programs and partner efforts are being used to prevent and reduce NPS pollution across the State. To the extent any of these programs, initiatives and/or efforts require modified or additional management measures or controls for nonpoint source pollution to protect, maintain and restore the quality of State waters, the director may require regulated entities to modify their Water Pollution Prevention Plans accordingly. |

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| | | (G) Other requirements needed to protect or restore State waters. | |
| 11-56-06(a)(6) | None | (6) Persons may submit an existing management plan to the department in lieu of a Water Pollution Prevention Plan, subject to the following provisions: (A) A plan submitted in lieu of a Water Pollution Prevention Plan shall be considered equivalent to a Water Pollution Prevention Plan, provided the submitted and implemented plan meets the objective of a Water Pollution Prevention Plan detailed in this chapter. (B) A plan submitted in lieu of a Water Pollution Prevention Plan is not considered equivalent to a Water Pollution Prevention Plan unless reviewed and accepted by the director in accordance with section 11-56-06. | DOH acknowledges that regulated entities, as part of other regulatory or control programs, may be implementing management plans that address the nonpoint sources that have the potential to cause or contribute to water pollution. Where such other management plans exist, DOH will consider those other management plans equivalent to a Water Pollution Prevention Plan provided they effectively control nonpoint source pollution from the subject property(ies) or activity(ies) as determined by DOH. This regulation is to reduce duplicative efforts by the regulated entity. |
| 11-56-06(a)(9) | None | (9) Water Pollution Prevention Plans shall be amended when there is a substantial change in activity, facility design, construction, operation, or maintenance that materially affects the regulated facility's potential for causing or contributing to nonpoint source pollution. An amendment made under this subsection must be prepared and submitted to the department within 30 days after the change that compels the amendment. The amended Water Pollution Prevention Plan shall be implemented as soon as possible, but not later than 30 days following the submission of the amendment to the department. | Changes to property(ies) or activity(ies) that cause or contribute to nonpoint source pollution require amendments to the Water Pollution Prevention Plan to ensure that the regulated entity continues to control nonpoint source pollution effectively. Necessary amendments shall be made and implemented in a timely manner to ensure adequate protection of State waters. |
| 11-56-06(b) | | (b) The director shall make available to the public for inspection copies of Water Pollution Prevention Plans, NPS Orders, and associated documents submitted in accordance with the requirements of this chapter. Release of information to the public under this subsection shall be done in accordance with the provisions in section 11-56-10. | Consistent with the Hawaii Uniform Information Practices Act (Modified), chapter 92F, HRS, DOH will make documents related to Chapter 11-56 nonpoint source pollution control requirements available for public review and inspection unless access is restricted as specified in 11-56-10. |

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| Section 11-56-07(a) | None | (a) Persons required to develop and implement a Water Pollution Prevention Plan under section 11-56-06 shall submit an annual report to the director documenting on-going compliance with their Water Pollution Prevention Plans. At a minimum, annual reports shall include the following, as applicable: Summary of monitoring and inspection activities undertaken to evaluate the effectiveness of the Water Pollution Prevention Plan in reducing and controlling nonpoint source pollution, including: Date(s) on which inspections were conducted; Inspection findings; and Corrective actions taken, if any. Summary of water quality sampling activities undertaken to evaluate the effectiveness of the Water Pollution Prevention Plan in reducing and controlling nonpoint source pollution, including: | Periodic reporting is required to facilitate DOH review and assessment of the effectiveness of Water Pollution Prevention Plans to control and abate nonpoint source pollution. To minimize the reporting burden on regulated entities, reports are required once per year. To evaluate the effectiveness of Water Pollution Prevention Plans, DOH requires as part of the annual report: a summary of inspection and monitoring activities and results; if applicable, a summary of water quality monitoring activities and results; if applicable, a summary of amendments made to the Water Pollution Prevention Plan; and an assessment of the overall effectiveness of the Water Pollution Prevention Plan and associated management measures to control nonpoint source pollution. Annual reports include basic information about the results from self-monitoring activities and provide for streamlined |
| | | pollution, including: (A) Date(s) on which sampling was conducted; (B) Parameters sampled for; (C) Sample results; and (D) Corrective actions taken, if any. (3) Assessment of the overall effectiveness of the Water Pollution Prevention Plan, and of the effectiveness of each management measure implemented, in reducing and controlling nonpoint source pollution; (4) A summary of Water Pollution | |
| | | Prevention Plan amendments made during the previous year; and (5) The following certification signed in accordance with section 11-56-18: "I certify that this annual report and all attachments were prepared under my direction or supervision. I am familiar with the content of | |

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| | | this annual report and agree to implement it as developed and submitted to the department. I will maintain a copy of this annual report on-site or at a nearby office. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations." | |
| 11-56-07(b) | None | As necessary, and at the discretion of the director, more frequent Water Pollution Prevention Plan reports may be required. | More frequent reports related to Water Pollution Prevention Plan implementation may be required by DOH. Circumstances that may trigger more frequent reporting include, for example: • Regulated entities with a history of noncompliance. • Nonpoint source discharges to State waters not achieving applicable water quality standards. • Nonpoint source discharges to high-quality or sensitive water bodies or waters requiring more oversight by DOH. |
| 11-56-07(c) | None | The director shall make available to the public for inspection copies of Water Pollution Prevention Plan annual reports and associated documents submitted in accordance of this chapter. Release of information to the public under this subsection shall be done in accordance the provisions in section 11-56-10. | Consistent with the Hawaii Uniform Information Practices Act (Modified), chapter 92F, HRS, DOH will make documents related to Chapter 11-56 nonpoint source pollution control requirements available for public review and inspection unless access is restricted as specified in 11-56-10. |
| 11-56-08(a) | None | (a) Persons for which a Water Pollution Prevention Plan is required under this chapter must: (1) Maintain a complete copy of the Water Pollution Prevention Plan, including any amendments to the Water Pollution Prevention Plan, on-site or at a nearby office; (2) Have the Water Pollution Prevention Plan available to the director for on-site review during normal business hours; and (3) Provide, at the request of the director, the Water Pollution Prevention Plan and any associated documentation deemed necessary to | In accordance with HRS §§342E-3(b)(1) and (2), DOH will periodically inspect the property(ies) and activity(ies) of regulated entities to ensure compliance with the requirements contained in Chapter 11-56. To effectively inspect regulated entities, DOH representatives will need access to all the records associated with development and implementation of the Water Pollution Prevention Plan and the associated management measures, either on-site or at a location within a reasonable distance from the property(ies) and activity(ies) regulated under Chapter 11-56. Further, for a Water Pollution Prevention Plan to be |
| | | determine compliance with this chapter. | effective, the plan needs to be readily accessible to those |

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| | | implementing it. As such, availability of a Water Pollution |
| | | Prevention Plan onsite or nearby is required. |
| None | (a) Compliance with this chapter shall be based | DOH is responsible for assessing compliance with Chapter |
| | on development and implementation of Water | 11-56 regulations. Regulated entities require a legally |
| | | defensible standard for compliance. This section states that |
| | | DOH must determine compliance based on a practicably |
| | | defined standard because, in many cases, compliance |
| | | based solely on impact to water quality may be technically |
| | | and/or financially infeasible. In considering practicability, |
| | | the DOH shall consider the data and information 1) |
| | | collected and submitted by the regulated entity, and/or 2) |
| | | generated by DOH from inspection and sampling efforts. |
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| | | When no significant measurable impact is determined, or |
| | | when the Water Pollution Prevention Plans are effectively |
| | | implemented such that they minimize the impact to water |
| | | quality to the maximum extent practicable, the regulated |
| | | entity will be considered in compliance with the |
| | | management measure requirements of Chapter 11-56. |
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| | | None (a) Compliance with this chapter shall be based |

