

MAINE STATE LEGISLATURE

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115th MAINE LEGISLATURE

FIRST REGULAR SESSION-1991

Legislative Document

No. 810

H.P. 567

House of Representatives, February 25, 1991

Reference to the Committee on Marine Resources suggested and ordered printed.

A handwritten signature in cursive script that reads "Ed Pert".

EDWIN H. PERT, Clerk

Presented by Representative STEVENS of Bangor.

Cosponsored by Representative HOLT of Bath, Representative MITCHELL of Freeport and Representative MARSH of West Gardiner.

STATE OF MAINE

IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND NINETY-ONE

**An Act Regarding Siting, Monitoring and Husbandry Practices in
Aquaculture.**

Be it enacted by the People of the State of Maine as follows:

2
4 Sec. 1. 7 MRSA §1808-A is enacted to read:

6 §1808-A. Aquacultural use of antibiotics

8 A person may not introduce into the waters of the State at
10 any aquaculture leasehold site, either through fish feed or
direct application, any antibiotic without registering the
antibiotic in advance with the Board of Pesticides Control.

12 1. Notice. A person may not introduce into the waters of
14 the State at any aquaculture leasehold site any antibiotic
16 without posting written public notice in the United States Post
18 Office nearest the leasehold site, in the town office nearest the
leasehold site and in a newspaper of general circulation that
serves the region of the leasehold site, at least 24 hours prior
to application, the following information:

20 A. The name, address and telephone number of the
22 aquaculture leaseholder;

24 B. The name of the person or persons responsible for
applying the antibiotic;

26 C. The name of the antibiotic to be applied;

28 D. The dosage to be applied;

30 E. The time of treatment; and

32 F. The reason for treatment.

34 Sec. 2. 12 MRSA §6071, sub-§§1 and 2, as enacted by PL 1977, c.
36 661, §5, are amended to read:

38 1. Live importing prohibited. It shall-be is unlawful to
40 introduce or import for introduction into any coastal waters any
live marine organism or to possess any of those introduced or
42 imported organisms without a permit issued by the commissioner.
A permit may not be granted for the importation or introduction
44 of any species exotic to the Gulf of Maine. This subsection
applies to the introduction of imported live marine organisms for
all purposes including aquaculture.

46 2. Permits and regulations on importing. The commissioner
48 may grant permits to possess, import and introduce an organism if
these these actions will do not endanger the indigenous marine
50 life or its environment. Prior to granting a permit to introduce
a-nonindigenous an organism,--which that has not been previously
introduced under a permit, the commissioner shall hold a hearing.

2 This hearing may not be combined with any other hearing held by
3 the commissioner. The commissioner may adopt or amend
4 regulations rules governing the importing and introduction of
5 organisms and the issuing of permits, to the extent required to
6 prevent the introduction of bacteria, fungus, virus or any other
7 infectious or contagious disease or parasite, predator or other
8 organism that may be dangerous to indigenous marine life or its
environment.

10 **Sec. 3. 12 MRSA §6072, sub-§4, ¶¶I and J, as enacted by PL 1987,**
11 **c. 453, §1, are amended to read:**

12 I. Describe the ~~proposed-source~~ origin of organisms to be
13 grown at the site; and

14 J. Include a nonrefundable application fee of at least
15 \$100, but not more than \$1,000, the amount to be set by the
16 commissioner depending on the proposed acreage, type of
17 aquaculture proposed and complexity of the application.

