

NPDES and Hawaii Aquaculture Facilities

Hawaii Aquaculture Association
8th Annual Conference
July 12, 2007
Kapi'olani Community College



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NPDES and Hawaii Aquaculture Facilities

- Overview of the NPDES Program
- Permit Requirements for Concentrated Aquatic Animal Production (CAAP) Facilities and Aquaculture Projects
- Compliance with Regulations
- Questions?

Overview of the NPDES Program



Overview of the NPDES Program

The mission of the Clean Water Branch is to protect the public health of residents and tourists who recreate in and on Hawaii's coastal and inland water resources, and to also protect and restore inland and coastal waters for marine life and wildlife.



Overview of the NPDES Program

National Pollutant
Discharge Elimination System
Permit Program

In 1974, the EPA delegated
permitting authority to the
Department of Health
Clean Water Branch



Overview of the NPDES Program

- NPDES Federal Law and Regulation
 - Clean Water Act (CWA)
 - CWA, Section 301(a) – No discharge to waters of the U.S. without a permit
 - CWA, Section 402 – Established the NPDES Program
 - <http://www.epa.gov/region5/water/cwa.htm>
 - Code of Federal Regulations, Title 40 (40 CFR) Protection of Environment
 - <http://www.gpoaccess.gov/cfr/index.html>
 - <http://www.access.gpo.gov/cgi-bin/cfrassemble.cgi?title=200640> (revised July 1, 2006)

Overview of the NPDES Program

- NPDES State Statutes and Rules
 - Hawaii Revised Statutes, Chapter 342D - Water Pollution
 - http://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0342D
 - Hawaii Administrative Rules (HAR), Chapter 11-55 - Water Pollution Control
 - HAR, Chapter 11-54 – Water Quality Standards
 - <http://www.hawaii.gov/health/about/rules/admrules.html>

Overview of the NPDES Program

Beginning of the NPDES Permit Program

40 CFR Part 122

Regulates the discharges of wastewaters from municipal, industrial and federal facilities, such as:

- Wastewater treatment plant effluent
- Power plant process wastewater
- Concentrated animal feeding operation
- Concentrated aquatic animal production
- Sugar mill operation
- Mineral mining
- And more



Overview of the NPDES Program

Storm Water Phase I - 1990 and Phase II - 1999

40 CFR §122.26

Regulates the discharges of storm water from certain municipal and industrial facilities and construction activities, such as:

- Industrial activities at ground transportation facilities
- Construction of a housing subdivision (see next slide)
- State Department of Transportation Municipal Separate Storm Sewer Systems (MS4s)
- And more



Overview of the NPDES Program

Construction Storm Water

- Coverage under an NPDES storm water permit is required for construction activities, including clearing, grading and excavation, that result in the disturbance of **one (1) or more acres** of total land area.

Note: The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale.

Overview of the NPDES Program

Types of NPDES Permit

- General permit
- Individual permit

Overview of the NPDES Program

General Permit

- Adopted as rules (HAR, Chapter 11-55)
- Similar nature of discharge
- Minor and Non-controversial
- Discharge initially enters either Class 2, Inland water or Class A, Marine water
- 30 days to process (with complete Notice of Intent)
- \$500 Filing Fee
- Good for up to five (5) years

The current General Permits will expire on November 6, 2007.

Overview of the NPDES Program

Individual NPDES Permit

- Discharge does not qualify for general permit coverage
- Custom made (site-specific)
- 180 days or more to process (with complete application)
- \$1,000 Filing Fee
- Applicant responsible for publication fee
- Good for up to five (5) years

Overview of the NPDES Program

How to Obtain the Latest NPDES Applications, Forms and Guidelines?

Clean Water Branch Website

<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/index.html>

Concentrated Aquatic Animal Production Facilities and Aquaculture Projects Permit Requirements



Permit Requirements

NPDES permits are needed for discharges:

- associated with concentrated aquatic animal production facilities (40 CFR §122.24)
- of pollutants from facilities that produce 100,000 pounds or more of aquatic animals per year in a flow-through, recirculating, net pen or submerged cage system (40 CFR Part 451)
- associated with aquaculture projects (40 CFR §122.25)

Permit Requirements

Excerpt from <http://www.epa.gov/waterscience/guide/aquaculture/>

“On June 30 2004, [the EPA] finalized a new rule establishing effluent limitations guidelines (ELGs) for concentrated aquatic animal production (CAAP), or aquaculture, facilities. The regulation will apply to CAAP facilities that generate wastewater from their operations and discharge that wastewater directly into waters of the United States.