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| 11-56-10 | None | (a) In accordance with chapter 92F, HRS, the director shall ensure that any Water Pollution Prevention Plan developed under section 11-56-06 or information required, kept, or submitted under this chapter shall be available to the public for inspection and copying during established office hours. The director, at the director's discretion, may also make available to the public any other records, reports, plans, or information obtained by the department. (b) The director shall protect any information (other than environmental data) as confidential upon a request and showing by any person at the time of submission that the information, if made public, would divulge methods or processes entitled to protection as trade secrets of a person. Any information obtained by the director and subject to a claim of confidentiality shall be treated in accordance with the regulations in chapter 92F, HRS. (c) The director shall provide facilities for the inspection of information submitted in accordance with this chapter and shall ensure that state employees honor requests for inspection with due regard for the dispatch of other public duties. The director shall either: (1) Ensure that a machine or device for the copying of papers and documents is available for a reasonable fee; or (2) Otherwise provide for or coordinate with copying facilities or services so that requests for copies of nonconfidential documents may be honored promptly. | DOH will make documents related to Chapter 11-56 nonpoint source pollution control requirements available for public review and inspection consistent with the requirements and restrictions of the Hawaii Uniform Information Practices Act (Modified), chapter 92F, HRS. |

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| 11-56-11(a) | None | (a) A person regulated under this chapter shall allow the director to: (1) Enter and inspect any area to investigate an actual or suspected source of water pollution, to ascertain compliance or noncompliance with this chapter or any NPS Order issued pursuant to this chapter; (2) Inspect any records kept in accordance with the terms and conditions of this chapter; and (3) Test any waters and aquatic and other life forms that may have been subjected to any form of nonpoint source pollution and assess the environmental effects of the pollution, including the pollution's effects on the quality of the receiving waters and aquatic and other life forms. If the director determines that the effects of the pollution would make it hazardous to consume the water and aquatic or other life forms, the director shall immediately notify the public of the hazard through the news media and by posting warning signs in those areas where the waters and shoreline contain water and aquatic or other life forms that would be hazardous if consumed. | In accordance with HRS §§342E-3(b)(1) and (2), DOH has the authority to periodically inspect the property(ies) and activity(ies) of regulated entities to ensure compliance with the requirements contained in Chapter 11-56. |
| 11-56-11(b) | None | (b) Any person who denies, obstructs, or hampers the entrance to and inspection by any duly authorized officer or employee of the department of any building, place, or vehicle shall be fined not more than \$5,000 for each day of such a denial, obstruction, or hampering. Any action taken to impose or collect the penalty provided for in this section shall be considered a civil action. | In accordance with HRS §342E-4(b), DOH has the authority to fine any regulated entity that denies, obstructs, or hampers the entrance to and inspection by any duly authorized officer or employee of the department. |

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| 11-56-12 | None | Enforcement and penalties | HRS 342E-3(a)(1) mandates that the Director reduce, control and mitigate nonpoint source pollution in the State. To effectively do so, the Director requires procedures for enforcement to address situations when persons fail to comply with the law. Enforcement procedures must include protocols for the Director to order corrective action and assess penalties for mitigation and equability, respectively. The proposed rules set forth procedures providing due process for persons accused of violating nonpoint source pollution control rules. The proposed rules acknowledge that HRS 342E-4 authorizes civil penalties of up to \$10,000 per day per violation and a mandate that all enforcement actions taken for nonpoint source violations are to be |
| | | | considered civil, non-criminal, enforcement actions. In issuing enforcement actions, particularly those including monetary penalties, the proposed rules provide procedures for Administrative enforcement actions. The administrative actions do not include criminal provisions. Final decisions made by the director may be appealed to State courts. The specific provisions for enforcement and penalties are consistent with non-criminal enforcement procedures used for water pollution violations from point sources and provide for expeditious and appropriate enforcement to reduce, control and mitigate nonpoint source pollution in the State. |

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| 11-56-13 | None | (a) Hearings before the director on any violations of this chapter and appeals from any of the director's decisions at the hearings shall comply with chapter 91, HRS, the department's rules of practice and procedure, and this chapter. (b) If any party is aggrieved by the decision of the director, the party may appeal in the manner provided in chapter 91, HRS, to the circuit environmental court of the circuit in which the party resides, in which the party's principal place of business is located, or in which the action in question occurred. The operation of an NPS Order will not be stayed on appeal unless specifically ordered by the director or an environmental court of competent jurisdiction. | Provisions have been included to facilitate requests from regulated entities for a hearing related to violations of Chapter 11-56 requirements and for appeals of decisions from the hearings. These provisions are designed to be consistent with those contained in HRS § §342D-12. |
| 11-56-16 | None | Field Citations | Field citations provide DOH and the regulated entity an opportunity to quickly and informally settle an administrative case for specific violations of the chapter and HRS §342E. The specific chapter language containing the conditions under which field citations can be issued, and the associated penalties and resolution are consistent with those in HAR §11-55-40. |

| 11-56-17 | None | (a) The owner or operator, any interested agency, person, or group of persons may request or petition for a public hearing with respect to the determinations of persons subject to this chapter. Any request or petition for public hearing shall be submitted within thirty days of registration pursuant to §11-56-05. (b) The director shall hold a hearing if the director determines that there is a significant public interest in holding the hearing. Instances of doubt should be resolved in favor of holding the hearing. Any hearing brought under this paragraph shall be held in the geographical area of the proposed facility or other appropriate area, at the director's discretion. (c) Any person may submit oral or written statements and data concerning the issue being heard. (d) Public notice for hearings shall be published at least once in a newspaper of general circulation within the geographical area of the facility. (e) The public notice for hearings shall include: the name and address of the agency holding the public hearing; name and address of the facility being considered; a brief description of the facility and activities conducted; information regarding the date, time, and location of the hearing; the purpose of the hearing; a brief description of the nature of the hearing, including the rules and procedures to be | Consistent with the provisions of the federal Clean Water Act, and State law, DOH seeks to provide for public awareness and open processes for any decision-making related to water pollution control regulatory efforts in Hawaii. To that end, the chapter contains provisions for the request or petition for a public hearing that are consistent with those contained in HAR §11-55-13. |
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| | | public hearing; name and address of the facility being considered; a brief description of the facility and activities conducted; information | |
| | | hearing; the purpose of the hearing; a brief | |
| | | of the person at the State from whom interested persons may obtain further information. (f) All publication and mailing costs associated | |
| | | with the public notice of the hearing shall be paid by the owner or operator of the facility being considered. The owner or operator shall submit the original signed affidavit of publication to the department within four weeks of the | |

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| | | publication date. Failure to provide and pay for the public notification, as deemed appropriate by the director, is basis to delay authorization of discharges or may be considered a violation of this chapter. | |
| 11-56-18 | None | (a) Any certifications associated with submissions to the director under this chapter shall be signed as follows: (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (A) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (B) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for registration requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; (2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or (3) For a municipality, state, federal, or other public agency. By either a principal executive officer or ranking elected official. For | To ensure that the data and information required by Chapter 11-56, including registrations (11-56-05), Water Pollution Prevention Plans (11-56-06), and annual reports (11-56-07) are prepared and submitted by a responsible official, the chapter specifies who must certify the validity of the data and information for the regulated entity. The signatory requirements of the chapter are consistent with those contained in HAR §11-55-07. |

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| | | purposes of this section, a principal executive | |
| | | officer of a federal agency includes: | |
| | | (A) The chief executive officer of the | |
| | | agency, or | |
| | | (B) A senior executive officer having | |
| | | responsibility for the overall operations of a | |
| İ | | principal geographic unit of the agency (e.g., | |
| | | Regional Administrators of EPA); | |
| | | (4) For a trust. By a trustee; or | |
| | | (5) For a limited liability company (LLC). By a manager or a member authorized to make | |
| | | management decisions for the LLC and who is | |
| | | in charge of a principal business function, or | |
| | | who performs similar policy- or decision-making | |
| | | functions for the LLC. | |
| | | (b) All other reports or information required | |
| | | under this chapter shall be signed by a person | |
| | | designated in subsection (a) or by a duly | |
| | | authorized representative of that person. A | |
| | | person is a duly authorized representative only | |
| | | if: | |
| | | (1) The authorization specifies either an | |
| | | individual or a position having responsibility for | |
| | | the overall operation of the regulated facility or | |
| | | activity such as the position of plant manager, | |
| | | superintendent, or position of equivalent | |
| | | responsibility, or an individual or position having | |
| | | overall responsibility for environmental matters | |
| | | for the company (a duly authorized representative may thus be either a named | |
| | | individual or any individual occupying a named | |
| | | position); | |
| | | (2) The authorization is made in writing by a | |
| | | person designated under subsection (a); and | |
| | | (3) The written authorization is submitted to | |
| | | the director. | |
| | | (c) If an authorization under subsection (b) is no | |
| | | longer accurate because a different individual or | |
| | | position has responsibility for the overall | |