18 **Sec. 4. 12 MRSA §6072, sub-§4, ¶¶K to W are enacted to read:**

19 K. Include the development and maintenance schedule;

20 L. Include the size, number and configuration of net pens
21 during the first year of operation and the eventual level of
22 development;

23 M. Include the size, number and placement of the anchoring
24 system;

25 N. Include estimates of annual production in pounds during
26 the first year of operation and the eventual level of
27 development;

28 O. Include estimates of average and maximum stocking
29 density in pounds per cubic foot;

30 P. Include the proposed method of harvesting;

31 Q. Include the type and amount of feed to be used and the
32 method of feeding;

33 R. Include predator control measures;

34 S. Include location and methods for cleaning the nets;

35 T. Establish the waste management plan for dead fish and
36 human wastes;

37 U. Describe the use of antibiotics and antifoulants;

2 V. Include the location and description of all activities
4 within a 2000-foot radius of the net-pen operation; and

6 W. Include a site characterization report pursuant to Title
8 38, section 417-A.

10 **Sec. 5. 12 MRSA §6072, sub-§5, as amended by PL 1987, c. 453,**
12 **§1, is further amended to read:**

14 **5. Application review.** The commissioner shall review the
16 application and set a hearing date if he-is satisfied that the
18 written application is complete, the application indicates that
20 the lease could be granted and the applicant has the financial
22 and technical capability to carry out the proposed activities. A
copy of the completed application and notice of hearing shall
must be forwarded to the municipality or municipalities in which
or adjacent to which the lease is proposed. A municipality shall
must be granted intervenor status upon written request. The
commissioner shall distribute copies of the completed application
to all relevant state and federal resource agencies and fishing
industry groups for review.

24 **Sec. 6. 12 MRSA §6072-A is enacted to read:**

26 **§6072-A. Predator control devices**

28 **1. Sound-emitting devices.** Employing sound-emitting
30 devices to repel seals from aquaculture operations is unlawful.

32 **2. Predator-control nets.** Nets placed above net pens to
34 protect fish from predation by birds must be clearly marked to
avoid entanglement of birds in the nets.

36 **Sec. 7. 12 MRSA §6077 is enacted to read:**

38 **§6077. Public right to know**

40 Except as provided in subsection 1, information obtained by
the department under this subchapter and by the Department of
Environmental Protection, Title 38, section 417-A is a public
42 record as provided by Title 1, chapter 13, subchapter I.

44 **1. Exception.** Information that is a trade secret or
46 production, commercial or financial information the disclosure of
which impairs the competitive position of the aquaculture
leaseholder is only for the confidential use of the department
48 and the Department of Environmental Protection, their agents and
employees, other agencies of State Government as authorized by
50 the Governor, employees of the United States Environmental
Protection Agency, the Attorney General and employees of the
52 municipality in which the aquaculture operation is located.

2 **Sec. 8. 38 MRSA §413, sub-§2-F, ¶B,** as enacted by PL 1987, c.
769, Pt. A, §173, is amended to read:

4
6 B. As a condition of obtaining a leasehold from the
Department of Marine Resources, the Department of
8 Environmental Protection certifies that the aquaculture
activities mentioned in this subsection will not have a
10 significant adverse effect on water quality or violate the
standards ascribed to the receiving waters' classifications
12 and that the activities will satisfy the requirements of
section 417-A.

14 **Sec. 9. 38 MRSA §§417-A and 417-B** are enacted to read:

16 §417-A. Net-pen aquaculture

18 1. Prohibition. A person may not operate a net-pen
aquaculture facility unless the department certifies under
20 section 413, subsection 2-F, paragraph A that the facility will
not have a significant adverse effect on water quality or violate
22 the standards ascribed to the receiving waters' classifications
and that the facility will satisfy the requirements of this
24 section.

26 2. Categories; net-pen operations. Net-pen aquaculture
operations are classified according to the following finfish
28 production levels.

30 A. Category I is an annual finfish production of less than
20,000 pounds.

32 B. Category II is an annual finfish production of not less
34 than 20,000 pounds or more than 100,000 pounds.

36 C. Category III is an annual finfish production of more
38 than 100,000 pounds.

40 3. Site characterization. The department shall require a
site characterization report before aquaculture activities may
begin on a site. The site characterization consists of a
42 bathymetry survey, a hydrography survey and a diver survey.

44 A. A bathymetry survey must be performed to identify any
bathymetric feature that may affect the accumulation of
46 excess feed and feces. Transects must be established with a
density and spacing that adequately characterizes the
48 bathymetry under the proposed net-pen operation and within
300 feet of the proposed net-pen operation perimeter.