The CAAP ELGs will help reduce discharges of conventional pollutants, primarily total suspended solids. The regulation will also help reduce non-conventional pollutants such as nutrients. To a lesser extent, the regulation will reduce the discharge of drugs that are used to manage fish health and chemicals, such as those used to clean fish tanks and nets.”

Permit Requirements

Concentrated Aquatic Animal Production (CAAP) Facilities

Definition from 40 CFR §122.24(b)

“... [a] hatchery, fish farm, or other facility which meets the criteria in appendix C of this part, or which the Director [of the EPA] designates under paragraph (c) of this section.”

Permit Requirements

CAAP Facilities

Definition from 40 CFR §122.24(c)

“*Case-by-case designation of concentrated aquatic animal production facilities.* (1) The Director may designate any warm or cold water aquatic animal production facility as a concentrated aquatic animal production facility upon determining that it is a significant contributor of pollution to waters of the United States. In making this designation the Director shall consider the following factors:

(i) The location and quality of the receiving waters of the United States;

Permit Requirements

CAAP Facilities

Definition from 40 CFR §122.24(c) (continued)

“(ii) The holding, feeding, and production capacities of the facility;

(iii) The quantity and nature of the pollutants reaching waters of the United States; and

(iv) Other relevant factors.

(2) A permit application shall not be required from a concentrated aquatic animal production facility designated under this paragraph until the Director has conducted on-site inspection of the facility and has determined that the facility should and could be regulated under the permit program.”

Permit Requirements

CAAP Facilities

Appendix C to 40 CFR, Part 122

Criteria for Determining a Concentrated Aquatic Animal Production Facility (§122.24)

“A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purposes of §122.24 if it contains, grows, or holds aquatic animals in either of the following categories:

Permit Requirements

CAAP Facilities

Appendix C to 40 CFR, Part 122 (continued)

“(a) Cold water fish species or other coldwater aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:

(1) Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and

(2) Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.

Permit Requirements

CAAP Facilities

Appendix C to 40 CFR, Part 122 (continued)

“(b) Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:

(1) Closed ponds which discharge only during periods of excess runoff; or

(2) Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

Permit Requirements

CAAP Facilities

Appendix C to 40 CFR, Part 122 (continued)

“‘Cold water aquatic animals’ include, but are not limited to, the *Salmonidae* family of fish; e.g., trout and salmon.

‘Warm water aquatic animals’ include, but are not limited to, the *Ameiuride*, *Centrarchidae* and *Cyprinidae* families of fish; e.g., respectively, catfish, sunfish and minnows.”

Permit Requirements

Aquaculture Projects

Definition from 40 CFR §122.25(b)(1)

“... [a] defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals.”

Permit Requirements

Aquaculture Projects: Designated Project Area

Definition from 40 CFR §122.25(b)(2)

“... the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.”

Permit Requirements

Construction of CAAP Facilities and/or Aquaculture Projects (disturbing one (1) or more acre of land)

May obtain coverage under General Permit

- Submit the following:
- CWB-NOI Form C
 - \$500 Filing Fee

Permit Requirements

Operation of CAAP Facilities and/or Aquaculture Projects

Obtain coverage under NPDES Individual Permit

Submit the following:

- CWB-NPDES Signatory and Certification Statement to NPDES Permit Applications
- EPA Form 1
- For an Existing Facility – EPA Form 2C
- For a New Facility – EPA Form 2D
- \$1,000 Filing Fee

Permit Requirements

Operation of CAAP Facilities and/or Aquaculture Projects

Discharging into Injection Wells

The existing underground injection control (UIC) regulations indicate that “wells used to inject fluids that have undergone chemical alteration during... aquaculture...” are classified as Class V injection wells. (40 CFR §146.5(e)(12))

Contact the Safe Drinking Water Branch at 586-4258 or by email at sdwb@doh.hawaii.gov for Underground Injection Control (UIC) permitting requirements.