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| | | operation of the facility, a new authorization | |
| | | satisfying the requirements of subsection (b) | |
| | | must be submitted to the director prior to or | |
| | | together with any reports, information, or | |
| | | registrations to be signed by an authorized | |
| | | representative. | |

Appendix A: Nonpoint Source Pollution Control Requirements for Agriculture

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| Appendix A, 1(a) | None | (a) Requirements defined in this chapter shall be implemented by persons identified in section 11-56-03, as follows: (1) The requirements of this Appendix apply to all publicly-owned agricultural lands comprising 1,000 or more contiguous acres under common ownership and with operations identified in the specific applicability paragraphs in section 3. (2) Other agricultural lands or activities may be subject to the requirements of this Appendix at the discretion of the director based on risk of harm to human or environmental health, as determined by the director. Other agricultural lands or activities determined by the director to be subject to the requirements of this Appendix will be provided written notice by the director. | Rationale Clarifies applicability of Appendix A to publicly-owned agricultural lands (i.e., contiguous parcels of 1,000 or more acres) and other agricultural lands, including publicly-owned lands comprising fewer than 1,000 contiguous acres and non-public lands (subject to the director's discretion based on risk of harm to human or environmental health). Consistent with the general applicability requirements in section 11-56-03, where a publicly-owned entity owns lands subject the requirements of this appendix, but is not engaged in the activities associated with the nonpoint source discharge, the publicly-owned entity is responsible for ensuring compliance with chapter requirements for those entities responsible for the activities associated with the nonpoint source pollution discharges from publicly-owned land. The 1,000-acre threshold was selected to control nonpoint source pollution from approximately 80% of publicly-owned agricultural lands while limiting applicability to approximately 100 of the largest parcels. Using parcel size as a proxy for risk for polluted storm water runoff is consistent with other approaches for water pollution prevention. To categorically require smaller parcels to be registered may have diminishing returns; reducing the threshold to 500 acres only adds approximately 5.5% of the publicly-owned agricultural lands (see Attachment A to this Fact Sheet). In addition, subjecting smaller parcels to the requirements of Appendix A may adversely impact smaller businesses by posing an undue financial burden on them. It is assumed that to own or operate a parcel greater than 1,000 acres, the owner or operator has both the capability and longrange interest to sustainably manage the parcel and |

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| | | | Analysis of Hawaii Statewide GIS Program data (Parcels – Hawaii Statewide (2019), Government Land Ownership (2017), and Agricultural Land Use Baseline (2015)) were used to identify contiguous parcels of publicly-owned lands in agricultural land uses (see the methodology and example maps in Attachment A to this Fact Sheet). |
| Appendix A, 1(b) | None | (b) For all other agricultural lands not required to implement the best management practices or management measures identified in this Appendix, the director encourages voluntary development of a Water Pollution Prevention Plan to facilitate the implementation of the management measures contained in this Appendix. | Consistent with the department's policy for nonpoint source pollution control as specified in section 11-56-03, DOH encourages implementation of appropriate management measures to control nonpoint source pollution from all agricultural lands and activities, whether or not those lands and activities are subject to regulation. |
| Appendix A, 2(a) – (c) | None | (a) The owner or operator of an agricultural activity or facility subject to regulation shall incorporate water pollution reducing management measures into a Water Pollution Prevention Plan. At a minimum, Water Pollution Prevention Plans shall incorporate all appropriate management measures to prevent and control the specific sources of pollution identified in section 3 of this Appendix. | Affirms that Water Pollution Prevention Plans must be developed for regulated agricultural activities and facilities. The owner or operator of the regulated activity or facility is responsible for identifying the applicable management measures and associated management practices set forth in Appendix A and incorporating those measures and practices into a Water Pollution Prevention Plan that meets the requirements of section 11-56-06. |
| | | (b) The owner or operator of an agricultural activity or facility subject to this Appendix shall identify which management measures in section 3 are required based upon the specific applicability of each management measure and its subparts. Each management measure identified as being applicable shall be implemented as detailed in the Water Pollution Prevention Plan developed pursuant to this chapter. | |
| | | (c) Authorized management practices that satisfy management measure requirements | |

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| | shall be identified in the Water Pollution | |
| | Prevention Plan. | |
| Appendix A, 2(d) and (e) None | shall be identified in the Water Pollution | DOH recognizes that some agricultural operations may be subject to regulatory programs or voluntarily implementing plans that achieve the objectives of some or all of the applicable management measures in Appendix A. To avoid duplicative compliance requirements, the Appendix allows for existing compliance activities that address the objective of one or more management measure(s) to be referenced in the required Water Pollution Prevention Plan to satisfy that management measure(s). In addition, consistent with paragraph 11-56-06(a)(6), existing soil conservation plans may be submitted in lieu of the required Water Pollution Prevention Plan or a portion of the required plan if it addresses all or some of the applicable management measures in Appendix A and meets the objective of a Water Pollution Prevention Plan as detailed in section 11-56-06. |

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| Appendix A, 3 | None | Management Measures Required for Specific Sources of Pollution | Each paragraph addresses a specific pollution source; includes subparagraphs describing the specific applicability, purpose, and general requirements of that paragraph; and identifies the authorized management practices to be included in a Water Pollution Prevention Plan to address that pollution source. Section 3 establishes the following management measures for specific pollution sources: (a) Erosion and Sediment Control Management Measure (b) Animal Feeding Operations Wastewater and Runoff Management Measure (c) Nutrient Management Measure (d) Grazing Management Measure (e) Irrigation Water Management Measure (f) Pesticide Management Measure In general, the applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003). The language has been modified to conform to the structure and format of Chapter 11-56 and in some cases to provide specificity for regulated entities or to clarify compliance expectations and ensure enforceability. |
| Appendix A, 3(a) | None | (a) Erosion and Sediment Control Management Measure | The purpose of this management measure is to preserve soil and reduce the mass of sediment reaching a water body, protecting both agricultural land and water quality. The applicability, purpose, general requirements, and authorized management practices are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint |

| Section | Current | Proposed | Rationale |
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| | | | Source Pollution from Agriculture (EPA 841-B-03-004, July 2003). |
| Appendix A, 3(b) | None | (b) Animal Feeding Operations Wastewater and Runoff Management Measure | The goal of this management measure is to prevent the discharge of wastewater and contaminated runoff to State waters from animal feeding operations. The applicability, purpose, general requirements, and authorized management practices generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003), except as noted below. |
| Appendix A, 3(b)(3)(A) | None | (A) Contain both the wastewater and contaminated runoff from animal feeding operations that is caused by storms up to and including an acute 25-year, 24-hour frequency storm event. Storage structures must be of adequate capacity to allow for proper wastewater utilization and constructed so that they are impervious and prevent seepage to groundwater. | Establishes specific requirements for containment and management of wastewater and contaminated runoff from animal feeding operations to ensure consistency in regulation of animal feeding operations under point source and nonpoint source regulatory programs. |
| Appendix A, 3(b)(3)(B) | None | (B) Provide for storage, treatment, and/or application methods such that the monthly volume of wastewater and contaminated runoff produced and stored is, at a minimum, 10% less than the monthly rate of wastewater and contaminated runoff use or disposal. The storage volume necessary to meet this requirement shall be determined using a technical evaluation that addresses the following elements: (i) Information to be used in the design of the open manure storage structure including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic/prevailing rainfalls, applicable technical standards that prohibit or otherwise limit land application during unsuitable | Clarifies DOH's expectations for compliance with requirements for containment and management of wastewater and contaminated runoff. DOH recognizes that much of Hawaii's agricultural land receives frequent, high-intensity rain events that can result in large volumes of wastewater from animal feeding operations. To ensure facilities provide adequate storage capacity to handle rain events typical of Hawaii's climate, the regulations require the owner or operator of a regulated facility or activity to estimate the required storage volume for wastewater and contaminated runoff using a technical analysis based on local climate data and specified site-specific parameters. |

