SANBORN HEAD

6 Bedford Farms Drive, Suite 201
Bedford, NH 03110

The Honorable Judy Aron, Chairperson
Committee on Environment and Agriculture
Legislative Office Building, Room 303
Concord, NH 03301

February 3, 2025

Re: Testimony of Timothy M. White, PG, and Eric S. Steinhauser, PE, CPESC, CPSWQ to HB 707 Relative to Requiring the Department of Environmental Services to Establish a Site-Specific Setback Distance for Proposed New landfills

Dear Chairperson Aron and Committee Members:

Thank you for this opportunity to provide written comments to the Committee regarding HB 707. The following is joint testimony from Timothy M. White, PG, and Eric S. Steinhauser, PE, CPESC, CPSWQ is in opposition to HB 707.

For the record, Timothy White is a Senior Vice President and Principal, with Sanborn, Head & Associates, Inc. (Sanborn Head), a multi-disciplinary engineering and geosciences consulting firm headquartered in Bedford, New Hampshire. Sanborn Head has provided environmental and engineering services to public and private solid waste clients in New Hampshire and in other states since the firm was founded in 1993. We currently serve private and public clients at several of the New Hampshire's lined and unlined landfills. Our clients also include the New Hampshire Department of Environmental Services (NHDES) and the New Hampshire Department of Transportation.

I am one of the hydrogeologists at Sanborn Head and have worked in the field of geology for over 23 years. I am a licensed Professional Geologist in New Hampshire as well as in five other states.

Eric Steinhauser is also a Senior Vice President and Principal at Sanborn Head and is a Professional Engineer in New Hampshire as well as in 17 other states with nearly 40 years of experience in the fields of civil, environmental, geotechnical, remediation, and solid waste engineering. Mr. Steinhauser also holds professional certifications in erosion and sediment control and stormwater quality and has been working on New Hampshire landfill projects since moving here over 20 years ago.

For the record, please know that Mr. Steinhauser is a member of the New Hampshire Waste Management Council representing licensed professionals and represents the Council on the New Hampshire Solid Waste Working Group. This testimony is based on the professional experience of Mr. White and Mr. Steinhauser and does not represent the opinions or thoughts of the New Hampshire Waste Management Council, the New Hampshire Solid Waste Working Group, nor a specific client or project.

HB 707 is similar to other past bills in that it is designed to set a state statute that would essentially prevent the development of otherwise environmentally sound waste disposal facilities by establishing an arbitrary, unrealistic, non-scientific criteria for siting landfills with respect to their horizontal distance to perennial waters of the State of New Hampshire.

It is likely that HB 707 does not consider that the State of New Hampshire adopted new solid waste management rules (NHSWMRs), specifically Env-Sw 804.03, that address the horizontal distances from a landfill to waters of the State. It is clear; however, that HB 707 will establish an unattainable standard under State Law that prevents any professional interpretation by a professional hydrogeologist hired to study the site, or the NHDES professional hydrogeologists tasked with reviewing applications with respect to geology and groundwater flow. In addition, the proposed calculation of the horizontal setback distance requires determination of a "maximum seepage velocity" which will likely be impossible for all involved in the project to agree to. Furthermore, HB 707 appears to be written to address a specific project(s), which if so, will be detrimental to otherwise viable sites. As such, HB 707 does not benefit the State of New Hampshire, rather, it merely creates opportunities for needless conflict and disagreement in the permitting process. In the event that an application under this proposed approach were to be approved, the wording of HB 707 will could be the basis to appeal any and all landfill permits issued by the NHDES.

The following examines HB 707 in detail:

- HB 707 Statement of Purpose states that "*A period of 5 years should be sufficient to detect and map a failure, assess appropriate remediation, meet engineering and regulatory requirements, and initiate the remedy.*" And new subparagraph XVI. states "*No permit shall be issued by any division of the department for the siting of a new landfill if any part of the actual solid waste disposal area is proposed to be located sufficiently close to any potable-water aquifer, perennial river, lake, or coastal water of New Hampshire, as defined in RSA 483-B:4, XVI, such that groundwater on the landfill site would be able to reach the water body within 5 years of migrating off-site due to any leak, spill, or other failure.*" These are presumptive statements that presuppose that a NHDES-compliant landfill liner system will leak. To our knowledge, there have been NO documented cases in New Hampshire or in other states where groundwater contamination is directly related to properly lined landfills. Also, the NHSWMRs requires groundwater quality monitoring on a quarterly basis to detect changes in groundwater quality within feet of the landfill footprint, allowing for the proper assessment to occur within months, not years of detection so that the necessary actions, if any, can be implemented. As such, the detection of groundwater impacts is already highly regulated by the NHDES and HB 707 does not improve these requirements.
- New subparagraph XVI. references "any potable-water aquifer," but does not provide a reference or definition to what constitutes one of these features. Such generalities are not appropriate for legislation and will lead to difficulties in interpretation and regulation.
- New subparagraph XVI. states "*Nothing in this paragraph shall be construed to prohibit the expansion of any landfills that are in operation at the time this act takes effect.*" This statement contradicts existing NHDES permit conditions that state the permit holders are to

comply with the RSA 149-M and the NHSWMRs "*as each may be amended from time to time.*" From this statement, HB 707 can complicate rulemaking with respect to its application to each of New Hampshire's existing landfill sites, and because of this rulemaking complexity, result in permit appeals because the application of the standard is not clear or may be arbitrarily applied. It is also illogical to legislate existing and proposed landfill facilities inconsistently. Is the perennial stream or water body located next to an existing landfill "less important" than that located next to an existing facility? Legislation should apply to all NH landfill facilities on a consistent basis.

