NPDES and Hawaii Aquaculture Facilities

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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.

National Pollutant Discharge Elimination System Permit Program

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

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

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
- 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](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

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

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

Overview of the NPDES Program

Concentrated Aquatic Animal Production Facilities and Aquaculture Projects

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)

Overview of the NPDES Program

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.”
**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;
   (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.

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**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:

(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.

(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.

‘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.)

“(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, radioactive, 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
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
Helpful Website Links

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:

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Questions?

Thank you!