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| Appendix A, 3(c) | None | soil conditions (e.g., saturated ground), planned emptying and dewatering schedules, additional storage capacity for manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure. (ii) Climate data for the past 10 years at the area local to the regulated animal feeding operation, including average monthly precipitation and evaporation rates. (iii) The number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the manure storage structure. (c) Nutrient Management Measure | The goal of this management measure is to reduce water pollution caused by nutrients (primarily nitrogen and phosphorous) by minimizing nutrient losses and waste from agricultural lands and activities. Water pollution caused by nutrients is a pervasive water quality problem in Hawaii. According to the "2018 State of Hawaii Water Quality Monitoring Assessment Report," 66% of assessed marine water bodies fail to meet water quality standards for one or |
| | | | more nutrients, highlighting the need for nutrient management. The applicability, purpose, general requirements, and authorized management practices generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003), except as noted below. |
| Appendix A, 3(c)(1)(B) | None | (B) Lands that receive manure, wastewater, or contaminated runoff and are subject to the requirements of an NPDES permit for | NPDES permits for concentrated animal feeding operations require development and implementation of nutrient management plans for land application areas at those facilities. Regulation of discharges already authorized and |

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| | | concentrated animal feeding operations are excluded from this management measure. | regulated under the DOH point source pollution control program is unnecessary, and thereby exempt from Chapter 11-56 requirements. |
| Appendix A, 3(c)(3)(A) | None | (A) Prevent the discharge of excess nutrients and contaminated storm water to State waters through: (i) Containment of wastewater and waste products; (ii) Isolation of wastewater, waste products, or materials from contact with storm water; and (iii) Recycling of nutrients through environmentally beneficial methods. | Clarifies DOH's expectations for agricultural operations to actively control nonpoint source nutrient discharges to State waters, including practices that prevent wastewater discharges and the addition of nutrients to storm water runoff. |
| Appendix A, 3(c)(3)(C)(v) | None | (C) Nutrient management plans must contain the following core components: (v) Land application setbacks appropriate to prevent the discharge of nutrients based on identified field limitations and other site specific conditions, including practices such as field diversions or other structures that intercept and direct runoff to State waters. | Consistent with the Pacific Islands Area Natural Resources Conservation Service's Conservation Practice Standard for Nutrient Management (Code 590), Water Pollution Prevention Plans must identify field limitations (e.g., lava tubes, shallow soils over fractured bedrock, soils with high leaching or runoff potential, distance surface water, highly erodible soils, shallow aquifers) and sensitive areas and include appropriate setbacks where nutrients may not be applied. |
| Appendix A, 3(d) | None | (d) Grazing Management Measure | The purpose of this management measure is to prevent improper livestock grazing and equipment use that may damage streambanks and shores, riparian vegetation, channels, and the water column. Application of this management measure will reduce the physical disturbance to sensitive areas and reduce the discharge of sediment, animal waste, nutrients, and chemicals to surface waters. The applicability, purpose, general requirements, and authorized management practices are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003). |
| Appendix A, 3(e) | None | (e) Irrigation Water Management Measure | The purpose of this management measure is to reduce nonpoint source pollution of surface waters caused by irrigation. Application of this management measure will |

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| | | | reduce the waste of irrigation water, improve the water use efficiency, and reduce the total pollutant discharge from an irrigation system. The applicability, purpose, general requirements, and authorized management practices are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003). |
| Appendix A, 3(f) | None | (f) Pesticide Management Measure | The purpose of this management measure is to reduce contamination of surface water and groundwater from pesticides and to foster effective and safe use of pesticides without causing degradation to the environment. The applicability, purpose, general requirements, and authorized management practices are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Agriculture (EPA 841-B-03-004, July 2003). |

Appendix B: Nonpoint Source Pollution Control Requirements for Forestry

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| Appendix B, 1(a) | None | (a) Requirements defined in this chapter shall be implemented by persons identified in section 11-56-03, as follows: (1) The requirements of this Appendix apply to all publicly-owned forest lands comprising more than 5 contiguous acres where silvicultural | Clarifies applicability of Appendix B to publicly-owned forest lands comprising more than 5 contiguous acres where silvicultural or commercial forestry operations are planned or conducted and requires that specific management measures be implemented on publicly-owned forest lands where silvicultural or commercial forestry operations are planned, regardless of acreage. |
| | | or commercial forestry operations are planned or conducted or, regardless of acreage, any road system construction or reconstruction conducted as part of silvicultural or forestry activities, any road maintenance conducted as part of silvicultural or forestry activities, any revegetation of areas disturbed by harvesting operations or road construction as part of | The 5-acre threshold is based on applicability of the Preharvest Planning, Timber Harvesting, and Site Preparation and Forest Regeneration Management Measures in Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program (October 2010), which guides the State's CNPCP. |
| | | silvicultural or forestry activities, any streamside management zone within lands where silvicultural operations are planned or conducted, or any area where chemicals (fertilizers and pesticides) are used as part of silvicultural or commercial forestry operations. (2) Other forest lands where silvicultural or commercial forestry operations are planned or conducted may be subject to the requirements. | Analysis of Hawaii Statewide GIS Program data (Parcels – Hawaii Statewide (2019), Government Land Ownership (2017), and Agricultural Land Use Baseline (2015)) were used to identify parcels of publicly-owned lands in commercial forestry land use (see the methodology and example maps in Attachment B to this Fact Sheet). Based on that analysis, DOH estimates there are almost 950 publicly-owned commercial forestry parcels of at least 5 acres. The majority of those parcels are state-owned |
| | | conducted may be subject to the requirements of this Appendix at the discretion of the director based on risk of harm to human or environmental health, as determined by the director. Forest lands determined by the director to be subject to the requirements of this Appendix will be provided written notice by the director. | parcels managed by the Department of Forestry and Wildlife (DOFAW). Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program (October 2010) does not establish an area-based threshold for management measures that address linear features, including streamside management zones and roads, localized disturbed areas within roads or larger management units undergoing revegetation, or areas in which forest chemical management is conducted. Appendix B applicability for |

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| | | | regulated activities on publicly-owned forest lands is consistent with that approach. These management measures, therefore, are required regardless of acreage. |
| | | | Consistent with paragraph 11.56.03(a)(2), Appendix B may apply to other forest lands, including non-public lands, subject to the director's discretion based on risk of harm to human or environmental health. |
| | | | Consistent with the general applicability requirements in section 11-56-03, where a publicly-owned entity owns lands subject the requirements of this appendix, but is not engaged in the activities associated with the nonpoint source discharge, the publicly-owned entity is responsible for ensuring compliance with chapter requirements for those entities responsible for the activities associated with the nonpoint source pollution discharges from publicly-owned land. |
| Appendix B, 1(b) | None | (b) For forest lands that do not fall under the applicability of this Appendix, the director encourages voluntary development of a Water Pollution Prevention Plan to facilitate the implementation of the management measures contained in this Appendix. | Consistent with the department's policy for nonpoint source pollution control as specified in section 11-56-03, DOH encourages implementation of appropriate management measures to control nonpoint source pollution from all forest lands and activities, whether or not those lands and activities are subject to regulation. |
| Appendix B, 2(a) – (c) | None | 2. Incorporation of Management Measures into Water Pollution Prevention Plans (a) The owner or operator of a silvicultural or commercial forestry operation subject to regulation shall incorporate water pollution reducing management measures into a Water Pollution Prevention Plan. At a minimum, Water Pollution Prevention Plans shall incorporate all appropriate management measures to prevent and control the specific sources of pollution identified in Section 4 of this Appendix. | Affirms that Water Pollution Prevention Plans must be developed for regulated silvicultural or commercial forestry operations. The owner or operator of the regulated activity or facility is responsible for identifying the applicable management measures and associated management practices set forth in Appendix B and incorporating those measures and practices into a Water Pollution Prevention Plan that meets the requirements of section 11-56-06. |
| | | (b) The owner or operator of a silvicultural or commercial forestry operation subject to this | |

