MAINE STATE LEGISLATURE

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114th MAINE LEGISLATURE

SECOND REGULAR SESSION - 1990

Legislative Document

No. 2352

H.P. 1703

House of Representatives, February 23, 1990

Approved for introduction by a majority of the Legislative Council pursuant to Joint Rule 26.

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

EDWIN H. PERT, Clerk

Presented by Representative STEVENS of Bangor.
Cosponsored by Representative CARTER of Winslow, Senator BRANNIGAN of Cumberland and Representative MARSH of West Gardiner.

STATE OF MAINE

IN THE YEAR OF OUR LORD NINETEEN HUNDRED AND NINETY

An Act to Ensure and Maintain Water Quality.



2	Be it enacted by the People of the State of Maine as follows:
	PART A
4	Sec. A-1. 38 MRSA §361-A, sub-§4-A, as enacted by PL 1973, c.
6	450, §3, is amended to read:
8	4-A. Pollutant. "Pollutant" means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent,
10	garbage, sewage sludge, munitions, chemicals, aquacultural feed, including medicated feed, biological or radiological materials,
12	oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal,
14	domestic, commercial or agricultural wastes of any kind.
16	Sec. A-2. 38 MRSA §413, sub-§2-F, ¶B, as enacted by PL 1987, c. 769, Pt. A, §173, is amended to read:
18	
20	B. As a condition of obtaining a leasehold from the Department of Marine Resources, the Department of Environmental Protection certifies that the aquaculture
22	activities mentioned in this subsection will not have a significant adverse effect on water quality or violate the
24	standards ascribed to the receiving waters' classifications and that the activities satisfy the requirements of section
26	417-A.
28	Sec. A-3. 38 MRSA §417-A is enacted to read:
30	§417-A. Net-pen aquaculture
32	1. Siting criteria; rules. The department shall adopt rules governing the siting of aquaculture activities based on the
34	following criteria.
36	A. Mean current velocity of the affected water as measured midway between the bottom of the net-pens and the ocean
38	floor must not be less than 5 centimeters per second and must be adequate to ensure good water exchange given other
40	specific characteristics of the proposed leasehold site. Substantial tidal flow is not considered a substitute for
42	good water exchange.
44	B. Minimum depth of water beneath the bottom of the

characteristics of the proposed leasehold site.

net-pens at mean low water must not be less than 30 feet and

must be deep enough to ensure dispersion of feces, pseudofeces and waste feed given other specific

C. Annual permitted level of fish production in pounds per year must be limited to production appropriate to the specific characteristics of the proposed leasehold site.

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2	D. Flushing time of semienclosed bodies of water for which leasehold sites are proposed must be adequate, given other
4	specific characteristics of the site, to prevent the stimulation of phytoplankton growth and the upwelling of
6	oxygen depleted water.
8	E. Regions where water characteristics and seabed features promote accumulation of sediment or produce depositional
10	bottom sediments shall be avoided as leasehold sites.
12	F. Water column stability at the proposed leasehold site must be appropriate to ensure dispersion of wastes and
14	regions of strong pycnocline must be avoided.
16	G. Natural levels of nutrients in waters at the proposed leasehold site must be appropriate to ensure that soluble
18	<u>nutrients from net-pen activities are not introduced into regions of nutrient-limited waters where the nutrients risk</u>
20	stimulating planktonic or benthic algal blooms.
22	H. The area affected by any aquaculture activity, including patterns of sedimentation outfall from net-pens, may not
24	exceed 5 acres.
26	I. The minimum distance between leasehold sites for aquaculture activities must be at least 2,500 feet under the
28	best site conditions and at least 5,000 feet under lesser conditions.
30	
32	2. Moratorium. The department may not certify any net-pen aquaculture activities under section 413, subsection 2-F, paragraph B, prior to adoption of rules under this section.
34	3. Monitoring. The department shall require monitoring at
36	each aquaculture leasehold site. These requirements include the following.
38	A. Water column measurements must be taken at the leasehold
40	site before fish are placed in the net-pens and subsequently during January, May, the period between July 15th and August
42	15th, and October of each year according to generally
44	accepted scientific protocols. The measurements must be taken at slack water, ebb tide, 10 feet upstream of the
46	net-pens, 10 feet downstream of the net-pens, 100 feet upstream of the net-pens, 100 feet downstream of the
4.0	net-pens and in the middle of the net-pens. Each of these
48	locations must be tested at 4 water depths: at or near the surface; mid-level of net-pen depth; 5 feet below the depth
50	of the net-pens; and within one foot of the bottom. The measurements include the following parameters of the water

column:

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2	(1) Dissolved oxygen;
	(2) Ammonium (NH4+);
4	(3) Settleable solids;
	(4) Biological oxygen demand;
6	(5) Turbidity;
	(6) pH;
, 8	(7) Chlorophyl A;
	(8) Pathogens, including Vibrio spp., Clostridium
10	perfringens and Aeromonas salmonicida; and
	(9) Alexandrium tamarensis, common red tide alga.
12	
	B. Sediment measurements must be taken at the leasehold
14	site before fish are placed in the pens and subsequently
	during January, May, the period between July 15th and August
16	15th, and October of each year according to generally
	accepted scientific protocols. The measurements must be
18	taken in the sediment beneath the net-pens, 10 feet upstream
10	of the net-pens and 10 feet downstream of the net-pens, 100
20	feet upstream of the net-pens and 100 feet downstream of the
20	
22	net-pens. Each of these measurements must include sediment
22	from the surface to a depth of 4 inches. The measurements
2.4	include the following parameters of the sediment:
24	
2.6	(1) Pathogens, including Vibrio spp., Clostridium
26	perfringens and Aeromonas salmonicida;
٠	(2) Antibiotics;
28	(3) Antibiotic resistant bacteria;
	(4) Indigenous biota, including invertebrates and
30	benthic algae as the department may specify;
<u>. </u>	(5) Hydrogen sulfide; and
32	(6) Cysts of Alexandrium tamarensis.
34	C. Collection and preparation of data required in this
	subsection must be accomplished by agents or agencies
36	independent of the net-pen leaseholder and approved by the
	Commissioner of Environmental Protection. All costs
38	associated with the required measurements, data collection
	and preparation and reporting are the responsibility of the
40	net-pen leaseholder. The department shall be permitted to
	conduct at any time for its own purposes, the tests
42	described in this subsection or other water quality or
	sediment tests as the department may require without advance
44	notice to the leaseholder.
. j. s	
46	4. Reporting requirement. Any net-pen aquaculture
in Kalanga	leasehold is revoked if the exempt leaseholder fails to provide
48	the information required in this section. The department shall
	require this information of all leaseholders after the net-pens
50	are positioned but before fish are placed in them. The
	department shall require this information on or before December
52	31st of each year following the year the exemption was granted.

2		Water quality violation. Annually, prior to March 31st,
	<u>the</u>	department shall review the information required under this
4	sect	ion. Failure to meet the following standards constitutes a
	<u>viol</u>	ation of the lease under Title 12, section 6072:
6		
		A. Dissolved oxygen, greater than 6 parts per million;
8		
	,	B. Ammonia, less than 3 parts per million;
10		
		C. Settleable solids, trace amounts only, "trace" as defined
12		in this paragraph means those accumulations that will not
		render the deposition area harmful, detrimental or
14		injurious to legitimate beneficial uses or to fish or
		<pre>other aquatic life;</pre>
16		
		D. Biological oxygen demand, less than 3 parts per million;
18		
		E. Turbidity, less than 5% increase when background
20		level is less than or equal to 50 net turbidity units or
		less than 10% increase when background level is
22		greater than 50 net turbidity units;
24		F. pH, greater than 7.0;
26		G. Chlorophyl A, no perceptible increase above base line,
		beyond normal expected variability;
28		
		H. Antibiotic resistant bacteria, none present;
30		
		I. Alexandrium tamarensis, no perceptible increase in
32		population or cysts above base line, beyond normal
		<pre>expected variabilty;</pre>
34		
		J. Antibiotics, none present;
36		
		K. Indigenous biota, no perceptible change in
38		population or in natural community structure;
		The state of the s
40		L. Hydrogen sulfide, no perceptible increase above
		<pre>base-line titres; and</pre>
42		
		M. Pathogens, none present.
44		
		PART B
46		
		Sec. B-1. 7 MRSA §606, sub-§2, ¶F as amended by PL 1983, c.
48	558,	§1, is further amended to read:
50		F. For any person to refuse or otherwise fail to comply
		with the provisions of this subchapter, the regulations