50 B. A hydrography survey must be performed to characterize
52 current velocities and directions. Current velocity and

2 direction measurements must be made at the center of the
3 proposed net-pen operation, 6 feet below the surface and 3
4 feet above the ocean floor. Ten periodic measurements
5 distributed evenly during one complete tidal cycle that is
6 neither neap nor spring tide are required. A Category III
7 net-pen operation must collect drogue tracking data to
8 estimate the depositional pattern of particulate matter
9 under and near the proposed net-pen operation. Drogues must
10 be released at the center of the proposed net-pen operation,
11 6 feet below the surface and 3 feet above the ocean floor
12 and tracked for a minimum of 8 hours. A Category III
13 net-pen operation also is required to complete vertical
14 profiles of salinity, temperature and dissolved oxygen.
15 These measurements must be made at depths of one, 10, 20 and
16 30 feet and at 30-foot intervals thereafter. Any
17 site-specific information collected during previous studies
18 must be reported to the department.

19 C. A diver survey is required to identify any potentially
20 significant habitats under and near a proposed net-pen
21 operation. The department shall design the survey based on
22 information at the site. The diver survey must also include
23 an inventory of marine organisms found at the site, both
24 types and density of species, including but not limited to
25 lobsters, scallops, demersal fish, clams and eel grass. The
26 diver must note the presence or absence of Beggiatoa and
27 describe the substrate.

28 4. Siting criteria; rules. The department shall adopt
29 rules governing the siting of aquaculture activities based on the
30 following criteria.

31 A. The minimum depth of water required under the net pens
32 must be calculated according to the following formula.

33 (1) Minimum depth equals 0.0003 multiplied by the
34 anticipated production minus 0.425 multiplied by the
35 mean current velocity plus 31.

36 Current velocity must be measured 3 feet above the ocean
37 floor.

38 B. A net-pen aquaculture site must be sited:

39 (1) At least 1/4 mile from a public park;

40 (2) At least 500 feet from any habitat determined
41 significant by the Department of Marine Resources.
42 These habitats may include, but are not limited to,
43 eelgrass beds and important feeding and spawning
44 habitats for lobsters, scallops, shellfish and other
45 important indigenous species;

2 (3) At least 1/2 mile from a wildlife refuge and any
4 habitat of threatened and endangered species; and

6 (4) At least 1/2 mile from any existing net-pen
8 operation.

10 5. Monitoring. The department shall require monitoring at
12 each aquaculture site. These requirements include the following.

14 A. A baseline survey is required for all Category III
16 net-pen aquaculture sites. A baseline survey must be
18 completed after the net pens are in place but before fish
20 are placed in the net pens. Six sampling stations must be
22 established for the baseline survey. Five sampling stations
must be located at distances of zero, 20, 50, 100 and 200
feet from the perimeter of the net pens in the downcurrent
direction. The 6th sampling station must be located at
least 500 feet from the perimeter of the net pens and must
have similar biological and physical characteristics as the
area under the net pens. The baseline survey must include
the following.

24 (1) Sediment chemistry samples must be collected in
26 replicates of 3 at each sampling station. Sediment
28 samples may be collected by a diver core sampler or a
30 grab or box corer. Cores must be inserted at least 2
inches into the sediment. Each replicate must be
analyzed as a distinct sample and analyzed for:

32 (a) Total organic carbon;

34 (b) Total Kjeldahl nitrogen;

36 (c) Grain size distribution measured by median
phi and percent gravel, sand, silt and clay; and

38 (d) Redox potential discontinuity depth.

40 (2) Benthic infauna samples must be collected in
42 replicates of 3 at each sampling station. Benthic
44 infauna samples may be collected with a core sampler
46 having a minimum area of 0.01 square meter or by a grab
48 or box corer having a minimum area of 0.1 square
meter. If subsamples are taken from a grab or box
corer for the sediment chemistry analysis, a subsample
may be used for benthic infauna analysis, provided that
no more than 1/4 of the surface of each sample is
removed for the sediment chemistry analysis. All
50 benthic infauna samples must be sieved on a 0.5
millimeter screen or nested 1.0 and 0.5 millimeter

2 screens. All macrofaunal organisms retained on the
3 screens must be identified to the lowest practical
4 taxonomic level as determined by the department.