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| | | Appendix shall identify which management measures in Section 4 are required based upon the specific applicability of each management measure and its subparts. Each management measure identified as being applicable shall be implemented as detailed in the Water Pollution Prevention Plan developed pursuant to this chapter. | |
| | | (c) Authorized management practices that satisfy management measure requirements shall be identified in the Water Pollution Prevention Plan. | |
| Appendix B, 2(d) and (e) | None | (d) For discharges identified in section 11-56-03 that result from activities identified in this Appendix, where such discharges or activities are subject to an alternative regulatory mechanism that accomplishes the objectives of one or more of the management measures in section 4 of this Appendix, the Water Pollution Prevention Plan may include a reference to the alternative regulatory mechanism in lieu of the specified management measure(s). (e) The following documents may be submitted in lieu of a Water Pollution Prevention Plan provided that they address all applicable management measures in section 4: (1) Any BLNR- or DLNR-approved plan or permit which adopts, incorporates, or requires implementation of relevant BMPs from DOFAW's "Best Management Practices for Maintaining Water Quality in Hawaii" (February 1996); or (2) A forest management plan developed by a certified United States Department of Agriculture Natural Resources and Conservation | DOH recognizes that some silvicultural or forestry operations may be subject to regulatory programs, or voluntarily implementing plans, that achieve the objectives of some or all of the applicable management measures in Appendix B. To avoid duplicative compliance requirements, the Appendix allows for existing compliance activities that address the objective of one or more management measure(s) to be referenced in the Water Pollution Prevention Plan to satisfy that management measure(s). In addition, consistent with paragraph 11-56-06(a)(6), existing and approved forest management plans may be submitted in lieu of the required Water Pollution Prevention Plan or a portion of the required plan if it addresses all or some of the applicable management measures in Appendix B and meets the objective of a Water Pollution Prevention Plan as detailed in section 11-56-06. |

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| | | Service (NRCS) Technical Service Provider and approved by the NRCS. | |
| Appendix B, 3 | None | 3. Water Pollution Prevention Plan Exemptions. Water Pollution Prevention Plans for publicly-owned forest lands managed by DOFAW are not required for as long as DOFAW's policy to implement relevant BMPs from DOFAW's Best Management Practices for Maintaining Water Quality in Hawaii (February 1996) on publicly-owned, DOFAW-managed lands is in effect. | DOH recognizes DOFAW's practice for implementation of management practices that prevent or reduce the movement of sediment, nutrients, pesticides, and other pollutants to surface water as the result of silvicultural activities. DOFAW's Best Management Practices for Maintaining Water Quality in Hawaii (February 1996) identifies practices that are consistent with those in Appendix B and the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program. Therefore, where those practices are implemented on publicly-owned, DOFAW-managed lands consistent with DOFAW's policy to implement relevant BMPs from that guidance, DOH considers those management activities to achieve the objective of a Water Pollution Prevention Plan; requiring the development of a separate Water Pollution Prevention Plan for those lands would be duplicative and unnecessary. |
| Appendix B, 4 | None | 4. Management Measures Required for Specific Sources of Pollution | Each paragraph addresses a specific pollution source and includes subparagraphs describing the specific applicability, purpose, and general requirements of that paragraph and identifies the authorized management practices to be included in a Water Pollution Prevention Plan to address that pollution source. Section 4 establishes the following management measures for specific pollution sources: (a) Preharvest Planning (b) Streamside Management Zones (c) Road Construction/Reconstruction (d) Road Maintenance (e) Timber Harvesting (f) Site Preparation and Forest Regeneration (g) Fire Management (h) Revegetation of Disturbed Areas (i) Forest Chemical Management In general, the applicability, purpose, general requirements, and authorized management practices for each |

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| | | | management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). The language has been modified to conform to the structure and format of Chapter 11-56 and in some cases to provide specificity for regulated entities or to clarify compliance expectations and ensure enforceability. |
| | | | Appendix B does not incorporate the Wetland Forest Management Measure from the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program because it is largely redundant with the management measure requirements in Appendix B. Furthermore, wetlands are protected from commercial forestry operations by the following: Conservation District Use Permits administered by DLNR; Special Management Area permits administered by the Coastal Zone Management Program (DBEDT); and the CWA Section 401 Water Quality Certification program administered by DOH. |
| Appendix B, 4(a) | None | (a) Preharvest Planning Management Measure | The objective of this management measure is to ensure that silvicultural activities, including timber harvesting, site preparation, and associated road construction, are conducted without significant nonpoint source pollutant delivery to streams and coastal areas. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(b) | None | (b) Streamside Management Zones (SMZs) Management Measure | This management measure is intended to preserve SMZ integrity to protect water quality. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent |

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| | | | with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(c) | None | (c) Road Construction/Reconstruction Management Measure | The purpose of this management measure is to minimize delivery of sediment to surface waters during road construction and road reconstruction on forest lands. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(d) | None | (d) Road Maintenance Management Measure | The objective of this management measure is to manage existing roads to maintain stability and utility and to minimize sedimentation and pollution from runoff-transported materials. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(e) | None | (e) Timber Harvesting Management Measure | The purpose of this management measure is to minimize sedimentation resulting from the siting and operation of timber harvesting, and to manage petroleum products properly. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint |

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|---------------------|---------|---|--|
| | | | Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(f) | None | (f) Site Preparation and Forest Regeneration Management Measure | This management measure is intended to confine on-site potential nonpoint source pollution and erosion resulting from site preparation and the regeneration of forest stands. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(g) | None | (g) Fire Management Measure | The purpose of this management measure is to minimize nonpoint source pollution and erosion resulting from prescribed fire for site preparation and from the methods used for wildfire control or suppression on forest lands. The applicability, purpose, general requirements, and authorized management practices for each management measure generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005), except as noted below. |
| Appendix B, 4(g)(1) | None | (1) Specific Applicability. This management measure applies to all prescribed burning conducted as part of normal silvicultural activities on all harvested units larger than five (5) acres for wildfire suppression and rehabilitation on forest lands. | The October 2010 management measures do not address specific applicability for the Fire Management Measure. DOH has applied a 5-acre applicability threshold for fire management, consistent with the applicability for most other non-linear activities addressed by the forestry management measure. |
| Appendix B, 4(h) | None | (h) Revegetation of Disturbed Areas Management Measure | The purpose of this management measure is to prevent sediment and other pollutants from harvested, burned, or other disturbed areas from entering State waters. Revegetating disturbed areas stabilizes the soil in these areas, reduces erosion, and helps to prevent sediment and pollutants associated with sediment from entering nearby surface waters. The applicability, purpose, general |

| Section | Current | Proposed | Rationale |
|------------------|---------|--|--|
| | | | requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |
| Appendix B, 4(i) | None | (i) Forest Chemical Management Measure | The purpose of this management measure is to prevent pesticides and fertilizers used in forest management from entering State waters. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Forestry (EPA 841-B-05-001, April 2005). |