- New subparagraph XVII. (a) adds "*leachate storage or piping infrastructure*" to the setback criteria. This requirement further hampers landfill development as the land area available could be greatly reduced and neglects that the NHSWMRs require dual containment and nearly continuous monitoring (Env-Sw 805.06) and stringent operational protocols (Env-Sw 806.05 and .08). We understand that the current versions of Env-Sw 805.06 and Env-Sw 806.05 / .08 were established to prevent the potential for accidental spills associated with leachate storage and piping infrastructure, and therefore this subparagraph of HB 707 is unnecessary.
- New subparagraph XVII. (a)(1) requires that an applicant "*hire hydrogeologist which has never worked with or been contracted through a third party with any applicant's current or previous projects, at the applicant's expense, to estimate based upon adequate and representative on-site field testing of both the landfill footprint and leachate storage or piping infrastructure, the maximum seepage velocity of groundwater in both surficial geological deposits and in bedrock.*" and defines "maximum seepage velocity" as being the 95th percent upper confidence limit calculated from a "*formula recommended by the United States Environmental Protection Agency at EPA 600-R-97/006.*" These statements are concerning for several reasons, including:
    - They introduce another professional or team of professionals, possibly not familiar with the local geology/ hydrogeology and add an expense to the applicant that is difficult to justify considering that the NHDES has professional geologist/hydrogeologist experienced and knowledgeable with New Hampshire geology and hydrogeology. As such, this statement presumes that the NHDES does not have the experience to review solid waste applications. Further, by alleging that professional geologists and engineers licensed in the State of New Hampshire are somehow disqualified because they have previously worked for a particular applicant HB 707 runs contrary to the purpose of the state licensing program for geologists and engineers, which contain codes of professional ethics.
    - The purpose of EPA 600-R-97/006 is to "*provide guidance to environmental scientists regarding the interpretation and statistical assessment of data collected from sites contaminated with inorganic and organic contaminants.*" The document was prepared to address the issue of statistically skewed environmental data and the need to provide statistical confidence in establishing clean up criteria. On its face, the use of a standardized formula to calculate the "maximum seepage velocity" may be appealing but considering that the geology in New Hampshire is highly variable, the proposed approach in HB 707 could be unrepresentative of sites in the state. However, based on

the information presented in EPA 600-R-97/006 the size of the data set needed to use the recommended formulae would be larger than typically collected for landfill design projects, because EPA 600-R-97/006 was intended to support analysis of chemical data and not groundwater flow data. As such, the application of EPA 600-R-97/006 could be challenged and resolution of different interpretations may be difficult.

- The use of a "maximum seepage velocity" negates any evaluation of actual hydrogeological processes or groundwater flow direction because it unrealistically assumes that the entire site behaves uniformly at the maximum condition. Please understand that seepage velocity is a calculated value that is based on the hydraulic conductivity of the soil, the gradient of the groundwater table (i.e., the change in the groundwater surface over a defined distance), and the porosity of the soil. Due to the heterogeneous nature of subsurface materials, seepage velocities can vary considerably at a site depending on location and the geologic deposition of the soil layers. Rather than allowing qualified professionals to evaluate the hydrogeology of the site, HB 707 would require a statical application of data collected with no consideration of actual hydrogeological processes either on or off site and may not appropriately consider groundwater flow directions. In essence, HB 707 provides an inappropriate simplified approach and eliminates or negates the need for professional judgement, which is contrary to scientific and engineering practices for evaluating the body of data collected for a project.

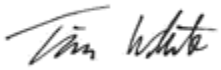
- New subparagraph XVII. (b) prohibits the development of a new landfill facility without meeting the arbitrary 5-year travel criteria and unrealistic maximum groundwater travel time standards proposed in HB 707. We point out that existing landfill facilities may not have the ability to expand considering the renewal adopted NHSWMRs. Together, this proposed legislation along with the adopted rules may act as a de facto prohibition of landfill development in New Hampshire. These limitations are shortsighted and potentially damaging to our state's future. Rather than promote legislation that is designed to prevent the possibility of developing landfills in the future, the Legislature should be passing bills that encourage the reduction in the volume of materials to be disposed, which would be consistent with New Hampshire's Solid Waste Management Plan.
- New subparagraph XX. prevents the development of a landfill within 10 miles of an active superfund site. The purpose of this requirement is unclear other than it appears to be designed to prevent a specific project or projects. It is arguably unfair to have legislation specifically designed against a single project as it could needlessly preclude use of otherwise viable sites. We also remind the Committee that sites may be periodically added or delisted from the National Priorities List (NPL; aka "Superfund list"). New Hampshire solid waste applicants' projects should not be prohibited by the status of USEPA-managed sites, which are subject to change. Unless there is a scientific reason for this requirement, which is not presented in HB 707, then this requirement should be removed.

In summary, HB 707 takes a non-scientific, draconian approach that will prevent the development of new disposal capacity, undermines the practice of landfill engineering in New Hampshire, appears to single out a specific project development, and eliminates the design

professional's ability to reasonably apply site-specific data, industry standards, guidelines, science, and engineering judgement to siting and designing environmentally protective landfills in New Hampshire.

We trust this testimony as New Hampshire licensed professionals experienced in solid waste projects in New Hampshire and other states is helpful to the Committee as you consider the validity and appropriateness of HB 707. In our professional opinion, HB 707 will not benefit New Hampshire. Rather, HB 707 establishes criteria that will severely obstruct or prevent the development of any new landfills, even those that are needed in the future to meet the State's solid waste management needs.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.



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