Compliance

1. Legal Duty - Definitions

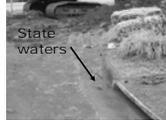
- **Person** – includes everyone (e.g., human, partnership, corporation, trust, government agencies [including counties, state, and federal])
- **Water Pollutant** – means anything except pure water (e.g., silt, oil, litter);

HRS §342D-1 defines “Water Pollutant” as:
“Dredged spoil, solid refuse, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil, sediment, cellar dirt and industrial, municipal, and agricultural waste.”

Compliance

1. Legal Duty – Definitions (continued)

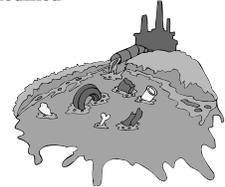
- **State Waters** – means all waters, fresh, brackish, or salt, around and within the State, including but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as part of a water pollution control system are excluded.



Compliance

2. Legal Duty: Don't violate DOH rules or permits.

HRS §342D-50(d): No person, including any public body, shall violate any rule adopted pursuant to this chapter or any permit or variance issued or modified pursuant to this chapter.



Compliance

3. Legal Duty: Don't harm water quality.

HAR, Chapter 11-54, "Water Quality Standards"

- Includes narrative (subjective) and numerical (objective) standards.
- Both types are enforceable.
- Subjective standards can be enforced without water samples in many cases.



Compliance

3. Legal Duty: Don't harm water quality (cont.)

Basic water quality criteria is applicable to all waters. Narrative standards include some of the following from HAR, §11-54-4(a):

"All waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants, including:

- (1) Materials that will settle to form objectionable sludge or bottom deposits;
- (2) Floating debris, oil, grease, scum or other floating materials;

Compliance

3. Legal Duty: Don't harm water quality (cont.)

- (3) Substances in amounts sufficient to produce taste in the water or detectable off-flavor in the flesh of fish, or in amounts sufficient to produce objectionable color, turbidity, or other conditions in the receiving waters.
- (4) High or low temperatures; biocides; pathogenic organisms; toxic, radio active, corrosive or other deleterious substances at levels or in combinations sufficient to be toxic or harmful to human, animal, plant, or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water.

Compliance

3. Legal Duty: Don't harm water quality (cont.)

- (5) Substances or conditions or combinations thereof in concentrations which produce undesirable aquatic life;
- (6) Soil particles resulting from erosion on land involved in earthwork, such as the construction of public works; highways, subdivisions, recreational, commercial, or industrial developments; or the cultivation and management of agricultural lands." [emphasis added]

Compliance

4. Legal Duty: No “illicit discharges” to storm water systems.

Illicit Discharge

Definition from 40 CFR §122.26(b)(2)

“... any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.”

Compliance

4. Legal Duty: No “illicit discharges” to storm water systems.

- There should be no non-storm water discharges into State waters except for NPDES permitted discharges and *certain non-storm water discharges* provided that the discharges are not a source of pollutants [40 CFR §122.26(d)(2)(iv)(B)(1)].

Note: Examples of *certain non-storm water discharges* include: fire hydrant testing water, air condition condensation; spring water; residential car washing; lawn watering; street wash water; and others

Compliance

Helpful Website Links

- Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category <http://www.epa.gov/waterscience/guide/aquaculture/guidance/D1-40CFR122-24.pdf>
- Aquaculture Operations - Laws, Regulations, Policies, and Guidance <http://www.epa.gov/agriculture/anaquilaw.html>
- Aquaculture Operations- Best Management Practices <http://www.epa.gov/agriculture/anaqubmp.html>

Compliance

5. Consequences of Non-Compliance

- Warning Letter - Notice of Apparent Violation (NAV) or Notice of Potential Violation (NPV) letter
- Administrative / Civil Penalties - Notice and Finding of Violation and Order (NFVO) - monetary penalties up to \$25,000 per day per violation.
- Criminal Enforcement - monetary penalties up to \$50,000 per day per violation and jail time possible

The Clean Water Branch Goal



Keeping Hawaii’s water clean for “Beneficial uses” which include...



recreation...



...and the protection and propagation of fish and aquatic life.



For More Information, Contact:

Clean Water Branch
919 Ala Moana Blvd., Rm. 301
Honolulu, Hawaii 96814-4920
Phone: 586-4309
Fax: 586-4352
Email: cleanwaterbranch@doh.hawaii.gov

<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>



Questions?



Thank you!

