



The State of New Hampshire
Department of Environmental Services



Clark B. Freise, Assistant Commissioner

February 8, 2017

The Honorable James Gray
Chair, Public and Municipal Affairs Committee
Legislative Office Building, Room 102
Concord, NH 03301

RE: SB172-FN, An Act relative to dams on residential property

Dear Chair Gray and Members of the Committee:

Thank you for the opportunity to testify on SB 172-FN. This bill would eliminate the New Hampshire Department of Environmental Services' (NHDES') ability to identify a dam on residential property as a menace to public safety without concurrence of the governing body of the municipality in which the dam is located. Based on the concerns discussed below, NHDES does not support this bill.

The hazard classification of a dam is important because it dictates the frequency of NHDES safety inspections for that dam. Our Dam Safety Specialists inspect all menace, or hazardous, dams on a regular basis to make sure they are engineered, operated, and maintained safely. Non-Menace Dams are only inspected periodically, primarily to ensure that their hazard classifications have not changed as a result of downstream development.

There are currently 2,624 dams in New Hampshire. Under RSA 482:9 and RSA 482:12, NHDES has classified 836 of these dams as hazardous dams because the flooding produced by their failure or misoperation would result in loss of life or property damage downstream. The hazard classification is based solely on the extent of development downstream within the potentially inundated area. It is not, in any way, related to the condition of the dam.

Of the 836 hazardous dams, 146 are classified as High Hazard Dams because their failure would inundate houses or other occupied structures downstream and likely cause loss of life. One hundred and fifty-eight dams are classified as Significant Hazard Dams because their failure would cause major property damage downstream, and 532 are classified as Low Hazard Dams because their failure would cause minor property damage downstream, such as damage to a town or city road. The remaining 1,788 dams are classified as Non-Menace or Non-Hazardous Dams. Because of the small size of these dams and the lack of development downstream, the failure or misoperation of these dams would not cause loss of life or property damage downstream.

In determining the hazard classification of a dam, NHDES assesses the size and storage capacity of the dam and performs a detailed inspection of the areas downstream of the dam that could be flooded by the failure or misoperation of the dam. Often, hazard classification determinations require NHDES to perform hydrologic analyses of the watershed upstream of the dam to determine

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the proper design flood, followed by computer simulations of the dam failure flood to identify the area that would be inundated, the depth of the flooding and the speed of the flood wave if the dam were to fail.

Under the bill, the local governing bodies of municipalities could prevent NHDES from classifying a dam on residential property as hazardous. The resulting dam classification would not be based on the rigorous scientific evaluation of risk that DES uses, but rather, on a majority vote.

Other concerns that NHDES has with the bill include the following:

- The bill does not provide guidance on what information the local governing bodies are to use in making their determinations on whether or not a dam is a menace to public safety.
- The bill does not provide guidance on resolving differences between determination made by NHDES and the local governing body.
- The bill does not establish a time frame under which local governing bodies must make their determinations. Under New Hampshire's dam safety rules, NHDES has 30 days to determine the hazard classification of any proposed new dam and provide an applicant with design and construction requirements based on that hazard classification.
- The bill imposes a mandate on municipalities, as well as potential costs for document reviews, site inspections, report assessments and meetings required to make an informed determination of whether a dam is a menace to public safety.
- The bill may decrease state restricted revenue by an indeterminate amount since the fees for a permit to construct or reconstruct a dam established under RSA 482:9, as well as the Annual Dam Registrations Fees established under RSA 482:8-a, are based on the hazard classification of the dam.

In view of these concerns, NHDES does not support the bill.

Thank you again for the opportunity to comment on SB172-FN. Should you have further questions or need additional information, please feel free to contact either Jim Gallagher, Dam Bureau Administrator (James.Gallagher@des.nh.gov), 271-1961) or me (Clark.Freise@des.nh.gov, 271-8806).

Sincerely,

Clark B. Freise
Assistant Commissioner

cc: Sponsors of SB172-FN: Senator Sanborn; Representatives Cordelli, Vadney