

MAINE STATE LEGISLATURE

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121st MAINE LEGISLATURE

FIRST REGULAR SESSION-2003

Legislative Document

No. 1485

S.P. 491

In Senate, March 31, 2003

An Act To Update Water Quality Criteria

Submitted by the Department of Environmental Protection pursuant to Joint Rule 204.
Reference to the Committee on Natural Resources suggested and ordered printed.

A handwritten signature in cursive script that reads "Joy J. O'Brien".

JOY J. O'BRIEN
Secretary of the Senate

Presented by Senator MARTIN of Aroostook.
Cosponsored by Representative KOFFMAN of Bar Harbor and
Senator: SAWYER of Penobscot.

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

Sec. 1. 38 MRSA §464, sub-§13 is enacted to read:

13. Measurement of dissolved oxygen in riverine impoundments. Compliance with dissolved oxygen criteria in existing riverine impoundments must be measured as follows.

A. Compliance with dissolved oxygen criteria may not be measured within 0.5 meters of the bottom of existing riverine impoundments.

B. Where mixing is inhibited due to thermal stratification in an existing riverine impoundment, compliance with numeric dissolved oxygen criteria may not be measured within that portion of the impoundment below the point of thermal stratification during the time stratification conditions occur, except where such stratification is caused in whole or in part by the operation of a dam.

For purposes of this paragraph, "thermal stratification" means a change of temperature of at least one degree Celsius per meter of depth, causing water below this point in an impoundment to become isolated and not mix with water above this point in the impoundment.

C. Where mixing is inhibited due to natural topographic features in an existing riverine impoundment, compliance with numeric dissolved oxygen criteria may not be measured within that portion of the impoundment that is topographically isolated. Such natural topographic features may include, but not be limited to, natural deep holes or river bottom sills.

Notwithstanding the provisions of this subsection, dissolved oxygen concentrations in existing riverine impoundments must be sufficient to support existing and designated uses of these waters. For purposes of this subsection, "existing riverine impoundments" means all impoundments of rivers and streams in existence as of January 1, 2001 and not otherwise classified as GPA.

Sec. 2. 38 MRSA §465, sub-§3, ¶B, as enacted by PL 1985, c. 698, §15, is amended to read:

B. The dissolved oxygen content of Class B waters shall must be not less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day

2 mean dissolved oxygen concentration shall may not be less
4 than 9.5 parts per million and the 1-day minimum dissolved
6 oxygen concentration shall may not be less than 8.0 parts
8 per million in identified fish spawning areas. Between May
10 15th and September 30th, the number of Escherichia coli
12 bacteria of human or domestic livestock origin in these
14 waters may not exceed a geometric mean of 64 per 100
16 milliliters or an instantaneous level of 427 235 per 100
18 milliliters.

20 **Sec. 3. 38 MRSA §465, sub-§4, ¶B**, as affected by PL 1989, c.
22 890, Pt. A, §40 and amended by Pt. B, §63, is further amended to
24 read:

26 B. The dissolved oxygen content of Class C water may be not
28 less than an instantaneous level of 5 parts per million or
30 60% of saturation, whichever is higher, and not less than
32 6.5 parts per million as a 30-day average; except that, for
34 the period from October 1st to May 14th, in order to ensure
36 spawning and egg incubation of indigenous salmonid species,
38 the 7-day mean dissolved oxygen concentration may not be
40 less than 9.5 parts per million and the 1-day minimum
42 dissolved oxygen concentration may not be less than 8.0
44 parts per million in identified salmonid spawning areas
46 where water quality is sufficient to ensure spawning, egg
48 incubation and survival of early life stages, that water
quality sufficient for these purposes must be maintained and
for the period March 1st to August 1st in order to ensure
spawning and egg incubation of indigenous nonsalmonid
species, the 7-day mean dissolved oxygen concentration may
not be less than 6.0 parts per million. Between May 15th
and September 30th, the number of Escherichia coli bacteria
of human or domestic livestock origin in these waters may
not exceed a geometric mean of 142 126 per 100 milliliters
or an instantaneous level of 949 235 per 100 milliliters.
The board shall promulgate rules governing the procedure for
designation of spawning areas. Those rules must include
provision for periodic review of designated spawning areas
and consultation with affected persons prior to designation
of a stretch of water as a spawning area.

42 **Sec. 4. Legislation.** The Department of Environmental
44 Protection shall recommend any needed changes related to the
46 dissolved oxygen standard for estuarine and marine waters to the
48 Joint Standing Committee on Natural Resources by January 1,
2004. The Joint Standing Committee on Natural Resources may
report out legislation on this or related issues to the Second
Regular Session of the 121st Legislature.

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SUMMARY

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This bill establishes requirements related to measurement of dissolved oxygen within riverine impoundments.

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This bill amends the bacteria criteria for Class B waters.

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10 This bill amends the dissolved oxygen standard and bacteria standard for Class C waters.

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14 This bill requires the Department of Environmental Protection to recommend any needed changes to the dissolved oxygen standard for estuarine and marine waters to the Joint Standing Committee on Natural Resources by January 1, 2004 and
16 authorizes the committee to report out related legislation to the Second Regular Session of the 121st Legislature.