2	commissioner; or of any lawful order of the
4	Sec. B-2. 7 MRSA $\S606$, sub- $\S2$, \PG as repealed and replaced by PL 1985, c. 506, Pt. A, $\S6$, is amended to read:
6	
8	G. For any person to apply pesticides in a manner inconsistent with rules for pesticide application adopted by the board, which rules are designed to minimize pesticide
10	drift to the maximum extent practicable under currently available technology. Without limitation, these rules may
12	prescribe procedures to be used for the application of pesticides, including the time, place, manner and method of
14	that application, may restrict or prohibit use of pesticides in designated areas or during specified periods of time and
16	may prescribe tolerance levels for pesticide residues in off-target areas. The board shall propose the rules by June
18	15, 1985+ <u>;</u>
20	Sec. B-3. 7 MRSA §606, sub-§2, ¶¶ H and I are enacted to read:
22	H. For any person to apply pesticides, fungicides, plant regulators, defoliants, disinfectants, algicides, chemical
24	treatments, anesthetics or antifoulants to any aquaculture structure, net-pen or leasehold site without registering
26	these chemicals in advance with the Board of Pesticides Control and without first posting written public notice of
28	the following information at least 24 hours prior to application in the United States Post Office nearest the
30	leasehold site, in the town office nearest the leasehold site and in a newspaper of general circulation that serves
32	the region of the leasehold site:
34	(1) Name, address and telephone number of the aquaculture leaseholder;
36	(2) Name of person or persons responsible for
38	applying treatment;
40	(3) Name and chemical composition of the treatment to be applied;
42	(4) Dosage to be applied;
44	(5) Time of treatment; and
46	(6) Reason for treatment; or
48	I. For tributyltin, TBT, to be used as an antifouling agent
50	on aquaculture net-pens or on the surrounding predator control nets.

2	Sec. B-4. 7 MRSA §721-A is enacted to read:
4 :	§721-A. Prohibited aquacultural feed
6	Feed provided to fish at net-pen leasehold sites, must be in pelletized form. A person may not use unpelletized wet feed
8	including minced fish or shellfish in net-pen aquaculture. Dead fish from net-pen culture may not be utilized in fish feed
10	pellets.
12	Sec. B-5. 7 MRSA §1808-A is enacted to read:
14	§1808-A. Aquacultural use of antibiotics
16	A person may not introduce into the waters of the State at any aquaculture leasehold site, either through fish feed or
18	direct application, any antibiotic without registering the antibiotic in advance with the Board of Pesticides Control.
20	1. Notice. A person may not introduce into the waters of
22	the State at any aquaculture leasehold site any antibiotic without posting written public notice of the following
24	information at least 24 hours prior to application in the United States Post Office nearest the leasehold site, in the town office
26	nearest the leasehold site and in a newspaper of general circulation that serves the region of the leasehold site:
28	
30	A. Name, address and telephone number of the aquaculture leaseholder;
32 34	B. Name of person or persons responsible for applying antibiotic;
36	C. Name of the antibiotic to be applied;
38	D. Dosage to be applied;
40	E. Time of treatment; and
42	F. Reason for treatment.
44	Sec. B-6. 7 MRSA §1817 is amended to read:
	§1817. Disposition of carcasses
46	The commissioner may cause the owner to make proper
48	disposition of carcasses of domestic animals, cultured fish and marine animals that have died of, or been condemned for certain
50	contagious or infectious diseases, or carcasses of domestic animals from farms, herds, flocks, aquaculture activities or
52	areas where certain contagious or infectious diseases are or have been present. Proper disposition means burning, burying,