Appendix C: Nonpoint Source Pollution Control Requirements for Marinas and Recreational Boating

| Section | Current | Proposed | Rationale |
|------------------|---------|--|---|
| Appendix C, 1(a) | None | (a) Requirements defined in this chapter shall be implemented by persons identified in section 11-56-03 who own or operate a publicly-owned marina or recreational boating facility that has any of the following: (1) Ten (10) or more slips; (2) A pier where ten (10) or more boats may tie up; | Clarifies applicability of Appendix C to the following publicly-owned marinas and recreational boating facilities: any facility with 10 or more slips; a pier where ten (10) or more boats may tie up; any facility where a boat for hire is docked; a boat maintenance or repair yard that is adjacent to the water; or a mooring field where ten (10) or more boats are moored. |
| | | (3) A facility where a boat for hire is docked; (4) A boat maintenance or repair yard that is adjacent to the water; or (5) A mooring field where ten (10) or more boats are moored. | Consistent with paragraph 11.56.03(a)(2), Appendix C may apply to other marinas or recreational boating facilities, including privately-owned facilities, subject to the director's discretion based on risk of harm to human or environmental health. |
| | | (6) Other marinas or recreational boating facilities may be subject to the requirements of this Appendix at the discretion of the director based on risk of harm to human or environmental health, as determined by the director. Marinas and recreational boating facilities determined by the director to be subject to the requirements of this Appendix will be provided written notice by the director. | Consistent with the general applicability requirements in section 11-56-03, where a publicly-owned entity owns facilities subject to the requirements of this appendix, but is not engaged in the activities associated with the nonpoint source discharge, the publicly-owned entity is responsible for ensuring compliance with chapter requirements for those entities responsible for the activities associated with the nonpoint source pollution discharges from publicly-owned facilities. |
| Appendix C, 1(b) | None | (b) For marinas and recreational boating facilities that do not fall under the applicability of this Appendix, the director encourages voluntary development of a Water Pollution Prevention Plan to facilitate the implementation of the management measures contained in this Appendix. | Consistent with the department's policy for nonpoint source pollution control as specified in section 11-56-03, DOH encourages implementation of appropriate management measures to control nonpoint source pollution from all marina and recreational boating facilities and their associated shore-based activities, whether or not those facilities are subject to regulation. |

| Section | Current | Proposed | Rationale |
|--------------------------------|---------|---|---|
| Section Appendix C, 2(a) – (c) | None | 2. Incorporation of Management Measures into Water Pollution Prevention Plans (a) The owner or operator of a marina or recreational boating facility subject to regulation shall incorporate water pollution reducing management measures into a Water Pollution Prevention Plan. At a minimum, Water Pollution Prevention Plans shall incorporate all appropriate management measures to prevent and control the specific sources of pollution identified in section 3 of this Appendix. (b) The owner or operator of a marina or recreational boating facility subject to this Appendix shall identify which management | Affirms that Water Pollution Prevention Plans must be developed for regulated marinas and recreational boating facilities. The owner or operator of the regulated activity or facility is responsible for identifying the applicable management measures and associated management practices set forth in Appendix C and incorporating those measures and practices into a Water Pollution Prevention Plan that meets the requirements of section 11-56-06. |
| | | measures in section 3 are required based upon the specific applicability of each management measure and its subparts. Each management measure identified as being applicable shall be implemented as detailed in the Water Pollution Prevention Plan developed pursuant to this chapter. (c) Authorized management practices that satisfy management measure requirements shall be identified in the Water Pollution Prevention Plan. | |
| Appendix C, 2(d) | None | (d) For discharges identified in section 11-56-03 that result from activities identified in this Appendix, where such discharges or activities are subject to an alternative regulatory mechanism that accomplishes the objectives of one or more of the management measures in section 3 of this Appendix, the Water Pollution Prevention Plan may include a reference to the alternative regulatory mechanism in lieu of the specified management measure(s). | DOH recognizes that some marinas and recreational boating facilities may be subject to regulatory programs, or voluntarily implementing plans, that achieve the objectives of some or all of the applicable management measures in Appendix C. To avoid duplicative compliance requirements, the Appendix allows for existing compliance activities that address the objective of one or more management measure(s) to be referenced in the required Water Pollution Prevention Plan to satisfy that management measure(s). |

| Section | Current | Proposed | Rationale |
|------------------|---------|---|--|
| Appendix C, 2(e) | None | (e) All publicly-owned facilities or operations managed by the Department of Land and Natural Resources, Division of Boating and Ocean Recreation that are subject to and in compliance with section 13-232-43, HAR, are not required to incorporate the management measures in a Water Pollution Prevention Plan that are adequately addressed through compliance with section 13-232-43, HAR. | The Division of Boating and Ocean Recreation (DOBOR) requires compliance with EPA's "National Management Measures Guidance to Control Nonpoint Source Pollution from Marinas and Recreational Boating" for construction, maintenance, operation, and modification of all improvements made pursuant to section 13-232-43, HAR, including those improvements made prior to the effective date of section 13-232-43. Those improvements are specified as building structures, objects, site improvements, landscape treatments, or other facilities of any nature that are erected, constructed, reconstructed, altered, moved, installed, or demolished at a state boating facility or other property under the jurisdiction of DOBOR. To avoid duplicative regulatory requirements, and consistent with paragraph 11-56-06(a)(6), DOH is not requiring the following management measures to be included in Water Pollution Prevention Plans for facilities managed by DOBOR and subject to HAR 13-232-43: Marina Flushing (subsection 3(a)), Water Quality Assessment (subsection 3(b)), Habitat Assessment (subsection 3(c)), Shoreline Stabilization (subsection 3(d)), Storm Water Runoff (subsection 3(e)), Fueling Station Design (subsection 3(f)), Sewage Facility (subsection 3(g)), and Maintenance of Sewage Facilities (subsection 3(h)). |
| Appendix C, 3 | None | Management Measures Required for Specific Sources of Pollution | Each paragraph addresses a specific pollution source and includes subparagraphs describing the specific applicability, purpose, and general requirements of that paragraph and identifies the authorized management practices to be included in a Water Pollution Prevention Plan to address that pollution source. Section 3 establishes the following management measures for specific pollution sources: (a) Marina Flushing (b) Water Quality Assessment (c) Habitat Assessment (d) Shoreline Stabilization (e) Storm Water Runoff (f) Fueling Station Design (g) Sewage Facility Management |

| Section | Current | Proposed | Rationale |
|------------------|---------|--|---|
| | | | (h) Maintenance of Sewage Facilities (i) Solid Waste Management (j) Fish Waste Management (k) Liquid Material Management (l) Petroleum Control (m) Boat Cleaning (n) Public Education |
| | | | In general, the applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). The language has been modified to conform to the structure and format of Chapter 11-56 and in some cases to provide specificity for regulated entities or to clarify compliance expectations and ensure enforceability. |
| | | | Appendix C does not include the Boat Operation Management Measure from the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as that management measure applies to non-marina (i.e., boating) activities. |
| Appendix C, 3(a) | None | (a) Marina Flushing Management Measure | The purpose of this management measure is to ensure proper siting and design of marinas and recreational boating facilities such that water quality will be maintained through proper flushing. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |

| Section | Current | Proposed | Rationale |
|------------------|---------|---|--|
| Appendix C, 3(b) | None | (b) Water Quality Assessment Management Measure | This management measure is intended to establish criteria for assessments of water quality that may be used to determine whether a proposed marina design will result in poor water quality. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(c) | None | (c) Habitat Assessment Management Measure | This management measure is intended to establish biological siting and design provisions for marinas based on the premise that marinas should not destroy important aquatic habitat, should not diminish the harvestability of organisms in adjacent habitats, and should accommodate the same biological uses (e.g., reproduction, migration) for which the source waters have been classified. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(d) | None | (d) Shoreline Stabilization Management Measure | This management measure is intended to encourage the use of vegetative methods for shoreline stabilization to prevent or reduce the delivery of pollutants to water resources. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint |

| Section | Current | Proposed | Rationale |
|------------------------|---------|--|--|
| | | | Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(e) | None | (e) Storm Water Runoff Management Measure | The purpose of this management measure is to control pollutants in runoff from vessel maintenance areas. The proper design and operation of these areas can significantly prevent the entry of pollutants from marina property into surface waters. The applicability, purpose, general requirements, and authorized management practices for each management measure generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001), except as noted below. |
| Appendix C, 3(e)(3)(B) | None | (B) Reduce the average annual loadings of total suspended solids and other water pollutants in runoff from vessel maintenance areas to the maximum extent practicable. | The Storm Water Runoff Management Measure in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program requires an 80% reduction in the average annual loading of TSS from maintenance areas. DOH is requiring that TSS and other pollutant loads be reduced to the maximum extent practicable to improve or protect water quality. Determination of compliance with this requirement will be as described in section 11-56-09, considering water quality standards, the impacts of the discharge, background water quality, the State's antidegradation policy, the financial impact on the discharger, and the public interest. |
| Appendix C, 3(f) | None | (f) Fueling Station Design Management Measure | The purpose of this management measure is to prevent and control petroleum and other chemicals associated with fuel spillage. The applicability, purpose, general requirements, and authorized management practices for each management measure generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating |

| Section | Current | Proposed | Rationale |
|--------------------------------|---------|--|---|
| | | | (EPA 841-B-01-005, November 2001), except as noted below. |
| Appendix C, 3(f)(3)(B) and (C) | None | (B) Maintain adequate spill containment and mitigation measures.(C) Eliminate storm water contact with fueling appurtenances. | DOH recognizes Federal spill prevention and countermeasure requirements under 40 Code of Federal Regulations 112.12 applies to many of the fueling stations required to comply with the proposed rule. The proposed rule does not add a burden to facilities that must comply with current federal requirements. |
| | | | The proposed rule is requires common sense actions for maintaining spill containment and mitigation measures, and eliminating storm water contact with fueling appurtenances to reduce potential petroleum releases from smaller fueling activities which may not be required to comply with Federal Spill Prevention Control and Countermeasure requirements. |
| Appendix C, 3(g) | None | (g) Sewage Facility Management Measure | This management measure is intended to prevent and control pollution by ensuring proper siting and design of sewage facilities associated with marinas and recreational boating activities. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(h) | None | (h) Maintenance of Sewage Facilities Management Measure | The purpose of this measure is to eliminate the release of untreated sewage into marina and surface waters. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |

| Section | Current | Proposed | Rationale |
|-------------------------|---------|---|--|
| Appendix C, 3(i) | None | (i) Solid Waste Management Measure | This management measure is intended to ensure proper disposal of solid waste materials generated at marinas and recreational boating facilities. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(j) | None | (j) Fish Waste Management Measure | The purpose of this management measure is to control fish waste pollution, which can result in water quality problems and odor problems at marinas with large numbers of fish landings or at marinas that have limited fish landings but poor flushing. The applicability, purpose, general requirements, and authorized management practices for each management measure generally are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001), except as noted below. |
| Appendix C, 3 (j)(3)(B) | | (B) Prohibit discarding fish waste into State waters. | Fish waste is a source of excess nutrients and may be a source of degradation to State waters. Particularly in marina areas where break walls reduce the amount of natural water movement and flushing, disposing of waste within State waters changes the visual, chemical (nutrient), and biological (bacteria) quality of the waters. With the increase of harbor users, many of whom conduct commercial fishing activities, adequate waste receptacles for municipal as well as fish waste are needed. The proposed rules prohibit discarding fish waste into State waters. |

| Section | Current | Proposed | Rationale |
|------------------|---------|--|---|
| Appendix C, 3(k) | None | (k) Liquid Material Management Measure | This management measure is intended to minimize the discharge of potentially harmful liquid materials into marina and surface waters through proper storage and disposal. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(I) | None | (I) Petroleum Control Management Measure | This management measure is intended to control pollution from fuel and oil associated with marina boat operation and maintenance. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(m) | None | (m) Boat Cleaning Management Measure | This management measure is intended to minimize the use and release of potentially harmful cleaners and bottom paints to marina and surface waters. The applicability, purpose, general requirements, and authorized management practices for each management measure are consistent with existing guidance adopted through Hawaii's CNPCP in the October 2010 Hawaii's Management Measures for the Coastal Nonpoint Pollution Control Program, as well as the EPA National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating (EPA 841-B-01-005, November 2001). |
| Appendix C, 3(n) | None | (n) Public Education Management Measure | This management measure is intended to prevent pollution from marinas and boating activities by educating the public and facility operators about the causes and effects of pollution and the methods to prevent pollution. The |

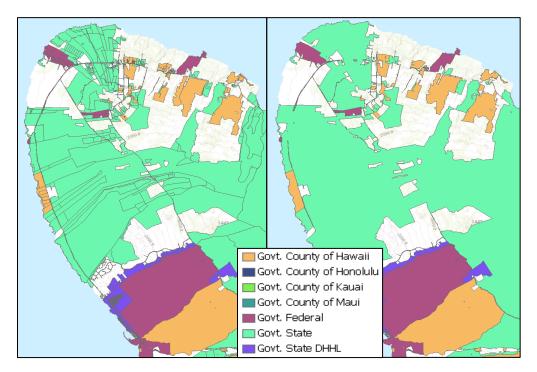
| Section | Current | Proposed | Rationale |
|---------|---------|----------|---|
| | | | applicability, purpose, general requirements, and |
| | | | authorized management practices for each management |
| | | | measure are consistent with existing guidance adopted |
| | | | through Hawaii's CNPCP in the October 2010 Hawaii's |
| | | | Management Measures for the Coastal Nonpoint Pollution |
| | | | Control Program, as well as the EPA National Management |
| | | | Measures to Control Nonpoint Source Pollution from |
| | | | Marinas and Recreational Boating (EPA 841-B-01-005, |
| | | | November 2001). |

Attachment A: Methodology and Results of GIS Data Analysis for Determining Applicability of Water Pollution Control Requirements for Agricultural Nonpoint Sources Regulated under Chapter 11-56, Appendix A

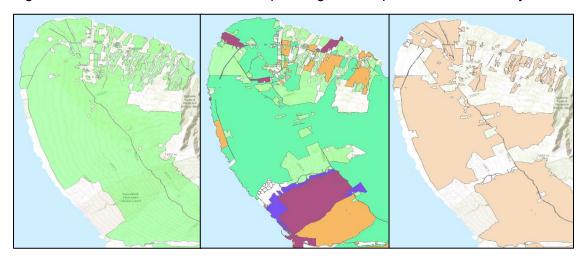
This attachment provides information on the methods and results of GIS data analysis conducted to determine the applicability of nonpoint source pollution control regulations for agricultural nonpoint sources in Chapter 11-56, Appendix A. The purpose of the GIS analysis was to determine an appropriate land acreage threshold that would control nonpoint source pollution from the majority of publicly-owned agricultural lands while minimizing the number of regulated parcels so as to not pose an undue financial burden on agricultural landowners and operators.