5 B. Annual monitoring of net-pen aquaculture sites is
6 required by the department. Category I aquaculture
7 operations are exempt from annual monitoring requirements.
8 The annual monitoring program consists of the following
9 components.

10 (1) A benthic survey for a Category III aquaculture
11 operation must include diver observations, sediment
12 chemistry and benthic infauna sampling. A benthic
13 survey for a Category II aquaculture operation requires
14 diver observations only. Diver observations must be
15 made pursuant to subsection 2, paragraph C. Estimates
16 of the depth of feed and feces accumulation are
17 required at 20-foot intervals along each transect until
18 the distance at which accumulation is not visible. In
19 addition, diver observations must include a survey of
20 organisms in the area. Sediment chemistry and benthic
21 infauna samples must be collected and analyzed for
22 annual monitoring pursuant to paragraph A.

23 (2) A water quality survey must be completed annually
24 during August. Samples must be collected at a depth
25 midway between the surface and the bottom of the net
26 pens, 100 feet upcurrent of the net pens, 100 feet
27 downcurrent of the net pens and 20 feet downcurrent of
28 the net pens. Samples must be taken within one hour of
29 slack tide. Samples must be analyzed for dissolved
30 oxygen, temperature, pH, ammonia, nitrite, nitrate and
31 the concentration of un-ionized ammonia.

32 (3) A hydrographic survey must include annual
33 measurements of current velocity taken midway between
34 the surface and the bottom of the net pens. A single
35 current velocity measurement must be taken concurrently
36 with the water quality sample at the 20-foot
37 downcurrent station. Loading estimates must be
38 calculated for ammonia, nitrite and nitrate based on
39 the following:

40 (a) The net increase in concentration between the
41 upcurrent station and the 20-foot downcurrent
42 station;

43 (b) The current velocity at the 20-foot
44 downcurrent station;

45 (c) The cross-sectional area of the net-pen
46 operation; and

2 (d) The total weight of fish at the site during
4 the water quality survey.

6 (4) A report of the number of fatalities of marine
8 mammals and marine birds at the leasehold site.

8 **§417-B. Public right to know**

10 Except as provided in subsection 1, information obtained by
12 the department under this section and by the Department of Marine
14 Resources, Title 12, subchapter II is a public record as provided
16 by Title 1, chapter 13, subchapter I.

18 1. Exception. Information that is a trade secret or
20 production, commercial or financial information the disclosure of
22 which impairs the competitive position of the aquaculture
24 leaseholder is only for the confidential use of the department
26 and the Department of Marine Resources, their agents and
28 employees, other agencies of State Government as authorized by
30 the Governor, employees of the United States Environmental
32 Protection Agency, the Attorney General and employees of the
34 municipality in which the aquaculture operation is located.

26 **STATEMENT OF FACT**

28 This bill requires the registration of antibiotics with the
30 Board of Pesticides Control before their use in aquaculture
32 operations. In addition, written public notice is required
34 before antibiotics may be applied in aquaculture operations. The
36 bill also prohibits the importation or introduction of any
38 species exotic to the Gulf of Maine.

40 This bill also requires additional information in
42 aquaculture lease applications to the Department of Marine
44 Resources. The bill also requires the Commissioner of Marine
46 Resources to distribute copies of the lease application to
48 relevant state and federal agencies as well as fishing industry
50 groups prior to the public hearing of any lease application.

52 This bill also establishes 3 classes of aquaculture
54 production and requires the Department of Environmental
56 Protection to establish rules for site characterization, baseline
58 surveys and annual monitoring of net-pen aquaculture sites for
60 water quality certification.

62 This bill also establishes that information obtained by the
64 permitting agencies is public record except for information that
66 is proprietary in nature.