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H.814

Introduced by Representative Browning of Arlington

Referred to Committee on

Date:

Subject: Conservation and development; water resources; Lake Champlain

Statement of purpose of bill as introduced: This bill proposes to allow the use of instream structures to improve water quality. In addition, the bill requires the Secretary of Natural Resources to conduct a pilot project regarding the water quality benefits of large woody debris in streams.

An act relating to water quality of Lake Champlain

It is hereby enacted by the General Assembly of the State of Vermont:

* * * Instream Structures * * *

Sec. 1. 10 V.S.A. § 1002 is amended to read:

§ 1002. DEFINITIONS

Wherever used or referred to in this chapter, unless a different meaning clearly appears from the context:

(1) “Artificial regulation of stream flow” means the intermittent or periodic manipulation of water levels and the intermittent or periodic regulation of discharge of water into the stream below the dam.

1 (2) “Banks” means that land area immediately adjacent to the bed of the
2 stream, which is essential in maintaining the integrity thereof.

3 (3) “Bed” means the maximum area covered by waters of the stream for
4 not less than 15 consecutive days in one year.

5 (4) “Board” means the Natural Resources Board.

6 (5) “Cross section” means the entire channel to the top of the banks.

7 (6) “Dam” applies to any artificial structure on a stream or at the outlet
8 of a pond or lake, which is utilized for holding back water by ponding or
9 storage together with any penstock, flume, piping or other facility for
10 transmitting water downstream to a point of discharge, or for diverting water
11 from the natural watercourse to another point for utilization or storage.

12 (7) “Department” means the Department of Environmental
13 Conservation.

14 (8) “Instream material” means:

15 (A) all gradations of sediment from silt to boulders;

16 (B) ledge rock; or

17 (C) large woody debris in the bed of a watercourse or within the
18 banks of a watercourse.

19 (9) “Person” means any individual; partnership; company; corporation;
20 association; unincorporated association; joint venture; trust; municipality; the

1 State of Vermont or any agency, department, or subdivision of the State, any
2 federal agency, or any other legal or commercial entity.

3 (10) "Watercourse" means any perennial stream. "Watercourse" shall
4 not include ditches or other constructed channels primarily associated with
5 land drainage or water conveyance through or around private or public
6 infrastructure.

7 (11) "Secretary" means the Secretary of Natural Resources; or the
8 Secretary's duly authorized representative.

9 (12) "Berm" means a linear fill of earthen material on or adjacent to the
10 bank of a watercourse that constrains waters from entering a flood hazard area
11 or river corridor, as those terms are defined in subdivisions 752(3) and (11) of
12 this title.

13 (13) "Large woody debris" means any piece of wood within a
14 watercourse with a diameter of 10 or more inches and a length of 10 or more
15 feet that is detached from the soil where it grew.

16 (14) "Instream structures" means instream material or other stone or
17 wood that is intended to increase sediment retention and insect populations.

18 Sec. 2. 10 V.S.A. § 1021 is amended to read:

19 § 1021. ALTERATION PROHIBITED; EXCEPTIONS

20 (a) A person shall not change, alter, or modify the course, current, or cross
21 section of any watercourse or of designated outstanding resource waters,

1 within or along the boundaries of this State either by movement, fill, or
2 excavation of ten cubic yards or more of instream material in any year, unless
3 authorized by the Secretary. A person shall not establish or construct a berm in
4 a flood hazard area or river corridor, as those terms are defined in subdivisions
5 752(3) and (11) of this title, unless permitted by the Secretary or constructed as
6 an emergency protective measure under subsection (b) of this section.

7 * * *

8 (i) The requirements for authorization from the Secretary under subsection
9 (a) of this section shall not apply to the construction of instream structures in a
10 watercourse within the Lake Champlain watershed when approved by the
11 Secretary under section 1028 of this title.

12 Sec. 3. 10 V.S.A. § 1028 is added to read:

13 § 1028. INSTREAM STRUCTURES; LAKE CHAMPLAIN WATERSHED

14 (a) Upon receipt of an application for the construction of an instream
15 structure within a watercourse of the Lake Champlain watershed, the Secretary
16 shall authorize the construction of the instream structure when the following
17 conditions are met:

18 (1) the instream structure is designed to reduce sedimentation and other
19 pollution to Lake Champlain by trapping sediment and other instream debris;

20 (2) the instream structure will create aquatic habitat, including habitat
21 for insects;

1 (3) the instream structure will improve stream dynamics in accordance
2 with the principles of fluvial geomorphology; and

3 (4) the Secretary determines that the instream structure will not:

4 (A) adversely affect the public safety by increasing flood or fluvial
5 erosion hazards;

6 (B) significantly damage fish life or wildlife;

7 (C) will not significantly damage the rights of riparian owners; or
8 negatively impact the water quality of the watercourse in which it is proposed.

9 (b) The Secretary shall comply with the public notice and comment
10 requirements for a stream alteration permit issued under this subchapter when
11 issuing an authorization for an instream structure under this section.

12 * * * Pilot Project on the Use of Large Woody Structures

13 to Improve Water Quality * * *

14 Sec. 4. PILOT PROJECT; USE OF LARGE WOODY STRUCTURES TO
15 IMPROVE WATER QUALITY

16 (a) Definitions. As used in this section:

17 (1) “Benthic macroinvertebrates” means animals and insects that:

18 (A) do not have a backbone;

19 (B) are visible to the human eye; and

20 (C) reside on the bottom of streams, rivers, or lakes.

21 (2) “Instream material” means:

1 (A) all gradations of sediment from silt to boulders;

2 (B) ledge rock; or

3 (C) large woody debris in the bed of a watercourse or within the
4 banks of a watercourse.

5 (3) "Large woody debris" means any piece of wood within a
6 watercourse with a diameter of 10 or more inches and a length of 10 or more
7 feet that is detached from the soil where it grew.

8 (4) "Watercourse" means any perennial stream. Watercourse shall not
9 include ditches or other constructed channels primarily associated with land
10 drainage or water conveyance through or around private or public
11 infrastructure.

12 (b) Pilot project established. The Secretary of Natural Resources shall
13 conduct a woody debris pilot project on a watercourse within the Lake
14 Champlain watershed in order to determine whether increasing large woody
15 debris in watercourses can result in the increase of the populations of benthic
16 macroinvertebrates in the watercourse in a number sufficient to decrease the
17 levels of nitrogen and phosphorus in the nutrient spiral of the water column.
18 The pilot project shall commence no later than August 1, 2014, and continue
19 until August 1, 2016.

20 (c) Report to General Assembly. On or before January 15, 2017, the
21 Secretary of Natural Resources shall submit a report to the House Committee

1 on Fish, Wildlife and Water Resources and the Senate Committee on Natural
2 Resources and Energy evaluating the pilot project required under this section.

3 The report shall include:

4 (1) a summary of the project conducted;

5 (2) any evaluation or quantification of the environmental benefits of the
6 project; and

7 (3) a recommendation as to whether additional projects using large
8 woody debris should be approved or implemented in the watershed of Lake
9 Champlain in order to decrease sedimentation and improve water quality by
10 providing better habitat for an increased number of benthic macroinvertebrates.

11 * * * Effective Date * * *

12 Sec. 5. EFFECTIVE DATE

13 This act shall take effect on July 1, 2014.