

SB 61 - AS AMENDED BY THE SENATE

03/09/2023 0656s

2023 SESSION

23-0927

08/10

SENATE BILL **61**

AN ACT relative to surface water setbacks for landfills.

SPONSORS: Sen. Avard, Dist 12; Sen. Lang, Dist 2; Sen. Ward, Dist 8; Sen. Watters, Dist 4;  
Sen. Carson, Dist 14

COMMITTEE: Energy and Natural Resources

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AMENDED ANALYSIS

This bill requires the department of environmental services to adopt rules relative to surface water setbacks for landfills. The bill makes an appropriation to the department.

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Explanation: Matter added to current law appears in ***bold italics***.  
Matter removed from current law appears ~~[in brackets and struckthrough.]~~  
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

## STATE OF NEW HAMPSHIRE

*In the Year of Our Lord Two Thousand Twenty Three*

AN ACT relative to surface water setbacks for landfills.

*Be it Enacted by the Senate and House of Representatives in General Court convened:*

1       1 Statement of Purpose. The protection of perennial rivers, lakes, and coastal waters from  
2 contamination is in the public interest of the state of New Hampshire. The general court recognizes  
3 that the state’s current statutes and rules provide for redundant protection of groundwater and  
4 surface water from releases or spills of leachate generated by disposal of waste in the state’s  
5 landfills. As environmental protection technology advances, however, the general court intends that  
6 the department of environmental services reexamine its rules periodically to determine whether the  
7 protections already provided by the rules can be enhanced for newly sited facilities. The purpose of  
8 this act is to direct the department to reexamine its rules governing setbacks of newly sited landfills  
9 from surface water bodies to impose site-specific requirements sufficient to prevent groundwater  
10 contaminated by a spill or release of leachate from reaching such a water body before remedial  
11 action can be implemented, to provide the department with representative factors that it must  
12 consider in adopting new setback rules, and to require the department to take into account certain  
13 additional environmental protective measures proposed by an applicant for a landfill permit. The  
14 act also sets a timeframe for the department’s adoption of new setback rules and requires that any  
15 newly-sited landfill permitted after the effective date comply with the new rules if they are timely  
16 adopted as provided in this act.

17       2 Findings. The general court finds that:

18           I. The current rules of the department of environmental services require a “thorough  
19 hydrogeological investigation” of any proposed landfill site so that “[t]he potential release of  
20 contaminants to surface waters can be prevented, attenuated or otherwise remediated.” Env-Sw  
21 804.03(c)(3). The rules also contain multiple provisions for the design, construction, and operation of  
22 landfills that require redundant protections against groundwater and surface water contamination.  
23 These provisions include a minimum 200-foot setback between the proposed landfill footprint and  
24 any perennial surface water body. Env-Sw 804.03(d).

25           II. The department of environmental services' rules have proven effective in preventing  
26 releases of contaminants from the state’s lined landfills to groundwater and surface water, and the  
27 department’s requirement of a network of release detection wells at landfill sites enables the  
28 department to be notified of even low levels of contaminants in groundwater so that contamination is  
29 detected and remediated before the contaminants can migrate to surface water or sensitive receptors  
30 like drinking water wells.

1 III. The 200-foot minimum setback between landfills and perennial surface water in the  
2 department's rules falls within one of 3 broad categories of methods used by other states to  
3 determine setbacks. The 3 categories are distance-based setbacks, site-specific setbacks, and  
4 distance-based setbacks that can be reduced by the landfill owner through implementation of design  
5 features that provide additional redundancy to the landfill's environmental protection systems.

6 IV. The general court finds that the most protective of these methods is the use of site-  
7 specific setbacks. This approach avoids the possible limitations of the current one-size-fits-all  
8 distance-based method, ensures that the setback is based on the conditions at the specific site, and  
9 concentrates protections on downgradient groundwater and surface water where it belongs.

10 V. The state should encourage permit applicants to propose design features providing  
11 further redundancy to the landfill's environmental protection systems and such features should be  
12 taken into account in the department's determination of a site-specific setback.

13 VI. This approach reflects the balance New Hampshire seeks to strike in its environmental  
14 regulation between ensuring that all reasonably practicable and economically sound measures are  
15 used to protect our environment while providing permit applicants with incentives to improve  
16 environmental protection beyond the rigorous baseline standards.