Methodology

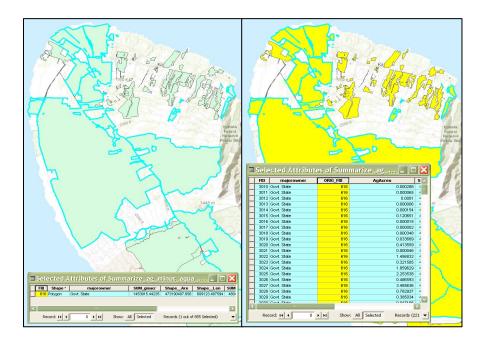
- Source Data
 - Hawaii Statewide GIS Program Geospatial Data Portal: http://geoportal.hawaii.gov
 - 'Parcels Hawaii Statewide' (2019): http://geoportal.hawaii.gov/datasets/parcels-hawaii-statewide
 - 'Government Land Ownership' (2017):
 http://geoportal.hawaii.gov/datasets/government-land-ownership
 - State of Hawaii Office of Planning Hawaii Statewide GIS: http://planning.hawaii.gov/gis/download-gis-data-expanded
 - Agricultural Land Use Baseline (2015)
- Data Analysis
 - Performed spatial join of the data layers 'Parcels Hawaii Statewide' and 'Government Land Ownership'. This operation merged the two datasets and allowed identification of which parcels were government owned.
 - Filtered data sets for only categories of interest:
 - Removed 'Aquaculture' and 'Commercial Forestry' categorized parcels in the Agricultural Land Use Baseline (2015) data layer, retained 'Banana', 'Coffee', 'Dairy', 'Diversified Crop', 'Flowers / Foliage / Landscape', 'Macadamia Nuts', 'Papaya', 'Pasture', 'Pineapple', 'Seed Production', 'Sugar', 'Taro', and 'Tropical Fruits'
 - Filtered and retained only government-owned parcels ('Govt. County of Hawaii', 'Govt. County of Honolulu', 'Govt. County of Kauai', 'Govt. County of Maui', 'Govt. Federal', 'Govt. State', and 'Govt. State DHHL') in the new, spatially joined 'Government Land Ownership' and 'Parcels Hawaii Statewide' data layer
 - For the filtered government-owned parcels data layer created from the spatially joined 'Government Land Ownership' and 'Parcels – Hawaii Statewide' layers, dissolved all boundaries of parcels with the same ownership that shared a common edge to create contiguous parcels. For instance, if two distinct parcels owned by the same entity touched, they would be merged into a single polygon.



 The boundaries of the agricultural layer were then similarly dissolved, except without regard to classes and instead into a simple, single class, presence-absence layer.



- That single class agricultural layer was then used to clip out only portions of the government land layer that intersected it, and a new layer created of just the agricultural portions of contiguous dissolved parcels owned by a single government agency.
- This previous operation created a "multipart" GIS data layer, which means that a single entry in the data table can encompass multiple spatially distinct polygons that do not touch. To split out each of those spatially distinct polygons, the "multipart to single-part" tool was used to create distinct table entries for each of those polygons. The ID number used to identify the original multi-part parcel was retained if needed for future reference to group agricultural polygons. After splitting the single parts into multiple, the acreage for each individual part was calculated.

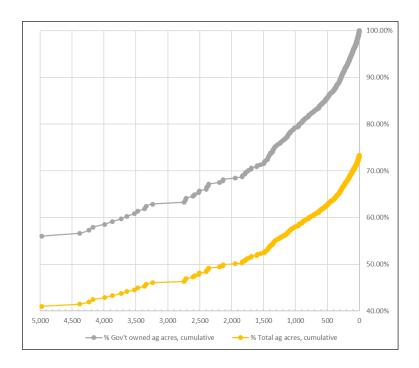


CAVEATS:

- 1. Considers only lands that were in an agricultural use in 2015.
- 2. The software joins parcels that touch at any point, even if only at a single point or corner. Therefore, the size of some parcels may be overestimated (i.e., a large parcel in the dataset might actually be multiple smaller parcels that touch at a single point).
- 3. Parcels may be farmed as a single unit but are under different ownership (e.g., an entity leases adjacent land from both the state and the county and farms the land as a single unit). These parcels are not considered a single farm in the dataset.

Results

| = | |
|---------------------------|---------------------------------|
| Example threshold (acres) | Public Ag Lands Captured (%) |
| 5,000 | 55.20 |
| 2,000 | 68.14 |
| 1,000 | 79.22 |
| 750 | 82.27 |
| 500 | 85.62 |
| 250 | 91.06 |
| 100 | 95.60 |
| 50 | 97.26 |
| 25 | 98.42 |
| 5 | 99.65 |



| Government Entity | Total Number of Parcels (≥ 1000 contiguous acres) |
|--------------------------|---|
| Govt. County of Hawaii | 10 |
| Govt. County of Honolulu | 2 |
| Govt. County of Kauai | 5 |
| Govt. County of Maui | 5 |
| Govt. Federal | 16 |
| Govt. State | 57 |
| Govt. State DHHL | 9 |
| Total | 104 |

Attachment B: GIS Data Analysis to Estimate Number of Parcels Subject to Water Pollution Control Requirements for Forestry Nonpoint Sources Regulated under Chapter 11-56, Appendix B

This attachment provides information on the methods and results of GIS data analysis conducted to estimate the number of parcels that would be subject to nonpoint source pollution control regulations for forestry nonpoint sources based on the general applicability specified in Chapter 11-56, Appendix B.

Methodology

- Source Data
 - Hawaii Statewide GIS Program Geospatial Data Portal: http://geoportal.hawaii.gov
 - 'Parcels Hawaii Statewide' (2019): http://geoportal.hawaii.gov/datasets/parcels-hawaii-statewide
 - 'Government Land Ownership' (2017):
 http://geoportal.hawaii.gov/datasets/government-land-ownership
 - State of Hawaii Office of Planning Hawaii Statewide GIS: http://planning.hawaii.gov/gis/download-gis-data-expanded
 - Agricultural Land Use Baseline (2015)
- Data Analysis
 - Performed spatial join of the data layers 'Parcels Hawaii Statewide' and 'Government Land Ownership'. This operation merged the two datasets and allowed identification of which parcels were government owned.
 - o Filtered data sets for only categories of interest:
 - Retained only parcels categorized as 'Commercial Forestry' in the Agricultural Land Use Baseline (2015) data layer. Parcels categorized as 'Aquaculture', 'Banana', 'Coffee', 'Dairy', 'Diversified Crop', 'Flowers / Foliage / Landscape', 'Macadamia Nuts', 'Papaya', 'Pasture', 'Pineapple', 'Seed Production', 'Sugar', 'Taro', and 'Tropical Fruits' were removed.
 - Filtered and retained only government-owned parcels ('Govt. County of Hawaii', 'Govt. County of Honolulu', 'Govt. County of Kauai', 'Govt. County of Maui', 'Govt. Federal', 'Govt. State', and 'Govt. State DHHL') in the new, spatially joined 'Government Land Ownership' and 'Parcels Hawaii Statewide' data layer
 - For the filtered government-owned parcels data layer created from the spatially joined 'Government Land Ownership' and 'Parcels – Hawaii Statewide' layers, dissolved all boundaries of parcels with the same ownership that shared a common edge to create contiguous parcels. For instance, if two distinct parcels owned by the same entity touched, they would be merged into a single polygon.
 - The boundaries of the agricultural layer, now only containing parcels categorized as 'Commercial Forestry', were then similarly dissolved.
 - The Commercial Forestry layer was then used to clip out only portions of the government land layer that intersected it, and a new layer was created consisting of contiguous dissolved parcels owned by a single government agency categorized as Commercial Forestry.
 - This previous operation created a "multipart" GIS data layer, which means that a single entry in the data table can encompass multiple spatially distinct polygons that do not touch. To split out each of those spatially distinct polygons, the "multipart to single-part"

tool was used to create distinct table entries for each of those polygons. The ID number used to identify the original multi-part parcel was retained if needed for future reference to group agricultural polygons. After splitting the single parts into multiple, the acreage for each individual part was calculated.

CAVEATS:

- 1. Considers only lands that were in commercial forestry use in 2015.
- 2. The software joins parcels that touch at any point, even if only at a single point or corner. Therefore, the size of some parcels may be overestimated (i.e., a large parcel in the dataset might actually be multiple smaller parcels that touch at a single point).
- 3. Parcels may be managed as a single unit but are under different ownership (e.g., an entity leases adjacent land from both the state and the county and manages the land as a single unit). These parcels are not considered a single parcel in the dataset.

Results

| Government Entity | Total Number of Parcels (≥ 5 contiguous acres) |
|--------------------------|--|
| Govt. County of Hawaii | 201 |
| Govt. County of Honolulu | 1 |
| Govt. County of Kauai | 5 |
| Govt. County of Maui | 0 |
| Govt. Federal | 2 |
| Govt. State | 737 |
| Govt. State DHHL | 0 |
| Total | 946 |