2	rendering or other disposition prescribed by the commissioner. \underline{A} person may not dispose of any fish waste or dead fish from any
4	leasehold aquaculture site in surface waters of the State.
4	
б.	PART C
.8	Sec. C-1. 12 MRSA §6071, sub-§§1 and 2, as enacted by PL 1977, c. 661, §5, are amended to read:
10	
	1. Live importing prohibited. It shall-be is unlawful to
12	introduce or import for introduction into any coastal waters any live marine organism or to possess any of those introduced or
14	imported organisms without a permit issued by the commissioner. A permit may not be granted for the importation or introduction
16	of any species exotic to the Gulf of Maine. This subsection applies to the introduction of imported live marine organisms for
18	all purposes including aquaculture.
20	2. Permits and regulations on importing. The commissioner may grant permits to possess, import and introduce an organism if
22	these <u>these</u> actions will <u>do</u> not endanger the indigenous marine life or its environment. Prior to granting a permit to introduce
24	a nemindigeneus an organism, which has not been previously introduced under a permit, the commissioner shall hold a
26	hearing. This hearing may not be combined with any other hearing held by the commission. The commissioner may adopt or amend
28	regulations governing the importing and introduction of organisms and the issuing of permits, to the extent required to prevent the
30	introduction of bacteria, fungus, virus or any other infectious or contagious disease or parasite, predator or other organism
32	that may be dangerous to indigenous marine life or its environment.
34	Sec. C-2. 12 MRSA §6072, sub§1-A is enacted to read:
36	bee e a an inactiff gov/an babyaria is enacted to read.
38	1-A. Riparian owner. For purposes of this subchapter, "riparian owner" means a shore front property owner whose
	property boundaries are within 1000 feet of the proposed lease
40	boundaries.
42	Sec. C-3. 12 MRSA §6072, sub-§4, ¶¶I and J, as enacted by PL 1987, c. 453, §1, is amended to read:
44	
46	I. Describe the proposed source of organisms to be grown at the site; and
48	J. Include a nonrefundable application fee of at least
50	\$100, but not more than \$1,000, the amount to be set by the commissioner depending on the proposed acreage, type of

aquaculture proposed and complexity of the application.; and

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	Sec. C-4. 12 MKSA §6072, sub-§4, ¶K is enacted to read:
2	~ · · · · · · · · · · · · · · · · · · ·
	K. Include written notification to riparian owners of the
4	lease application and hearing notice.
6	Sec. C-5. 12 MRSA §6072, sub-§7-C is enacted to read:
8	7-C. Escrow. The commissioner shall require as a condition of any lease issued or renewed under this subchapter that the
10	applicant establish and maintain an escrow account or secure a
12	performance bond in the amount required by the department in the draft lease. The funds must be available to meet claims from the
	State or persons for damage caused to the environment by any
14	permitted aquaculture activity. The amount is determined by the nature and production capacity of the aquaculture activities
16	proposed for the lease site as follows:
18	A. Bottom culture, shellfish, \$500;
20	B. Bottom culture, mussels, \$500;
22	C. Suspended culture, shellfish, \$5000; or
24	D. Net-pen culture, finfish,
26	(1) Less than 20,000 pounds annual production \$5000;
28	
30	(2) Greater than or equal to 20,000 pounds annual
2.2	production but less than
32	100,000 pounds annual production \$100,000; or
34	
36	(3) Greater than 100,000 pounds annual production \$500,000.
38	STATEMENT OF FACT
40	
42	This bill establishes discharge standards and monitoring requirements for net-pen aquaculture sites.
44	Part A of the bill applies generally to the Maine Revised Statutes, Title 38, discharge standards and monitoring
46	requirements for net-pen aquaculture sites. Section A-1 of the bill includes aquacultural feed as a pollutant. Sections A-2 and
48	A-3 establish discharge standards and monitoring requirements for
50	net-pen aquaculture sites. Part B applies generally to Title 7 requirements for chemical and feed applications in aquaculture
	sites. Sections B-2 and B-4 require registration of chemicals
52	and antibiotics with the Board of Pesticides Control for

aquaculture purposes. Sections B-3 and B-5 prohibit the use of moist feed and the disposing of dead marine organisms in waters of the State. Part C applies generally to Title 12 aquaculture permits and leases. Section C-1 prohibits the importation of live marine organisms not indigenous to the Gulf of Maine and requires a separate hearing to be held for importing permits. Section C-2 and C-4 defines "riparian owner" and requires that they be notified of aquaculture lease applications. Section C-5 establishes an escrow account for aquaculture leases.