17 3 New Paragraph; Rulemaking; Perennial Surface Water Setback. Amend RSA 149-M:7 by  
18 inserting after paragraph III the following new paragraph:

19 III-a. Criteria for determining the site-specific setback of a landfill footprint from perennial  
20 surface water bodies to prevent, attenuate, or otherwise remediate the potential release of  
21 contaminants to each such surface water body from the landfill footprint. Any rules adopted by the  
22 department under this paragraph shall, in addition to any other factors the department deems  
23 necessary for the rules to provide adequate protection of perennial surface water, take into account  
24 the following with respect to the subsurface conditions between the proposed landfill footprint and  
25 the surface water body:

26 (a) The soil stratigraphy and permeability;

27 (b) The volume, gradients, and travel time of groundwater supplying the surface water  
28 body, including the means by which to measure or model representative travel time;

29 (c) Bedrock lithology and structure, including the nature, degree and continuity of  
30 fracturing; and

31 (d) Hydraulic conductivity and such processes as advection, dispersion, and diffusion in  
32 groundwater.

33 4 New Paragraph; Site-Specific Setback to Perennial Surface Water. Amend RSA 149-M:9 by  
34 inserting after paragraph XIV the following new paragraph:

35 XV.(a) In formulating a site-specific setback to perennial surface water under rules adopted  
36 pursuant to RSA 149-M:7, III-a, the department shall take into account any measures proposed in  
37 the application for a permit that would provide greater or more redundant protection of perennial

1 surface water than the department would otherwise require under its rules. Such measures may  
2 include, without limitation:

3 (1) Installation of a tertiary soil or geomembrane liner system below the secondary  
4 liner system, providing a third layer of protection between waste materials and groundwater.

5 (2) Installation of a second monitoring zone beneath the secondary liner system  
6 providing redundant verification of the effectiveness of the liner systems.

7 (3) Conversion of the primary and/or secondary liner systems from the minimum  
8 single-liner design to an enhanced composite liner design in accordance with the department's  
9 landfill design rules.

10 (4) Improvements to the engineered low permeability subgrade such as increases in  
11 thickness and reductions in permeability of the soil zones beneath the liner systems.

12 (5) Increasing the thickness of the liner by at least 20 mil for geomembrane liners  
13 and at least one foot for soil liners.

14 (6) Increasing the vertical separation distance of the secondary liner from  
15 groundwater to greater than the minimum set by the department's rules.

16 (7) Installation of groundwater monitoring well networks that are capable of being  
17 utilized as groundwater extraction points or that provide points for sampling, groundwater  
18 characterization, or groundwater extraction in excess of what the department requires under its  
19 rules.

20 (8) Implementation of enhanced environmental monitoring programs, including  
21 increasing the frequency of sampling and analytical testing, incorporation of real-time monitoring  
22 systems, and use of automated collection with telemetry.

23 (b) The department shall include as a condition to any permit the implementation of a  
24 measure proposed in the application for the permit upon which the department relied in formulating  
25 the site-specific setback required by RSA 149-M:7, III-a.

26 5 Department of Environmental Services; Solid Waste Landfill Setback Requirements  
27 Assessment and Recommendations.

28 I. The department of environmental services shall contract with one or more qualified  
29 consulting firms or individuals to perform an assessment of the current perennial surface water  
30 protection and setback requirements that are applicable to the permitting of newly sited solid waste  
31 landfills in order to meet the requirements of sections 3 and 4 of this act. Within 30 days of the  
32 effective date of this act, the department shall post on its website a draft request for proposals from  
33 such consulting firms and individuals to conduct the assessment. The department shall accept  
34 public comment on the draft request for proposals for 30 days after such posting. The department  
35 shall issue the final request for proposals by October 1, 2023, with a submission deadline for  
36 proposals no later than 45 days after such issuance. The scope of the proposals shall include the  
37 following:

1 (a) An assessment of the environmental, safety, and technical aspects of perennial  
2 surface water setback requirements and related protections in current state law and administrative  
3 rules that are applicable to the permitting of newly-sited solid waste landfills;

4 (b) Recommendations for using the criteria enumerated in section 3 of this act to  
5 establish site-specific setbacks;

6 (c) Recommendations for any other factors the consultant determines to be necessary to  
7 provide adequate protection of perennial surface water in section 3 of this act. For each such  
8 recommendation, the consultant shall identify each state that has adopted the recommended factor  
9 and describe how such state has applied the recommended factor, including a summary of the  
10 outcome of each permit application to which the state has applied the recommended factor; and

11 (d) Recommendations on a methodology for consideration of the measures set forth in  
12 section 4 of this act, and any similar additional recommended measures to provide greater or more  
13 redundant protection of perennial surface water in formulating a site-specific setback that differs  
14 from what the department would otherwise require under its rules.

15 II. The selected contractor shall complete the assessment and submit a final report to the  
16 department within 150 days after contract approval. The department shall make the report  
17 available on its website and shall review and consider the report's recommendations when drafting  
18 the rules required under section 3 of this act.

19 6 Department of Environmental Services; Target for Completion of Rulemaking; Applicability.

20 I. If the rules required by sections 3 and 4 of this act are adopted by the department of  
21 environmental services within 24 months of this act's effective date:

22 (a) Any newly-sited landfill in the state that receives a standard permit, as defined by  
23 the department's rules, shall meet the newly adopted setback rules; and

24 (b) The department may not issue any such standard permit without imposing a site-  
25 specific setback on the landfill's design and construction in accordance with the newly adopted  
26 setback rules. Any standard permit application pending before the department on, or filed with the  
27 department after, the effective date of this act shall be fully processed in accordance with RSA 149-  
28 M:9, VIII and a decision on the application timely provided to the applicant, provided, however, that  
29 any approval of such an application shall be held in abeyance until the department adopts rules in  
30 accordance with sections 3 and 4 of this act or 24 months elapses after the effective date of this act,  
31 whichever occurs first.

32 II. Upon the department's adoption of the rules in accordance with sections 3 and 4 of this  
33 act within 24 months of the effective date, the applicant whose approval has been held in abeyance  
34 under this section shall submit a modification of its application proposing and substantiating with  
35 all requisite information contemplated by the newly adopted setback rules a site-specific setback for  
36 the proposed facility, and the department shall within 120 days of submission of the modification  
37 approve, deny, or modify the proposed site-specific setback and if the department approves or

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1 modifies the proposed setback it shall approve the standard permit conditioned on implementation of  
2 that setback.

3 III. If the department does not adopt rules in accordance with sections 3 and 4 of this act  
4 within 24 months of the effective date of this act, the department shall apply its current rules  
5 applicable to surface water protection in determining the required setback to any application for  
6 such a standard permit that is being held in abeyance when such 24-month period expires and  
7 approve it if it complies with the current rules.

8 7 Appropriation; Department of Environmental Services. The sum of \$150,000 for the fiscal  
9 year ending June 30, 2023 is hereby appropriated to the department of environmental services to  
10 fund a contract for assessment of the requirements for solid waste landfill setbacks from perennial  
11 surface water as provided in this act. Such appropriation shall be nonlapsing. The governor is  
12 authorized to draw a warrant for said sum out of any money in the treasury not otherwise  
13 appropriated.

14 8 Effective Date.

15 I. Section 7 of this act shall take effect June 30, 2023.

16 II. The remainder of this act shall take effect upon its passage.

**SB 61- FISCAL NOTE**  
 AS AMENDED BY THE SENATE (AMENDMENT #2023-0656s)

AN ACT relative to surface water setbacks for landfills.

**FISCAL IMPACT:**     State             County             Local             None

STATE:	Estimated Increase / (Decrease)			
	FY 2023	FY 2024	FY 2025	FY 2026
<b>Appropriation</b>	\$150,000	\$0	\$0	\$0
<b>Revenue</b>	\$0	\$0	\$0	\$0
<b>Expenditures</b>	\$0	\$150,000	\$0	\$0
<b>Funding Source:</b>	<input checked="" type="checkbox"/> General	<input type="checkbox"/> Education	<input type="checkbox"/> Highway	<input type="checkbox"/> Other

**METHODOLOGY:**

This bill requires the Department of Environmental services to adopt rules relative to surface water setbacks for landfills. The bill makes a nonlapsing appropriation to the Department in the amount of \$150,000 from the general fund effective June 30, 2023.

The Department of Environmental Services states this bill would require it to contract for an assessment of the perennial surface water protection and setback requirements applicable to solid waste landfills. The Department assumes existing staff would coordinate preparation of the contract documents, oversee the contract, and coordinate the public comment period. Additional staff time would be required; however, existing staff would be temporarily redirected from their regular work to address the requirements of this bill. The Department estimates the final report would be submitted during the first half of FY 2025.

The Department assumes the amendment would not generate additional revenues for the State and would not impact county and local expenditures or revenues.

It is assumed that any state expenditures would occur after FY 2023.

**AGENCIES CONTACTED:**

Department of Environmental Services